SDMS Document
92099

NEWARK BAY STUDY AREA

ADDITIONAL SITES AND CANDIDATE PRPS FOR THE NEWARK BAY STUDY AREA

EVIDENCE CONCERNING

PSE&G –KEARNY

PREPARED FOR:
TIERRA SOLUTIONS, INC.

SUBMITTED TO:
USEPA REGION II

OCTOBER 6, 2005

920990001

PSE&G Kearny

920990002

920990003

New Jersey Department of Environmental Protection
Division of Water Quality
Bureau of Standard Permitting

JAN 1 3 1995

PUBLIC NOTICE

Notice is hereby given that the New Jersey Department of Environmental Protection (NJDEP) proposes to renew the NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM (NJPDES) Permit NJ0000655 in accordance with N.J.A.C. 7:14A-1 et seq. and by authority of N.J.S.A. 58:10A-1 et seq., to protect the environment and public health and to control the discharge of pollutants to surface waters from:

Public Service Electric and Gas Company
Kearny Generating Station
Foot of Hackensack Avenue
Kearny, Hudson County
New Jersey

The above referenced facility is renewing their permit to discharge non-contact cooling water, process wastewater, and stormwater runoff through two outfalls to the Hackensack River, classified as SE-3 waters. Discharge Serial Number (DSN)-381 is a discharge canal which empties into the Hackensack River. The canal, which is an underground concrete culvert, discharges non-contact cooling water, roof and floor drains from the turbine rooms, and stormwater runoff. The expected average daily flow is estimated to be 125.2 million gallons per day (MGD) and the expected maximum daily flow is estimated to be 288.0 MGD. The effluent from the on site wastewater treatment plant also discharges to this canal but the renewal permit will establish an internal monitoring point which will monitor the effluent prior to entering the canal. The effluent from the wastewater treatment plant consists of demineralizer water, building and equipment drains, boiler drains and blowdowns, and river water leakage from the station's service water systems. Additionally, the effluent contains batch wastes from metal cleaning of equipment which occurs several times a year. The expected average daily flow from the treatment plant is estimated to be 0.063 MGD and the expected maximum daily flow is estimated to be 0.434 MGD.

The facility is a fossil-fueled electric generating station as classified under SIC Code 4931-4911 Electric Power Generation. The facility consists of six (6) units with a combined summer net generating capacity of 744 megawatts. Units 7 & 8 are oil-fired steam electric units. Units 9 through 12 are combustion turbines with Unit 9 being gas fired, Units 10 & 11 having dual capacity for gas & oil and Unit 12 burning oil only.

A draft NJPDES permit renewal has been prepared for this facility based on the administrative record filed at NJDEP, 401 East State Street, Trenton. Copies of the draft document are obtainable (for a nominal charge) and the administrative record is available for inspection by appointment only, Monday through Friday, by contacting the NJDEP file room at (609) 292-

0400. Specific information regarding the draft document may be obtained from Anthony Russo of the Bureau of Standard Permitting at (609) 292-4860.

Comments on the draft document or a request that NJDEP hold a non-adversarial public hearing on the document must be submitted, in writing, to the individual specified below during the public comment period, which closes 30 calendar days after publication of this notice. All persons, including applicant, who believe that any condition of the draft document or NJDEP's tentative decision to issue this permit action is inappropriate must raise all reasonable issues of concern and submit all arguments and factual grounds/materials supporting their position during the public comment period. Any request for a public hearing shall state the nature of the proposed issues to be raised in the hearing. A public hearing will be conducted if NJDEP determines there is a significant degree of public interest. If a public hearing is held, the public comment period is automatically extended through the close of the hearing.

NJDEP will consider and respond to all significant and timely submitted comments. The applicant, and each person who submitted written comments, will receive notice of NJDEP's final decision to issue, deny or redraft the document.

Richard DeWan, Chief
Bureau of Standard Permitting
CN-029, Trenton, NJ 08625

State of New Jersey
Department of Environmental Protection
Division of Water Quality
401 East State Street, CN-029
Trenton, New Jersey 08625

FACT SHEET
FOR DRAFT NJPDES PERMIT TO DISCHARGE INTO THE WATERS OF THE STATE OF NEW JERSEY

Permit No. NJ0000655 **Date:** JAN 13 1995

Name and Address of Applicant: Public Service Electric & Gas Company
80 Park Plaza
Newark, New Jersey 07101

Name and Address of Facility where Discharge Occurs: Public Service Electric & Gas Company
Kearny Generating Station
Foot of Hackensack Avenue
Kearny, New Jersey 07032

Receiving Waterbody: Hackensack River

Classification: SE-3

I. DESCRIPTION OF FACILITY

The above named applicant has applied for a New Jersey Pollutant Discharge Elimination System (NJPDES) permit renewal, to the State of New Jersey Department of Environmental Protection, Division of Water Quality to discharge into the designated receiving water. A location map of the facility is included.

The above referenced facility is renewing their permit to discharge non-contact cooling water, process wastewater, and stormwater runoff through two outfalls to the Hackensack River, classified as SE-3 waters. Discharge Serial Number (DSN)-381 is a discharge canal which empties into the Hackensack River. The canal, which is an underground concrete culvert, discharges non-contact cooling water, roof and floor drains from the turbine rooms, and stormwater runoff. The expected average daily flow is estimated to be 125.2 million gallons per day (MGD) and the expected maximum daily flow is estimated to be 288.0 MGD. The effluent from the on site wastewater treatment plant also discharges to this canal but the renewal permit will establish an internal monitoring point which will monitor the effluent prior to entering the canal. The effluent from the wastewater treatment plant consists of demineralizer water, building and equipment drains, boiler drains and blowdowns, and river

water leakage from the station's service water systems. Additionally, the effluent contains batch wastes from metal cleaning of equipment which occurs several times a year. The expected average daily flow from the treatment plant is estimated to be 0.063 MGD and the expected maximum daily flow is estimated to be 0.434 MGD.

The facility is a fossil-fueled electric generating station as classified under SIC Code 4931-Electric Power Generation. The facility consists of six (6) units with a combined summer net generating capacity of 744 megawatts. Units 7 & 8 are oil-fired steam electric units. Units 9 through 12 are combustion turbines with Unit 9 being gas fired, Units 10 & 11 having dual capacity for gas & oil and Unit 12 burning oil only.

II. DESCRIPTION OF DRAFT PERMIT CONDITIONS

The proposed effluent limitations and other pertinent information regarding the draft permit are described in the Permit Summary Table. Also included is a brief summary of the basis for each effluent limitation and other conditions in the draft permit.

III. VARIANCE OR MODIFICATION

Not Applicable

IV. WATER QUALITY BASED PERMIT LIMITS (if applicable)

It has been determined that Water Quality Based Effluent Limitations (WQBELs) are not the governing criteria at this time.

V. PROCEDURES FOR REQUESTING MODIFICATION OF A WATER QUALITY BASED EFFLUENT LIMITATION

In accordance with N.J.A.C. 7:14A-9.6(d), applications for a modification to water quality based effluent limitations must be made prior to the close of the public comment period. Procedures for requesting a modification to a water quality based effluent limit are found in N.J.A.C. 7:9B-1.1 et seq. (New Jersey Surface Water Quality Standards). For guidance and/or additional information, please contact the Surface Water Quality Standards Program of the Office of Land and Water Planning at (609) 633-1179.

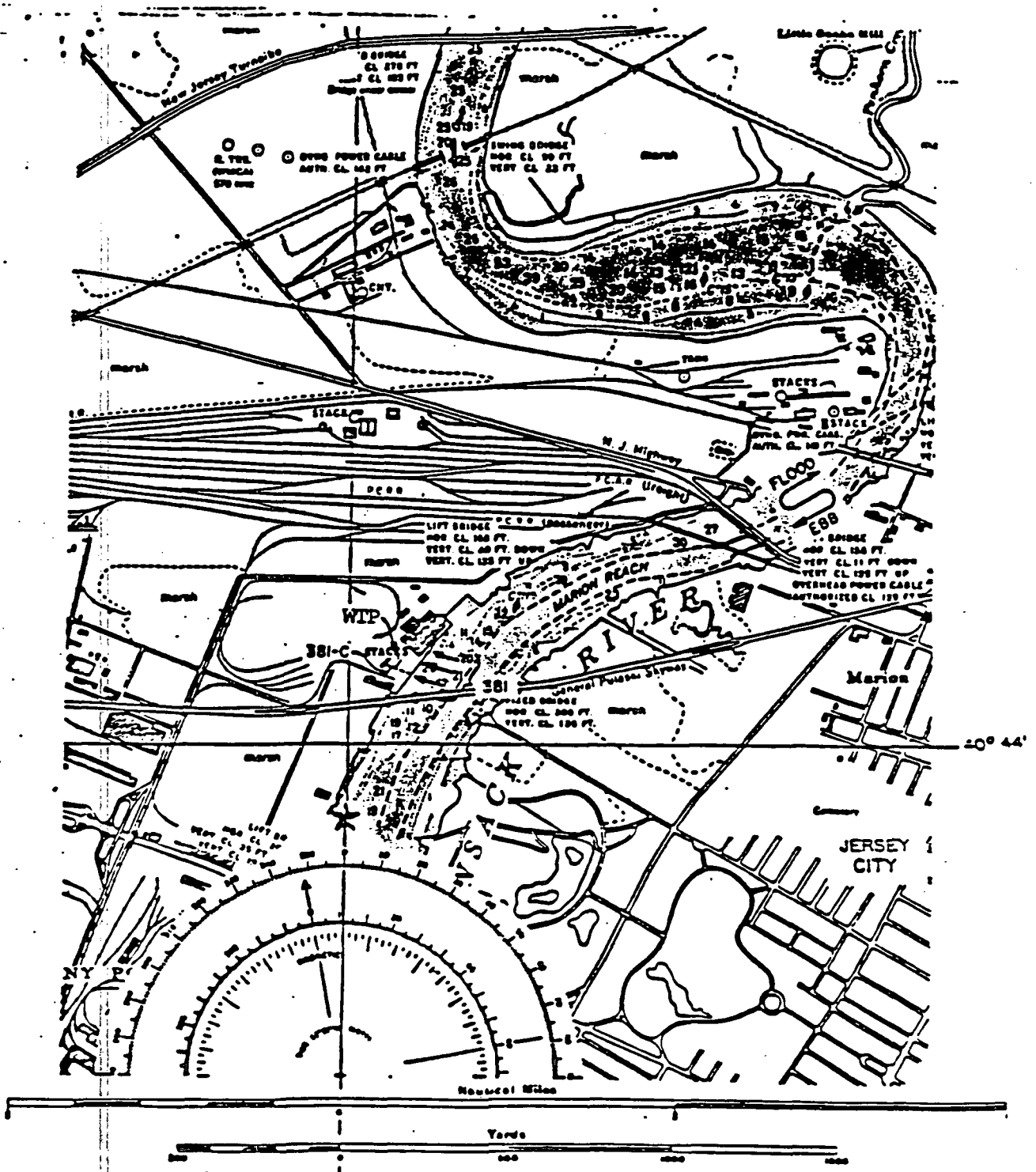
VI. PROCEDURES FOR REACHING A FINAL DECISION ON THE DRAFT PERMIT

These procedures are set forth in N.J.A.C. 7:14A-7.1 et seq.. Included in the public notice are requirements for the submission of comments by a specified date, procedures for requesting a hearing and the nature of the hearing, and other procedures for participation in the final agency decision.

VII. NJDEP CONTACT

Additional information concerning the Draft Permit may be obtained between the hours of 8:00 A.M. and 4:00 P.M., Monday through Friday from: Anthony Russo, Bureau of Standard Permitting at (609) 292-4860.

ATTACHMENT I



BSP Stream Segment:
04000000
EPA REACH No: 02030103

Taken From
Jersey City Quad Map

53

920990009

PERMIT SUMMARY TABLE

FACILITY: Public Service Electric & Gas (PSE&G) **Discharge # :** DSN-381

LAT: 40° 44' 15"N **Avg. Flow:** 125.2 MGD **Type of water:**
LONG: 76° 05' 77"W **Max. Flow:** 288.0 MGD Non-contact Cooling Water, Roof & Floor Drains & Stormwater Runoff

PARAMETER all values are ug/l unless otherwise stated	APPLICATION DATA (4/3/90) (9/3/91) MTLY/DAILY AVG /MAX	DMR FILE DATA (1) (1/92 to 1/94) MTLY/DAILY AVG /MAX	EXISTING PERMIT CONDITIONS MTLY/DAILY AVG /MAX	CODE OF FEDERAL REGULATIONS (CFR PART 423) MTLY/DAILY AVG /MAX	TECHNOLOGY BASED LIMITS & STATE STANDARDS MTLY/DAILY AVG /MAX	DRAFT PERMIT LIMITS MTLY/DAILY AVG /MAX
Flow (MGD)	125 / 288	139/298	NL/NL	—/—	—/—	NL/NL
Total Organic Carbon (mg/l) (kg/day)	2 / 2 946/946	—/— —/—	—/— —/—	—/— —/—	—/20 —/—	NL/ NL NL/ NL
Total Suspended Solids (mg/l) (kg/day)	56/108 26,498/51,1033	—/— —/—	—/— —/—	30/100 —/—	—/— —/—	NL/ NL NL/ NL
pH range (S.U.), Influent	—/—	7.1(min)/8.0	NL(min)/ NL(2)	—/—	—/—	NL(min)/NL(2)
pH range (S.U.), Effluent	—/7.25	7.0(min)/7.9	6.5(min)/8.5(2)	6.0(min)/9.0	6.0(min)/9.0	6.5(min)/8.5
Temperature - Influent °C	—/—	27.6/30.9	NL/NL	—/—	—/—	NL/NL
Temperature - Effluent °C	—/—	28.7/34.7	NL/51	—/—	—/—	NL/51
Temperature, Difference °C	—/—	1.3/5.1	NL/16.7	—/—	—/—	NL/16.7
Heat Rate MBTU/hr	—/—	186/815	NL/1230	—/—	—/—	NL/1230
Chlorine-Total Residual (mg/l) (kg/day)	—/— —/—	0.1/0.1 —/—	NL/0.2 —/—	—/0.2 —/—	—/— —/—	NL/0.2 NL/219
Bis (2-ethylhexyl) Phthalate (kg/day)	—/20 —/—	—/— —/—	—/— —/—	—/— —/—	103/279 (3) —/—	—/— —/—
Benzene (kg/day)	1.4/ 7 0.662/3.31	—/— —/—	—/— —/—	—/— —/—	37/136 (3) —/—	—/— —/—

PERMIT SUMMARY TABLE

FACILITY: Public Service Electric & Gas

Discharge # : DSN-381 cont'd

LAT: 40° 44' 15"N
LONG: 76° 05' 77"W

Avg. Flow: 125.0 MGD
Max. Flow: 288.0 MGD

Type of water:
Non-contact Cooling Water, Roof & Floor Drains & Stormwater Runoff

PARAMETER all values are ug/l unless otherwise stated	APPLICATION DATA (4/3/90) (9/3/91) MTLY/DAILY AVG /MAX	DMR FILE DATA (1) (1/92 to 1/94) MTLY/DAILY AVG /MAX	EXISTING PERMIT CONDITIONS MTLY/DAILY AVG /MAX	CODE OF FEDERAL REGULATIONS (CFR PART 423) MTLY/DAILY AVG /MAX	TECHNOLOGY BASED LIMITS & STATE STANDARDS MTLY/DAILY AVG /MAX	DRAFT PERMIT LIMITS MTLY/DAILY AVG /MAX
Total Chromium (kg/day)	13/45 6.15/21.3	—/— —/—	—/— —/—	—/— —/—	500/1000 (3) —/—	—/— —/—
Total Copper (kg/day)	32/32 15.1/15.1	—/— —/—	—/— —/—	—/— —/—	400/800 (3) —/—	—/— —/—
Total Lead (kg/day)	8 / 6 3.79/2.84	—/— —/—	—/— —/—	—/— —/—	150/300 (3) —/—	—/— —/—
Total Selenium (kg/day)	11/— 5.21/—	—/— —/—	—/— —/—	—/— —/—	NL/NL (3) —/—	—/— —/—
Total Silver (kg/day)	19/19 9.0/9.0	—/— —/—	—/— —/—	—/— —/—	100/200 (3) —/—	—/— —/—
Total Zinc (kg/day)	27/48 12.8/22.7	—/— —/—	—/— —/—	—/— —/—	500/1000 (3) —/—	—/— —/—
Total Cyanide (kg/day)	29/29 13.7/13.7	—/— —/—	—/— —/—	—/— —/—	100/200 (3) —/—	—/— —/—
Total Phosphorus (kg/day)	—/1100 —/—	—/— —/—	—/— —/—	—/— —/—	—/— —/—	—/— —/—
Total Iron (kg/day)	200/250 95/118	—/— —/—	—/— —/—	—/— —/—	1500/3000 (3) —/—	—/— —/—

(1) "DMR" is the abbreviation for Discharge Monitoring Reports. The reported values represent the highest reported monthly average and the highest reported daily maximum for the specified time period.

(2) The pH limitations in the 1989 modified permit had a footnote which reads as follows: When the intake pH is less than 6.5, the discharge pH limit shall be the intake pH; when the intake pH is greater than 8.5, the discharge pH limit shall be the intake pH.

(3) These limitations are taken from Table 1 of the "Wastewater Discharge to Surface Water Permits" Technical Manual. Table 1 contains effluent standards for existing dischargers.

The abbreviation "NL" denotes "Not Limited" with both monitoring and reporting required.
S.U. is the abbreviation for standard units.

PERMIT SUMMARY TABLE

FACILITY: Public Service Electric & Gas (PSE&G) **Discharge # :** DSN-WTP

LAT: 40° 44' 15"N **Avg. Flow:** 0.063 MGD **Type of water:**
LONG: 76° 05' 77"W **Max. Flow:** 0.434 MGD Process Wastewater

PARAMETER all values are ug/l unless otherwise stated	APPLICATION DATA (4/3/90) (9/3/91) MTLY/DAILY AVG /MAX	DMR FILE DATA (1) (1/92 to 1/94) MTLY/DAILY AVG /MAX	EXISTING PERMIT CONDITIONS MTLY/DAILY AVG /MAX	CODE OF FEDERAL REGULATIONS (CFR PART 423) MTLY/DAILY AVG /MAX	TECHNOLOGY BASED LIMITS & STATE STANDARDS MTLY/DAILY AVG /MAX	DRAFT PERMIT LIMITS MTLY/DAILY AVG /MAX
Flow (MGD)	0.063/0.434	0.13/0.32	NL/NL	—/—	—/—	NL/NL
Total Organic Carbon (mg/l) (kg/day)	2 / 5 0.37/0.93	35/97 —/—	NL/50 —/—	—/— —/—	—/— —/—	NL/50 NL/82.3
Total Suspended Solids (mg/l) (kg/day)	56/— 10.4/—	8 / 14 —/—	30/100 —/—	30/100 —/—	—/— —/—	30/100 50/165
pH range (S.U.)	—/9.93	—/—	6.0(min)/9.0	—/—	6.0(min)/9.0	6.0(min)/9.0
Petroleum Hydrocarbons (mg/l) (kg/day)	—/— —/—	1/ 2 —/—	10/15 —/—	15/20 —/—	10/15 —/—	10/15 16/25
Chloroform (kg/day)	6 / 7 0.001/0.001	—/— —/—	—/— —/—	—/— —/—	21/46 (2) —/—	—/— —/—
1,1-Dichloroethane (kg/day)	3 / 6 0.0006/0.001	—/— —/—	—/— —/—	—/— —/—	22/59 (2) —/—	—/— —/—
1,2-Dichloroethane (kg/day)	6 / 22.8 0.001/0.004	—/— —/—	—/— —/—	—/— —/—	68/211 (2) —/—	—/— —/—
1,1,1-Trichloroethane (kg/day)	35/60 0.006/0.011	—/— —/—	—/— —/—	—/— —/—	21/54 (2) —/—	21/54 0.035/0.089
Aldrin (kg/day)	0.10/0.10 1.85E-5/1.85E-5	—/— —/—	—/— —/—	—/— —/—	NL/NL (2) —/—	—/— —/—
Alpha-BHC (kg/day)	0.29/0.29 1.85E-5/1.85E-5	—/— —/—	—/— —/—	—/— —/—	NL/NL (2) —/—	—/— —/—
Total Chromium (kg/day)	17/ 6 0.003/ 0.001	—/— —/—	—/— —/—	—/— —/—	500/1000 (2) —/—	—/— —/—
Total Copper (kg/day)	32/32 0.006/0.006	100/100 —/—	NL/100 —/—	—/— —/—	400/800 (2) —/—	NL/100 NL/0.165
Total Lead (kg/day)	—/1.3 —/0.0002	—/— —/—	—/— —/—	—/— —/—	150/300 (2) —/—	—/— —/—
Total Nickel (kg/day)	49/— 0.009/—	100/200 —/—	NL/100 —/—	—/— —/—	750/1500 (2) —/—	NL/100 NL/0.165

PERMIT SUMMARY TABLE

FACILITY: Public Service Electric & Gas (PSE&G) **Discharge # :** DSN-WTP cont'd

LAT: 40° 44' 15"N **Avg. Flow:** 0.049 MGD **Type of water:**
LONG: 76° 05' 77"W **Max. Flow:** 0.434 MGD Process Wastewater

PARAMETER all values are ug/l unless otherwise stated	APPLICATION DATA (4/3/90) (9/3/91) MTLY/DAILY AVG /MAX	DMR FILE DATA (1) (1/92 to 1/94) MTLY/DAILY AVG /MAX	EXISTING PERMIT CONDITIONS MTLY/DAILY AVG /MAX	CODE OF FEDERAL REGULATIONS (CFR PART 423) MTLY/DAILY AVG /MAX	TECHNOLOGY BASED LIMITS & STATE STANDARDS MTLY/DAILY AVG /MAX	DRAFT PERMIT LIMITS MTLY/DAILY AVG /MAX
Total Zinc (kg/day)	120/240 0.022/0.044	—/— —/—	NL/100 —/—	—/— —/—	500/1000 (2) —/—	NL/100 NL/0.165
Total Iron (kg/day)	380/380 0.07/0.07	1000/2400 —/—	NL/100 —/—	—/— —/—	1500/3000 (2) —/—	NL/100 NL/0.165
Acute Toxicity, LC50 % effluent	N/A	58->100%min. (4.5-91mortality)	50 minimum	—/— —/—	50 minimum	50 minimum
Chronic Toxicity, NOEC (% effluent)	N/A	<6.25-100% min.	N/A	—/— —/—	N/A	N/A

(1) "DMR" is the abbreviation for Discharge Monitoring Reports. The reported values represent the highest reported monthly average and the highest reported daily maximum for the specified time period.

(2) These limitations are taken from Table 1 of the "Wastewater Discharge to Surface Water Permits" Technical Manual. Table 1 contains effluent standards for existing dischargers.

The abbreviation "NL" denotes "Not Limited" with both monitoring and reporting required.
S.U. is the abbreviation for standard units.

STATEMENT OF BASIS FOR A DRAFT NJPDES PERMIT TO DISCHARGE INTO THE SURFACE WATERS OF NEW JERSEY

UNDERSTANDING THE DEVELOPMENT OF EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Permit effluent limitations, monitoring requirements, and other conditions are authorized by the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), also known as the Clean Water Act, and the State Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq). These statutes are implemented by the National Pollutant Discharge Elimination System (NPDES) (40 CFR Part 122) and the New Jersey Pollutant Discharge Elimination System (NJPDES) (N.J.A.C. 7:14A-1 et seq.) permit programs.

Effluent limitations are developed by the following three methods:

1. TECHNOLOGY BASED LIMITATIONS:

Technology based limitations are authorized by Section 301 of the Clean Water Act, 40 CFR 122, N.J.S.A. 58:10A-4, and N.J.A.C. 7:14A-3.13a(1). In general, effluent limitations are based on Effluent Limitation Guidelines (ELGs), developed by the United States Environmental Protection Agency (USEPA), or on Best Professional Judgment (BPJ) in cases where ELGs are not available or appropriate. ELGs are minimum technology based requirements applicable on a nation-wide basis. ELG's consider the category of industry that produce common pollutants taking into account the specific factors unique to a particular type of industry (manufacturing process, type and quantity of pollutants generated, types of treatment facilities available to treat the pollutants, etc.). ELGs are published in 40 CFR Subchapter N. BPJ determinations are authorized by Section 402 (a)(1) of the Clean Water Act.

2. WATER QUALITY BASED EFFLUENT LIMITATIONS:

Water Quality Based Effluent Limitations (WQBELs) are imposed when it has been determined that limitations more stringent than technology based effluent limitations are required to meet water quality standards. WQBELs are authorized by Section 301 of the Clean Water Act, 40 CFR 122, N.J.S.A. 58:10A-4, and N.J.A.C. 7:14A-3.13a(4), and are developed to assure compliance with the New Jersey Surface Water Quality Standards, N.J.A.C. 7:9B-1.1 et seq., and the Federal Water Quality Standards, 40 CFR Part 131. The policies used to develop WQBELs are contained in the State and Federal Standards. Specific procedures, methodologies, and equations are contained in the current USEPA "Technical Support Document for Water Quality-based Toxics Control" (EPA- 505/2-90-001).

The Department is currently developing a watershed-based approach to WQBELs for pollutants, including toxic pollutants. Until such time as those limitations are developed, toxic pollutant limitations for most dischargers are determined using technology based limitations and miscellaneous effluent requirements along with a whole effluent toxicity limitation, when necessary. In addition, WQBELs for toxic pollutants from most dischargers will be imposed

and/or revised as necessary when Total Maximum Daily Loads (TMDLs) are developed on a watershed specific basis. Additionally, where appropriate, the permittee is required to conduct a pollutant reduction study to determine various source reduction options, treatment options, and associated costs that would reduce toxic pollutants to a level that would not have an adverse impact on water quality.

3. MISCELLANEOUS EFFLUENT LIMITATIONS AND CONDITIONS:

Miscellaneous effluent limitations and conditions are authorized by Section 301 of the Clean Water Act, 40 CFR 122, N.J.S.A. 58:10A-4, and N.J.A.C. 7:14A-3.13a(2). Miscellaneous effluent limitations and conditions are applied from other federal, state, or regional statutes and regulations, when applicable. Some of these are:

1. Effluent Limitations, Technical Manual: Wastewater Discharge to Surface Water Permits, April 1993 (N.J.S.A. 13:1D-111 to 13:1D-113);
2. Oil and Grease Effluent Limitations (N.J.A.C. 7:14A-14.1 et seq.);
3. Wastewater Discharge Requirements (N.J.A.C. 7:9-5.1 et seq.);
4. Requirements of the following (where applicable):
   a. Delaware River Basin Commission (N.J.A.C. 7:9-1.5(b)1);
   b. Interstate Sanitation Commission (N.J.A.C. 7:9-1.5(b)2);
   c. Hackensack Meadowlands Development Commission (N.J.A.C. 19:4- 6.14 to 6.15);
   d. Pinelands Commission (N.J.A.C. 7:50-6.81 to 6.87);

DESCRIPTION OF LIMITATIONS AND CONDITIONS

BACKGROUND

Kearny Generating Station is a fossil-fueled electric generating station as classified under SIC code 4931- 4911 Electric Power Generation. The facility does not operate year round; it operates in a reserve capacity. It is used only 1 to 2 months out of the year, primarily in the summer months. The facility consists of six units with a combined summer net generating capacity of 744 megawatts. Units 7 and 8 are oil-fired steam electric units. Units 9 through 12 are combustion turbines with unit 9 being gas fired, Units 10 and 11 having dual capacity for gas and oil and Unit 12 burning oil only.

There are two (2) surface water outfalls from the facility designated as Discharge Serial Number (DSN) 381, one internal monitoring point designated as DSN-WTP. DSN-381 discharges a maximum of 288 million gallons per day (MGD) of once through non-contact cooling water and DSN-WTP discharges a maximum of 0.434 MGD of process wastewater.

For DSN-381, water is withdrawn from the Hackensack River by circulating pumps and is chlorinated for up to an hour per day per the four (4) inlet canals. The water is then used as once through non-contact cooling water for steam condensers, condensate coolers, and miscellaneous non-contact cooling heat exchangers. The water is discharged to the Hackensack River via DSN-381, an underground, concrete box culvert. Stormwater runoff from the turbine

and boiler house roof drains, and wastewater from DSN-WTP are also discharges through DSN-381.

Wastewater from the demineralizer, building and equipment drains, boiler drains and blowdowns, river water leakage from the service water system, and batch wastes from metal cleaning of equipment are treated at the on-site wastewater treatment plant and discharged via outfall WTP to DSN-381. The treatment consists of an oil/water separator, chemical waste basin, pH adjustment and/or coagulation (as needed), and settling basins. Sludge accumulated at the bottom of the settling basins is periodically removed and hauled off-site to a suitable disposal facility.

In Part III-B/C, page 7 of 7 pages, the schematic of the facility shows two discharge points, point A and point B discharging back into the Hackensack River. In the subsequent submittal of information (October 1994) , PSE&G informed the Department that point "A" has been redirected to the wastewater treatment plant (DSN-WTP) and that point "B" has been redirected to the canal (DSN-381). These points discharge screen wash water and boileroom floor drains. A new schematic of the site showing the change was not available at the time of this permit issuance. Once a new schematic is provided, it will become part of the Administrative Record.

All other stormwater runoff from the facility which does not drain into the wastewater treament plant and/or is not explicity stated in this permit is regulated under the general stormwater permit (NJ0088315). The Request For Authorization (RFA) under the general stormwater permit was issued by the Bureau of Stormwater Permitting (BSWP) on June 22, 1994.

DSN-381 (Discharge Canal: Non-Contact Cooling Water, Stormwater and Floor and Roof Drains)

304(l) Effluent Characterization Study

As part of the 1989 modified permit, PSE&G was required to conduct an Effluent Characterization Study as part of the 304(l) study requirements. The 304(l) studies were part of Section 304(l) of the Clean Water Act which mandates that the states identify impaired waterbodies and identify point sources and the amount of pollutants they discharge that cause toxic impacts to the receiving waterbodies. The USEPA targeted and identified toxic metals in the NY/NJ Harbor that were a concern with respect to water quality. Total Maximum Daily Loadings (TMDLs) were to be established for the parameters of concern. This in conjunction with the studies completed by the identified facilities were to be used in the development of waste load allocations and water quality based limitations for these parameters. PSE&G's-Kearny Generating Station was one of the facilities on the targeted list for the NY/NJ Harbor. PSE&G was to characterize the non-contact cooling water discharge, the wastewater treatment plant discharge and the intake water. The report was to be completed and submitted to the Department prior to the permit renewal. PSE&G did complete the study and it was submitted in 1990.

In August of 1994, the USEPA delisted non-contact cooling water discharges from the TMDL/WLAs and from the requirement for further studies (See October 28, 1994 letter from the Department to PSE&G). Since PSE&G had complied with the 304(l) study requirements and submitted the report with their renewal application, these studies were going to be used in the development of individual permit limitations in the referenced renewal permit. However, after completing the studies, PSE&G discovered that the sampling techniques and analytical methodologies used in the sampling for the metals was flawed and as a result the data are inaccurate and not representative. PSE&G asserts that the results obtained from the 304(l) study should not be used in the development of permit limitations since they are flawed.

On June 6, 1994, PSE&G presented evidence to the Department as to why the data obtained in the 304(l) studies was flawed. PSE&G used, in their presentation, the Sewaren facility which was also part of the 304(l) targeted list for the NJ/NY Harbor. PSE&G conducted studies and presented the results of their studies which supported their argument that the results obtained in the studies are flawed. PSE&G asserted that unless "clean methods" were employed in the sampling for the metals, false positive results could be obtained. PSE&G presented arguments that if indeed their non-contact cooling water discharged the amounts of copper that the Effluent Characterization Study showed, then the copper tubing in the condenser tubes would have almost completely deteriorated. PSE&G contends that their non-contact cooling water discharge does not contribute these metals to the effluent. Although this permit is for the Kearny Generating Station, the same sampling techniques and analytical methodologies were used at the facility. Their basis is that clean methods were not used in the sampling and analysis and if the permit limitations were based on this information it would be inaccurate since the Department uses this information in its evaluation of what parameters to impose in the permit. As a result of the evidence presented by PSE&G and on the USEPA's decision not to include cooling water discharges in the studies, the Department has decided not to use the 304(l) studies in the development of permit limitations and conditions for this facility at this time.

Monitoring for **Flow** is required pursuant to N.J.A.C. 7:14A-3.13(a)9.i(2) and the NJPDES regulations fee calculation requirements. Although flow is not directly limited, the mass limitations were developed using the maximum expected flow of 288 MGD.

Monitoring for **Total Suspended Solids (TSS) and Total Organic Carbon (TOC)** are imposed in the permit to gather additional data for the next round of permitting and also to monitor the levels of these parameters emanating from the outfall canal. Limitations are not imposed at this time because the Department has reviewed data submitted by the permittee which shows that the cooling water discharge does not significantly contribute these parameters to the waterbody at levels that would have an adverse impact to it's water quality.

The limitations and conditions for **pH, Heat Rate, Temperature** and **Total Residual Chlorine** are consistent with the provisions of N.J.A.C. 7:14A-3.13(a)12, which mandate that the limits be carried forward from the previous permit unless more stringent limits are necessary, and with the Federal anti-backsliding regulations set forth in 40 CFR 122.44.

Mass limitations are imposed in the permit in accordance with N.J.A.C. 7:14A-3.14(f), the NJPDES regulations which states that all pollutants limited in permits shall have limitations, standards, or prohibitions expressed in terms of mass with the exception of pH, temperature, radiation or other pollutants which cannot be expressed by mass. The flow used in the calculation of the mass limitations was the maximum expected flow of 288 MGD.

DSN-WTP (Process Wastewater, Stormwater, & Floor Drains)

The limitations and conditions for **Total Organic Carbon (TOC), Total Suspended Solids (TSS), pH, Petroleum Hydrocarbons, Total Recoverable Copper, Total Recoverable Nickel, Total Recoverable Zinc, Total Recoverable Iron** are consistent with the provisions of N.J.A.C. 7:14A-3.13(a)12, which mandate that the limits be carried forward from the previous permit unless more stringent limits are necessary, and with the Federal anti-backsliding regulations set forth in 40 CFR 122.44.

Monitoring for **Flow** is required pursuant to N.J.A.C. 7:14A-3.13(a)9.i(2) and the NJPDES regulations fee calculation requirements. Although flow is not directly limited, the mass limitations were developed using the maximum expected flow of 0.434 MGD.

Mass limitations are imposed in the permit in accordance with N.J.A.C. 7:14A-3.14(f), the NJPDES regulations which states that all pollutants limited in permits shall have limitations, standards, or prohibitions expressed in terms of mass with the exception of pH, temperature, radiation or other pollutants which cannot be expressed by mass. The flow used in the calculation of the mass limitations was the maximum expected flow of 0.434 MGD.

The limitations and conditions for **1,1,1-Trichloroethane** are based on Table 1 of the "Wastewater Discharge to Surface Water" permits Technical Manual. This parameter is permitted based on the results submitted in the permit application.

WHOLE EFFLUENT TOXICITY

In accordance with 40CFR 122.44(d)1 acute toxicity data submitted on a quarterly basis since April 1990 and chronic toxicity data submitted as part of chronic toxicity characterization study conducted between April 1990 and January 1991 were evaluated by the Department to determine if the effluent from the WTP discharge exhibited toxicity in amounts that had a reasonable potential to impact the receiving water or contribute to an excursion of the state narrative criteria contained in N.J.A.C. 7:9-4.5(a)3. The Department used this information to determine whether the permit should require continued toxicity testing requirements for this discharge.

Sixteen acceptable acute toxicity tests conducted on the WTP discharge since April 1990 indicate that this discharge exhibits measurable amounts of acute toxicity. Specifically, LC50's which ranged between 58% to 100% effluent were exhibited in the submitted test results.

Chronic toxicity testing was conducted, using split effluent samples and two test species (a fish and an invertebrate), for a total of three sets of acceptable tests. The split sample chronic toxicity tests conducted in July 1990 was not used in the evaluation, as the sheepshead minnow chronic toxicity test was found unacceptable to the Department due to a trend deviation exhibited in the statistical analysis of the data. This chronic toxicity data indicates that the WTP discharge exhibits measurable amounts of chronic toxicity. Specifically, NOEC's of <6.25%, 12.5 and 50% effluent were exhibited in the submitted test results.

Due to the acute and chronic toxicity exhibited in the above referenced tests results, the Department has determined that further toxicity limitation/testing requirements are warranted for the WTP discharge.

Using an Instream Waste Concentration (IWC) of 0.003, which was calculated from a dilution factor of 296:1, water quality based whole effluent toxicity limitations were calculated in accordance with N.J.A.C. 7:9B-1.6(c)5. Specifically, the acute toxicity limitation was calculated in accordance with N.J.A.C. 7:9B-1.6(c)5i and the chronic limit in accordance with 1.6(c)5iii. The "Effluent Dilution Study Kearny Generating Station, Outfalls 381 and WTP" (January 1991) concluded that the WTP effluent is not fully mixed in the cooling water flow by the time it reaches the end of the Outfall 381 discharge. PSE&G also concluded that the dilution of the WTP in the Hackensack River will always be greater than the product of the dilution of the WTP in outfall 381 and the dilution of the cooling water in the Hackensack River. The study predicted a minimum dilution of 1.2:1 of the Outfall 381 discharge in the Hackensack at 100 meters, converted to a flux-averaged dilution of 2.3:1 by multiplying by a factor of 2, and a minimum dilution of the WTP of 148:1 at a distance of 116 meters, converted to a flux-averaged dilution of 296:1. Based on the assumption that the dilution would never be less than the product of the two receiving stream dilutions, the study proposed a minimum dilution of (1.2)(148) or 178:1 (flux-average dilution 356:1). The Department has determined that it would be inappropriate to allow the dilution factor of 1.2:1, which in effect is an added dilution of the cooling water in the Hackensack River, considering that the Department's policy is to not allow dilution of one wastestream by another. Although the dilution of 148:1 was determined by modelling techniques and assuming that the cooling water canal is the receiving water for the WTP discharge; the Department determined that using the flow variables from this scenario allowed for the consideration of the velocity of the cooling water to account for more mixing at 100 meters than if the WTP was modeled as a discharge directly into the Hackensack River. Modeling the WTP as a discharge directly into the Hackensack, which is at a much slower velocity, and at the flow rate at which the WTP discharge enters the cooling water canal would result in less dilution at 100 meters, without accounting for any added velocity and mixing benefit derived from being discharged into the cooling water canal. Therefore, the Department used the flux-averaged dilution value of 296:1 based on the minimum dilution of 148:1. This value was then converted to the IWC of 0.003 which was used in the WET calculations.

The calculation of these water quality based toxicity limitations resulted in an acute toxicity limitation of and LC50≥6% effluent and a chronic toxicity limitation of an NOEC≥0.3% effluent.

As the water quality based acute toxicity limitation of an LC50≥6% is less than the minimum state standard acute toxicity limitation of an LC50≥50%, the minimum state standard becomes the applicable acute toxicity limitation for this discharge in accordance with N.J.A.C. 7:9-1.6(c)5.i (1) and 7:9-5.7(a).

The TSD, in the discussions regarding imposition of water quality based effluent limitations, states that generally only the most stringent limit is imposed in a permit for a given parameter as the final limit, since the most stringent limit alone will be fully protective of water quality.

Therefore, the acute limitation of an LC50≥50% and the chronic toxicity limitation of an NOEC=0.3% were compared to determine which of the two limitations is more protective (i.e. more stringent). The "Wastewater Discharge to Surface Water Permits Technical Manual" (dated April 1993), outlines the procedures for comparing these limits. Those procedures involve the conversion of both the acute and chronic toxicity limitations to toxic units, TU's to determine which is more stringent.

As a result of that comparison, it was determined that the acute toxicity limitation of an LC50≥50% is the more stringent of the applicable acute and chronic toxicity limitations. Therefore, the acute toxicity limitation of an LC50≥50% imposed in the existing permit is carried forward in accordance with N.J.A.C. 7:9-5.7(a) to ensure consistent compliance with the minimum state standard, and the provisions contained in N.J.A.C. 7:14A-3.13(a)12(i).

The requirements for the Toxicity Reduction Evaluation are included in accordance with N.J.A.C. 7:14A-2.5(a)6, which requires a permittee to take corrective actions to mitigate the effects of violating its NJPDES permit.

CONTENTS OF THE ADMINISTRATIVE RECORD

1) N.J.A.C. 7:14A-1 et seq., the NJPDES Regulations.

2) NJPDES/DSW permit application dated 4/03/90 and 9/3/91.

3) NPDES/DSW Permit No.NJ0000655 **Effective** October 1, 1985 **Expired** September 31, 1990

4) N.J.A.C. 7:9B-1.1 et seq., the New Jersey Surface Water Quality Standards.

5) The Wastewater Discharge to Surface Water Permits Technical Manual.

6) Code of Federal Regulations (CFR) Part 423.

7) "NJPDES Biomonitoring Report Form - Acute Bioassays" submitted by PSE&G from April 1990 to June 1994.

8) "NJPDES Biomonitoring Report Form - Chronic Toxicity Tests" submitted by PSE&G from April 1990 to January 1991.

9) Dilution study submitted to the Department on February 1, 1991.

10) N.J.A.C. 7:9-5.1 et seq., Wastewater Discharge Requirements.

11) Additional Data submitted October 24, 1994.

12) October 28, 1994 letter from the NJDEP to PSE&G on the regulatory treatment of non-contact cooling water.

13) February 24, 1993 letter from Hackensack Meadowlands Development Corporation (HMDC) to NJDEP "grandfathering" the PSE&G generating stations from complying with the HMDC regulations.

14) The Request For Authorization (RFA) under the general stormwater permit (NJ0088315) issued 6/22/94.

15) The November 4, 1994 letter from PSE&G to the Department acknowledging the distinction of having two permits for stormwater runoff from the facility.

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New Jersey Pollutant Discharge Elimination System

The New Jersey Department of Environmental Protection hereby restricts and controls the discharge of pollutants to waters of the State from the subject facility/activity in accordance with applicable laws and regulations. The permittee is responsible for complying with all terms and conditions of this authorization and agrees to said terms and conditions as a requirement for the construction, installation, modification or operation of any facility for collection, treatment or discharge of any pollutant to waters of the State.

PERMIT NUMBER NJ0000655

DRAFT

Permittee	Co-Permittee
PSE&G COMPANY 80 PARK PLAZA NEWARK NJ 07101	

Property Owner	Location of Activity
PSE&G COMPANY 80 PARK PLAZA NEWARK NJ 07101	PSE&G KEARNY GENERATING STA FOOT OF HACKENSACK AVENUE KEARNY NJ 07032

Current Authorization Covered By This Approval And Previous Authorization		Issuance Date	Effective Date	Expiration Date
B	IND/COMMERCIAL SURFACE WATER	00/00/0000	00/00/0000	00/00/0000
05	GROUP I - STORMWATER RUNOFF	00/00/0000	00/00/0000	00/00/0000
C	THERMAL SURFACE WATER DISCH	00/00/0000	00/00/0000	00/00/0000

DISCHARGE TO: Hackensack River   CLASSIFICATION: SE3

By Authority of:
COMMISSIONER'S OFFICE

DEPE AUTHORIZATION
NARINDER K. AHUJA
ASSISTANT DIRECTOR
DIVISION OF WATER QUALITY

Terms, conditions and provisions attached hereto

State of New Jersey Department of Environmental Protection/Division of Water Resources

Checklist of Parts and Modules Comprising this NJPDES Permit

1. Cover Letter

2. Public Notice (Draft Only)

3. Fact Sheet with Statement of Basis (Draft Only)

4. NJPDES Permit Authorization Page

5. Checklist

6. Part I - DSW - Standard Conditions for All NJPDES/DSW Permits

7. Part II - Additional Standard Conditions for All NJPDES Permits:

   ___ Part II - A (Municipal/Sanitary)
   ✓ Part II - B/C (Industrial)
   ___ Part II - L (SIU)
   ___ Part II - DGW (Groundwater) Specify type(s):_____

8. Part III - Limitations and Monitoring Requirements

   ___ Part III - A
   ✓ Part III - B/C
   ___ Part III - L
   ___ Part III - DGW Specify type(s):_____

9. Part IV - Additional Requirements and Special Conditions

   ___ Part IV - A
   ✓ Part IV - B/C
   ___ Part IV - L
   ___ Part IV - DGW Specify type(s):_____

10. ___ Part V - Chronic Toxicity Methods

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER QUALITY

STANDARD CONDITIONS FOR ALL NJPDES/DSW PERMITS

The permittee shall comply with all the conditions set forth in this permit and all the applicable requirements relevant to the permittee's discharge(s) that can be found in the Federal Clean Water Act and the New Jersey Water Pollution Control Act (the State Act as amended), N.J.S.A. 58:10A-1 et seq. The permittee may be subject to penalties for any violations thereof.

The following conditions that are applicable to all NJPDES/DSW permits are incorporated by reference. The permittee is required to comply with the regulations which were in effect as of the effective date of the final permit.

Section A. GENERAL CONDITIONS		N.J.A.C.
1.	Penalties for Violations	7:14-8.1 et seq.
2.	Consolidation of Permit Process	7:14A-1.4
3.	Incorporation by Reference	7:14A-1.10
4.	Duty to Comply	7:14A-2.5(a)
5.	Duty to Reapply	7:14A-2.1(g)5
6.	Continuation of Expired Permits	7:14A-2.3
7.	Duty to Mitigate	7:14A-2.1(f)
8.	Permit Actions	7:14A-2.5(a)8
9.	Duration of Permits	7:14A-2.7
10.	Effect of Permit/other Laws	7:14A-2.10(a)(b) & (c)
11.	Inspection and Entry	7:14A-2.5(a)11
12.	Severability	7:14A-1.5
13.	Toxic Pollutants	7:14A-2.5(a)3
14.	Reopener Clause	7:14A-3.13(a)3
15.	Treatment Works Approval	7:14A-22

Section B. OPERATION AND MAINTENANCE		
1.	Proper Operation and Maintenance	7:14A-2.5(a)7
2.	Need to Halt or Reduce not a defense	7:14A-2.5(a)5
3.	Bypass of Treatment Facilities	7:14A-3.10
4.	Upset	7:14A-3.10
5.	Power Failure	7:14A-2.5(a)5&7
6.	Emergency Plans	7:14A-3.12(b)
7.	Capacity Assurance Program	7:14A-22.16

Section C. MONITORING AND RECORDS		
1.	Representative Sampling	7:14A-2.5(a)12.i
2.	Monitoring Procedures	7:14A-2.5(a)12.ii
3.	Retention of Records	7:14A-2.5(a)12.iii
4.	Monitoring Records	7:14A-2.5(a)12.iv
5.	Additional Voluntary Monitoring	7:14A-2.5(a)12.vi
6.	Averaging of Measurements	7:14A-2.5(a)12.vii
7.	Required Additional Monitoring	7:14A-2.5(a)12.xi

Operation Restrictions

The operation of a waste treatment or disposal facility shall at no time create: **(a) a direct discharge to the surface waters of the State, except as authorized by the Department and into the receiving water(s) at the specified location(s) as referenced in the Part III of this permit;** (b) a persistent standing or ponded condition for water or waste on the permittee's property except as specifically authorized by this or another permit; or (c) any standing or ponded condition for water or waste on adjacent properties unless these activities are specifically included within this or another permit.

This permit does not authorize or approve any activities other than the discharge(s) as referenced above.

Monitoring and Reporting

A. Monitoring results shall be summarized and reported on the appropriate Discharge Monitoring Reports (DMRs) following the completed reporting period. If a discharge does not occur during a particular reporting period, the permittee should write "NODI" across the face of the DMR. Unless otherwise specified or directed, signed copies of these DMRs shall be submitted postmarked no later than the 25th day of the calendar month following the completed reporting period to the following address:

NJDEP
Bureau of Permits Management
CN 029
Trenton, New Jersey 08625-0029
Attn. Monitoring Reports

B. In addition, a duplicate signed copy of all other monitoring reports required from the permittee including the DMRs shall be submitted to the DRBC **(only for dischargers to the Delaware River Basin)**, and the ISC **(only for dischargers to the Interstate Sanitation Commission district)**, at the following addresses:

Delaware River Basin Commission	Interstate Sanitation Commission
P.O. Box 7360	311 West 43rd Street
West Trenton, New Jersey 08628	New York, New York 10036
Attn: Executive Director	Attn: Director/Chief Engineer

Sampling Points

All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other wastestream, body of water or substance. Monitoring points shall not be changed without notification to and the approval of the Department.

Stormwater Only Discharges

Stormwater shall be sampled during the first precipitation event of the monitoring period which causes a discharge at the site during working hours, unless otherwise directed in the permit. Stormwater monitoring should not necessarily be conducted at 30-day intervals. Therefore, it is incorrect for the permittee to choose a sampling date which remains the same every month, and report "NODI" on the DMR if it does not rain on that particular day.

D. "NPDES Compliance Sampling Manual", U.S. Environmental Protection Agency, Office of Water Enforcement, Publication MCD-51, 1977, 140 pp. (Available from the General Services Administration (8FFS), Centralized Mailing Lists Services, Building 41, Denver Federal Center, Denver CO 80225.)

Oil and Grease Effluent Limitations

Oil & Grease and/or Petroleum Hydrocarbons samples shall be collected and analyzed in accordance with N.J.A.C. 7:14A-14.1 et seq.

Section G. ADDITIONAL DEFINITIONS

"Aliquot" means an individual sample of specified volume used to make up a total composite sample.

"Annual monitoring" means monitoring conducted at a minimum frequency of once every calendar year, beginning with the Effective Date of the Permit unless there is a different period specified in the permit.

"Col/100 mL" means the coliform colonies per 100 milliliters.

"Composite Sample" means a combination of individual (or continuously taken) samples (aliquots) of at least 100 milliliters, collected at periodic intervals over a specified time period. The composite can be either time proportional or flow proportional; either the time interval between each aliquot or the volume of each aliquot should be proportional to either the flow at the time of sampling or the total flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically. For intermittent discharges of less than four (4) hours duration, aliquots shall be taken at intervals not to exceed 15-minutes. For intermittent discharges of four (4) hours or more duration, aliquots shall be taken at intervals not to exceed 30-minutes.

"Daily Monitoring" means monitoring conducted every day, including weekends and holidays.

"EDP" means Effective Date of the Permit.

"EDPM" means Effective Date of the Permit Modification

"g/day" means grams per day

"kg/d or kg/day" means kilograms per day.

"Maximum Value" means the highest value measured during the monitoring period.

"mg/L" means milligrams per liter.

"Minimum Value" means the lowest value measured during the monitoring period.

"Monthly Monitoring" means monitoring conducted at a minimum of once every calendar month, beginning with the EDP unless there is a different period specified in the permit.

"Multiple Grab Composite" means a combination of individual samples (aliquots) collected at a specified frequency over a specified time period. Each aliquot must be collected in a glass vial with a septum cap and iced until delivered for analysis. An air space should remain in the vial. Each aliquot shall be analyzed individually. The recorded value will be the flow proportioned average of the individual analyses for the specific time period.

ADDITIONAL STANDARD CONDITIONS FOR ALL NJPDES/DSW PERMITS FOR INDUSTRIAL DISCHARGES

1. Permit Conditions Relating to Treatment Works

A Treatment Works Approval (TWA) Permit is required prior to the construction, operation, or modification of a treatment works pursuant to N.J.A.C. 7:14A-22.1 et seq. and the amendments thereto. Applications for a TWA Permit shall be submitted to the following address:

New Jersey Department of Environmental Protection
Division of Water Quality
Bureau of Construction and Connection Permits
CN-029, Trenton, New Jersey 08625-0029
Attn: Chief

The operation of the treatment works shall be under the supervision of a licensed operator with the appropriate operator's classification in accordance with the "Rules Governing the Examination and Licensing of Operators", N.J.A.C. 7:10-13.1 et seq., which became effective July 2, 1984. The licensed operator shall meet the requirements of the TWA Permit pursuant to the provisions of N.J.S.A. 58:11-64 and the amendments thereto.

2. Permit Conditions Relating to Industrial Residuals Management

A. Collected grit and screenings, scums, sand bed sands, slurries, and sludges, and all other solids from the treatment process shall be managed in such a manner as to prevent such materials form entering the ground and/or surface waters of the State except in accordance with the NJPDES permit. If for any reason such materials are placed in the water or on the lands where they may cause pollutants to enter the ground and/or surface waters of the State or for any other noncompliance which may endanger public health or the environment, the following information shall be reported to the Water and Hazardous Waste Enforcement Element and to the Bureau of Pretreatment and Residuals pursuant to the requirements as outlined under N.J.A.C. 7:14A-2.5(a)(14):

(i) Dates of occurrence;
(ii) A description of the non-complying discharge (nature and volume);
(iii) Cause of noncompliance;
(iv) Steps taken to reduce and eliminate the non-complying discharge; and
(v) Steps taken to prevent recurrence of the condition of noncompliance.

B. The permittee shall not be permitted to store sludge on-site beyond the capacity of the structural treatment and storage components of the treatment works nor shall the permittee be permitted to store residual on-site in any manner which is not in accordance with Solid Waste Management Rules, N.J.A.C. 7:26.

C. The permittee shall comply with the Sludge Quality Assurance Regulations, N.J.A.C. 7:14-4. Where quality information is required by these regulations, analyses must reflect the quality of the final sludge product which the permittee must remove.

1A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning EDP and lasting through EDP + 5 years the permittee is authorized to discharge non-contact cooling water, roof and floor drain water, and stormwater runoff from outfall serial number DSN - 381.

There shall be no discharge of floating solids or visible foam in other than trace amounts. There shall be no visible sheen.

The abbreviation "NA", in the table below denotes "Not Applicable" while the abbreviation "NL" denotes "Not Limited" with both monitoring and reporting required.

Samples taken in compliance with the specified monitoring requirements shall be taken at the following location: at the manhole on edge of culvert; and shall be reported monthly.

EFFLUENT CHARACTERISTICS PARAMETER ALL UNITS IN MG/L UNLESS OTHERWISE NOTED	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS	
	DAILY MINIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	MINIMUM FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow (MGD)	NA	NL	NL	Monthly	Metered (1)
Total Organic Carbon (kg/day)	NA NA	NL NL	NL NL	Quarterly Quarterly	Grab Grab
Total Suspended Solids (kg/day)	NA NA	NL NL	NL NL	Quarterly Quarterly	Grab Grab
pH range (S.U.), Influent	NL (2)	NA	NL (2)	Monthly	Grab
pH range (S.U.), Effluent	6.5	NA	8.5	Monthly	Grab
Temperature - Influent °C	NA	NL	NL	Monthly	Grab
Temperature - Effluent °C	NA	NL	51	Monthly	Grab
Temperature, Difference °C	NA	NL	16.7	Monthly	Grab
Heat Rate MBTU/hr	NA	NL	1230	Monthly	Grab

1A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

DSN-381 (continued)

EFFLUENT CHARACTERISTICS PARAMETER ALL UNITS IN MG/L UNLESS OTHERWISE NOTED	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS	
	DAILY MINIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	MINIMUM FREQUENCY OF ANALYSIS	SAMPLE TYPE
Chlorine-Total Residual	NA	NL	0.2	Monthly	Grab
(kg/day)	NA	NL	219	Monthly	Grab

(1) The permittee measures the flow by the use of a flowmeter.

(2)When the intake pH is less than 6.5, the discharge pH limit shall be the intake pH; when the intake pH is greater than 8.5, the discharge pH limit shall be the intake pH.

MGD is the abbreviation for million gallons per day.
S.U. is the abbreviation for standard units.

1B. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning EDP and lasting through EDP + 5 years the permittee is authorized to discharge process wastewater from outfall serial number DSN - WTP.

There shall be no discharge of floating solids or visible foam in other than trace amounts. There shall be no visible sheen.

The abbreviation "NA", in the table below denotes "Not Applicable" while the abbreviation "NL" denotes "Not Limited" with both monitoring and reporting required.

Samples taken in compliance with the specified monitoring requirements shall be taken at the following location: inside the monitoring house; and shall be reported monthly.

EFFLUENT CHARACTERISTICS PARAMETER ALL UNITS IN MG/L UNLESS OTHERWISE NOTED	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS	
	DAILY MINIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	MINIMUM FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow (MGD)	*NA*	*NL*	*NL*	*Monthly*	*Metered (1)*
Total Organic Carbon (kg/day)	NA NA	NL NL	50 82.3	Quarterly Quarterly	Grab Grab
Total Suspended Solids (kg/day)	NA NA	30 109	100 165	Monthly Monthly	Grab Grab
pH range (S.U.),	6.0	NA	9.0	Monthly	Grab
Petroleum Hydrocarbons (kg/day)	NA NA	10 16	15 25	Monthly Monthly	Grab Grab
1,1,1-Trichloroethane (ug/l) (kg/day)	NA NA	21 0.035	54 0.089	Quarterly Quarterly	Grab Grab
Total Recoverable Copper (ug/l) (kg/day)	NA NA	NL NL	100 0.164	Monthly Monthly	Grab Grab

1B. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

DSN-WTP (continued)

EFFLUENT CHARACTERISTICS PARAMETER ALL UNITS IN MG/L UNLESS OTHERWISE NOTED	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS	
	DAILY MINIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	FREQUENCY OF ANALYSIS	SAMPLE TYPE
Total Recoverable Nickel (ug/l) (kg/day)	NA NA	NL NL	100 0.164	Monthly Monthly	Grab Grab
Total Recoverable Zinc (ug/l) (kg/day)	NA NA	NL NL	100 0.164	Monthly Monthly	Grab Grab
Total Recoverable Iron (ug/l) (kg/day)	NA NA	NL NL	100 0.164	Monthly Monthly	Grab Grab
Acute Toxicity, LC50 (% effluent)	50	NA	NA	Quarterly	See Part IV-B/C

(1) The permittee measures the flow by the use of a flowmeter.

MGD is the abbreviation for million gallons per day.
S.U. is the abbreviation for standard units.

2. MODIFICATION OF MONITORING REQUIREMENTS

The permittee may request a modification of their permit to decrease monitoring frequencies for limited parameters if site specific conditions indicate applicability of such a modification. The Department will consider reducing the monitoring frequency of a limited parameter provided that:

a) ELGs applicable to the facility do not specify the required monitoring frequency;

b) the frequency reduction conditions are included in the public notice of the draft permit.

c) the permittee has shown consistent compliance with all permit conditions for the affected parameter(s) for:
   i) a minimum period of one (1) year for a monitoring frequency of weekly;
   ii) a minimum period of two (2) years for a monitoring frequency of twice per month;
   iii) a minimum period of three (3) years for a monitoring frequency of monthly;
   iv) a minimum period of five (5) years for a monitoring frequency of quarterly; and
   v) a minimum period of four tests for **Whole Effluent Toxicity (WET)** limitations;

d) A monitoring frequency can be reduced as follows:
   i) from weekly to monthly;
   ii) from twice monthly to monthly;
   iii) from monthly to quarterly; or
   iv) from quarterly to semi-annually or annually.

e) For **WET** limitations, monitoring frequencies can be reduced as follows:
   a) a minimum of twice per year for major dischargers; and
   b) a minimum of annually for minor dischargers.

Reduction of monitoring frequency is not automatic; the Department shall determine whether or not a reduction is warranted. The Discharge Monitoring Reports (DMRs) shall be reviewed to verify consistent compliance with permit limitations and conditions for the affected parameter(s). If the Department agrees to grant the request, the Department will perform a conditional change to the permit to change the monitoring frequency of the affected parameters.

The monitoring frequency for the affected parameters cannot be reduced below annual frequency, in accordance with N.J.A.C. 7:14A-3.13.

A request for a modification of the monitoring frequency should be sent to the Chief of the Bureau of Permit Management, CN-029, Trenton, New Jersey 08625. A copy of the letter should also be sent to the Chief of the Bureau of Standard Permitting at the same address.

3. USE OF BIOCIDES OR OTHER COOLING WATER ADDITIVES

The permittee has informed the Department that it did not use any corrosion inhibitors, biocides or cooling water additives in its contact and non-contact cooling water, with the exception of a bromine/chlorine based biocide at the time of permit issuance. If the permittee decides to begin using any additional agents in the future, the permittee must notify the Department at least 180 days prior to use so that the permit may be reopened to incorporate any additional limitations deemed necessary.

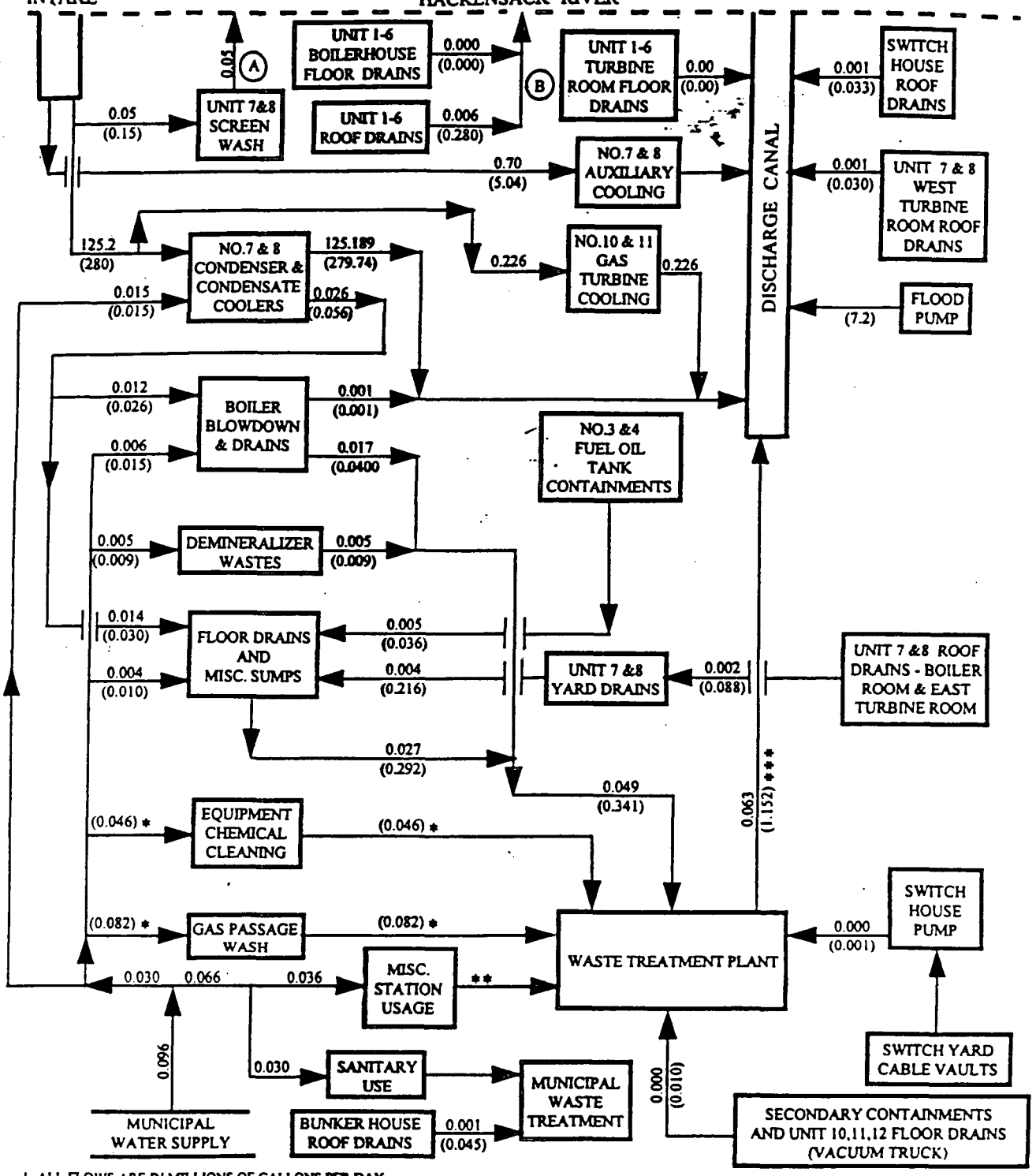
4. TOXIC POLLUTANT REOPENER CLAUSE

Pursuant to N.J.A.C. 7:14A-3.13(a)3.iv., the Department may modify or revoke and reissue any permit to incorporate limitations or requirements to control the discharge of toxic pollutants, including whole effluent, chronic and acute toxicity requirements, chemical specific limitations or toxicity reduction requirements, as applicable.

5. USEPA REPORTING REQUIREMENTS:

In addition to the discharge monitoring report submitted to NJDEP in accordance with paragraph 8.A. in Part of this permit, the permittee shall also submit a duplicate signed copy of these, and all other reports require herein, to the following address(es):

U.S. Environmental Protection Agency
Water Permits & Compliance Branch
26 Federal Plaza - Room 845
New York, New York 10278



1- ALL FLOWS ARE IN MILLIONS OF GALLONS PER DAY
2- NUMBERS WITHOUT PARENTHESIS ARE EXPECTED AVERAGE DAILY FLOWS.
3- NUMBER WITH PARENTHESIS ARE EXPECTED MAXIMUM DAILY FLOWS
4 - *=EXPECTED MAXIMUM FLOW ONLY A FEW TIMES PER YEAR. THESE VALUES ARE NOT INCLUDED IN AVERAGE DAILY TOTALS.
5-**= FIRE PROTECTION SYSTEMS,EVAPORATION, MISCELLANEOUS EQUIPMENT CLEANING,MISCELLANEOUS BUILDING AND GROUND CLEANING,CITY WATER SYSTEM LEAKAGE,ETC.
6 - (A) (B) = SEE APPENDIX D
7 - = MAXIMUM VALUE INCLUDES GAS PASSAGE WASH
*** AVERAGE OF LAST 3 YEARS DMR'S

SCHEMATIC OF WATER FLOW
PUBLIC SERVICE
ELECTRIC & GAS COMPANY
KEARNY
GENERATING STATION

F.PETROCK
10 / 12 / 94

920990034

I. ADDITIONAL REQUIREMENTS OF THIS PERMIT

A. TOXICITY TESTING REQUIREMENTS

The permittee shall conduct acute toxicity tests on its wastewater discharge DSN WTP in accordance with the provisions in this section. Such testing will determine if appropriately selected effluent concentrations adversely affect the test species.

1. Acute Toxicity Testing Requirements

   Acute toxicity tests shall be conducted using the Mysid (*Mysidopsis bahia*), 96 hr test. Any test that does not meet the specifications of N.J.A.C. 7:18-6, the laboratory certification regulations, must be repeated as soon as practicable within the monitoring period.

2. Testing Frequency

   1. The monitoring frequency for acute toxicity tests conducted on DSN WTP shall be quarterly. Testing may be conducted during any month of the identified quarters.

3. Reporting Requirements

   a. The information specified below shall be submitted, to the address in paragraph C.1.b., within EDP + two months. This information must also be resubmitted within two months of a change of contract laboratory.

      i. A fully completed "Methodology Questionnaire for Acute Toxicity Tests," form, which includes an identification of the toxicity testing laboratory responsible for the testing. Copies of these forms are provided to certified laboratories, and may also be obtained by contacting the address below.

      ii. Acute toxicity test results shall be reported on the "NJPDES Biomonitoring Report Form - Acute Bioassays," copies of which are provided to certified laboratories. Copies of these report forms may also be obtained by contacting the address below.

      <u>TWO</u> COPIES of each completed report form shall be submitted within 60 days of test completion to:

      Division of Water Quality, Bureau of Standard Permitting
      CN-029
      Trenton, New Jersey 08625
      Attention: Industrial Biomonitoring Program

      iii. The test results shall also be reported on the permittee's Discharge Monitoring Report (DMR) for the monitoring period during which the test was conducted.

B. TOXICITY REDUCTION EVALUATION

1. The permittee shall conduct a Toxicity Reduction Evaluation (TRE) for DSN WTP, if the condition specified below occurs. The TRE will determine if a consistent toxicity problem exists and how the permittee can consistently achieve compliance with the toxicity limitation.

   a. Any two valid/acceptable acute toxicity tests conducted within any eighteen month period violate the acute toxicity limitation.

2. The TRE shall be conducted as follows:

   a. The permittee shall submit to the Department, within six months of the occurrence of the second violation identified in A. above, a plan for conducting the TRE. That plan shall include a determination as to which of the following options, a, b, c, or a combination thereof, the facility has selected to follow for the first year of the TRE.

      i. The permittee may use the first year of the TRE to gather information on the persistence of the toxicity in the effluent. Such testing shall, at a minimum, include whole effluent toxicity tests conducted at a minimum frequency of monthly. If no further toxicity is found, the TRE is considered to be ended and the permittee may return to the monitoring frequency specified in the "Toxicity Testing Requirements" portion of this permit. If persistent toxicity is not demonstrated but a significant level of erratic toxicity found (significant is defined as that which is considered a Serious Violation in accordance with N.J.A.C. 7:14-8), the Department may require an increased frequency of routine monitoring or some other modified approach. If persistent toxicity is demonstrated, the permittee shall conduct a TRE consistent with c. below.

      ii. The permittee may use the first year of the TRE to conduct a brief investigation as to the cause of the toxicity problem (e.g. a toxicity exceedance due to a plant upset, bypass, use of a particular chemical additive, etc.). If such a cause is demonstrated, and appropriate corrective actions are implemented by the facility, and four consecutive toxicity tests conducted on a monthly basis indicate consistent compliance with the toxicity limit, the TRE is considered to be ended and the permittee may return to the monitoring frequency specified in the "Toxicity Testing Requirements" portion of this permit. If such a cause cannot be demonstrated, the facility shall initiate a TRE consistent with c. below.

      iii. The permittee may choose to initiate TRE investigations immediately. In such a case, the TRE plan shall include: an identification of the investigator performing the TRE, appropriate measures to characterize effluent variability, appropriate measures to determine if a consistent toxicity problem exists, appropriate measures to identify the causative toxicants and/or evaluate toxicity treatability, and a schedule for completing the study.

iv. Upon notice that the Department has reviewed the plan and approved the schedule, the permittee shall implement the TRE in accordance with the plan and approved schedule. Progress reports detailing all activities undertaken, including all data collected in connection with the study, shall be submitted to the Department beginning 90 days from the date of receipt of the Department's approval of the TRE schedule. Progress reports shall then be submitted on or before January 1, April 1, July 1 and October 1 of each year.

v. Within 90 days of TRE completion, the permittee shall submit to the Department the final TRE results. These results shall include the corrective actions identified in the TRE as necessary to attain compliance with the toxicity limitation and a schedule for its implementation.

vi. Upon receipt of written approval from the Department on the corrective action schedule, the permittee shall implement those corrective actions consistent with that schedule. If, for any reason, the implemented measures do not result in consistent compliance with the toxicity limitation, the permittee shall submit to the Department a plan for resuming the TRE.

vii. The TRE shall not be complete until the permittee has attained consistent compliance with toxicity limitation in this permit. Two copies of all written submissions required above shall be sent to the address specified in the Toxicity Testing Requirements portion of this permit. A copy of the cover letter for each submittal shall also be sent to the facility's regional Enforcement office.

BUREAU OF STANDARD PERMITTING - PERMIT SIGN-OFF SHEET

NJPDES Permit No. NJ 0000655 Permit Categories: B, C, 05

Action	DSW Class	Type of Permit Action
✓ DRAFT	✓ Major	___ New ___ New (DAC)
___ FINAL	___ Sig. Minor	___ Existing w/o Permit
	___ Minor	✓ Renewal
Permit Type		___ Major Modification
✓ DSW		___ Minor Modification
___ DGW		___ Termination
___ SIU		___ Emergency Permit

****

Attached is the permit package for:

Applicant Mailing Address	Facility Location Address
Public Service Electric & Gas (PSE&G)	Public Service Electric & Gas (PSE&G)
80 Park Plaza	Kearny Generating Station
Newark, New Jersey	Foot of Hackensack Avenue
07101	Kearny, N.J. 07032

****

FOR FINAL PERMITS ONLY: The 30-day comment period has expired.

___ We did not receive any comments.

___ Comments were received and are included/addressed in the accompanying material.

****

Project Manager: Tony Russo

Unit Supervisor: _____

Section Chief: _____

Bureau Chief: _____

****
*For Internal Use *
* *
*Activity #: 0000655R2
****

DRAFT NJP[illegible]SW PERMIT DISTRIBUTION F[illegible]

Applicant PSE&G Corp.
80 Park Plaza
Newark, New Jersey

Permit No.NJ 0110655

Date Mailed JAN 1 3 1995

County HUDSON

Discharge Category Code C, B, 05

Recipient	Public Notice	Draft Permit	Other	Address
Central File	X	X		
Applicant	X	X		EDWARD G. WAUGH, Regional Environmental & Safety Mgr PSEG Hackensack Ave, Kearny, NJ 07032
Applicant's Agent	X	X		Mark Strickland, P.E. PSEG @ address above
Mayor	X	X		Municipality: KEARNY Hon. Leo R. Varton 402 Kearny Ave Kearny NJ 07032
Planning Board	X			HUDSON County Planning Bd. County Admin. Bldg. 595 NEWARK AVE. Jersey City NJ 07306
Health Board	X			Kearny Bd of Health 646 Kearny Ave. Kearny NJ 07032-2996 Attn: EDWARD GROSVENOR
Sewerage Authority (*specify*)				
Local Environmental Commission	X			Kearny Environmental Commission 402 Kearny Ave. Kearny NJ 07032
Newspaper	X			Jersey Journal 30 Journal Square Jersey City NJ 07306 Attn: Legal Advertising Dept.
METRO BWHW Enforcement (*specify*)	X	X		Attn: Chief PETER T. LYNCH
B. of Permit Management	X	X	Attach #3	Attn: Chief DEBRA HAMMOND
B. of Standard Permitting	X	X		Attn: Biomonitoring Unit C. Sue Dietrick
Project Manager	X	X		Tony Russo
Bureau Chron File	X	X		

dftdist.doc 7/94

920990039

DRAFT NJ[illegible] DSW PERMIT DISTRIBUTION F[illegible]

NJ0000655

Recipient	Public Notice	Draft Permit	Other	Address
Passaic River Coalition (*affecting the Passaic River and its tributaries*)				246 Madisonville Road Basking Ridge, NJ 07920
Delaware River Basin Commission Planning Branch (*affecting the Delaware River Basin*)				P.O. Box 7360 West Trenton, NJ 08628 Attn: Ronald Rulon
Hackensack Meadowlands Development Commission (*affecting waters within the HMDC*)	X	X		One Dekorte Park Plaza Lyndhurst, NJ 07071
Interstate Sanitation Commission (*affecting waters within the ISC*)				311 West 43rd Street New York, NY 10036
Burlington County Only				Mr. Timothy J. Ryan 1152 Oxmead Road Mount Holly, NJ 08060
Sussex County Only				Water Resource Mgt Program 55-57 High Street Newton, NJ 07860
Elizabethtown Water Company (*affecting Raritan or Millstone Rivers*)				P.O. Box 788 Westfield, New Jersey 07091-0788
Musconetcong Watershed Assoc. (*affecting the Musconetcong River Basin*)				P.O. Box 87 Washington, NJ 07882 Attn: Gary Pohorely
USEPA-Region II Water Permits & Compliance Br. (*all major permits*)	X	X		26 Federal Plaza, Rm 845 New York, NY 10278 Attn: Chief
USEPA				401 M Street, S.W. Washington D.C. 20460
B. of Marine Water Classification and Analysis (*affecting shellfish harvesting water*)				P.O. Box 405, Stony Hill Road Leeds Point, NJ 08220-0405 Attn: Chief

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920990041

State of New Jersey
Department of Environmental Protection and Energy
Division of Enforcement Field Operations
Metro Bureau of Water and Hazardous Waste Enforcement
2 Babcock Place
West Orange, NJ 07052-5504
Tel. # 201-669-3900
Fax. # 201-669-3907

Jeanne M. Fox
Acting Commissioner

James K. Hamilton
Assistant Director

December 28, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Edward G. Waugh
Environmental & Safety Manager - Northern Region
Public Service Electric and Gas Company
Hackensack Avenue
Kearny, New Jersey 07032

Re: Offer of Settlement
Public Service Electric and Gas Company
NJPDES No. NJ 0000655
Kearny/Hudson County

Dear Mr. Waugh:

Representatives of the New Jersey Department of Environmental Protection and Energy (hereinafter "NJDEPE" or the "Department") and a representative of Public Service Electric and Gas Company (hereinafter "PSE&G") agreed on December 17, 1993, to amicably resolve the following Findings without the necessity for adversarial proceedings.

FINDINGS

1. PSE&G operates a facility located at Block 298, Lot 19A, 19R, 20R, Hackensack Avenue, Kearny, Hudson County, New Jersey.

2. NJDEPE issued a New Jersey Pollutant Discharge Elimination System ("NJPDES") Discharge to Surface Water Permit No. 0000655 ("the Permit"), to PSE&G on August 30, 1985. The effective date of the Permit was October 1, 1985 and the expiration date was September 30, 1990. In addition, PSE&G, on or about June 1990, submitted a Permit renewal application to the Department. Pursuant to the Administrative Procedure Act, N.J.S.A. 52:14B-11 et seq., the conditions of the expired Permit remain in effect until the Department's issuance of a renewed Permit.

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Recycled Paper

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3. Pursuant to the Permit, PSE&G discharges pollutants, as defined by N.J.A.C. 7:14A-1.9, into the waters of the State.

4. No person shall discharge any pollutant except in conformity with a valid NJPDES Permit issued pursuant to the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq.

5. Part III - B/C, Page 1 of 3, of the Permit sets forth specific parameters to be reported on Discharge Monitoring Reports ("DMR's") and identifies discharge limitations for each parameter for each permitted outfall.

6. PSE&G has submitted DMRs to NJDEPE as required by the Permit for the period of March 1993 through September 1993. The DMRs demonstrate that PSE&G reported a violation of the discharge limits of the Permit. Listed below is the date and parameter of the violation:

DMR NUMBER	MONIT. PERIOD END DATE	VIOL	DSN NO.	PARA-METER	LOAD CONC	MIN AVG MAX	LIMIT	UNITS	DATA
93060029 *	06/31/93	E90	WTP	Fe	CONC	MAX	1.0	MG/L	2.4

* Serious violation as defined by N.J.S.A. 58:10A-3(v) and N.J.A.C. 7:14-8.2

The following abbreviations were used in the table above:

E90 - Effluent Violation CONC - Concentration Fe - Iron
MAX - Maximum MG/L - Milligrams per liter

Pursuant to N.J.S.A. 58:10A-10(d) and N.J.A.C. 7:14-8, the Department is willing to compromise its claim for a maximum civil administrative penalty and accept a penalty from PSE&G in the amount of $15,000 for the violation set forth in the Findings above.

PSE&G shall submit within thirty (30) calendar days of the date of this letter, payment in the amount of $15,000. Payment shall be made by cashier's check or certified check payable to "Treasurer, State of New Jersey" and shall be submitted along with the white copy of Form DEP-062A (attached) to:

Bureau of Revenue
New Jersey Department of Environmental Protection and Energy
CN -417
428 East State Street, First Floor
Trenton, New Jersey 08625-0402

in the event that PSE&G fails to submit full payment within thirty (30) calendar days of the date of this letter, this settlement agreement shall be considered null and void and the Department shall seek to collect maximum civil administrative penalties.

Any questions or correspondence pertaining to this letter should be directed to Alfonso Gonzalez, who may be reached at (201)669-3900 or by letter through this Bureau.

Very truly yours,

Peter T. Lynch, Chief
Metro Bureau of Water and
Hazardous Waste Enforcement

E 17

Enclosure

c: Robert Vaughn, USEPA
Edward Grosvenor, H.O.
Russ Furnari, Environmental Coordinator

bc: James K. Hamilton
Dennis Hart, WFRE
Stefan D. Sedlak
Central File
Metro File
Criminal Justice
Enforcement Actions

STATE OF NEW JERSI
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY
Environmental Regulation
Wastewater Facilities Regulation Element
CN 029
Trenton, NJ 08625-0029

PSE&G KEARNY GENERATING STA
80 PARK PLAZA T17G
NEWARK NJ 07101

SEP 03 1993

RE: Violation of Effluent Limits or Parameter Reporting Requirements NJPDES Permit No: NJ0000655

Dear Permittee:

The New Jersey Department of Environmental Protection and Energy (Department) has issued your facility a New Jersey Pollutant Discharge Elimination System (NJPDES) permit pursuant to the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq. The permit requires that discharge monitoring results obtained during the previous monitoring period shall be summarized and reported to the Department on Discharge Monitoring Report (DMR) forms.

Your NJPDES permit requires that you submit to the Department a report concerning any non-compliance, including the action taken to correct it and prevent its continuation or recurrence. Additionally, the Clean Water Enforcement Amendments to the New Jersey Water Pollution Control Act and the regulations adopted pursuant thereto, specify reporting requirements for claiming an affirmative defense for certain violations.

The Department has reviewed the DMR submitted for your facility for the period ending 93/06/30 . This review indicated that you are not complying with one or more effluent limitations or parameter reporting requirements specified in your permit. These apparent violations are noted on the attached violation summary forms.

Please review the subject DMR carefully against the information on the violation summary form. If there is a discrepancy between the DMR information you submitted and the data listed on the violation summary form you must immediately submit a copy of the submitted DMR with a notation of the discrepancy to the Bureau of Permit Management, CN029, Trenton, NJ 08625-0029. If your DMR was incomplete or completed incorrectly you must submit a revised DMR to the Bureau of Permit Management with a copy to this office. The corrected information must be submitted in red ink and each revised value must be initialed and dated by the original signatory. DMRs must be completed in accordance with the Department's Discharge Monitoring Report Instruction Manual (Revised June 1991).

BJA000006
6.

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Nothing shall preclude the Department from assessing penalties if the missing DMR effluent parameter information was not inadvertently omitted or if the Department was not notified within 30 days of the DMR due date of the existence of extenuating circumstances beyond the control of the permittee. Failure to submit missing effluent parameter data within ten (10) days from receipt of this letter subjects you to mandatory civil administrative penalties of $100 per parameter per day up to a maximum of $50,000 per DMR. These penalties accrue as of the fifth day following the date on which the DMR was due.

If the information listed on the enclosed form is correct and you have fulfilled your non-compliance reporting requirements, no response to this letter is necessary. The violations will be evaluated and addressed during the Department's compliance evaluation inspection process.

Very truly yours,

Peter T. Lynch, Chief

Metro Bureau of Water &
Hazardous Waste Enforcement
2 Babcock Place
West Orange, NJ 07052-5504

Enclosure

920990048

NJPDES Number: NJ0000655 Facility Name: PSE&G KEARNY GENERATING STA

==========

Monitoring Period End Date: 93/06/30 Pipe Num: WTPA Mon. Loc.: 1

PARAMETER: 01045 DESCRIPTION: IRON, TOTAL (AS FE)

VIOLATION: E90 NUMERIC VIOLATION

	QUANTITY			CONCENTRATION	
	Average	Maximum	Minimum	Average	Maximum
MEASUREMENT:				1.0000	2.4000

****

920990049

920990050

State of New Jersey
Department of Environmental Protec
Division of Hazardous Waste Manage...nt
Manifest Section
CN 028, Trenton, NJ 08625

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: NJD000730421 — NJ Manifest Document No.: 13975
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
P S E & S
KEARNY GEN STATION
FT OF HACKENSACK AVE
KEARNY NJ 07032

4. Generator's Phone (201) 430-8789

A. State Manifest Document Number: NJA 1155676
B. State Generator's ID: SAME
C. NJDEP06321 (64057)
D. Transporter's Phone (201-347-2215
E. State Trans. ID
F. Transporter's Phone ( )
G. State Facility's ID: NJA
H. Facility's Phone (201 347-1989

5. Transporter 1 Company Name: ENVIRON TRANSFER CORP
6. US EPA ID Number: NJD991291594
7. Transporter 2 Company Name
8. US EPA ID Number
9. Designated Facility Name and Site Address
A E T C
1 EDEN LANE
FLANDERS NJ 07836
10. US EPA ID Number: NJD788536593

	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	X	RQ, WASTE BATTERY, WET FILLED WITH ACID (LEAD) CORROSIVE MATERIAL (SULFURIC ACID) UN 2794	004	CF	0 0 ~~8 0 0~~ 510	P	D002
b.	X	RQ, WASTE BATTERY, WET FILLED WITH ACID (SULFURIC ACID) (LEAD) CORROSIVE MATERIAL UN-2794	004	CF	0 0 1 8 0	P	D002
c.							
d.							

J. Additional Descriptions for Materials Listed Above
a. LEAD/ACID FORKLIFT BATTERIES L/C
b. LEAD/ACID CAR BATTERIES L/C
c.
d.

K. Handling Codes for Wastes Listed Above
a. S01
b. S01
c.
d.

15. Special Handling Instructions and Additional Information: PACKING SLIPS ATTACHED FOR CLARIFICATION (TRANSIT ONLY) 24 HR EMERGENCY PHONE 1-800-424-9300 LINE 13. WEIGHTS ARE ESTIMATED
NJ 64057 (XH 687B)

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: MICHAEL G. CULLEN — Signature: Michael G. Cullen — Month Day Year: 05 22 91

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: JAMES M BARRANO — Signature: James M Barrano — Month Day Year: 05 22 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: THOMAS F.D. LAMB — Signature: Thomas F.D. Lamb — Month Day Year: 05 22 91

In case of an emergency or spill immediately call the state the emergency occurred in and the N.J. Dept. of Environmental Protection. (609) 292-5560 (Day) (609) 292-7172 (Night)

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.

SIGNATURE AND INFORMATION ... PIES

3 — TSD MAIL TO - GENERATOR

BJA000014 14.

920990051

AETC LAND DISPOSAL NOTIFICATION FORM

This document is being submitted in compliance with 40 CFR 268.7, to inform you that this shipment is subject a national capacity variance and is therefore not prohibited from land disposal.

GENERATOR PSE+G KEARNY GEN. STN. MANIFEST NUMBER: NJA 1155676

ENTER WASTE CODE	WASTE CATEGORY	WASTE CODE	EFFECTIVE DATE
	Non-Wastewater	D004, P010, P011, P012, P036, P038, U136	5/08/92
	Non-Wastewater	F039	5/08/92
	Non-Wastewater Wastewater	P087 P087	5/08/92 5/08/92
	High Mercury Non-Wastewater	D009, P065, P092, U151	5/08/92
	Low Mercury Non-Wastewater	D009, P065, P092, U151	5/08/92
D002	Lead Materials Stored before Smelting	D008	5/08/92
	Inorganic Solid Debris	D004, D005, D006, D007, D008, D009, D010, D011	5/08/92

	Soil & Debris	2nd 3rd Waste (Various U/P Codes)	6/08/91
	Soil & Debris	3rd 3rd Waste (Various U/P Codes)	5/08/92

SIGNED

5-22-91
DATE

MICHAEL G. CULLEN
PRINTED NAME

Revised: 3/91

920990052

AETC

NUMERICAL TREATMENT STANDARDS

RESTRICTED WASTE NOTIFICATION FORM

Revised 8/8/90

This notice is being sent to you in accordance with 40 CFR 268.7 to inform you that this shipment contains wastes restricted from land disposal by the USEPA under the land dis restrictions program. The following wastes or residue from the treatment of these wastes is restricted from land disposal unless the waste is below the treatment standards as spe in 40 CFR 268.41 and 40 CFR 268.43 for nonwastewater(N) or wastewater(W).

Generator PSE+G KEARNY GENERATING STA Manifest # NJA 1155676 Waste Analysis data is/is not attached. (Circle One)

D003 (___W - CN)
D003 (___N - CN)
D004 (___W ___N)
D005 (___W ___N)
D006 (___W ___N)
D007 (___W ___N)
D008 (___W X N)
D009 (___W)
D009 (___N - loHg)
D010 (___W ___N)
D011 (___W ___N)
D012 (___N)
D013 (___N)
D014 (___N)
D015 (___N)
D016 (___N)
D017 (___N)

F006 (___W ___N)
F007 (___W ___N)
F008 (___W ___N)
F009 (___W ___N)
F010 (___W ___N)

P004 (___W ___N)
P010 (___W ___N)
P011 (___W ___N)
P012 (___W ___N)
P013 (___W ___N)
P020 (___W ___N)
P021 (___W ___N)
P022 (___W)
P024 (___W ___N)
P029 (___W ___N)
P030 (___W ___N)
P036 (___W ___N)
P037 (___W ___N)
P038 (___W ___N)

P039 (___W ___N)
P047 (___W 4,6-Dinitro)
P047 (___N 4,6-Dinitro)
P048 (___W ___N)
P050 (___W ___N)
P051 (___W ___N)
P056 (___W)
P059 (___W ___N)
P060 (___W ___N)
P063 (___W ___N)
P065 (___W)
P065 (___N - Lo Hg IR)
P065 (___N - Lo Hg RMERC)
P071 (___W ___N)
P073 (___W ___N)
P074 (___W ___N)
P077 (___W ___N)
P082 (___W)
P089 (___W ___N)
P092 (___W)
P092 (___N - Lo Hg IR)
P092 (___N - Lo Hg RMERC)
P094 (___W ___N)
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P098 (___W ___N)
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P101 (___W ___N)
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P110 (___W ___N)
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P120 (___W)
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P123 (___W ___N)

U002 (___W ___N)
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U005 (___W ___N)
U009 (___W ___N)
U012 (___W ___N)
U018 (___W ___N)
U019 (___W ___N)
U022 (___W ___N)
U024 (___W ___N)
U025 (___W ___N)
U027 (___W ___N)
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U141 (___W ___N)

U142 (___W ___N)
U144 (___W ___N)
U145 (___W ___N)
U146 (___W ___N)
U151 (___W)
U151 (___N - Lo Hg RMERC)
U151 (___N - Lo Hg IR)
U152 (___W ___N)
U155 (___W ___N)
U157 (___W ___N)
U158 (___W ___N)
U159 (___W ___N)
U161 (___W ___N)
U162 (___W ___N)
U165 (___W ___N)
U168 (___W)
U169 (___W ___N)
U170 (___W ___N)
U172 (___W ___N)
U174 (___W ___N)
U179 (___W ___N)
U180 (___W ___N)
U181 (___W ___N)
U183 (___W ___N)
U185 (___W ___N)
U187 (___W ___N)
U188 (___W ___N)
U190 (___W ___N)
U192 (___W ___N)
U196 (___W ___N)
U203 (___W ___N)
U204 (___W ___N)
U205 (___W ___N)
U207 (___W ___N)
U208 (___W ___N)
U209 (___W ___N)
U210 (___W ___N)
U211 (___W ___N)

U214 (___W)
U215 (___W)
U216 (___W)
U217 (___W)
U220 (___W ___N)
U225 (___W ___N)
U226 (___W ___N)
U227 (___W ___N)
U228 (___W ___N)
U235 (___W ___N)
U239 (___W ___N)
U240 (___W - 2,4,D)
U240 (___N - 2,4,D)
U243 (___W ___N)
U247 (___W ___N)
_____ (___W ___N)
_____ (___W ___N)
_____ (___W ___N)
_____ (___W ___N)
_____ (___W ___N)
_____ (___W ___N)
_____ (___W ___)
_____ (___W ___N)

9209900053

AETC

TECHNOLOGY-BASED STANDARDS FOR WASTEWATER

Revised 8/8/90

is notice is being sent to you in accordance with 40 CFR 268.7 to inform you that this shipment contains wastes restricted from land disposal by the USEPA under the nd disposal restrictions program. The following wastes or residues from the treatment of these wastes is restricted from land disposal unless the waste is treated in cordance with the technology-based standards as defined in 40 CFR 268.42. The following key is utilized to reflect the technology used for the following waste types.

nerator PSE+G KEARNY GENERATING STN. Manifest # NJA 1155676

aste Analysis data is/is not attached. (Circle One)

A. (WETOX or CHOXD) & CARBN or INCIN
B. BIODG or INCIN
C. CARBN or INCIN
D. INCIN or WETOX
E. CHOXD or INCIN
F. CHOXD, BIODG or INCIN
G. CHOXD, WETOX or INCIN
H. ADGAS
I. CHOXD, CHRED or INCIN
J. CHOXD, CHRED, CARBN, BIODG or INCIN
K. DEACT
L. RMETL or RTHRM
M. CARBN

____ D001 (K)	____ P041 (C)	____ P109 (C)	____ U073 (A)	____ U149 (A)	____ U236 (A)
X D002 (K)	____ P042 (A)	____ P111 (M)	____ U074 (A)	____ U150 (A)	____ U237 (A)
____ D003 (K)	____ P043 (C)	____ P112 (J)	____ U085 (A)	____ U153 (A)	____ U238 (A)
____ D012 (B)	____ P044 (C)	____ P116 (A)	____ U086 (J)	____ U154 (A)	____ U240 (Salts/ Esters)(A)
____ D013 (C)	____ P045 (A)	____ P118 (A)	____ U087 (C)	____ U156 (A)	____ U244 (A)
____ D014 (D)	____ P046 (A)	____ P122 (I)	____ U089 (A)	____ U160 (J)	____ U246 (G)
____ D015 (B)	____ P047 (Salts/ Esters)(A)		____ U090 (A)	____ U163 (A)	____ U248 (A)
____ D016 (F)		____ U001 (A)	____ U091 (A)	____ U164 (A)	____ U249 (I)
____ D017 (E)	____ P049 (A)	____ U006 (A)	____ U092 (A)	____ U166 (A)	____ ____
	____ P054 (A)	____ U007 (A)	____ U094 (A)	____ U167 (A)	____ ____
____ F005 (2 Nitro)(A)	____ P057 (A)	____ U008 (A)	____ U095 (A)	____ U171 (A)	____ ____
____ F005 (2 Eth Et)(B)	____ P058 (A)	____ U010 (A)	____ U096 (J)	____ U173 (A)	____ ____
	____ P062 (C)	____ U011 (A)	____ U097 (A)	____ U176 (A)	____ ____
____ P001 (A)	____ P064 (A)	____ U014 (A)	____ U098 (J)	____ U177 (A)	____ ____
____ P002 (A)	____ P066 (A)	____ U015 (A)	____ U099 (J)	____ U178 (A)	____ ____
____ P003 (A)	____ P067 (A)	____ U016 (A)	____ U103 (J)	____ U182 (A)	____ ____
____ P005 (A)	____ P068 (J)	____ U017 (A)	____ U109 (J)	____ U184 (A)	____ ____
____ P006 (I)	____ P069 (A)	____ U020 (A)	____ U110 (A)	____ U186 (A)	
____ P007 (A)	____ P070 (A)	____ U021 (A)	____ U113 (A)	____ U189 (I)	
____ P008 (A)	____ P072 (A)	____ U023 (J)	____ U114 (A)	____ U191 (A)	
____ P009 (J)	____ P075 (A)	____ U026 (A)	____ U115 (A)	____ U193 (A)	
____ P014 (A)	____ P076 (H)	____ U033 (A)	____ U116 (A)	____ U194 (A)	
____ P015 (L)	____ P078 (H)	____ U034 (A)	____ U119 (A)	____ U197 (A)	
____ P016 (A)	____ P081 (J)	____ U035 (A)	____ U122 (A)	____ U200 (A)	
____ P017 (A)	____ P084 (A)	____ U041 (A)	____ U123 (A)	____ U201 (A)	
____ P018 (A)	____ P085 (C)	____ U046 (A)	____ U124 (A)	____ U202 (A)	
____ P023 (A)	____ P087 (L)	____ U049 (A)	____ U125 (A)	____ U206 (A)	
____ P026 (A)	____ P088 (A)	____ U053 (A)	____ U126 (A)	____ U213 (A)	
____ P027 (A)	____ P093 (A)	____ U055 (A)	____ U132 (A)	____ U218 (A)	
____ P028 (A)	____ P095 (A)	____ U056 (A)	____ U133 (J)	____ U219 (A)	
____ P031 (G)	____ P096 (I)	____ U058 (C)	____ U135 (I)	____ U221 (C)	
____ P033 (G)	____ P102 (A)	____ U059 (A)	____ U143 (A)	____ U222 (A)	
____ P034 (A)	____ P105 (J)	____ U062 (A)	____ U147 (A)	____ U223 (C)	
____ P040 (C)	____ P108 (A)	____ U064 (A)	____ U148 (A)	____ U234 (A)	

ignature [signature] Date 5-22-91

920990054

AETC

TECHNOLOGY -BASED STANDARDS FOR NONWASTEWATER

Revised 8/8/90

This notice is being sent to you in accordance with 40 CFR 268.7 to inform you that this shipment contains wastes restricted from land disposal by the USEPA under the land disposal restrictions program. The following wastes or residues from the treatment of these wastes is restricted from land disposal unless the waste is treated in accordance with the technology-based standards as defined in 40 CFR 268.42. The following key is utilized to reflect the technology used for the following waste types.

Generator PSE+G KEARNY GENERATING STN. Manifest # NJA 1155676

Waste Analysis data is/is not attached. (Circle One)

A. INCIN
B. CHOXD OR INCIN
C. STABL
D. CHOXD, CHRED or INCIN
E. PSUBS, CHOXD, CHRED or INCIN
F. RMETL or RTHRM
G. RTHRM or STABL
H. ADGAS fb NEUTR or NEUTR
I. RMERC
J. IMERC
K. PSUBS, RORGS or INCIN
L. RTHRM
M. RLEAD
N. PSUBS or INCIN
O. CHOXD, WETOX or INCIN
P. ADGAS fb NEUTR
Q. ADGAS
R. IMERC or RMERC
S. DEACT

____ D001 (>10%TOC)(K)	____ P041 (N)	____ P092 (Hg Residue)(I)	____ U035 (A)	____ U116 (A)	____ U193 (A)
____ D001 (other)(S)	____ P042 (A)	____ P093 (A)	____ U038 (A)	____ U119 (A)	____ U194 (A)
____ D002 (S)	____ P043 (N)	____ P095 (A)	____ U041 (A)	____ U122 (N)	____ U197 (N)
____ D003 (S)	____ P044 (N)	____ P096 (D)	____ U042 (A)	____ U123 (N)	____ U200 (A)
____ D006 (Batteries)(L)	____ P045 (A)	____ P102 (N)	____ U046 (A)	____ U124 (N)	____ U201 (N)
X D008 (Acid Bat.)(M)	____ P046 (A)	____ P105 (E)	____ U049 (A)	____ U125 (N)	____ U202 (A)
____ D009 (Hg - NIR ORG)(R)	____ P047 (Salts/Esters)(A)	____ P108 (A)	____ U053 (N)	____ U126 (N)	____ U206 (A)
____ D009 (Hg - INORG)(I)	____ P049 (A)	____ P109 (N)	____ U055 (N)	____ U132 (A)	____ U213 (N)
	____ P054 (A)	____ P111 (A)	____ U056 (N)	____ U133 (E)	____ U214 (G)
	____ P056 (P)	____ P112 (E)	____ U057 (N)	____ U134 (H)	____ U215 (G)
____ P005 (2 Nitro)(A)	____ P057 (A)	____ P113 (G)	____ U058 (N)	____ U135 (D)	____ U216 (G)
____ P005 (2 Eth Et)(A)	____ P058 (A)	____ P115 (G)	____ U059 (A)	____ U143 (A)	____ U217 (G)
	____ P062 (N)	____ P116 (A)	____ U062 (A)	____ U147 (N)	____ U218 (A)
____ P001 (N)	____ P064 (A)	____ P118 (A)	____ U064 (N)	____ U148 (A)	____ U219 (A)
____ P002 (A)	____ P065 (Hg - Residues)(I)	____ P119 (C)	____ U073 (A)	____ U149 (A)	____ U221 (N)
____ P003 (N)	____ P065 (NIR from RMERC)(J)	____ P120 (C)	____ U074 (A)	____ U150 (A)	____ U222 (A)
____ P005 (N)		____ P122 (D)	____ U085 (N)	____ U151 (Hg)(I)	____ U223 (N)
____ P006 (D)			____ U086 (E)	____ U153 (A)	____ U234 (A)
____ P007 (A)	____ P066 (A)	____ U001 (N)	____ U087 (N)	____ U154 (N)	____ U236 (A)
____ P008 (A)	____ P067 (A)	____ U003 (A)	____ U089 (N)	____ U156 (A)	____ U237 (A)
____ P009 (E)	____ P068 (E)	____ U006 (A)	____ U090 (N)	____ U160 (E)	____ U238 (A)
____ P014 (A)	____ P069 (A)	____ U007 (A)	____ U091 (A)	____ U163 (A)	____ U240 (Salts/Esters)(A)
____ P015 (E)	____ P070 (A)	____ U008 (N)	____ U092 (A)	____ U164 (A)	____ U244 (A)
____ P016 (A)	____ P072 (A)	____ U010 (A)	____ U093 (A)	____ U166 (N)	____ U246 (D)
____ P017 (A)	____ P075 (A)	____ U011 (A)	____ U094 (N)	____ U167 (A)	____ U248 (N)
____ P018 (A)	____ P076 (Q)	____ U014 (A)	____ U095 (A)	____ U168 (A)	____ U249 (D)
____ P022 (A)	____ P078 (Q)	____ U015 (A)	____ U096 (E)	____ U171 (A)	____ ____
____ P023 (A)	____ P081 (E)	____ U016 (N)	____ U097 (A)	____ U173 (A)	____ ____
____ P026 (A)	____ P082 (A)	____ U017 (A)	____ U098 (E)	____ U176 (A)	____ ____
____ P027 (A)	____ P084 (A)	____ U020 (A)	____ U099 (E)	____ U177 (A)	____ ____
____ P028 (A)	____ P085 (N)	____ U021 (A)	____ U103 (E)	____ U178 (A)	____ ____
____ P031 (O)	____ P087 (E)	____ U023 (E)	____ U109 (E)	____ U182 (N)	____ ____
____ P033 (O)	____ P088 (N)	____ U026 (A)	____ U110 (A)	____ U184 (A)	____ ____
____ P034 (A)	____ P092 (NIR from RMERC)(R)	____ U033 (A)	____ U113 (N)	____ U186 (N)	____ ____
____ P040 (N)		____ U034 (A)	____ U114 (A)	____ U189 (D)	____ ____
			____ U115 (H)	____ U191 (A)	

Signature [signature] Date 5-22-91

920990055

920990056

State of New Jersey
Department of Environmental Protection
Division of Hazardous Waste Management
Manifest Section
CN 028, Trenton, NJ 08625

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: NJD000730424 — Manifest Document No.: NJ14090
2. Page 1 of 2

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
P S E & G
KEARNY GEN STATION
FT OF HACKENSACK AVE
KEARNY NJ 07032

4. Generator's Phone (201) 430-8789

A. State Manifest Document Number: NJA 1164048

B. State Generator's ID: SAME

5. Transporter 1 Company Name: ENVIRONMENTAL TRANSFER CORPORATION
6. US EPA ID Number: NJD991291584

C. State Trans. ID: NJDEPS6321-64028

7. Transporter 2 Company Name:
8. US EPA ID Number:

D. Transporter's Phone (201) 347-2215

E. State Trans. ID:

9. Designated Facility Name and Site Address
ADVANCED ENVIRONMENTAL TECHNOLOGY CORPORATION
1 EDEN LANE
FLANDERS NJ 07836

10. US EPA ID Number: NJD980536593

F. Transporter's Phone ( )

G. State Facility's ID: N/A

H. Facility's Phone (201) 347-1909

	HM	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	X	WASTE FLAMMABLE LIQUID, NOS FLAMMABLE LIQUID UN1993	0001	DF	000060	P	D001
b.	X	WASTE PAINT FLAMMABLE LIQUID UN1263	0001	DF	000060	P	D001
c.	X	WASTE PAINT (ACETONE,METHYL ETHYL KETONE) FLAMMABLE LIQUID UN1263	0019	DM	000760	P	D001
d.	X	WASTE PAINT (ACETONE,METHYL ETHYL KETONE) FLAMMABLE LIQUID UN1263	0008	DF	000360	P	D001

J. Additional Descriptions for Materials Listed Above

a. S/I PACK LAB CHEMICALS
b. S/I PACK LAB CHEMICALS
c. L/I PAINT WITH ACETONE, METHYL ETHYL KETONE
d. S/I PACK LAB CHEMICALS

K. Handling Codes for Wastes Listed Above

a. S01
b. S01
c. S01
d. S01

15. Special Handling Instructions and Additional Information
PACKING SLIPS ATTACHED FOR CLARIFICATION (TRANSIT ONLY)
EMERGENCY CONTACT # 1-800-424-9300

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: MICHAEL G. CULLEN — Signature: Michael G. Cullen — Month Day Year: 06 07 91

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: LARRY GALLAGHER — Signature: Larry Gallagher — Month Day Year: 06 07 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Month Day Year:

19. Discrepancy Indication Space

BJA000015

15.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: DAVID L. BRANSTETTER — Signature: David L. Branstetter — Month Day Year: 06 07 91

In case of an emergency or spill immediately call the state the emergency occurred in the N.J. Dept. of Environmental Protection. (609) 292-5560 (Day) (609) 292-7172 (Night)

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

3 — TSD MAIL TO - GENERATOR

920990057

Michael H. Culle

Form Approved OMB No. 2050-0039 Expires 9-30-91

Print or type. Form designed for use on file (12-pitch) typewriter.

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator's US EPA ID No.	Manifest Document	22. Page	Information in the shaded areas is not required by Federal law.
	NJD000730424	NJ14090	2 of 2	

23. Generator's Name
P S E & G
KEARNY GEN STATION
(201) 430-8789
FT OF HACKENSACK AVE
KEARNY NJ 07032

L. State Manifest Document Number: NJA1164048
M. State Generator's ID: SAME

24. Transporter 1 Company Name: ENVIRONMENTAL TRANSFER CORPORATION
25. US EPA ID Number: NJD991291584
N. State Trans. ID: NJDEPS6321-64028
O. Trans. Phone: (201)347-2215

26. Transporter 2 Company Name:
27. US EPA ID Number:
P. State Trans. ID:
Q. Trans. Phone:

	28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.	WASTE ALKALINE (CORROSIVE) LIQUID, NOS CORROSIVE MATERIAL NA1719	X	0008	DF	000080	P	D002
b.	WASTE OIL, NOS COMBUSTIBLE LIQUID NA1270	X	0001	DF	000060	P	X726
c.	WASTE ORM-A, NOS ORM-A NA1693	X	0001	DF	000060	P	F001
d.	WASTE ORM-A, NOS ORM-A NA1693 (1,1,1-TRICHLOROETHANE)	X	0022	DM	000880	P	F002
e.	WASTE CHEMICALS, NOS DOT NON-REGULATED NONE		0006	DF	000360	P	X850
f.	WASTE CHEMICALS, NOS DOT NON-REGULATED NONE		0002	DF	000080	P	X900
g.	WASTE CHEMICALS, NOS DOT NON-REGULATED NONE		0008	DM	000320	P	X900
h.	WASTE CHEMICALS, NOS DOT NON-REGULATED NONE		0002	DM	000080	P	X900
i.							

S. Additional Descriptions for Materials Listed Above
A)S/C-PLC B)S/T-PLC C)S/T-PLC D)L/T-ADHESIVE CONTAINING 1,1,1-TRICHLOROETHANE E)S/- PLC F)L/- WATER BASED PAINTS G)L/- EPOXY RESIN POLYOL BASED H)L/- EPOXY RESIN POLYOL BASED

T. Handling Codes for Wastes Listed Above
A-H-S01 6/7/91
AETC [signature]

32. Special Handling Instructions and Additional Information
PACKING SLIPS ATTACHED FOR CLARIFICATION (TRANSIT ONLY)

EMERGENCY CONTACT # 1-800-424-9300

33. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year
LARRY GALLAGHER	Larry Gallagher	06 07 91

34. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

35. Discrepancy Indication Space

EPA Form 8700-22A (Rev. 9-86) Previous edition is obsolete

3 — TSD MAIL TO - GENERATOR

920990058

TECHNOLOGY-BASED STANDARDS FOR NONWASTEWATER

Revised 4/90

This notice is being sent to you in accordance with 40 CFR 268.7 to inform you that this shipment contains wastes restricted from land disposal by the USEPA under the land disposal restrictions program. The following wastes or residues from the treatment of these wastes is restricted from land disposal unless the waste is treated in accordance with the technology-based standards as defined in 40 CFR 268.42. The following key is utilized to reflect the technology used for the following waste types.

Generator PSE&G Kearny Gen. Station Manifest # NJA 1164048

Waste Analysis data is/is not attached. (Circle One)

A. INCIN
B. CHOXD OR INCIN
C. STABL
D. CHOXD, CHRED or INCIN
E. FSUBS, CHOXD, CHRED or INCIN
F. RMETL or RTHRM
G. RTHRM or STABL
H. ADGAS fb NEUTR or NEUTR
I. RMERC
J. IMERC
K. FSUBS, RORGS or INCIN
L. RTHRM
M. RLEAD
N. FSUBS or INCIN
O. CHOXD, WETOX or INCIN
P. ADGAS fb NEUTR
Q. ADGAS
R. IMERC or RMERC
S. DEACT

✓ D001 (>10%TOC)(K)	P041 (N)	P092 (Hi Hg Residue)(I)	U035 (A)	U116 (A)	U193 (A)
D001 (other)(S)	P042 (A)	P093 (A)	U038 (A)	U119 (A)	U194 (A)
D002 (S)	P043 (N)	P095 (A)	U041 (A)	U122 (N)	U197 (N)
D003 (S)	P044 (N)	P096 (D)	U042 (A)	U123 (N)	U200 (A)
D006 (Batteries)(L)	P045 (A)	P102 (N)	U046 (A)	U124 (N)	U201 (N)
D008 (Acid Bat.)(M)	P046 (A)	P105 (E)	U049 (A)	U125 (N)	U202 (A)
D009 (Hi Hg - NIR ORG)(R)	P047 (Salts/Esters)(A)	P108 (A)	U053 (N)	U126 (N)	U206 (A)
D009 (Hi Hg - INORG)(I)	P049 (A)	P109 (N)	U055 (N)	U132 (A)	U213 (N)
	P054 (A)	P111 (A)	U056 (N)	U133 (E)	U214 (G)
	P056 (P)	P112 (E)	U057 (N)	U134 (H)	U215 (G)
F005 (2 Nitro)(A)	P057 (A)	P113 (G)	U058 (N)	U135 (D)	U216 (G)
F005 (2 Eth Et)(A)	P058 (A)	P115 (G)	U059 (A)	U143 (A)	U217 (G)
	P062 (N)	P116 (A)	U062 (A)	U147 (N)	U218 (A)
P001 (N)	P064 (A)	P118 (A)	U064 (N)	U148 (A)	U219 (A)
P002 (A)	P065 (Hi Hg - Residues)(I)	P119 (C)	U073 (A)	U149 (A)	U221 (N)
P003 (N)	P065 (NIR from RMERC)(J)	P120 (C)	U074 (A)	U150 (A)	U222 (A)
P005 (N)	P066 (A)	P122 (D)	U085 (N)	U151 (Hi Hg)(I)	U223 (N)
P006 (D)	P067 (A)	U001 (N)	U086 (E)	U153 (A)	U234 (A)
P007 (A)	P068 (E)	U003 (A)	U087 (N)	U154 (N)	U236 (A)
P008 (A)	P069 (A)	U006 (A)	U089 (N)	U156 (A)	U237 (A)
P009 (E)	P070 (A)	U007 (A)	U090 (N)	U160 (E)	U238 (A)
P014 (A)	P072 (A)	U008 (N)	U091 (A)	U163 (A)	U240 (Salts/Esters)(A)
P015 (F)	P075 (A)	U010 (A)	U092 (A)	U164 (A)	U244 (A)
P016 (A)	P076 (Q)	U011 (A)	U093 (A)	U166 (N)	U246 (O)
P017 (A)	P078 (Q)	U014 (A)	U094 (N)	U167 (A)	U248 (N)
P018 (A)	P081 (E)	U015 (A)	U095 (A)	U168 (A)	U249 (D)
P022 (A)	P082 (A)	U016 (N)	U096 (E)	U171 (A)	
P023 (A)	P084 (A)	U017 (A)	U097 (A)	U173 (A)	
P026 (A)	P085 (N)	U020 (A)	U098 (E)	U176 (A)	
P027 (A)	P087 (F)	U021 (A)	U099 (E)	U177 (A)	
P028 (A)	P088 (N)	U023 (E)	U103 (E)	U178 (A)	
P031 (O)	P092 (NIR from RMERC)(R)	U026 (A)	U109 (E)	U182 (N)	
P033 (O)		U033 (A)	U110 (A)	U184 (A)	
P034 (A)		U034 (A)	U113 (N)	U186 (N)	
P040 (N)			U114 (A)	U189 (D)	
			U115 (B)	U191 (A)	

Signature [illegible] Date 6-7-91

9209990059

FROM KEARNY GEN MANAGER

...CALIFORNIA LIST/LAB PACK CERTIFICATION FORM

Revised 8/8

his notice is being sent to you in accordance with 40 CFR 268.7 to inform you that this shipment contains wastes restricted from land disposal by the USEPA under the land disposal restrictions program. The waste or residue from the treatment of these wastes is restricted from land disposal unless the waste is below the applicable treatment standards.

enerator PSE&G Kearny Gen. Station Manifest# NJA 1164048 Waste analysis data is/is not attached. (Circle One)

Solvent/California List Landfill Ban

he shipment contains an F001-F005 spent solvent and/or a California listed material ecified on the Table CCWE 40 CFR 268.41 or 40 CFR 268.32 or RCRA Section 3004(d).

____ F001 ____ F002 ____ F003 ____ F004 ____ F005

ATERIAL			TREATMENT STANDARD WASTEWATER (mg/l)	TREATMENT STANDARD OTHER (mg/kg)
W	N	Acetone QC	0.05	0.59
W	N	Benzene	0.07	3.7
W	N	n-Butyl Alcohol	5.0	5.0
W	N	Carbon Disulfide	1.05	4.81
W	N	Carbon Tetrachloride	.05	0.96
W	N	Chlorobenzene	.15	0.05
W	N	Cresols (and cresylic acid)	1.82	0.75
	N	Cyclohexanone	.125	0.75
	N	1,2 dichlorobenzene	.85	0.125
W	N	Ethyl Acetate	.05	0.75
W	N	Ethyl Benzene	.05	0.053
W	N	Ethyl Ether	.05	0.75
W	N	Isobutanol	5.0	5.0
W	N	Methanol	.25	0.75
W	N	Methylene Chloride	.20	0.96
W	N	Methylene Chloride (Pharm. Industry)	0.44	0.96
W	N	Methyl Ethyl Ketone QC	0.05	0.75
W	N	Methyl Isobutyl Ketone	0.05	0.33
W	N	Nitrobenzene	0.66	0.125
W	N	Pyridine	1.12	0.33
W	N	Tetrachloroethylene	0.079	0.05
W	N	Toluene	1.12	0.33
W	N	1,1,1-Trichloroethane	1.05	0.41
W	N	1,1,2-Trichloroethane	0.03	7.6
W	N	1,1,2-Trichloro-1,2,2-trifluoroethane	1.05	0.96
W	N	Trichloroethylene	0.062	0.091
W	N	Trichlorofluoroethane	0.05	0.96
W	N	Xylene	0.05	0.15

EPA Waste #		Manifest Line #
____	The material is a liquid RCRA waste containing greater than 50 ppm PCB's.	____
____	The material is a characteristic waste containing greater than 1000 ppm HOC's (other than D012-D017).	____
____	The material is a characteristic liquid waste containing greater than 134 mg/l of nickel (Ni).	____
____	The material is a characteristic liquid waste containing greater than 130 mg/l of thallium (Tl).	____

Signature: Michael A. Cullen Date: 6-7-91

Lab Packs (Packed Under Organometallic Lab Pack Exemptions)

This shipment contains lab packs as defined in 40 CFR 264.316 and 265.316 that contain only the organometallic hazardous wastes specified in 40 CFR 268.42 Appendix IV. The EPA hazardous waste codes are listed on the appropriate packing slips. The method of treatment for these Appendix IV materials is incineration. The numbers listed below represent the container numbers with Appendix IV material being shipped on this manifest.

NJ 14090 #16, #14, #3 con, #11 con, #15, #17, #7 con, #8, #12, #13

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only waste codes specified in Appendix IV to part 268 or solid wastes not subject to this regulation under Part 261. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

Signature: Michael A. Cullen Date: 6-7-91

920990060

NJD000730424

TECHNOLOGY-BASED STANDARDS FOR NONWASTEWATER

Revised 8/8/90

This notice is being sent to you in accordance with 40 CFR 268.7 to inform you that this shipment contains wastes restricted from land disposal by the USEPA under the land disposal restrictions program. The following wastes or residues from the treatment of these wastes is restricted from land disposal unless the waste is treated in accordance with the technology-based standards as defined in 40 CFR 268.42. The following key is utilized to reflect the technology used for the following waste types.

Generator PSE&G Kearny Gen. Station Manifest # NJA 1164048

Waste Analysis data is/is not attached. (Circle One)

A. INCIN
B. CHOXD OR INCIN
C. STABL
D. CHOXD, CHRED or INCIN
E. PSUBS, CHOXD, CHRED or INCIN
F. RMETL or RTHRM
G. RTHRM or STABL
H. ADGAS fb NEUTR or NEUTR
I. RMERC
J. IMERC
K. PSUBS, RORGS or INCIN
L. RTHRM
M. RLEAD
N. PSUBS or INCIN
O. CHOXD, WETOX or INCIN
P. ADGAS fb NEUTR
Q. ADGAS
R. IMERC or RMERC
S. DEACT

✓ D001 (>10%TOC)(K)	P041 (N)	P092 (Hi Hg Residue)(I)	U035 (A)
D001 (other)(S)	P042 (A)	P093 (A)	U038 (A)
D002 (S)	P043 (N)	P095 (A)	U041 (A)
D003 (S)	P044 (N)	P096 (D)	U042 (A)
D006 (Batteries)(L)	P045 (A)	P102 (N)	U046 (A)
D008 (Acid Bat.)(M)	P046 (A)	P105 (E)	U049 (A)
D009 (Hi Hg - NIR ORG)(R)	P047 (Salts/ Esters)(A)	P108 (A)	U053 (N)
D009 (Hi Hg - INORG)(I)	P049 (A)	P109 (N)	U055 (N)
	P054 (A)	P111 (A)	U056 (N)
	P056 (P)	P112 (E)	U057 (N)
P005 (2 Nitro)(A)	P057 (A)	P113 (G)	U058 (N)
P005 (2 Eth Et)(A)	P058 (A)	P115 (G)	U059 (A)
	P062 (N)	P116 (A)	U062 (A)
P001 (N)	P064 (A)	P118 (A)	U064 (N)
P002 (A)	P065 (Hi Hg - Residues)(I)	P119 (C)	U073 (A)
P003 (N)	P065 (NIR from RMERC)(J)	P120 (C)	U074 (A)
P005 (N)		P122 (D)	U085 (N)
P006 (D)			U086 (E)
P007 (A)	P066 (A)	U001 (N)	U087 (N)
P008 (A)	P067 (A)	U003 (A)	U089 (N)
P009 (E)	P068 (E)	U006 (A)	U090 (N)
P014 (A)	P069 (A)	U007 (A)	U091 (A)
P015 (F)	P070 (A)	U008 (N)	U092 (A)
P016 (A)	P072 (A)	U010 (A)	U093 (A)
P017 (A)	P075 (A)	U011 (A)	U094 (N)
P018 (A)	P076 (Q)	U014 (A)	U095 (A)
P022 (A)	P078 (Q)	U015 (A)	U096 (E)
P023 (A)	P081 (E)	U016 (N)	U097 (A)
P026 (A)	P082 (A)	U017 (A)	U098 (E)
P027 (A)	P084 (A)	U020 (A)	U099 (E)
P028 (A)	P085 (N)	U021 (A)	U103 (E)
P031 (O)	P087 (P)	U023 (E)	U109 (E)
P033 (O)	P088 (N)	U026 (A)	U110 (A)
P034 (A)	P092 (NIR from RMERC)(R)	U033 (A)	U113 (N)
P040 (N)		U034 (A)	U114 (A)
			U115 (B)

U116 (A)	U193 (A)
U119 (A)	U194 (A)
U122 (N)	U197 (N)
U123 (N)	U200 (A)
U124 (N)	U201 (N)
U125 (N)	U202 (A)
U126 (N)	U206 (A)
U132 (A)	U213 (N)
U133 (E)	U214 (G)
U134 (H)	U215 (G)
U135 (D)	U216 (G)
U143 (A)	U217 (G)
U147 (N)	U218 (A)
U148 (A)	U219 (A)
U149 (A)	U221 (N)
U150 (A)	U222 (A)
U151 (Hi Hg)(I)	U223 (N)
U153 (A)	U234 (A)
U154 (N)	U236 (A)
U156 (A)	U237 (A)
U160 (E)	U238 (A)
U163 (A)	U240 (Salts/ Esters)(A)
U164 (A)	U244 (A)
U166 (N)	U246 (O)
U167 (A)	U248 (N)
U168 (A)	U249 (D)
U171 (A)	
U173 (A)	
U176 (A)	
U177 (A)	
U178 (A)	
U182 (N)	
U184 (A)	
U186 (N)	
U189 (D)	
U191 (A)	

Signature [signature] Date 6-7-91

920990061

6-7-91
DATE SHIPPED

PSE+G KEARNY GEN STATION
GENERATOR

P.O. BOX 1868
ADDRESS

NEWARK NJ. 07101
CITY/STATE

NJD 000730424 NJA 1164048
EPA ID # MANIFEST #

MANIFEST PAGE NO. ~~1~~ 2, 2, 2, 2, LINE ITEM NO. ~~E~~, D, F, G, H
QC QC

I hereby certify that all organic wastes in 5 gallon pails are consolidated from a lab; also, that this material is not radioactive, pathogenic, infectious or explosive, and contains less than 2 ppm of PCB's or less than 2 ppb of 2,3,7,8 - TCDD.

[signature]
GENERATOR SIGNATURE

6-7-91
DATE

[signature]
A.E.T.C. REPRESENTATIVE

6-7-91
DATE

920990062

920990063

State of New Jersey
Department of Environmental Protection
Division of Hazardous Waste Management
Manifest Section
CN 028, Trenton, NJ 08625

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. N J D 0 0 0 7 3 0 4 2 4 | Manifest Document No. N14545

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number NJA 1164773

B. State Generator's ID SAME

C. State Trans. ID NJDEPS6621-64038

D. Transporter's Phone (201) 347-2215

E. State Trans. ID

F. Transporter's Phone ( )

G. State Facility's ID N/A

H. Facility's Phone (201) 347-1909

3. Generator's Name and Mailing Address
P S E & G FT OF HACKENSACK AVE
KEARNY GEN STATION KEARNY NJ 07032

4. Generator's Phone (201) 430-8789

5. Transporter 1 Company Name: ENVIRONMENTAL TRANSFER CORPORATION
6. US EPA ID Number: N J D 0 9 1 2 9 1 5 8 4

7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address
ADVANCED ENVIRONMENTAL TECHNOLOGY CORPORATION
1 EDEN LANE
FLANDERS NJ 07836
10. US EPA ID Number: N J D 0 8 0 5 3 6 5 9 3

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. WASTE PAINT FLAMMABLE LIQUID UN1263	X	0004	DM	000880	P	D001
b. WASTE PAINT FLAMMABLE LIQUID UN1263	X	0004	DF	000405	P	D001
c. WASTE ALKALINE (CORROSIVE) LIQUID, NOS CORROSIVE MATERIAL NA1719	X	0001	DF	000010	P	D002
d. WASTE CHEMICALS, NOS DOT NON-REGULATED NONE		0001	CW ~~DF~~	000010	P	X850

J. Additional Descriptions for Materials Listed Above
a. L/T >70% OIL BASED PAINT <20%SOLVENTS-ACETONE,TOLUENE
b. S/T PACK LAB CHEMICALS
c. S/C PACK LAB CHEMICALS
d. S/C PACK LAB CHEMICALS

K. Handling Codes for Wastes Listed Above
a. S01 c. S01
b. S01 d. S01

15. Special Handling Instructions and Additional Information
PACKING SLIPS ATTACHED FOR CLARIFICATION EMERGENCY CONTACT: 1-800-424-9300

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR — Printed/Typed Name: MICHAEL G. CULLEN — Signature: [signature] — Month Day Year 0 7 2 2 9 1

TRANSPORTER — 17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: BRIAN F LUDWIG — Signature: [signature] — Month Day Year 0 7 2 2 9 1

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY — 19. Discrepancy Indication Space
BJA000016

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: THOMAS F.D LAMB. — Signature: [signature] — Month Day Year 0 7 2 2 9 1

EPA Form 8700-22 (Rev. 9/88) Previous editions are obsolete.

SIGNATURE AND INFORMATION COPIES

3 — TSD MAIL TO - GENERATOR

In case of an emergency or spill immediately call the state the emergency and the N.J. Dept. of Environmental Protection, (609) 292-5580 (Day) (609) 292-7172 (Night)

NJA 1164773

16.

920990064

AL . C

TECHNOLOGY-BASED STANDARDS FOR NONWASTEWATER

Revised 8/8/90

This notice is being sent to you in accordance with 40 CFR 268.7 to inform you that this shipment contains wastes restricted from land disposal by the USEPA under the land disposal restrictions program. The following wastes or residues from the treatment of these wastes is restricted from land disposal unless the waste is treated in accordance with the technology-based standards as defined in 40 CFR 268.42. The following key is utilized to reflect the technology used for the following waste types.

Generator PSE+G KEARNY Manifest # NJA 1164773

Waste Analysis data is/is not attached. (Circle One)

A. INCIN
B. CHOXD OR INCIN
C. STABL
D. CHOXD, CHRED or INCIN
E. PSUBS, CHOXD, CHRED or INCIN
F. RMETL or RTHRM
G. RTHRM or STABL
H. ADGAS fb NEUTR or NEUTR
I. RMERC
J. IMERC
K. PSUBS, RORGS or INCIN
L. RTHRM
M. RLEAD
N. FSUBS or INCIN
O. CHOXD, WETOX or INCIN
P. ADGAS fb NEUTR
Q. ADGAS
R. IMERC or RMERC
S. DEACT

✓ D001 (>10%TOC)(K)
D001 (other)(S)
D002 (S)
D003 (S)
D006 (Batteries)(L)
D008 (Acid Bat.)(M)
D009 (Hi Hg - NIR ORG)(R)
D009 (Hi Hg - INORG)(I)

F005 (2 Nitro)(A)
F005 (2 Eth Et)(A)

P001 (N)
P002 (A)
P003 (N)
P005 (N)
P006 (D)
P007 (A)
P008 (A)
P009 (E)
P014 (A)
P015 (F)
P016 (A)
P017 (A)
P018 (A)
P022 (A)
P023 (A)
P026 (A)
P027 (A)
P028 (A)
P031 (O)
P033 (O)
P034 (A)
P040 (N)
P041 (N)
P042 (A)
P043 (N)
P044 (N)
P045 (A)
P046 (A)
P047 (Salts/Esters)(A)
P049 (A)
P054 (A)
P056 (P)
P057 (A)
P058 (A)
P062 (N)
P064 (A)
P065 (Hi Hg - Residues)(I)
P065 (NIR from RMERC)(J)
P066 (A)
P067 (A)
P068 (E)
P069 (A)
P070 (A)
P072 (A)
P075 (A)
P076 (Q)
P078 (Q)
P081 (E)
P082 (A)
P084 (A)
P085 (N)
P087 (F)
P088 (N)
P092 (NIR from RMERC)(R)
P092 (Hi Hg Residue)(I)
P093 (A)
P095 (A)
P096 (D)
P102 (N)
P105 (E)
P108 (A)
P109 (N)
P111 (A)
P112 (E)
P113 (G)
P115 (G)
P116 (A)
P118 (A)
P119 (C)
P120 (C)
P122 (D)

U001 (N)
U003 (A)
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U132 (A)
U133 (E)
U134 (H)
U135 (D)
U143 (A)
U147 (N)
U148 (A)
U149 (A)
U150 (A)
U151 (Hi Hg)(I)
U153 (A)
U154 (N)
U156 (A)
U160 (E)
U163 (A)
U164 (A)
U166 (N)
U167 (A)
U168 (A)
U171 (A)
U173 (A)
U176 (A)
U177 (A)
U178 (A)
U182 (N)
U184 (A)
U186 (N)
U189 (D)
U191 (A)
U193 (A)
U194 (A)
U197 (N)
U200 (A)
U201 (N)
U202 (A)
U206 (A)
U213 (N)
U214 (G)
U215 (G)
U216 (G)
U217 (G)
U218 (A)
U219 (A)
U221 (N)
U222 (A)
U223 (N)
U234 (A)
U236 (A)
U237 (A)
U238 (A)
U240 (Salts/Esters)(A)
U244 (A)
U246 (O)
U248 (N)
U249 (D)

Signature [signature] Date 7-22-91

9209900065

SOLVENT/CALIFORNIA LIST/L[illegible]K CERTIFICATION FORM Revised [illegible] 0

This notice is being sent to you in accordance with 40 CFR 268.7 to inform you that this shipment contains wastes restricted from land disposal by the USEPA under the land disposal restrictions program. The waste or residue from the treatment of these wastes is restricted from land disposal unless the waste is below the applicable treatment standards.

Generator PSE+G KEARNY Manifest# NJA 1164773 Waste analysis data is/is not attached. (Circle One)

Solvent/California List Landfill Ban

The shipment contains an F001-F005 spent solvent and/or a California listed material specified on the Table CCWE 40 CFR 268.41 or 40 CFR 268.32 or RCRA Section 3004(d).

_____ F001 _____ F002 _____ F003 _____ F004 _____ F005

MATERIAL	TREATMENT STANDARD WASTEWATER (mg/l)	TREATMENT STANDARD OTHER (mg/kg)
(____W ____N) Acetone	0.05	0.59
(____W ____N) Benzene	0.07	3.7
(____W ____N) n-Butyl Alcohol	5.0	5.0
(____W ____N) Carbon Disulfide	1.05	4.81
(____W ____N) Carbon Tetrachloride	.05	0.96
(____W ____N) Chlorobenzene	.15	0.05
(____W ____N) Cresols (and cresylic acid)	2.82	0.75
____W ____N) Cyclohexanone	.125	0.75
(____W ____N) 1,2 dichlorobenzene	.65	0.125
(____W ____N) Ethyl Acetate	.05	0.75
(____W ____N) Ethyl Benzene	.05	0.053
(____W ____N) Ethyl Ether	.05	0.75
(____W ____N) Isobutanol	5.0	5.0
(____W ____N) Methanol	.25	0.75
(____W ____N) Methylene Chloride	.20	0.96
(____W ____N) Methylene Chloride (Pharm. Industry)	0.44	0.96
(____W ____N) Methyl Ethyl Ketone	0.05	0.75
(____W ____N) Methyl Isobutyl Ketone	0.05	0.33
(____W ____N) Nitrobenzene	0.66	0.125
(____W ____N) Pyridine	1.12	0.33
(____W ____N) Tetrachloroethylene	0.079	0.05
(____W ____N) Toluene	1.12	0.33
(____W ____N) 1,1,1-Trichloroethane	1.05	0.41
(____W ____N) 1,1,2-Trichloroethane	0.03	7.6
(____W ____N) 1,1,2-Trichloro-1,2,2-trifluoroethane	1.05	0.96
(____W ____N) Trichloroethylene	0.062	0.091
(____W ____N) Trichlorofluoroethane	0.05	0.96
(____W ____N) Xylene	0.05	0.15

EPA Waste # Manifest Line #

_____ The material is a liquid RCRA waste containing greater than 50 ppm PCB's. _____

_____ The material is a characteristic waste containing greater than 1000 ppm HOC's (other than D012-D017). _____

_____ The material is a characteristic liquid waste containing greater than 134 mg/l of nickel (Ni). _____

_____ The material is a characteristic liquid waste containing greater than 130 mg/l of thallium (Tl). _____

Signature: _____ Date: _____

Lab Packs (Packed Under Organometallic Lab Pack Exemptions)

This shipment contains lab packs as defined in 40 CFR 264.316 and 265.316 that contain only the organometallic hazardous wastes specified in 40 CFR 268.42 Appendix IV. The EPA hazardous waste codes are listed on the appropriate packing slips. The method of treatment for these Appendix IV materials is incineration. The numbers listed below represent the container numbers with Appendix IV material being shipped on this manifest.

N.J. 14545 #3 Con, 4, 6, 5, 7

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only waste codes specified in Appendix IV to part 268 or solid wastes not subject to this regulation under Part 261. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

Signature: [signature] Date: 7-22-91

9209900 66

920990067

2-118-02

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE

TO: SAFETY-KLEEN CORP. (DESIGNATED FACILITY)

EPA ID NO. NJD000768093 (DESIGNATED FACILITY)

ADDRESS: 32 TOMPKINS POINT ROAD NEWARK, NJ 07114

Under manifest number NJA1438675, the generator noted below is shipping to you a waste determined to be restricted under 40 CFR Part 268. In accordance with 40 CFR Part 268.7, the generator hereby provides notice that the waste is restricted from land disposal. A copy of this form must be kept by the generator and facility for five (5) years from the date of waste shipment.

In accordance with 40 CFR 268.7, the generator hereby provides notice that the waste is restricted from land disposal. I am a small quantity generator (100-1,000 kg/mo) in accordance with 40 CFR 268.7. This notice applies to all waste shipments under my service contract with Safety-Kleen Corp. It covers today's shipment on manifest No. _____, or sales/service acknowledgement No. _____, and all subsequent shipments. A copy of this notice will be maintained with the service contract(s) or sales/service acknowledgment(s) for five (5) years beyond the termination of the service contract.

PLEASE CHECK THE APPROPRIATE BOXES

✓	WASTE NAME	EPA * WASTE CODE	THE WASTE MAY CONTAIN THE FOLLOWING RESTRICTED CONSTITUENTS	TREATMENT STANDARD (mg/l) OR METHOD (FOR NON-WASTE WATER)
☒	Waste Petroleum Naphtha	D001,	Ignitable Liquid (High TOC Subcategory)	Incineration (INCIN), fuel substitution (FSUBS)
			Halogenated Organic Compounds (HOC's) ≥ 1000 mg/l	or recovery (RORGS) INCIN
		D018,	Benzene	Not Established
		D039,	Tetrachloroethylene	Not Established
☐	Waste Petroleum Naphtha (sludges from Safety-Kleen Service Center Operations)	D001,	All of the above, plus:	
		D006,	__ Cadmium	1.0
		D007,	__ Chromium	5.0
		D008,	__ Lead	5.0
		D039,	__ Terachloroethylene	Not Established
☐	Waste Compound Cleaning Liquid/ Immersion cleaner 609	F002,	Cresylic Acid	0.75
		F004,	1, 2-dichlorobenzene	0.125
			Methylene chloride	0.96
		D006,	__ Cadmium	1.0
		D007,	__ Chromium	5.0
		D008,	__ Lead	5.0
		D022,	__ Chloroform	Not Established
☐	Waste Compound Cleaning Liquid/ Immersion Cleaner 699		HOC's ≥ 1000 mg/l	INCIN
		D006,	__ Cadmium	1.0
		D007,	__ Chromium	5.0
		D008,	__ Lead	5.0
		D018,	__ Benzene	Not Established
		D021,	__ Chlorobenzene	Not Established
		D027,	__ 1, 4-Dichlorobenzene	Not Established
		D039,	__ Tetrachloroethylene	Not Established
		D040,	__ Trichloroethylene	Not Established
☐	Waste Perchloroethylene	F002,	Tetrachloroethylene	0.05
☐	Waste Trichlorotrifluoroethane	F002,	Trichlorotrifluoroethane	0.96
☐	Waste 1,1,1 Trichloroethane	F002,	1, 1, 1 Trichloroethane	0.41
☐	Waste Paint Related Material	F005,	Acetone	0.59
		F003,	Methyl Ethyl Ketone	0.75
			Methyl Isobutyl Ketone	0.33
			Toluene	0.33
			Xylene	0.15
			Methanol	0.75
		D001,	Ignitable Liquid (High TOC Subcategory)	INCIN, FSUBS, or RORGS
		D006,	Cadmium	1.0
		D007,	Chromium	5.0
		D008,	Lead (TOC Subcategory)	5.0
☐	Waste Antifreeze	D008,	Lead	5.0 (This is a non-waste water)
		D039,	Tetrachloroethylene	Not Established

The constituent composition is based on knowledge of the waste (via Material Safety Data Sheets for the chemical(s) used, and the process which created the waste).

*These treatment standards do not preclude reclamation prior to final disposition.

2-118-02-7298 05 906011

Generator Company: PUBLIC SVC ELECTRIC GAS

EPA ID NO.: NJD000730424 BJA000017

Generator's Signature: X [signature]

Date: 4-23-92

Printed Name and Title of Generator: MICHAEL G. CULLEN ENVIRO COORD

Safety-Kleen Corp. manages the above waste through its recycling and fuels programs in accordance [illegible] e land disposal restrictions.

GENERATOR

17.

1328 (Rev. 1/92)

920990068

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
HAZARDOUS WASTE INSPECTION REPORT

DWM-029

GENERATOR INSPECTION REPORT

FACILITY INFORMATION

FACILITY NAME: PSEG - KEARNY GENERATING STA

FILE NUMBER: 09-07-43

VHT FACILITY FILE NUMBER:

PERMIT #:

REGION: M

INSPECTION DATE: Aug 15. 90

INCIDENT/CASE NUMBER:

INSPECTION TYPE: GEN / LB

RESPONSIBLE AGENCY CODE: NJ DEP

INSPECTOR'S NAME: B. CZACHOR

INSPECTOR'S AGENCY: DHWM

INSPECTOR'S BUREAU: MFO

EPA ID NUMBER: NJD000730424

ADDRESS: HACKENSACK AVE
KEARNY, NJ. 07032

LOT: 19A BLOCK: 298

COUNTY: HUDSON

FACILITY PERSONNEL: RUSSEL J. FURNARI - ENV. Coo
MICHAEL G. CULLEN - Lead Eng

TELEPHONE #: 201-430-8789

OTHER STATE/EPA PERSONNEL: J. STERLING

REPORT PREPARED BY: B. CZACHOR

REVIEWED BY: J. Sterling

DATE OF REVIEW: 10/10/90

BJA000018 18.

SEP 06 RECD

REVISION: 3

920990070

HWM 004C
1/90

New Jersey Department of Environmental Protection
Division of Hazardous Waste Management
2 Babcock Place
West Orange, N.J. 07052
(201) 669-3960

Let's protect our earth

NOTICE OF VIOLATION

ID NO. NJD000730424 DATE Aug 15, 90

NAME OF FACILITY KEARNY GENERATING STN

LOCATION OF FACILITY HACKENSACK AVE, KEARNY, N.J. 07032

NAME OF OPERATOR RUSSELL J. FURNARI - ENVIRON. Coord.

You are hereby NOTIFIED that during my inspection of your facility on the above date, the following violation(s) of the Solid Waste Management Act, (N.J.S.A. 13:1E-1 et seq.) and Regulations (N.J.A.C. 7:26-1 et seq.) promulgated thereunder and/or the Spill Compensation and Control Act, (N.J.S.A. 58:10-23.11 et seq.) and Regulations (N.J.A.C. 7:1E-1 et seq.) promulgated thereunder were observed. These violation(s) have been recorded as part of the permanent enforcement history of your facility.

DESCRIPTION OF VIOLATION NJAC7:26-9.4(d)4v - no haz. waste labels on haz. waste containers
NJAC7:26-9.3(a)3 - no accumulation start date on haz. waste containers
NJAC7:26-9.6(e) - no aisle space on haz. waste containers storage area

Remedial action to correct these violations must be initiated immediately and be completed by Aug 31. 90. Within fifteen (15) days of receipt of this Notice of Violation, you shall submit in writing, to the investigator issuing this notice at the above address, the corrective measures you have taken to attain compliance. The issuance of this document serves as notice to you that a violation has occurred and does not preclude the State of New Jersey, or any of its agencies from initiating further administrative or legal action, or from assessing penalties, with respect to this or other violations. Violations of these regulations are punishable by penalties of $50,000 per violation.

Bolesław Grabowski

Investigator, Division of Hazardous Waste Management
Department of Environmental Protection

920990071

TIME IN: 10:40

TIME OUT: _____

PHOTOS TAKEN (__) YES (X) NO IF YES, HOW MANY? N/A

SAMPLE TAKEN (__) YES (X) NO NO. OF SAMPLES N/A

NJDEP SAMPLE ID#: N/A

MANIFESTS REVIEWED (X) YES (__) NO

Number of manifests in compliance ~ 60

Number of manifests not in compliance —

List manifest document numbers of those manifests not in compliance.

920990072

SUMMARY OF FINDINGS

FACILITY DESCRIPTION AND OPERATIONS (continued):

The PSE&G, KEARNY GENERATING STN, located on HACKENSACK AVE, KEARNY, N.J. with the EPA assigned ID # NJD000730424 is a electric power generating facility for public use.

According to MR. RUSSELL J. FURNARI a facility environmental coordinator, a most of electricity is generated in traditional method, in which two big generator use steam power generated in # 6 oil fivered boiler. IN addition to the steam turbines, the company use certain number of generator powered by natural gas and jet fuel fiered turbine engines.

The production of electricity does not generate any wates, however some haz. wates are generated in equipment maintenance operations and in wate water treatment plant operations.

The areas in which a haz. wates are generated are the following:

- most of haz. wate is coming from the spill clean up operations, X725,

SUMMARY OF FINDINGS

FACILITY DESCRIPTION AND OPERATIONS (continued):

- equipment maintenance operations generate the waste oils X726;
- every 18 months - 2 years a waste water treatment settling tank is cleaned out generating sludge classified as D008
- every 4-5 years the boiler is cleaned out with boiler cleaning chemicals, where the D005 waste is generated
- and finally, untill July '90 the 111 Trichloethylene was used to clean the parts in on site machine shop, as of July '90 the 111 Trichloroethylene was replaced with a SK wash solvent. A wash station has been installed 30-GAL, 2x20 GAL and one 10 GAL. The company SK wash stations are also serviced by SK company.

Most of hz. waste is handled for the company and disposed off with the AETC of FLANDERS N.J., the waste w/w treatment plant is disposed off with the DUPONT, DEEPWATER, N.J. the other disposal facilities such as

-A4-

SUMMARY OF FINDINGS

FACILITY DESCRIPTION AND OPERATIONS:

Liometti, CECOS, CWM, WASTE CONVERSION, are utilized on case by case basis.
It should be noticed that all waste oils instead burned in on site boiler, are disposed off site, because of air pollution requirements.
Physical inspection of the facility revealed good housekeeping and maintenance on entire area of the facility.
The haz. waste storage area contained 21-55 Gal drums of X726 and two 30 cuy. R.O. containers of X725.
In addition to that, there were two 55 Gal drums of waste 111 Trichloroethylene in storage by the machine-maintenance shop.
Some deficiencies on management of haz. waste containers were noticed and the field NOV's were issued for violation of the following: 9.4(d)4, 9.3(a)3, 9.6(e).
The compliance date was scheduled for 08/31/90.

-B-

Describe the activities that result in the generation of hazardous waste.

→ maintenance of equipment — lub oils, X726, X722 — fuels bottom,

→ Spill clean ups — X725

→

Identify the hazardous waste located on site, and estimate the approximate quantities of each. (Identify Waste Codes)

21-55 GAL. of waste lubricating oil X-726;

2-55 GAL drums of 111 Trichloroethylene F001;

GENERAL CHECKLIST

GENERAL		YES	NO	N/A
7:26-7.4(a)1	Does the Generator have an EPA ID number?	X		
HAZARDOUS WASTE DETERMINATION				
7:26-8.5(a)	Did the generator test its waste to determine whether it is hazardous?	X		
7:26-8.5(b)	Did the generator determine the hazardous characteristics based upon knowledge of process?	X		
	Is the waste hazardous?	X		
7:26-8.5(d)	Were test results, waste analysis, or other determinations made in accordance with this section kept for three years from the date that the waste was last sent to an on-site or off-site TSF?	X		
MANIFESTS				
7:26-7.4(a)4	Does each manifest have the following information? Please circle the elements missing and obtain a copy of the incomplete manifests. (List those manifests that are deficient on G-1).	X		
7:26-7.4(a)4i	The generator's name, address and phone number.	X		
7:26-7.4(a)4ii	The generator's EPA ID number.	X		
7:26-7.4(a)4iii	The hauler(s) name, address phone number and NJ registration.	X		
7:26-7.4(a)4iv	The hauler(s) EPA ID number.	X		
7:26-7.4(a)4v	The name, address and phone number of the designated TSD facility.	X		
7:26-7.4(a)4vi	The TSF's EPA ID number.	X		
7:26-7.4(a)4v	The name, address and phone number of the designated TSD facility.	X		
7:26-7.4(a)4vii	The name, type and quantity of hazardous waste being shipped, including such particulars as may be required regarding same?	X		
7:26-7.4(a)4viii	Special handling instructions and any other information required on the form to be shipped by generator?			

		YES	NO	N/A
7:26-7.4(3)	Did the generator describe all N.O.S. wastes in Section J?	X		
7:26-7.4(a)ix	When shipping hazardous waste to a waste reuse facility does the generator enter the waste reuse facility I.D. # in the section G of the Uniform Manifest?			X
7:26-7.4(a)5	Before allowing the manifested waste to leave the generator's property, did the generator:	X		
7:26-7.4(a)5i	Sign the manifest certification by hand?	X		
7:26-7.4(a)5ii	Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest?	X		
7:26-7.4(a)5iii	Retain one copy and forward one copy to the state of origin and one copy to the state of destination?	X		
7:26-7.4(a)5iv	Provide the required numbers of copies for: generator, each hauler, owner/operator of the designated facility, as well as one copy returned to the generator by the facility owner/operator?	X		
7:26-7.4(a)5v	Give the remaining copies of the manifest form to the hauler?	X		
7.26-7.4(f)	Has the generator maintained facility records for three (3) years? (Manifest(s), exception report(s) and waste analysis)	X		
7:26-7.4(h)1	Has the generator received signed copies of portion B (from the TSD facility) of all manifests for waste shipped off site more than 35 days ago?	X		
7:26-7.4(h)1	If not: Did the generator contact the hauler and/or the owner or operator of the TSDF and the NJDEP at (609) 292-8341 to inform the NJDEP of the situation?			X
7:26-7.4(h)2	Have exception reports been submitted to the Department covering any of these shipments made more than 45 days ago?			X

7:26-9.3 **Accumulation Time**

How is waste accumulated on site?

(X) Containers
(__) Tanks (greater than 90 days)
(complete HWMF (TSD) Facility Checklist)
(__) Tanks (less than 90 days)
(__) Above ground
(__) Below ground
(__) Surface impoundments
(complete HWMF (TSD) Facility Checklist)
(__) Piles (complete HWMF checklist)

		YES	NO	N/A
7:26-9.3(a)1	Is waste accumulated for more than 90 days?	—	X	—

STOP HERE IF THE HAZARDOUS WASTE MANAGEMENT FACILITY (TSF) CHECKLIST IS FILLED OUT.

Short term accumulation standards for generators who accumulate waste in containers and tanks for 90 days or less:

		YES	NO	N/A
Containers				
7:26-9.4	What type of containers are used for storage. Describe size, type, quantity, and nature of waste (e.g. 12 fifty-five gallon drums of waste acetone). 21-55 GAL DRUMS - F Lubricating oil + 2-55 GAL DRUMS of F 111 Trichlor.	X		
7:26-9.4(d)2	Do the containers appear to be in good condition, not in danger of leaking?	X		
	If no, describe the problem (include number of containers involved.)			
7:26-9.4(d)4i	Are all containers securely closed except those in use?	X		
7:26-9.4(d)4iii	Do the containers appear to be properly handled or stored in a manner which will minimize the risk of the container rupturing and/or leaking?	X		
7:26-9.4(d)4iv	Are containerized hazardous wastes segregated in storage by waste type?	X		
7:26-9.4(d)4v	Is every container arranged so that its identification label is visible?		X	
7:26-9.4(d)5	Is the container storage area inspected at least daily? daily inspecting needs to be extended for containers	X		
7:26-9.4(d)6	Are containers holding ignitable and reactive wastes located at least 50 (fifty) feet (15 meters) from the facilities property line?	X		
7:26-7.2(a)	Did the owner/operator conspicuously label appropriate manifest number on all hazardous waste containers that are intended for shipment?	X		
7:26-9.3(a)3	Is each container clearly dated with each period of accumulation so as to be visible for inspection?		X	

		YES	NO	N/A
7:26-7.2(b)	Did the owner/operator insure that all containers used to transport hazardous waste off site are in conformance with applicable DOT regulations? (49CFR 171, 179)	X		

Tanks (Less than 90 day storage)

7:26-9.3(b)	Does the generator accumulate hazardous waste on-site in an above ground tank?			
	If yes, describe the tank(s): 1) Capacity _____ 2) Shell thickness _____ 3) Material Construction ____ 4) Age of tank _____			
7:26-9.3(b)	Does the generator have written approval from the Department to store hazardous waste(s) in this tank(s) for ninety days or less?			
7:26-9.3(b)1	Does each tank(s) have sufficient shell thickness to ensure the tank will not collapse or rupture as specified by the Department?			
7:26-9.3(b)4	Is the tank(s) designed so that at least 99% of the volume of each of the tanks can be emptied by direct pumping or drainage?			
7:26-9.3(b)5	Is each tank(s) rendered empty (1% or less remaining) every 90 days or less?			
7:26-9.3(b)6	Are all wastes removed from the tank(s) shipped off-site to an authorized facility or placed in an on-site, authorized facility?			
7:26-9.3(b)8	If part of the tank is below grade, is it constructed to allow visual inspection of the tank, comparable to a totally above-ground tank and is is secondary containment provided for the below grade part?			
7:26-10.5(c)1	Are materials which are incompatible with the material of construction of the tank(s) placed in the tank(s)?			
7:26-10.5(c)2	Does the generator use appropriate controls and practices to prevent overfilling?			

		YES	NO	N/A
7:26-10.5(c)2ii	For uncovered tanks, is there sufficient (two feet or acceptable documentation) freeboard to prevent overtopping by wave or wind action by or precipitation?	___	___	___
7:26-9.3(b)3	Does each tank(s) or storage tank area have secondary containment?	___	___	___
7:26-10.5(d)1	Is the containment system capable of collecting and holding spills, leaks, and precipitation?	___	___	___
7:26-10.5(d)1i	Is the base underlying the tank(s) free from cracks, gaps, and sufficiently impervious to contain leaks, spills, and accumulated rainfall until the collected material is detected and removed?	___	___	___
7.26-10.5(d)ii	Does the containment system consist of material compatible with the wastes being stored?	___	___	___
7:26010.5(d)iii	Is the containment system sloped or otherwise designed to efficiently drain and remove liquids resulting from leaks, spills and precipitation?	___	___	___
7:26-10.5(d)iii	Is the tank protected from contact with accumulated liquids?	___	___	___
7:26-10.5(d)iv	Does the containment system have sufficient capacity to contain ten percent of the volume of all tanks or the volume of the largest tanks whichever is greater?	___	___	___
7:26-10.5(d)2	Is run-on into the containment area prevented?	___	___	___
	If not, explain.			
7:26-10.5(d)3	Is precipitation removed from the pump or collection area in a timely manner to prevent blockage or overflow of the collection system?	___	___	___
7:26-10.5(d)4	Is spilled or leaked waste removed from the pump or collection area daily?	___	___	___

		YES	NO	N/A
7:26-10.5(d)4i	If the collected material is hazardous waste under NJAC 7:26-8, it is managed as a hazardous waste in accordance with all applicable requirements of this chapter?			X
7:26-9.4(g)4	<u>Personnel Training</u>			
	Have facility personnel successfully completed a program of classroom instruction or on-the-job training since six months after the date of their employment or assignment to the facility or to a new position at the facility?	X		
7:26-9.4(g)5	Has facility personnel taken part in an annual review of initial training?	X		
7:26-9.4(g)2	Is the program directed by a person trained in hazardous waste management procedures and does it include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan to implementation) relevant to the positions in which they are employed?	X		
	Is there written documentation of the following:			
7:26-9.4(g)6i	Job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job?	X		
7:26-9.4(g)6ii	A written job description for each position related to hazardous waste management?	X		
7:26-9.4(g)6iii	A written job description on the type and amount of both introductory and continuing training that has been and will be given to personnel in jobs related to hazardous waste management?	X		
7:26-9.4(g)6iv	Documentation of actual training or experience received by personnel?	X		
7:26-9.4(g)7	Are training records kept on all current employees until closure of the facility and training records kept on former employees for three years from their last date of employment?	X		

		YES	NO	N/A
7:26-9.6	Preparedness and prevention			
	Does the facility comply with preparedness and prevention requirements including maintaining:			
7:26-96(b)1	An internal communications or alarm system?	X		
7:26-9.6(b)2	A telephone or other device to summon emergency assistance from local authorities?	X		
7:26-9.6(b)3	Portable fire equipment, spill control equipment, and decontamination equipment?	X		
7:26-9.6(b)4	Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray system?	X		
7:26-9.6(c)	Is equipment tested and maintained?	X		
7:26-9.6(d)1	Is there immediate access to communications or alarm systems during systems during handling of hazardous waste?	X		
7:26-9.6(e)	Adequate aisle space (18") to allow unobstructed movement of personnel fire protection equipment, spill control equipment and decontamination equipment?		X	
	If no, please explain.			
	In your opinion, do the types of waste on site require all of the above procedures, or are some not required?	X		
	Explain.			
7:26-9.6(f)	Has the facility made the following arrangements, as appropriate for the type waste handled on site:	X		
7:26-9.6(f)1	Familiarize police, fire departments and emergency response teams with the layout of the facility and hazardous waste handled - associated hazardous places where facility personnel would normally be working, entrances and roads inside facility and possible evacuation routes.	X		

		YES	NO	N/A
7:26-9.6(f)2	Where more than one police and fire department might respond to an emergency, is there an agreement designating primary emergency authority to a specific police or fire department, and agreements with any others to provide support to the primary emergency authority?			X
7:26-9.6(f)3	Agreements with emergency response contractors, and equipment supplies? AETC, CLEAN VENTURE, CLEAN HARBOR	X		
7:26-9.6(f)4	Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosion, or discharges at the facility?	X		
7:26-9.6(f)5	Arrangement with local fire departments to inspect the facility on a regular basis with at least two (2) inspections annually?	X		
7:26-9.6(f)6	If authorities identified in (f)1 through 5, above decline to enter into such arrangements, has the owner, or operator documented this refusal in the operating record.			X
7:26-9.4(g)8	Are semi-annual drills conducted involving all employees and appropriate local authorities to test emergency response capabilities at the facility in accordance with the contingency plan and emergency procedures development pursuant to NJAC 7.26-9.7?	X		
7:26-9.4(g)8i	If no, did the owner or operator petition the Department for an exemption from the semi annual drills requirement?			X
7:26-9.4(g)8ii	Did the owner or operator petition the Department for an exemption excluding some or all local officials in the semi annual drill requirements?			X
	If yes, did the owner operator provide those specific local officials with written approval of the exemption?			X

		YES	NO	N/A
7:26-9.7	Contingency Plan and Emergency Procedures			
7:26-9.7(a)	Does the facility have a written contingency plan for emergency procedures designed to deal with fires, explosions, hazards to human health or environment, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents into air, soil or surface water?	X		
7:26-9.7(b)	Are provisions of the plan carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment?	X		
7:26-9.7(c)	Does the contingency plan describes the actions facility personnel shall take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility?	X		
7:26-9.7(d)	Did the owner or operator prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR 112 or 300 or a Discharge Prevention Containment and Countermeasure (DPCC) Plan in accordance with N.J.A.C. 7:1E-4.1 et seq.	X		
	If yes, did the owner or operator amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this section?	X		
7:26-9.7(e)	Does the plan describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services?	X		

		YES	NO	N/A
7:26-9.7(f)	Does the plan list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator and is this list kept up to date? Where more than one person is listed, one shall be names as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates?	X		
7:26-9.7(g)	Does the plan include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external) and decontamination equipment), where this equipment is required? Is the list up-to-date? In addition, does the plan include the location and physical description of each item on the list, and a brief outline of its capabilities?	X		
7:26-9.7(h)	Does the plan include an evacuation procedure for facility personnel where there is a possibility that evacuation could be necessary? Does this plan describe signal(s) to be used to begin evacuation, evacuation routes, and alternative evacuation routes (in case where the primary routed could be blocked by releases of hazardous waste or fires)?	X		
7:26-9.7(i)	Is a copy of the contingency plan and all revisions to the plan:			
	1. Maintained at the facility;	X		
	2. Has the contingency plan been submitted to local authorities (police fire departments, emergency response teams)?	X		
7:26-9.7(k)	Is there an employee on site or on call at all times with the responsibility of coordinating, all emergency response measures?	X		

Inspector: B. CRACHOR
Address: 2 BABCOCK DR
W. ORANGE, N.J. 07052
Telephone No: 727-2016

RCRA LAND DISPOSAL RESTRICTION
GENERATOR CHECKLIST

I. HANDLER IDENTIFICATION

A. Handler Name: PSE&G KEARNY GEN STN
B. Street (or other identifier): HACKENSACK AVE
C. City: KEARNY,
D. State: N.J.
E. Zip Code: 07032
F. County Name: HUDSON
G. Nature of Business; Identification of Operations: SIC Code(s): ELECTRICITY GENERATING STN
H. EPA ID #: NJD000730424,
I. Handler Contact (Name and Phone Number): RUSSELL J. FURNARI - ENVIR. COORD. Tel. 201-430-8848

II. GENERATOR COMPLIANCE

A. Waste Identification

1. F-Solvents

a. Does the handler generate the following wastes?

(i) ~~F001, F002, F004, or F005~~ ___Yes ___No

(ii) F003 ___Yes ___No

If an F003 wastestream (listed solely for ignitability) has been mixed with a non-restricted solid or hazardous waste, does the resultant mixture exhibit the ignitability characteristic? ___Yes ___No

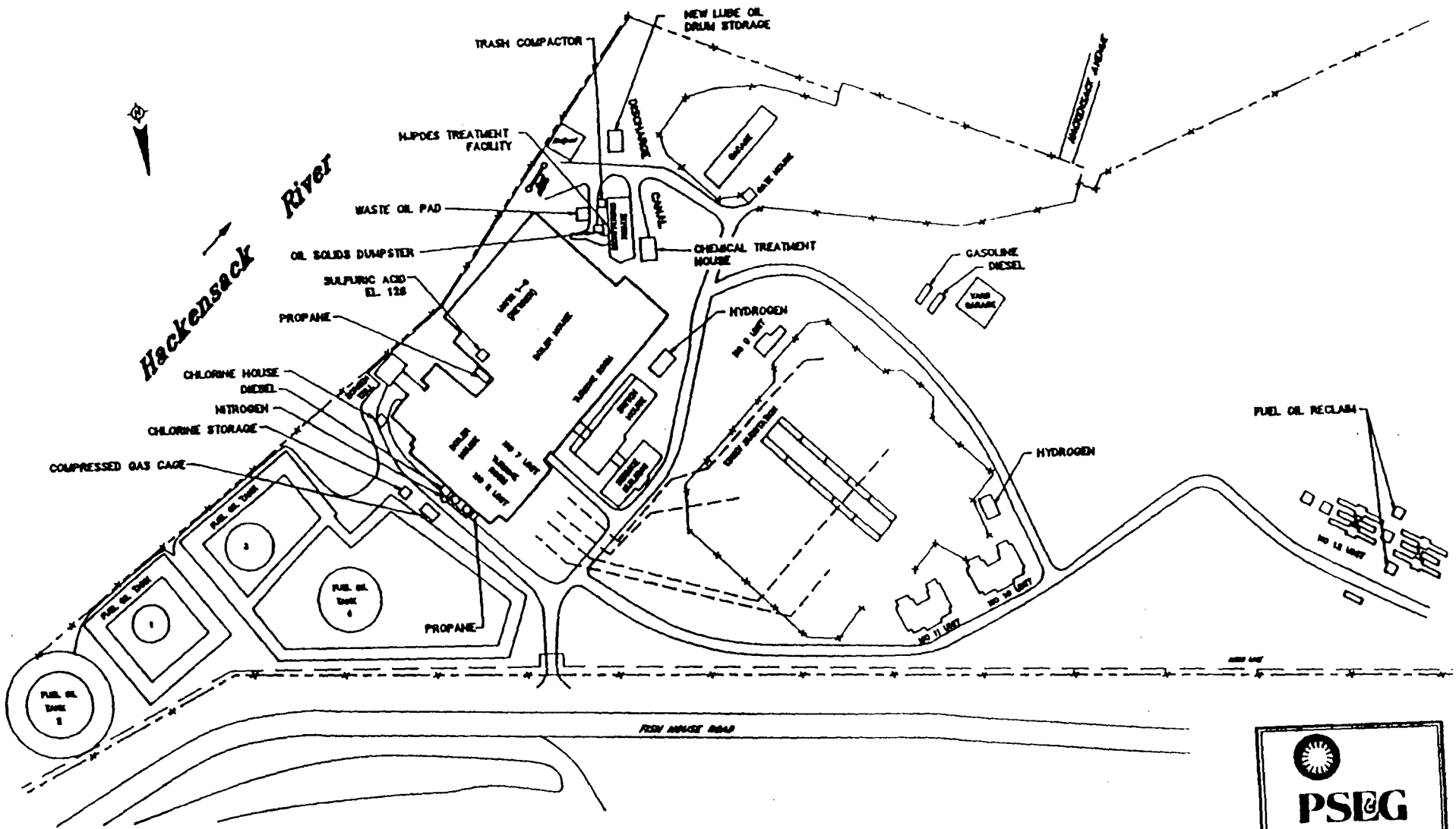
b. Source of the above: Form 8700-12 ___; Part A ___; Part B ___; Biennial/Annual Reports ___ other (specify) ___

Appendix A is intended to assist the inspector and enforcement official in determining whether the facility is generating F-solvent wastes, if such wastes were not identified by the facility previously. If you are concerned that F-solvent wastes may be misclassified or mislabeled, turn to Appendix A-1. To assist in identfying potentially

Comments: Most of haz. waste is waste oil, in case that LBR waste is generated the notification form is attached to the manifest. Since generation of F001 waste was ceased as of July '90, the company is a full subject to the LBR general rules. on remaining wastes such as D001, and X700K.

GEN-1

920990088

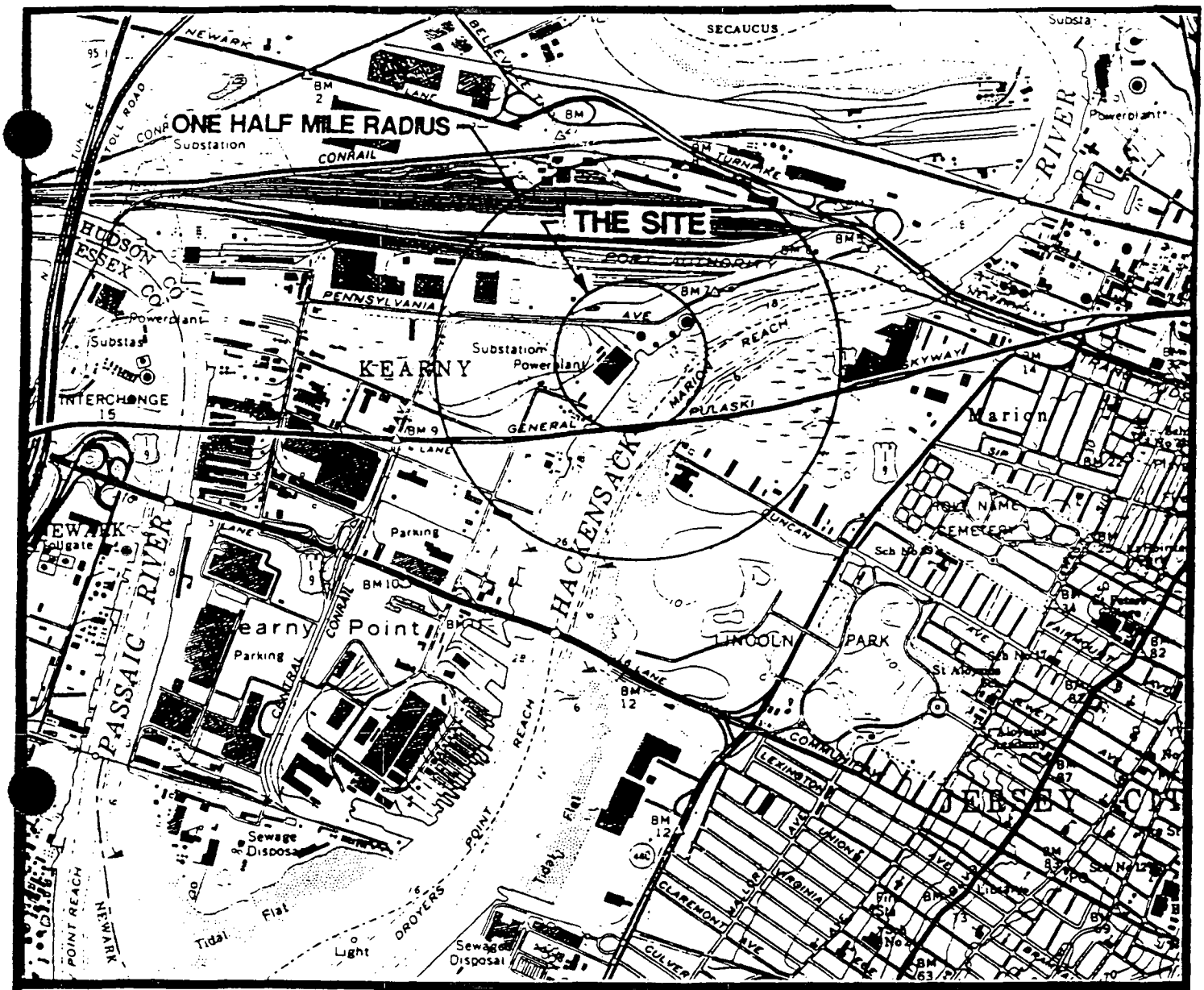


PSEG
Public Service Electric and Gas Company

KEARNY GENERATING STATION

920990089

920990090



QUADRANGLE LOCATION

SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

N

COORDINATES	ISSUE	DESCRIPTION	DRWN.	CHKD.	APPR.	DATE
UTM: 4,510,000mN, 576,000mE LONGITUDE : 74° 05' 50" W LATITUDE : 40° 44' 20" N	A	PRELIMINARY	W.M.C.	J.R.S.	J.R.S.	5/30/90

BASE MAP: UNITED STATES GEOLOGICAL SURVEY (USGS) JERSEY CITY, N.J. – N.Y. QUADRANGLE

CleanHarbors
ENVIRONMENTAL ENGINEERING, INC.
325 Wood Road
Braintree, Massachusetts 02184
Telephone (617) 849-1200/1800

PUBLIC SERVICE ELECTRIC & GAS COMPANY
KEARNY GENERATING STATION
FOOT OF HACKENSACK AVENUE
KEARNY, NEW JERSEY 07032

LOCUS MAP

PROJECT NO. E-2599	DWG. NO. 2599-L-03	FIGURE 1
SCALE AS NOTED		

UTILITY OPERATOR 2304

DUTIES

Operates certain boiler and turbine-generator auxiliary apparatus, station service equipment and associated piping and performs work related to the operation of boilers, turbine-generators and associated equipment. Duties are:

1. Operate all types of auxiliary equipment with the exception of that specifically reserved to the Equipment Operator.

2. Make routine operating inspections of equipment assigned; make routine adjustments of equipment to secure proper operating conditions; record periodic instrument readings; verify radiological activity levels as required in the performance of their work and as directed.

3. Perform incidental operating work such as the routine testing of condensate boiler feedwater and circulating water, cleaning coal and fuel oil burners, cleaning strainers, poking coal in bunkers and hoppers, operating valves as directed, changing recording instrument charts.

4. Cut pulverized coal and fuel oil burners in and out of service.

5. Clean boilers, economizers, air heaters and precipitators in service with sootblowers, lances, rods or other devices.

6. Add or change lubricant of auxiliary equipment.

7. Test condensers and condensate coolers and plug leaking tubes; clean condenser tube sheet and water boxes; blow condenser tubes with air or flush with water; clear obstructed tubes.

8. Connect and disconnect barges and tank cars to fuel oil and steam heating lines.

9. Handle mooring lines of incoming and outgoing fuel barges or steamers in the absence of Yard Department personnel, move barges secured to dock to provide proper docking facilities for incoming fuel vessels, if required.

10. Maintain cleanliness of equipment and area assigned.

11. Report immediately any abnormal or irregular conditions develop during the progress of the work and take corrective measures in accordance with established operating procedures.

12. During the shutdown of the unit, assist the maintenance force in a helper capacity to the extent of their ability.

DUTIES (Continued)

13. Assist in nuclear fuel handling operations as directed.

14. Operate Company passenger cars and pick-up trucks or equivalent

QUALIFICATIONS

Must meet the Company's "General Requirement"; and, in addition:

1. Must be able to read, write, speak and understand English.

2. Must have successfully completed the appropriate Pre-Employment Tests except that an employee hired prior to May 1, 1977 who has or obtains a high school diploma or its equivalent does not have to complete the Pre-Employment Tests.

3. Must demonstrate during the first six month of employment:

   a. The ability to follow simple instructions and carry out routine assignments.

   b. An aptitude for the operation of generating station equipment.

   c. Keen faculties of observation.

   d. The ability to receive and transmit telephone messages.

4. Must be able to qualify for an auto driver's license to operate vehicles in the State of New Jersey.

******

EQUIPMENT OPERATOR 2302

DUTIES

Operates boilers, turbines, generators from isolated panels, and major auxiliary apparatus, performs electrical switching operations and assists in the operation of the Control Room. Duties are:

*1. Operate isolated control panels for high-pressure boilers, turbines, or generators, including start-up, synchronizing, loading, and shut-down.

2. Operate a unit of low-pressure boilers or the equivalent number on the same firing aisle.

3. Operate major auxiliary apparatus such as:

   a. Air compressors.
   b. Boiler feedwater treatment system.
   c. Generator hydrogen system.
   d. Boiler feedwater and condensate system.
   e. Locally controlled electrical and mechanical equipment.

4. Make operating tests and inspections, make minor repairs and adjustments to equipment assigned to secure proper operating conditions.

5. Maintain proper water levels in condenser hotwells, heaters, boilers and tanks.

6. Execute orders from the Control Operator; receive and execute orders from the appropriate tagging authority at isolated panels for clearing equipment or making it ready for service in accordance with operating instructions and procedures; clear, tag, test and safety tape these operations.

7. Keep logs as assigned.

8. Provide on-the-job training to assigned personnel.

9. Assist in the operations in the Control Room.

10. Report any abnormal or irregular conditions that develop during the progress of the work and take corrective measures within the scope of operating instructions.

11. During the shutdown of the unit, assist the maintenance force in a Station Mechanic capacity to the extent of his/her ability.

12. Perform incidental operating work such as the routine testing of condensate boiler feedwater and circulating water, cleaning coal and fuel oil burners, cleaning strainers, poking coal in bunkers and hoppers, operating valves as directed, changing recording instrument charts.

DUTIES (Continued)

13. Cut pulverized coal and fuel oil burners in and out of service.

14. Add or change lubricant of auxiliary equipment.

15. Test condensers and condensate coolers and plug leaking tubes; clean condenser tube sheet and water boxes; blow condenser tubes with air or flush with water; clear obstructed tubes.

16. Connect and disconnect barges and tank cars to fuel oil and steam heating lines.

17. Handle mooring lines of incoming and outgoing fuel barges or steamers in the absence of Yard Department personnel, move barges secured to dock to provide proper docking facilities for incoming fuel vessels, if required.

18. Maintain cleanliness of equipment and area assigned.

19. Clean boilers, economizers, air heaters and precipitators in service with sootblowers, lances, rods or other devices.

20. Perform other similar or less skilled work and assist employees of higher classification in the operating force.

QUALIFICATIONS

Must meet the Company's "General Requirements"; and, in addition:

1. Must be able to receive and execute orders with accuracy and dispatch.

2. Must have an aptitude for electrical operation.

3. Must be able to read, write, speak and understand English.

4. Must have successfully completed the appropriate Pre-Employment Tests except that an employee hired prior to May 1, 1977 who has or obtains a high school diploma or its equivalent does not have to complete the Pre-Employment Tests.

5. Must demonstrate during the first six month of employment:

   a. The ability to follow simple instructions and carry out routine assignments.

QUALIFICATIONS (Continued)

b. An aptitude for the operation of generating station equipment.

c. Keen faculties of observation.

d. The ability to receive and transmit telephone messages.

6. Must be able to qualify for an auto driver's license to operate vehicles in the State of New Jersey.

*To operate an isolated turbine or isolated turbine control panel, a State of New Jersey Engineers' License, Stationary, Third Class, is required.

******

APPRENTICE EQUIPMENT OPERATOR 2303

DUTIES

Operates, as a learner in training, the major auxiliary apparatus, performs electrical switching operations and assists in the operation of the Control Room. Duties are:

1. Perform all the duties of Utility Operator.

2. Perform for training purposes and under the immediate direction of an operator of higher classification, duties of the Equipment Operator.

3. Perform the work of the curriculum of the Apprentice Equipment Operator.

QUALIFICATIONS

Must meet the Company's "General Requirements"; and, in addition:

*1. Must have at least 12 months experience as a Utility Operator.

2. Must have successfully completed the Indoctrination Course.

3. As a Utility Operator must have demonstrated:

   a. The ability to follow instructions and perform routine operations.

   b. An aptitude for the operation of generating station equipment. An understanding of mechanical processes.

   c. Keen faculties of observation.

   d. The ability to receive and transmit messages and execute orders with accuracy and dispatch.

   e. The ability and desire to work safely.

******

*An employee hired or transferred into the occupational group prior to May 1, 1977 must have at least six months experience as a Utility Operator.

INDOCTRINATION COURSE
ENVIRONMENTAL OUTLINE

INSTRUCTOR: R. MATERIA

5 Tests to be given before start of next section.

Week 1 & 2	Asbestos, respiratory protection, Insulation, Self Contained Breathing Apparatus (SCBA). Heat stroke and cramps.
Week 3	Test Chemistry and types of fires, Portable fire extinguishers, fire protection systems.
Week 4	Test Hazardous Communication, Hazardous Waste.
Week 5 & 6	Test Pollution Control Systems
Week 7	Test Containment of Spills, Proper handling of Chemicals
Week 8	Test Chlorine Safety, Toxic Catastrophc Prevention Act (TCPA). Instructor: D. Mahoney.

Each presentation is 1/2 day in length.
They are given to E.O.'s in Modules 1 & 2 of the
EQUIPMENT OPERATOR MODULAR FORMAT
COURSE

DW4.INDOC1.008.1

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1989
CERTIFICATION FORM

ITEM 1 USEPA Identification Number: NJD000730424

ITEM 2 Generator (Company) Name: Kearny Generating Station (PSE&G)

ITEM 3 Contact Person: Michael G. Cullen

ITEM 4 Phone Number: (201) 430-8789

ITEM 5 Certification:

I certify that the information given in this annual report is true, accurate and complete.

Russell E. Highton	X	May 1, 1990
(Print or type name)	(Signature)	(Date)

ITEM 6

A ☐ This site (company) generated less than 1.33 tons of hazardous waste for the calendar year 1989 (No Fee)

B ☐ This site (company) generated greater than 1.33 tons of hazardous waste but less than 10 tons of hazardous waste during the calendar year 1989 (Fee $200)

C ☐ This site (company) generated greater than 10 tons of hazardous but less than 100 tons of hazardous waste during the calendar year (Fee $300)

D ☒ This site (company) generated greater than 100 tons of hazardous waste during the calendar year (Fee $400)

ITEM 7 Federal Vendor Identification Number N/A

* Please submit check with your completed report.

920990098

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1989
-REPORT FORM-

1. Generator Name Kearny Generating Station (PSE&G)

2. USEPA ID Number NJD000730424

3. Site Address Foot of Hackensack Ave.
   Kearny, NJ 07032

4. Transporter Name Environmental Transport Group, Inc.

5. Transporter USEPA ID Number NJD000692061

6. TSD Facility Name Chemical Waste Management, Inc.

7. TSD Facility EPA ID Number ALD000622464

8. TSD Address Emelle Facility
   Alabama Highway 17 at Mile Marker 163
   Emelle, Alabama 35459

9.

A.) Waste Number (I)	B.) Waste Description (11)	C.) DOT Haz Class (11 or J)	D.) Total Quantity (13)	E.) Units (14)
X910	Waste Chemicals N.O.S. D.O.T. Non-Regulated Dirt,Rocks contaminated with Fuel Oil.		478,140	P
X725	Waste Chemicals N.O.S. D.O.T. Non-Regulated 95+% Pads,dirt,soil -5% Oil		21,400	P

NOTE: For each combination of transporter and treatment, storage and disposal facility (TSDF), list the TOTAL quantity manifested for each waste type

920990099

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1989
-REPORT FORM-

1. Generator Name Kearny Generating Station (PSE&G)

2. USEPA ID Number NJD000730424

3. Site Address Foot of Hackensack Ave.
   Kearny, NJ 07032

4. Transporter Name Environmental Transport Group, Inc.

5. Transporter USEPA ID Number NJD000692061

6. TSD Facility Name APTUS

7. TSD Facility EPA ID Number KSD980964993

8. TSD Address North Highway 169
   Coffeville, Kansas 67337

9.

A.) Waste Number (I)	B.) Waste Description (11)	C.) DOT Haz Class (11 or J)	D.) Total Quantity (13)	E.) Units (14)
C387	RQ, Hazardous Waste Liquid N.O.S. ORM-E (Polychlorinated Biphenyls) PCB's NA9188		6000	P
X725	RQ, Hazardous Waste Solid N.O.S. ORM-E (Polychlorinated Biphenyls) PCB's NA9188		600	P

NOTE: For each combination of transporter and treatment, storage and disposal facility (TSDF), list the TOTAL quantity manifested for each waste type

920990100

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1989
-REPORT FORM-

1. Generator Name Kearny Generating Station (PSE&G)

2. USEPA ID Number NJD000730424

3. Site Address Foot of Hackensack Ave.
   Kearny, NJ 07032

4. Transporter Name Horwith Trucking

5. Transporter USEPA ID Number PAD064035819

6. TSD Facility Name Chemical Waste Management, Inc.

7. TSD Facility EPA ID Number ALD000622464

8. TSD Address Emelle Facility
   Alabama Highway 17 at Mile Marker 163
   Emelle, Alabama 35459

9.

A.) Waste Number (I)	B.) Waste Description (11)	C.) DOT Haz Class (11 or J)	D.) Total Quantity (13)	E.) Units (14)
X910	Waste Chemicals N.O.S. D.O.T. Non-Regulated Material		220,740	P

NOTE: For each combination of transporter and treatment, storage and disposal facility (TSDF), list the TOTAL quantity manifested for each waste type

920990101

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1989
-REPORT FORM-

1. Generator Name Kearny Generating Station (PSE&G)

2. USEPA ID Number NJD000730424

3. Site Address Foot of Hackensack Ave.
   Kearny, NJ 07032

4. Transporter Name Environmental Transfer Corp.

5. Transporter USEPA ID Number NJD991291584

6. TSD Facility Name Advanced Environmental Technology Corp.

7. TSD Facility EPA ID Number NJD980536593

8. TSD Address 1 Eden Lane
   Flanders, NJ 07836

9.

A.) Waste Number (I)	B.) Waste Description (11)	C.) DOT Haz Class (11 or J)	D.) Total Quantity (13)	E.) Units (14)
X726	Hazardous Waste Liquid N.O.S. D.O.T. Non-Regulated #6 Fuel Oil and Water		16,600	P
D002	RQ Waste Corrosive Liquid N.O.S. Corrosive Material UN1760		600	P
X900	Waste Chemicals N.O.S. Non-D.O.T. Regulated		9850	P
X910	Waste Chemicals N.O.S. Non-D.O.T. Regulated		5300	P
F001	Waste ORM-A N.O.S. NA1693		800	P

NOTE: For each combination of transporter and treatment, storage and disposal facility (TSDF), list the TOTAL quantity manifested for each waste type

920990102

9.

A.) Waste Number (10)	B.) Waste Description (11)	C.) DOT Haz Class (11 or 12)	D.) Total Quantity (13)	E.) Units (14)
U122	Waste Formaldehyde Solution ORM-A UN2209		400	P
D001	Waste Paint Flammable Liquid UN1263		2880	P
D001	Waste Nitric Acid UN2031		20	P
D011	Waste Oxidizer UN1479		10	P
D002	Waste Ammonium Hydroxide Corrosive Material UN2672		600	P
D002	Waste Corrosive Liquid N.O.S. UN1760		120	P
D002	Waste Alkaline Liquid N.O.S. NA1719		60	P
D001	Waste Combustible Liquid N.O.S. NA1993		40	P
F003	Waste Combustible Liquid N.O.S. NA1993		60	P
D005	Waste Poison, Solid N.O.S. UN2811		60	P
U067	Waste Ethylene Dibromine UN1605		10	P
D002	Stannous Chloride ORM-B NA1759		10	P
X850	Waste ORM-A, N.O.S. NA1693		355	P
U095	Waste ORM-A, N.O.S. NA1693		60	P

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1989
-REPORT FORM-

1. Generator Name Kearny Generating Station (PSE&G)

2. USEPA ID Number NJD000730424

3. Site Address Foot of Hackensack Ave.
   Kearny, NJ 07032

4. Transporter Name Nappi Trucking

5. Transporter USEPA ID Number NJD000813477

6. TSD Facility Name ENSCO Inc.

7. TSD Facility EPA ID Number ARD069748192

8. TSD Address American Road
   El Dorado, AR 71730

9.

A.) Waste Number (I)	B.) Waste Description (11)	C.) DOT Haz Class (11 or J)	D.) Total Quantity (13)	E.) Unit (14)
C387	Hazardous Substance Liquid, N.O.S. ORM-E NA1988 (PCB) RQ 10/4.54		14,110	G

NOTE: For each combination of transporter and treatment, storage and disposal facility (TSDF), list the TOTAL quantity manifested for each waste type

920990104

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1989
-REPORT FORM-

1. Generator Name Kearny Generating Station (PSE&G)

2. USEPA ID Number NJD000730424

3. Site Address Foot of Hackensack Ave.
   Kearny, NJ 07032

4. Transporter Name Lionetti Oil Recovery Inc.

5. Transporter USEPA ID Number NJD084044064

6. TSD Facility Name Lionetti Oil Recovery Inc.

7. TSD Facility EPA ID Number NJD084044064

8. TSD Address Runyon & Cheesequake Road
   Old Bridge, NJ 08857

9.

A.) Waste Number (I)	B.) Waste Description (11)	C.) DOT Haz Class (11 or J)	D.) Total Quantity (13)	E.) Units (14)
X727	Waste Oil N.O.S. Combustible Liquid NA1270		37,700	G
X726	Waste Oil N.O.S. Combustible Liquid NA1270		200	G
X722	Waste Oil N.O.S. Combustible Liquid NA1270		2200	G

NOTE: For each combination of transporter and treatment, storage and disposal facility (TSDF), list the TOTAL quantity manifested for each waste type

920990105

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1989
-REPORT FORM-

1. Generator Name Kearny Generating Station (PSE&G)

2. USEPA ID Number NJD000730424

3. Site Address Foot of Hackensack Ave.
   Kearny, NJ 07032

4. Transporter Name Nappi Trucking

5. Transporter USEPA ID Number NJD002385730

6. TSD Facility Name E.I. DuPont de Nemours & Co.

7. TSD Facility EPA ID Number NJD002385730

8. TSD Address Chambers Works Rt. 130
   Deepwater, NJ 08023

9.

Waste A.) Number (I)	Waste B.) Description (11)	DOT Haz C.) Class (11 or J)	Total D.) Quantity (13)	E.) Units (14)
D008	Hazardous Waste Liquid N.O.S. ORM-E NA9189 90% Wash Water 10% Waste NH3 EDTA		82,543	G

NOTE: For each combination of transporter and treatment, storage and disposal facility (TSDF), list the TOTAL quantity manifested for each waste type

920990106

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1989
-REPORT FORM-

1. Generator Name Kearny Generating Station (PSE&G)

2. USEPA ID Number NJD000730424

3. Site Address Foot of Hackensack Ave.
   Kearny, NJ 07032

4. Transporter Name Waste Conversion Inc.

5. Transporter USEPA ID Number PAD085690592

6. TSD Facility Name Waste Conversion, Inc.

7. TSD Facility EPA ID Number PAD085690592

8. TSD Address 2869 Sandstone Drive
   Hatfield, PA 19440

9.

A.) Waste Number (I)	B.) Waste Description (11)	C.) DOT Haz Class (11 or J)	D.) Total Quantity (13)	E.) Units (14)
X725	Waste Oil Contaminated Dirt Non-D.O.T. Regulated Material		186	Y
X722	Spent #6 Fuel Oil Tank Sludge Non-D.O.T. Non-RCRA Regulated Material		1485	G

NOTE: For each combination of transporter and treatment, storage and disposal facility (TSDF), list the TOTAL quantity manifested for each waste type

920990107

OMB#: Expires

BEFORE COPYING FORM, ATTACH SITE IDENTIFICATION LABEL OR ENTER:

SITE NAME NJD000730424

PSE&G-KEARNY GEN STA
KEARNY GENERATING STATION
KEARNY, NJ 07032

EPA ID NO.

DRAFT
8-25-89

FORM
IC

U.S. ENVIRONMENTAL PROTECTION AGENCY

1989 Waste Minimization Report

IDENTIFICATION AND CERTIFICATION

INSTRUCTIONS: Read the detailed instructions beginning on page 6 of the 1989 Hazardous Waste Report booklet before completing this form.

SEC. I Site name and location address. Complete items A through H. Check the box ☒ in items A, B, D, E, F, G, and H if same as label; if different, enter corrections. If label is absent, enter information. Instruction page 6.

A. EPA ID No. Same as label ☒ or →

B. Site/company name Same as label ☒ or →

C. Has the site name associated with this EPA ID changed since 1987? ☐ 1 Yes ☒ 2 No

D. Street name and number. If not applicable, enter industrial park, building name or other physical location description. Same as label ☒ or →

E. City, town, village, etc. Same as label ☒ or →

F. County: HUDSON

G. State Same as label ☒

H. Zip Code Same as label ☒

SEC. II Mailing address of site. Instruction page 6.

A. Is the mailing address the same as the location address? ☒ 1 Yes (SKIP TO SEC. III) ☐ 2 No (COMPLETE SEC. II)

B. Number and street name of mailing address

C. City, town, village, etc.

D. State

E. Zip Code

SEC. III Name, title, and telephone number of the person who should be contacted if questions arise regarding this report. Instruction page 6.

A. Please print: Last name	First name	M.I.	B. Title	C. Telephone
FERNANDEZ	RAYMOND	A.	Environ. & Tech. Mgr.	201 430-8952 Extension

SEC. IV Enter the Standard Industrial Classification (SIC) Code that describes the principal products, group of products, produced or distributed, or the services rendered at the site's physical location. Enter more than one SIC Code only if no one industry description includes the combined activities of the site. Instruction page 7.

A.	B.	C.	D.
4931			

SEC. V I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. Number of form pages submitted: Form IC 2 Form WM

B. Please print: Last name	First name	M.I.	C. Title
HIGHTON	Russell	E.	Manager - Station

D. Signature: X

E. Date of signature: MO. DAY YR.

920990108

Sec. VI Waste Minimization Activity during 1988 or 1989

A. Did this site begin or expand a source reduction activity during 1988 or 1989?
Instruction page 8

- [ ] 1 Yes
- [x] 2 No

B. Did this site begin or expand a recycling activity during 1988 or 1989?
Page 8

- [x] 1 Yes
- [ ] 2 No

C. Did this site conduct a source reduction or recycling opportunity assessment during 1988 or 1989?
Page 8

- [x] 1 Yes
- [ ] 2 No

D. What factors have limited this site from initiating new source reduction activities during 1988 or 1989?
(CHECK ALL THAT APPLY)
Page 8

- [ ] 01 No factors have limited new source reduction activities.
- [ ] 02 Insufficient capital to install new source reduction equipment or implement new source reduction practices.
- [x] 03 Lack of technical information on source reduction techniques, applicable to my specific production processes.
- [ ] 04 Source reduction is not economically feasible: cost savings in waste management or production will not recover the capital investment.
- [ ] 05 Concern that product quality may decline as a result of source reduction.
- [x] 06 Technical limitations of the production processes.
- [x] 07 Permitting burdens.
- [ ] 08 Other (SPECIFY IN COMMENTS)

E. What factors have limited this site from initiating new on-site or off-site recycling activities during 1988 or 1989?
(CHECK ALL THAT APPLY)
Page 8

- [ ] 01 No factors have limited new recycling activities.
- [ ] 02 Insufficient capital to install new recycling equipment or implement new recycling practices.
- [x] 03 Lack of technical information on recycling techniques applicable to this site's specific production processes.
- [ ] 04 Recycling is not economically feasible: cost savings in waste management or production will not recover the capital investment.
- [ ] 05 Concern that product quality may decline as a result of recycling.
- [x] 06 Requirements to manifest wastes inhibit shipments off site for recycling.
- [x] 07 Financial liability provisions inhibit shipments off site for recycling.
- [ ] 08 Technical limitations of product processes inhibit shipments off site for recycling.
- [ ] 09 Techical limitations of production processes inhibit on-site recycling.
- [x] 10 Permitting burdens inhibit recycling.
- [x] 11 Lack of permitted off-site recycling facilities.
- [ ] 12 Unable to identify a market for recyclable materials.
- [ ] 13 Other (SPECIFY IN COMMENTS)

Comments: SEE ATTACHMENT

920990109

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
HAZARDOUS WASTE GENERATOR ANNUAL REPORT 1989
WASTE SUMMARY FORM

Generator (Company) Name KEARNY GENERATING STATION (PSE&G)

US EPA ID Number NJD000730424

Directions

Please indicate below the total quantity of hazardous waste manifested during the 1988 report year for each unit of measure. Enter the units of measure as they appeared in item #14 of the manifest. Do not convert one form of unit of measure to another.

138,308 G - Gallons (liquids only)

775,165 P - Pounds

_____ T - Tons

186 Y - Cubic Yards

_____ L - Liters (Liquids only)

_____ K - Kilograms

920990110

920990111

New Jersey State Health Dept.
Division of Clean Air & Water
Room 403
Trenton, New Jersey

ENGINEERS REPORT
WATER TREATMENT WASTE DISPOSAL
KEARNY GENERATING STATION
[illegible]

3/15/66

RIVER CLASSIFICATION

At the location of Kearny Generating Station, the State of New Jersey classifies the Hackensack River as a Class TW-3 stream which means that it is suitable for fish passage.

TYPE OF WASTE

Sulphuric acid and caustic soda are used for regenerating the ion-exchange resins in the facilities to produce demineralized water for make-up to Nos. 7 and 8 Unit boilers.

QUANTITY OF WASTES

Demineralizer wastes are tabulated in attached Table I.

Under maximum operating conditions each primary cation-anion train is designed to give a 36-hour service run between regenerations. With two exchanger trains in service, it is expected that a regeneration will take place on an average of once every 18 hours.

Regeneration of a mixed bed polisher is expected to take place every 2 to 3 weeks. Having two polishing units, means a possible mixed bed regeneration each 7 to 10 days.

METHOD OF DISPOSAL

Wastes from the demineralizer equipment will be passed through a corrosion resistant piping system and sprayed into the end of the first mixing section of the waste basin. The acid and caustic wastes will react with each other in the basin. Wastes will be allowed to flow slowly through and fr the basin into the circulating water discharge canal.

Hackensack River water is used for turbine-generator condenser cooling and then returned to the river through the circulating water discharge canal. Normally, two turbine-generator units will be in service. Each unit requires 100,000 gpm of cooling water.

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METHOD OF DISPOSAL (Continued)

Attached Table II has been prepared to show the expected end result of chemical additions to the circulating water discharge canal under three different operating conditions.

DESCRIPTION OF FACILITIES

The waste basin is constructed of concrete with sectional wood planking. A double coating of "Tarset" will be applied to all surfaces for sealing and corrosion protection.

Capacity of the basin sections are as follows:

First Mixing Section	-	210,000 gallons
Second Mixing Section	-	105,000 gallons
Effluent Section	-	85,000 gallons

Wastes will enter the northerly end of the first mixing section of the basin through a spray header at approximately Elevation 97 feet. By means of a wooden plank baffle with orifice holes 3 feet off the basin bottom, the wastes will be directed downwards, through the orifices and into the second mixing section.

Because of a wooden baffle between the second and third sections, flow will be upwards in the second mixing section to Elevation 96 feet - 6 inches. From here, the flow will be directed down to 1 foot above the bottom of the effluent section by means of three 2-inch pipes inserted through the baffling.

A 12-inch pipe at Elevation 96 feet - 0 inches will carry the wastes from the effluent section to the circulating water discharge canal. The pipe will extend 2 feet horizontally into the discharge canal.

A pH recorder will be provided to monitor the water in the discharge canal 275 feet downstream of the point of the chemical waste addition.

920990113

BOILER CHEMICAL CLEANING WASTES

Provisions will not be made for carrying spent solutions used in boiler chemical cleaning operations in the same waste piping system to the disposal basin. Boiler chemical cleaning operations are very infrequent and are not expected to average more than one every 6 months.

Boiler acid cleaning wastes will be neutralized by blending a neutralizing solution with the wastes directly ahead of the spray header at the first mixing section of the waste basin.

When boiler cleaning wastes are being admitted to the basin, regeneration of the demineralizers will be suspended since the resultant waste line back pressure would prevent the proper regeneration flows.

REFERENCES

Public Service Write-Ups

Demineralizer System, Nos. 7 and 8 Units, Kearny Generating Station, Schematic Diagram No. 50524-ABL-512 - dated 10/2/53

Additional Demineralizer Equipment, Nos. 7 and 8 Units, Kearny Generating Station, Piping Diagram 94097-A-8641 - dated 11/8/65

Public Service Drawings

Drawing No. 97562-A-8671	Nos. 7 and 8 Units, Chemical Waste to Disposal Basin, Piping Arrangement
Drawing No. 95449-AB-3523	Nos. 7 and 8 Units, Chemical Waste Basin, Structural Arrangement

HCW:CM
3-15-66
HCW:CM
Rev. 5-27-66

920990114

Information for Database Record No. 26153

Spec No.	00585.45
Product Name	TARSET 7080 MAXI-BUILD II
Product Name 2	
Category	COAL TAR EPOXY
Category Part 2	POLYAMIDE PAINT
Category Part 3	
Category Part 4	
Product Number	695
Type of List	R
Effect. XSTATUS date	50188
Manufacturer	PORTER PAINT CO
Manuf. Qualifier 2	PO BOX 1439
Manuf. Qualifier 3	LOUISVILLE, KY 40201
Manuf. Qualifier 4	502/588-9200
Old Spec	504.47
Remarks 1	DOES NOT MEET SSPC-16
Remarks 2	
Remarks 3	
Remarks 4	

Version 1.0.1 October 21, 2002
Content maintained by Mike Dunning | For programming, contact ODOT Computer Support

Oregon Department of Transportation
Home | Search
355 Capitol St. NE
Salem OR 97301-3871

Privacy & Information Disclosure

BJA000019A

ERS

NEW JERSEY STATE DEPARTMENT OF HEALTH
STREAM POLLUTION CONTROL PROGRAM
EXAMINING ENGINEER'S REPORT

[illegible]-66-2760
July 20, 1966

7/20/66

Municipality ..... [illegible]

County ..... [illegible]

Valley ..... Hackensack (Classification TW-3)

Organization ..... Public Service Electric and Gas Company
80 Park Place
Newark, New Jersey 07101
(Robert I. Smith, Chief Engineer).

Owners and Operators ..... Kearny Generating Station of the Public Service Electric and Gas Company

Plant Location ..... Meadow between Passaic and Hackensack Rivers.

Consulting Engineers ..... Sheppard T. Powell Associates
305 North Charles Street
Baltimore 1, Maryland

Local Engineer ..... Robert I. Smith
New Jersey License #10669

Subject ..... Chemical waste treatment and disposal system consisting of a waste equalization, mixing and holding basin and a pH recorder with alarm.

Receiving Waters ..... Tidal Hackensack River

Designed Flow ..... Approximately 15,000 GPD.

Works Classification ..... Grade S-In.

Application ..... Dated June 30, 1966, signed by Robert I. Smith, Chief Engineer, Electrical Engineering Department

Estimated Cost $45,000

Sources of Information

1. Application received July 5, 1966.
2. Applicant's letter dated June 30, 1966.
3. Conference in this office, June 28, 1966.
4. Engineer's Report, May 27, 1966.

BJA000020

920990118

Temperatures shall be measured outside of designated heat dissipation areas.

(ii) The limitations specified above may be exceeded in designated heat dissipation areas by special permission on a case-by-case basis.

(iii) The determination of designated heat dissipation areas in estuarine waters, including bays, shall take into special consideration the extent and nature of such waters so as to meet the intent and purpose of the criteria and standards including provision for the passage of free-swimming and drifting organisms so that negligible or no effects are produced on their populations.

Heat dissipation areas shall be limited to no more than 1/4 of the cross-sectional area and/or volume of flow of the body of water, leaving at least 3/4 free as a zone of passage including a minimum of 1/3 the surface measured from shore to shore at any stage of tide.

(iv) Where waste discharges would result in heat dissipation areas in such close proximity to each other as to impair protected uses additional limitations may be prescribed to avoid such impairment.

(v) The rate of temperature change in designated heat dissipation areas shall not cause mortality of fish or shellfish.

2. The Company shall submit a proposed program for monitoring and evaluating the nature and extent of impingement and entrainment of natural aquatic organisms resulting from the company's activities. Such a report shall be submitted to the Regional Administrator and the State Certifying Agency within 3 months of the effective date of the permit.

This is also to certify that water quality determinations cannot be made at this time because data will not be available to provide an allocation in sufficient time to comply with the statutory deadline of December 31, 1974 for issuance of permits.

5. Duplicate sets of plans, two sheets, received July 5, 1966.

General Information

The existing Kearny Generating Station of Public Service Electric and Gas Company, located in the meadow between Newark and Jersey City, operates two steam-driven power generators with elaborate cooling systems. At full operation, each system uses up to 100,000 GPM of cooling water. The water supply is pumped from the nearby Hackensack River, screened and chlorinated, and the spent water is returned to the River via a canal, with only a slight increase in temperature.

The Station also uses municipal water for boiler supply. This is first softened and demineralized using anion-cation exchangers and a mixed-bed "polisher." The only industrial waste is from the periodic chemical regeneration and backwashing of these water treatment units, amounting to an estimated 14,000 GPD, and from semiannual boiler cleaning, which uses about 20,000 gallons of acid solution.

The chemical regeneration of the softeners requires approximately equivalent amounts of sulfuric acid (in cationic exchangers) and caustic soda (in the anionic exchangers) in suitable quantities of backwash water. These waste waters have long been discharged in untreated daily batches, either as acid or caustic, to the cooling water effluent canal, thence to the Hackensack River.

The Proposal

Due to the basin classification of the tidal Hackensack River as Class TW-3, Public Service now proposes to equalize and settle the aforesaid industrial wastewaters prior to discharge, in order to eliminate pH fluctuations and to remove most of the suspended solids. Experiments have shown that the resultant pH of the backwash batches, after thorough mixing is approximately 7.5.

For this purpose it is proposed to convert an existing concrete basin, formerly used as an ash disposal pit, to a wastewater mixing and holding tank. The basin is approximately 107' long x 35' wide x 13' deep, inside measurements, providing a liquid volume of about 365,000 gallons and an average detention of 24 days at the flow rate of 15,000 GPD. The basin is to be divided into three series compartments by plank baffles, and flow control devices will be installed.

All backwash batches will be collected in a common sump, then pumped through a sprayer to the first compartment of the holding tank. The estimated average flow will be 10 GPM. Boiler cleaning wastes (20,000 gallon every 6 months)will receive preneutralization before pumping.

The final effluent from the last compartment will flow into the circulating water discharge canal, where it will be absorbed by some 300 MGD of cooling water. A final pH indicator recorder, with an audible alarm, will be installed in the canal near its confluence with the Hackensack River.

It is noted that this proposed method of treating demineralizer backwash waters is similar to such systems already approved and in operation at the Bergen, Hudson, Linden, Mercer and Sewaren generating stations of the Company. Each of these stations has a licensed operator and all are supervised by a sanitary engineer. An operator will be assigned to the proposed treatment system at Kearny.

Recommendation

Approval of the foregoing project and the issuance of permits for the construction and operation are recommended subject to the following conditions and the following:

1. All pertinent ordinances, codes and other requirements of local authorities shall be complied with by the applicant in the construction of the proposed chemical waste treatment and disposal facilities.

2. The final effluent from the chemical waste treatment and disposal works shall be in conformity with the regulations of this Department, titled "Regulations Establishing Certain Classifications and Assigned to the Waters of this State and Standards of Quality to be Maintained in Waters so Classified," adopted by the State Department of Health on August 10, 1964, effective September 1, 1964.

3. A licensed operator shall be in charge beginning on the first day of operation of the completed plant and continually thereafter, and the name of the proposed operator shall be submitted to this Department prior to completion of construction in order that his qualifications may be determined.

Respectfully submitted

Harry H. Hughes
Principal Public Health Engineer

6E3:05

920990121

The foregoing applies only to the effect that the proposed discharge would have on water quality as presently defined in the Regulations Establishing Surface Water Quality Standards.

Very truly yours,

John Wilford, P.E.
Acting Assistant Director

E26:L:WP9,A346

cc: Public Service Electric and Gas Company

File

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
METRO BUREAU OF REGIONAL ENFORCEMENT
2 BABCOCK PLACE
WEST ORANGE, NEW JERSEY 07052

(201) 669-3900

June 7, 1991

Mr. Raymond Fernandez
Environmental Technical Manager
Public Service Electric & Gas Company
Hackensack Avenue
Kearny, N.J. 07032

Re: Compliance Evaluation Inspection
Public Service Electric & Gas Company
NJPDES No. NJ0000655
Kearny/Hudson County

Dear Mr. Fernandez:

A Compliance Evaluation Inspection of your facility was conducted by a representative of this Division on March 27, 1991. A copy of the completed inspection report form is enclosed for your information.

Your facility received a rating of "CONDITIONALLY ACCEPTABLE" due to the following deficiency:

> The facility has **exceeded permit limits for Total Suspended Solids (TSS) and Iron as** noted on page 3 of the discharge surveillance report, and as reported on Discharge Monitoring Reports (DMR) for the period of January 1, 1990 to December 31, 1990.

The deficiency noted above is or my result in violations of the terms and conditions of your NJPDES permit and/or the rules and regulations of this Department. You are requested to institute corrective measures. A written report concerning specific details of remedial measures to be instituted, as well as an implementation timetable, must be submitted to this Department and USEPA, Permits Administration Branch within 30 calendar days of the date of this correspondence.

Please direct all correspondence and inquiries to Edgar W. Garcia, the Environmental Specialist responsible for this case, who can be reached at

(201) 669-3900, or by letter through this Division.

Very truly yours,

Janet Budesa Carroll
Acting Supervisor
Surface Water/
Sewer System
Metro Bureau of
Regional Enforcement

E27:G26

c: Chief, Permit Administration Branch, USEPA
Patrick Durack, USEPA
Mr. Edward Grosvenor , H.O.

BC: ZAHEER HUSSAIN
JAMES LYKO
CENTRAL FILE
BUREAU FILE

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 029, Trenton, N.J. 08625

DISCHARGE SURVEILLANCE REPORT

PERMIT # NJ0000655 NO. OF DISCHARGES WTP/381 CLASS Maj - Ind

DISCHARGER Kearny Generating Station

OWNER Public Service Electric & Gas Company

MUNICIPALITY Kearny COUNTY Hudson WATERSHED CODE H

LOCATION Hackensack Avenue

RECEIVING WATERS Hackensack River STREAM CLASS SE-3

Raymond Fernandez

Environmental/Technical Mgr. OTHER INFO. 430-8789

DEFICIENCIES OR COMMENTS

Drink violation on TSS and Iron as noted on page 4 of this Report.

Phil Distasio - L.O.

OVERALL RATING ☐ Acceptable ☒ Conditionally Acceptable ☐ Unacceptable

EVALUATOR Edgar Garcia TITLE Environmental Specialist

INFORMATION FURNISHED BY (Name) Phil Distasio / Loren Altshuler

(Title) Ins. Sup. / Entl Engineer (Organization) PSE+G

DATE OF INSPECTION 3/27/91

920990126

Form DWMF063-A
[illegible]

N.J.D.E.P.
D.W.R.
SCHARGE SURVEILLANCE REPORT

Permit #: NJ0000455
Date: 3/27/1991

INDUSTRIAL TREATMENT PROCESS EVALUATION

RATING CODES: S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable

		RATING	COMMENTS
GENERAL	DISCHARGE # 381	—	Intake from Hackensack River
	WASTEWATER SOURCE(S)	—	NCCW, Turbine.
	CONTINUITY OF OPERATION	—	Intermittent
	BYPASSES/OVERFLOWS	NA	
	S.P.C.C. PLAN	S	December 1990
	ALARM SYSTEMS	NA	
	ALTERNATE POWER SUPPLY	S	Backup Generator Jet Engine
TREATMENT PROCESSES	Influent Bar screen	S	Screenings → Dumpster → All State Carting
	Pre Chlorination - Inlet	S	Prevent Condenser Clogging. Feed 450 - 500 lb./Day
SLUDGE HANDLING	DISPOSAL SITE	-	
OTHER INFORMATION	FLOW METER & RECORDER	S	Meter + Recorder
	RECORDS	S	Permit DMR's
	SAMPLING PROCEDURES	S	PSE+G Kearny Cert #09586
	ANALYSES PERFORMED BY	S	PSE+G Linden Cert # 20357
	1 46 Employees		
	FINAL EFFLUENT APPEARENCE	ND	Covered Discharge / Effluent Canal No Discharge
	REC. WATERS APPEARENCE	—	Hackensack River

920990127

N.J.D.E.P.
D.W.R.
DISCHARGE SURVEILLANCE REPORT

Permit #: NJ 0000625
Date: 5/27/1991

INDUSTRIAL TREATMENT PROCESS EVALUATION

RATING CODES: S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable

		RATING	COMMENTS
GENERAL	DISCHARGE # WTP	—	
	WASTEWATER SOURCE(S)	—	Sump Pumps Oil/Water Separators Air
	CONTINUITY OF OPERATION	—	Intermittent Heater, Wash Water, Boiler Blowdown
	BYPASSES/OVERFLOWS	N/A	Storm Water, Demineralized Water
	S.P.C.C. PLAN	S	December 1990
	ALARM SYSTEMS	S	High PH, oil Contamination - Auto Shut off
	ALTERNATE POWER SUPPLY	S	Jet Engine
	BMP Plan		June 24, 1989
TREATMENT PROCESSES			
	Oil/Water Separator	—	~~Oil Burned~~ Manifested Aetc or Clean Harbors
	Chemical Mix tank	—	Caustic
	Demineralization Tank		Transporter Env. Transfer → NJD000692061
	Settling tanks (3)		Clean Harbors MD0980555189 AETC NJD 980536593
SLUDGE HANDLING	Sludge from WWTP	S	Not Processing Sludge ✓ Not Desludging Portable Belt Press Not use ✓ Sludge Cake 1027 All Manifested Sent to Dupont in Delaware
	Waste oils		NJD000730424
	DISPOSAL SITE		
OTHER INFORMATION	FLOW METER & RECORDER	S	
	RECORDS	S	Permit DMR's
	SAMPLING PROCEDURES	S	PSE+G Kearny
	ANALYSES PERFORMED BY	S	PSE+G Linden (~~[illegible]~~ 20357
	Bio Assay	S	IT Corp. (#12064)
	Temp, TR Cl, PH		Kearny Gen Sta -09586
	FINAL EFFLUENT APPEARENCE	—	Manifested
	REC. WATERS APPEARENCE	N/A	

920990128

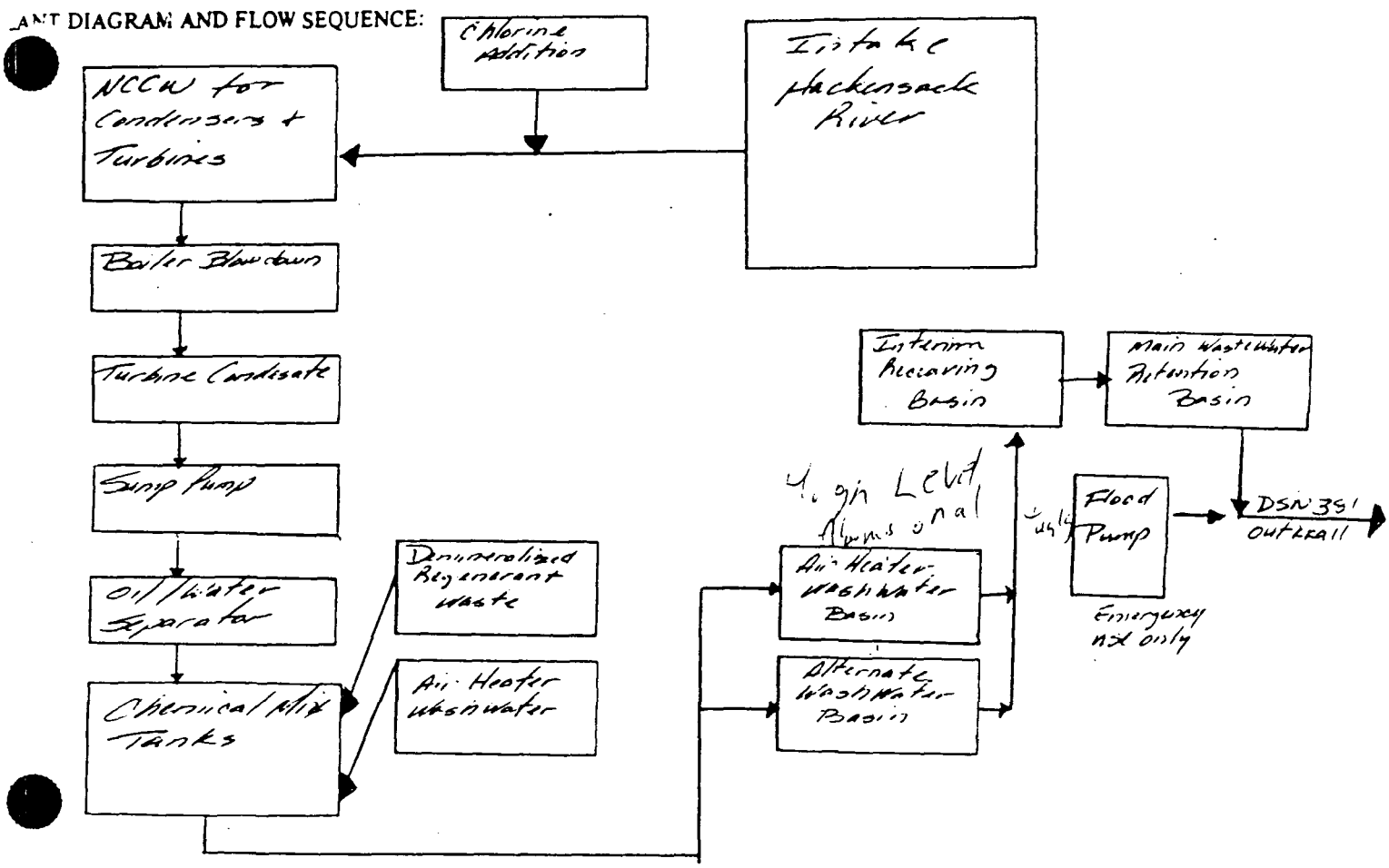
Form WR-053
3/81

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 029, Trenton, N.J. 08625

Permit # NJ0000655
Date 3/27/1991

DISCHARGE SURVEILLANCE REPORT

PLANT DIAGRAM AND FLOW SEQUENCE:



DISCHARGE DATA

SOURCE: DMRs PERIOD: January 1, 1990 to December 31, 1990

DIS	PARA	SAMPLE TYPE	PERMIT LIMITS	DATA	DIS	PARA	SAMPLE TYPE	PERMIT LIMITS	DATA
TPA	TSS	Grab	30 mg/L avg 1/1/90 to 1/30/90	68 mg/L					
TPA	TSS	Grab	100 mg/L max 1/1/90 to 1/30/90	131 mg/L					
TPA	Iron	Grab	1.0 mg/L max 1/1/90 12/31/90	2.1 mg/L					

MONITORING DEFICIENCIES:

920990129

PSE&G

Public Service Electric and Gas Company Hackensack Avenue Kearny, New Jersey 07032

RECEIVED
DIVISION OF
WATER RESOURCES
ENFORCEMENT
SEP 4 11 10 AM '91

Certified Mail #P 271 979 457
Return Receipt Requested

August 28, 1991

Mr. Peter T. Lynch, Chief
New Jersey Department of Environmental
Protection
Metro Bureau of Regional Enforcement
2 Babcock Place
West Orange, New Jersey 07052-5504

Subject: Violation of Effluent Limits or Parameter Reporting Requirements of NJPDES Permit on Discharge Monitoring Report (DMR).
Public Service Electric and Gas Company (PSE&G)
Kearny Generating Station
NJPDES Permit No: NJ0000655

Dear Mr. Lynch:

Public Service Electric and Gas Company (PSE&G) is in receipt of a notice of violation for alleging violations of the "Water Pollution Control Act" and its implementing regulations by failing to comply with certain conditions of Kearny Generating Station's (Kearny) NJPDES permit. This notice asserts that PSE&G did not comply with certain effluent limitations or parameter reporting requirements for the monitoring report of May 1991. This notice also describes, in detail, civil and criminal penalties that PSE&G would be subject to, if the alleged violations were proved to have occurred.

The following is Kearny's explanation of each of the alleged violations that were listed in the enclosure to this notice.

Violation No. 1:

Monitoring Period End Date:	91/05/31
Pipe Number:	WTPA
Monitoring Location:	1
Parameter:	01067
Description:	Nickel, Total

BJA000025

1543

95 2185 (4M) 11 88

920990131

To: Mr. Peter T. Lynch August 28, 1991

Violation: E41, Limited, Concentration Absent

For this monitoring location, Kearny's permit requires that this parameter be monitored only when discharging chemical/metal cleaning wastes. During the monitoring period there was no chemical/metal cleaning; therefore, no discharge of such waste took place. In accordance with Item 6 of the instructions provided by the NJDEP - Bureau of Information Systems, "NODI" was entered in each of the sample measurement blocks for this parameter. This coincides with the direction given on Page 2 of the notice that the code "NODI" should entered in the appropriate sample measurement blocks if these pollutants are not being used. Therefore, PSE&G believes that the enclosed report incorrectly shows the sample measurement results for all blocks as 0.0000. It should indicate "NODI" in all blocks except minimum concentration block where it should indicate "****" since NJDEP has not established reporting requirements for this parameter. Because PSE&G's DMR report for MAY, 1991 correctly included the notation "NODI" as is required by Kearny's permit, the NJDEP's DMR Instruction Guide and the August 6, 1991 Notice of Deficiency, PSE&G believes that the Notice was issued in error and that no deficiency exists with respect to this parameter.

Violation No. 2:

Monitoring Period End Date:	91/05/31
Pipe Number:	WTPA
Monitoring Location:	1
Parameter:	01092
Description:	Zinc, Total
Violation:	E41, Limited, Concentration Absent

The explanation provided for Violation No. 1 is also applicable to Violation No. 2.

Violation No. 3:

Monitoring Period End Date:	91/05/31
Pipe Number:	381A
Monitoring Location:	1
Parameter:	00400
Description:	pH
Violation:	E90, Numeric Violation

To: Mr. Peter T. Lynch August 28, 1991

The minimum pH of the effluent from pipe number 381A was reported as 6.2 standard units (SU). While this exceeds the minimum permit limit of 6.5 SU for that discharge, it does not exceed the minimum river pH, which was reported as 6.1 SU. The permit states that "(w)hen intake pH is less than 6.5, the discharge pH limit shall be the intake pH; when the intake pH is greater than 8.5, the discharge pH limit shall be the intake pH." The DMR includes similar language -- "pH shall be 6.5 - 8.5 but not higher than the intake pH if outside this range." Therefore, the reported discharge is not in violation of the permit limits for pH.

I believe that this letter provides sufficient explanation that the violations alleged in the notice were unfounded. Should you have any questions or require any additional information, please contact Mr. Raymond Fernandez, Environmental and Technical Manager-Kearny, at (201) 430-8952.

Very truly yours,

Craig J. Bishop
Manager - Kearny
Generating Station

bc: M.G. Cullen
R.A. Fernandez
M.F. Strickland
M.F. Vaskis

920990133

PSE&G

Public Service Electric and Gas Company Hackensack Avenue Kearny, New Jersey 07032

RECEIVED
DIVISION OF FACILITY
WIDE ENFORCEMENT

October 6, 1992

OCT 11 '10 07 AM '92

WATER & HAZARDOUS
WASTE ENFORCEMENT
METRO BUREAU

Assistant Director of Enforcement
Division of Water Resources
New Jersey Department of Environmental Protection
and Energy
401 East State Street
CN 029
Trenton, NJ 08625

REFERENCE: Kearny Generating Station
Oil/Water Separator Bypass
Permit No. NJ0000655
Case No. 92-10-6-1246-19

To whom it may concern:

As required in N.J.A.C. 7:14A-3.10(c)3 the following notification is being submitted. On October 6, 1992 the oil/water separator at Kearny Generating Station was removed from service due to the deterioration and collapse of the baffles within the separator. The water that would normally flow through the separator is being sent directly to our air heater wash basin and any oil will be removed by oil skimmers at the waste treatment plant.

A representative from the separator manufacturer will assist in the installation of a new baffle package. This installation should be completed within a weeks time.

Kearny Generating Station does not anticipate any discharges from the Waste Treatment Plant (WTP) to the Hackensack river for the duration of the oil/water separator outage. Additionally, we do not expect the separator outage to result in any permit exceedances.

If you have any questions please contact Raymond A. Fernandez, Environmental and Technical Manager, at (201) 430-8952.

Very truly yours

Craig J. Bishop
Manager-
Kearny Generating Station

BJA000032

356

95 2185 (4M) REV 11/

920990135

DEP-090
3/91

w Jersey Department of Environmental Protec

COMMUNICATIONS CENTER NOTIFICATION REPORT

Remedi

Received 10/06/92

RECEIVED
DIVISION OF FACILITY
WIDE ENFORC

TD Log # 16317

Operator ROGER

Reviewed By

Case # 92-10-6-1246-19

OCT 8 10 03 AM '92

Notification Type Facility

Reported By	Affiliation	Phone
MIKE CULLEN	P.S.E.&G.	201-430-8789
Street Address	**Municipality**	**State**
HACKENSACK AVE	KEARNY TOWN	NJ

WATER & HAZARDOUS
WASTE ENFORCEMENT
METRO BUREAU

Incident Location: Facility

Site: P.S.E.&G. KEARNY GEN.STA. Phone 201-430-8789

Street Address	Municipality	County	State
HACKENSACK AVE	KEARNY TOWN	HUDSON	NJ

Location Type Industrial Incident Date 10/06/92 Time 0800

Substance Released NONE
Amount Released ( ): NONE
ID Known State CAS # Release Is
Additional Substances
Substance Contained? Y Hazardous Material? N TCPA? N A310 Letter? N
COMU Code 0907 Referral Code 009

Incident Description Equip Startup/Shutdown

Injuries? N Public Evac? N Facility Evac? N Public Exposure? N
Police On Scene? N Firemen On Scene? N DEP Requested? N Wind Sp/Dir

Contamination Of NONE Receiving Water NONE

Status at Scene
EQUIP.SHUTDOWN OF OIL WATER SEPERATOR UNIT.NO DISCHARGE HAS OCCURED.EQUIP.SHUT DOWN FOR MAINT.

Responsible Party Known
Party P.S.E.&G. KEARNY GEN Phone 201-430-8789
Contact MIKE CULLEN Title ENV.COORID.

Street Address	Municipality	County	State
HACKENSACK AVE	KEARNY TOWN	HUDSON	NJ

OFFICIALS NOTIFIED

	Name	Affiliation	Phone	Date	Time
NJSP					
MUNIC					
OTHER					

	Name	Affiliation	Method	Date	Time	T/M
1		DEP-WAT Metro	Faxed	10/06/92		T
2						
3						

COMMENTS

920990136

09-1092

New Jersey Department of Environmental Protection
COMMUNICATIONS CENTER NOTIFICATION REPORT

Received:10/06/92 TD Log # 16317
Operator:ROGER Case # 92-10-6-1246-19

Notification Type: Facility

Reported By	Affiliation	Phone
MIKE CULLEN	P.S.E.&G.	201-430-8789
Street Address	**Municipality**	**State**
HACKENSACK AVE	KEARNY TOWN	NJ

Incident Location: Facility
Site P.S.E.&G. KEARNY GEN.STA. Phone 201-430-8789

Street Address	Municipality	County	State
HACKENSACK AVE	KEARNY TOWN	HUDSON	NJ

Location Type Industrial Incident Date 10/06/92 Time 0800

Substance Released NONE
Amount Released ( )NONE
ID:Known State CAS# Release Is
Additional Substances
Substance Contained? Y Hazardous Material? N TCPA? N A310 Letter? N
COMU CODE: 0907 REF CODE: 009

Incident Description Equip Startup/Shutdown

Injuries? N Public Evac? N Facility Evac? N Public Exposure? N
Police On Scene? N Firemen On Scene? N DEP Requested? N Wind Sp/Dir

Contamination Of NONE Receiving Water NONE
Status At Scene EQUIP.SHUTDOWN OF OIL WATER SEPERATOR UNIT.NO DISCHARGE HAS OCCURED.EQUIP.SHUT DOWN FOR MAINT.

Responsible Party Known
Party P.S.E.&G. KEARNY GEN Phone 201-430-8789
Contact MIKE CULLEN Title ENV.COORID.

Street Address	Municipality	County	State
HACKENSACK AVE	KEARNY TOWN	HUDSON	NJ

OFFICIALS NOTIFIED

	NAME	TITLE	PHONE	DATE	TIME
NJSP :					
MUNIC:					
OTHER:					

	Name	Affiliation	Method	Date	Time	T/M
1.		OEP-WATER Metro	Faxed	10/06		T
2.						
3.						

COMMENTS

920990137

Sedlak J
AJH

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY
Environmental Regulation
Wastewater Facilities Regulation Element
CN 029
Trenton, NJ 08625-0029

NOV 12 1992

PSE&G KEARNY GENERATING STA
80 PARK PLAZA T17G
NEWARK NJ 07101

RE: Violation of Effluent Limits or Parameter Reporting Requirements NJPDES Permit No: NJ0000655

Dear Permittee:

The New Jersey Department of Environmental Protection and Energy (Department) has issued your facility a New Jersey Pollutant Discharge Elimination System (NJPDES) permit pursuant to the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq. The permit requires that discharge monitoring results obtained during the previous monitoring period shall be summarized and reported to the Department on Discharge Monitoring Report (DMR) forms.

Your NJPDES permit requires that you submit to the Department a report concerning any non-compliance, including the action taken to correct it and prevent its continuation or recurrence. Additionally, the Clean Water Enforcement Amendments to the New Jersey Water Pollution Control Act and the regulations adopted pursuant thereto, specify reporting requirements for claiming an affirmative defense for certain violations.

The Department has reviewed the DMR submitted for your facility for the period ending 92/08/31 . This review indicated that you are not complying with one or more effluent limitations or parameter reporting requirements specified in your permit. These apparent violations are noted on the attached violation summary forms.

Please review the subject DMR carefully against the information on the violation summary form. If there is a discrepancy between the DMR information you submitted and the data listed on the violation summary form you must immediately submit a copy of the submitted DMR with a notation of the discrepancy to the Bureau of Permit Management, CN029, Trenton, NJ 08625-0029. If your DMR was incomplete or completed incorrectly you must submit a revised DMR to the Bureau of Permit Management with a copy to this office. The corrected information must be submitted in red ink and each revised value must be initialed and dated by the original signatory. DMRs must be completed in accordance with the Department's Discharge Monitoring Report Instruction Manual (Revised June 1991).

BJA000033

920990139

Nothing shall preclude the Department from assessing penalties if the missing DMR effluent parameter information was not inadvertently omitted or if the Department was not notified within 30 days of the DMR due date of the existence of extenuating circumstances beyond the control of the permittee. Failure to submit missing effluent parameter data within ten (10) days from receipt of this letter subjects you to mandatory civil administrative penalties of $100 per parameter per day up to a maximum of $50,000 per DMR. These penalties accrue as of the fifth day following the date on which the DMR was due.

If the information listed on the enclosed form is correct and you have fulfilled your non-compliance reporting requirements, no response to this letter is necessary. The violations will be evaluated and addressed during the Department's compliance evaluation inspection process.

Very truly yours,

Peter T. Lynch, Chief

Metro Bureau of Water &
Hazardous Waste Enforcement
2 Babcock Place
West Orange, NJ 07052-5504

Enclosure

NJPDES Number: NJ0000655 Facility Name: PSE&G KEAR GENERATING STA

==========

.itoring Period End Date: 92/08/31 Pipe Num: WTPA Mon. Loc.: 1

PARAMETER: 00680 DESCRIPTION: CARBON, TOT ORGANIC (TOC)

VIOLATION: E90 NUMERIC VIOLATION

	QUANTITY			CONCENTRATION	
	Average	Maximum	Minimum	Average	Maximum
MEASUREMENT:				35.0000	97.0000

****

920990141

DWR-047
12/88

Let's protect our earth

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 029
TRENTON, NEW JERSEY 08625

NOTICE OF VIOLATION

DATE 12/9/92

Meto

ENFORCEMENT ELEMENT
BUREAU OF REGIONAL ENFORCEMENT
TELEPHONE NO. (201)669-3900

PCWS # _____ TYPE SUPPLY _____ NJPDES # NJ0000655 TYPE DISCH _____ RCRA # _____
NAME OF FACILITY PSE&G Kearny Generating Station
LOCATION OF FACILITY Hackensack Ave. MUN. Kearny COUNTY Hudson
FACILITY REPRESENTATIVE AND TITLE Michael Cullen

You are hereby NOTIFIED that during an inspection of your facility on the above date, the following violations were noted and remedial actions are required:

DESCRIPTION OF VIOLATION/REMEDIAL ACTION: Permit effluent Limitation Violation

[illegible]	Parameter	Limit	Data
[illegible]	TOC	50 mg/L	[illegible] mg/L

[illegible]

The above noted violations are in violation of the following N.J. Statutes/Regulation, and will be recorded as part of the permanent enforcement history of your facility:

- [x] New Jersey Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and appropriate Regulations.
- [ ] New Jersey Safe Drinking Water Act (N.J.S.A. 58:12A-1 et seq.) and appropriate Regulations.
- [ ] New Jersey Water Supply Management Act (N.J.S.A. 58:1A-1 et seq.) and appropriate Regulations.
- [ ] New Jersey Solid Waste Management Act (N.J.S.A. 13:1E-1 et seq.) and appropriate Regulations.
- [ ] New Jersey Underground Storage of Hazardous Substance Act (N.J.S.A. 58:10A-21 et seq.) and appropriate Regulations.

Remedial action to correct the violations must be initiated immediately. Within five (5) calendar days of receipt of this Notice of Violation, you shall telephone the investigator issuing this notice at the above number with the corrective measures you have initiated to attain compliance. The issuance of this document serves as notice to you that the Department has determined that a violation has occurred and does not preclude the State of New Jersey or any of its agencies, from initiation of further administrative or judicial enforcement action, or from assessing penalties, with respect to this or other violations. Violations of these regulations are subject to penalties of up to $25,000 per day.

Further enforcement action, which will require a written response, may be issued on these violation(s) and any additional violations found during the inspection.

[signature]
Investigator, Division of Water Resources, DEP

Violation received by
[signature]

White - Original Canary - Bureau File Pink - Criminal Justice Goldenrod - Central File

New Jersey Is An Equal Opportunity Employer

BJA000036

920990143

Let's protect our earth

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY
DIVISION OF FACILITY WIDE ENFORCEMENT
Metro Bureau of Water and Hazardous Waste Enforcement
2 Babcock Place, West Orange, N.J. 07052
(201) 669-3900

December 31, 1992

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Raymond Fernandez, Environmental Technical Manager
Public Service Electric and Gas Company
Hackensack Avenue
Kearny, NJ 07032

Re: Compliance Evaluation Inspection
Public Service Electric and Gas Company
NJPDES No. NJ0000655
Kearny/Hudson County

Dear Mr. Fernandez:

A Compliance Evaluation Inspection of your facility was conducted by a representative of this Bureau on December 9, 1992. A copy of the completed inspection report form is enclosed for your information.

Your facility received a rating of "UNACCEPTABLE" for its discharge to surface water evaluation due to the following deficiencies:

A review of the Discharge Monitoring Reports (DMRs) for DSN 381 and DSN WTP has revealed a permit effluent limitation violation for the period May 1, 1992 through October 31, 1992.

DMR NUMBER	MONIT. PERIOD END DATE	VIO	DSN NO.	PARAMETER	LOAD CONC	LIMIT TYPE	LIMIT	UNITS	DATA
92080032	8/31/92	EFF	001	TOC	CONC	MAX	50.00	mg/l	97.00

The deficiencies noted above have placed your facility in significant violation of the terms and conditions of your NJPDES permit and/or the Water Pollution Control Act Regulations (N.J.A.C. 7:14A-1 et seq.). You are therefore DIRECTED to institute corrective measures. A written report concerning specific details of remedial measures to be instituted, as well as an implementation timetable, must be submitted to this Department within fourteen (14) calendar days of the date of this correspondence.

You are advised that the New Jersey Water Pollution Control Act (N.J.S.A.

58:10A-1 et seq.) provides for substantial monetary and criminal penalties in cases of permit violations.

Please direct all correspondence and inquiries to Anthony Memoli the member of my staff responsible for this case, who can be reached at (201) 669-3900, or by letter through this Bureau.

Failure to fully comply with the above will result in the initiation of enforcement action by this Department. This shall in no way be construed, however, to indicate any exemption on your part from possible penalties for violations indicated by the Compliance Evaluation Inspection, as stated above.

Very truly yours,

Stefan Sedlak
Section Chief
Metro Bureau of Water and
Hazardous Waste Enforcement

E36:G

c: Chief, Permits Administration Branch, USEPA
Mr. Patrick Durack, USEPA
Edward Grosvenor, Health Officer

bc: Zaheer Hussain
Edward Bonanno, Criminal Justice
Central file
Bureau file

920990146

dim DWR-083
/81

NEW JERSE EPARTMENT OF ENVIRONMENTAL PRO TION
DIVISION OF WATER RESOURCES
CN 029, Trenton, N.J. 08625

DISCHARGE SURVEILLANCE REPORT

PERMIT # NJ0000655 NO. OF DISCHARGES WTP/381 CLASS Maj - Ind

DISCHARGER Kearny Generating Station

OWNER Public Service Electric + Gas Company

MUNICIPALITY Kearny COUNTY Hudson WATERSHED CODE H

LOCATION Hackensack Avenue

RECEIVING WATERS Hackensack River STREAM CLASS SE-3

LICENSED OPERATOR & PLANT CLASS Phil Distasio I V-2

TRAINEE/ASSISTANT _____ OTHER INFO. 430-8789

DEFICIENCIES OR COMMENTS

See Cover Letter

OVERALL RATING ☐ Acceptable ☐ Conditionally Acceptable ☒ Unacceptable

EVALUATOR Anthony Memoli TITLE Environmental Specialist

INFORMATION FURNISHED BY (Name) Michael G. Callen

(Title) Lead Engineer (Organization) PSE+G

DATE OF INSPECTION 12/9/92

920990147

Form DWR-063-A
4/78

N.J.D.E.P.
D.W.R.
DISCHARGE SURVEILLANCE REPORT

Permit #: NJ0000655
Date: 12/9/92

INDUSTRIAL TREATMENT PROCESS EVALUATION

RATING CODES: S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable

		RATING	COMMENTS
GENERAL	DISCHARGE # WTP	—	Sump Pumps, Oil/water Separators, Air Heater, wash water,
	WASTEWATER SOURCE(S)	—	Boiler Blowdown, Storm water, Demineralized water
	CONTINUITY OF OPERATION	—	Intermittent
	BYPASSES/OVERFLOWS	NA	
	S.P.C.C. PLAN	S	December 1990
	ALARM SYSTEMS	S	High pH, High Level on all Tanks, Oil Contamination
	ALTERNATE POWER SUPPLY	S	Jet engine
	BMP		June 26 1989
TREATMENT PROCESSES			
	Oil/Water Separator	S	
	Chemical Mix tank		
	Demineralization Tanks		
	Settling Tanks (3)		
SLUDGE HANDLING	Sludge from WWTP	-	Portable Belt Press - Not in use
			No Dewatering or Processing of Sludge
			Sent to Dupont in Delaware - Manifested
			Sludge Code 1027
	Waste Oils		Gen ID# NJD000730424
	Transporter	S	Env Transfer NJD000692061
	DISPOSAL SITE	S	Clean Harbors MAD980555189
			AETC NJD980536593
INFORMATION	FLOW METER & RECORDER	S	
	RECORDS	S	Perm.7/ DMRs / Manifests
	SAMPLING PROCEDURES	S	PSE&G Kearny: Temp + TR Cl2 + pH - Cert # 09586
	ANALYSES PERFORMED BY	S	PSE&G Linden Cert # 20357
	Bio Assay	S	IT Corp Cert # 1206T
OTHER			
	FINAL EFFLUENT APPEARENCE	NA	
	REC. WATERS APPEARENCE	NA	

920990148

DWR-053-A

N.J.D.E.P.
D.W.R.
DISCHARGE SURVEILLANCE REPORT

Permit #: NJ0000655
Date: 12/9/92

INDUSTRIAL TREATMENT PROCESS EVALUATION

RATING CODES: S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable

		RATING	COMMENTS
GENERAL	DISCHARGE # 381	—	Intake from Hackensack River
	WASTEWATER SOURCE(S)	—	NCCW: Turbine
	CONTINUITY OF OPERATION	—	Intermittent
	BYPASSES/OVERFLOWS	NA	
	S.P.C.C. PLAN	S	December 1990
	ALARM SYSTEMS	NA	
	ALTERNATE POWER SUPPLY	S	Backup Generator - Jet Engine
TREATMENT PROCESSES	Influent Bar Screen	-	Screenings → Dumpster → Allstate Carting
	Prechlorination Inlet	S	Changed to a hydantelene system
SLUDGE HANDLING		NA	
	DISPOSAL SITE		
OTHER INFORMATION	FLOW METER & RECORDER	S	Meter + Recorder
	RECORDS	S	Permit DMRs
	SAMPLING PROCEDURES	S	PSE+G Kearny Cert # 09586
	ANALYSES PERFORMED BY	S	PSE+G Linden Cert # 20357
	Approximately 146 Employees		
	FINAL EFFLUENT APPEARENCE	NA	Covered Discharge
	REC. WATERS APPEARENCE	-	Hackensack River

920990149

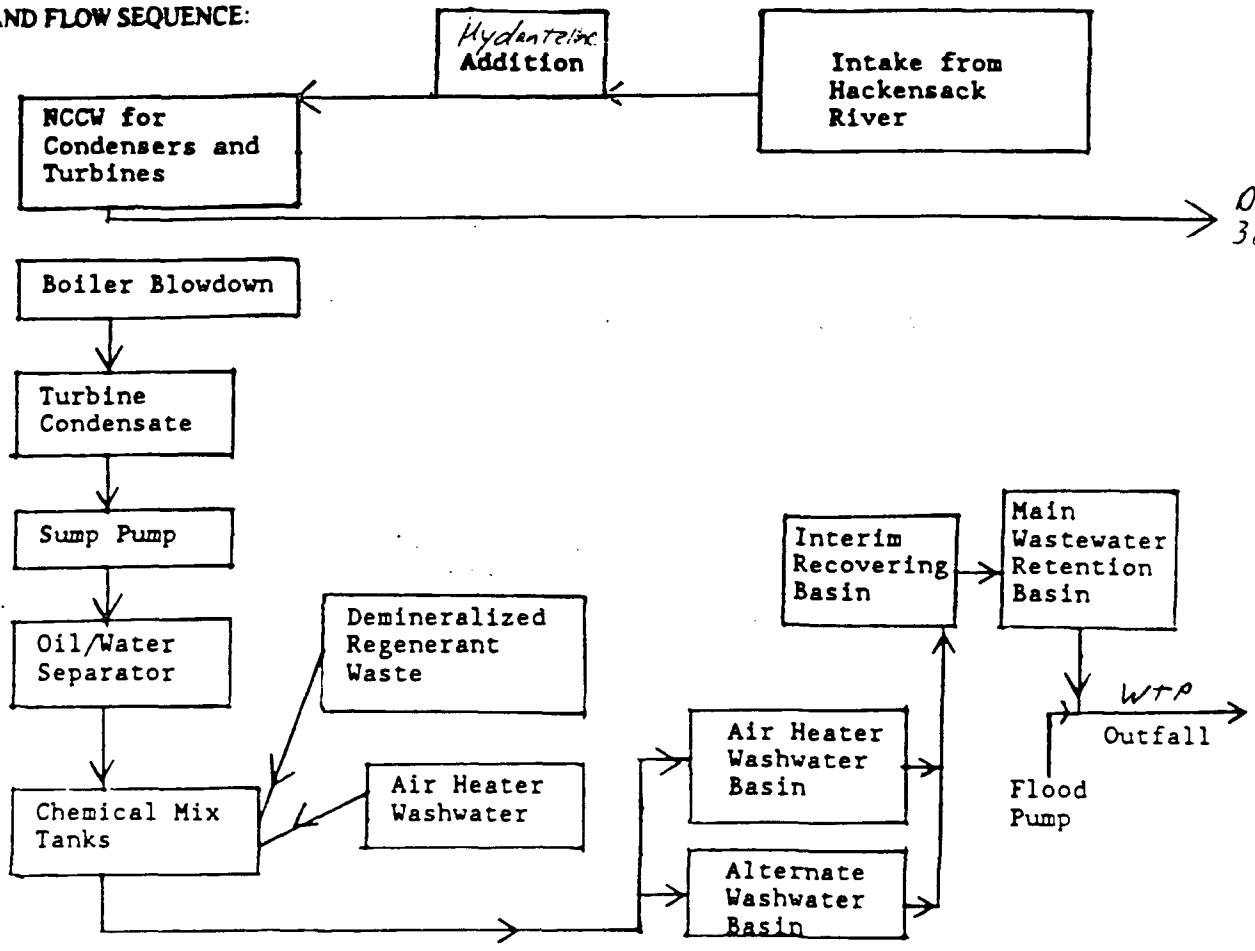
m DWR-053
31

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 029, Trenton, N.J. 08625

DISCHARGE SURVEILLANCE REPORT

Permit # NJ 0000655
Date 12/9/92

DIAGRAM AND FLOW SEQUENCE:



DISCHARGE DATA

SOURCE: DMRs PERIOD: 5/1/92 - 10/31/92

ER UMBER	MONITORING PERIOD	VIOLATION TYPE	DSN No.	SAMPLE TYPE	PARAMETER	PERMIT LIMITS	DATA
108092	8/1/92 - 8/31/92	Eff	WTP		TOC	50 mg/L Max	97 mg/L

RING DEFICIENCIES: See Above

920990150

DWR-047
12/88

Let's protect our earth

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 029
TRENTON, NEW JERSEY 08625

NOTICE OF VIOLATION

DATE 12/9/92

Meto

ENFORCEMENT ELEMENT
BUREAU OF REGIONAL ENFORCEMENT
TELEPHONE NO. (201) 669-3900

PCWS # _____ TYPE SUPPLY _____ NJPDES # NJ0000655 TYPE DISCH _____ RCRA# _____
NAME OF FACILITY PSE&G Kearny Generating Station
LOCATION OF FACILITY Hackensack Ave. MUN. Kearny COUNTY Hudson
FACILITY REPRESENTATIVE AND TITLE Michael Cullen

You are hereby NOTIFIED that during an inspection of your facility on the above date, the following violations were noted and remedial actions are required:

DESCRIPTION OF VIOLATION/REMEDIAL ACTION: Permit effluent Limitation Violation

Period	Parameter	Limit	Data
8/1/92 - 8/31/92	TOC	50 mg/L	97.3 mg/L

Note: Facility has already contacted the Meto Field Office in response to this Exceedance - No Further Response is Required.

The above noted violations are in violation of the following N.J. Statutes/Regulation, and will be recorded as part of the permanent enforcement history of your facility:

- ☒ New Jersey Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and appropriate Regulations.
- ☐ New Jersey Safe Drinking Water Act (N.J.S.A. 58:12A-1 et seq.) and appropriate Regulations.
- ☐ New Jersey Water Supply Management Act (N.J.S.A. 58:1A-1 et seq.) and appropriate Regulations.
- ☐ New Jersey Solid Waste Management Act (N.J.S.A. 13:1E-1 et seq.) and appropriate Regulations.
- ☐ New Jersey Underground Storage of Hazardous Substance Act (N.J.S.A. 58:10A-21 et seq.) and appropriate Regulations.

Remedial action to correct the violations must be initiated immediately. Within five (5) calendar days of receipt of this Notice of Violation, you shall telephone the investigator issuing this notice at the above number with the corrective measures you have initiated to attain compliance. The issuance of this document serves as notice to you that the Department has determined that a violation has occurred and does not preclude the State of New Jersey or any of its agencies, from initiation of further administrative or judicial enforcement action, or from assessing penalties, with respect to this or other violations. Violations of these regulations are subject to penalties of up to $25,000 per day.

Further enforcement action, which will require a written response, may be issued on these violation(s) and any additional violations found during the inspection.

Anthony Marsi
Investigator, Division of Water Resources, DEP

Violation received by
Michael J. Cullen

White - Original Canary - Bureau File Pink - Criminal Justice Goldenrod - Central File

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920990151

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State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY
DIVISION OF FACILITY WIDE ENFORCEMENT
Metro Bureau of Water and Hazardous Waste Enforcement
2 Babcock Place, West Orange, N.J. 07052
(201) 669-3900

PC

December 31, 1992

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Raymond Fernandez, Environmental Technical Manager
Public Service Electric and Gas Company
Hackensack Avenue
Kearny, NJ 07032

Re: Compliance Evaluation Inspection
Public Service Electric and Gas Company
NJPDES No. NJ0000655
Kearny/Hudson County

Dear Mr. Fernandez:

A Compliance Evaluation Inspection of your facility was conducted by a representative of this Bureau on December 9, 1992. A copy of the completed inspection report form is enclosed for your information.

Your facility received a rating of "UNACCEPTABLE" for its discharge to surface water evaluation due to the following deficiencies:

A review of the Discharge Monitoring Reports (DMRs) for DSN 381 and DSN WTP has revealed a permit effluent limitation violation for the period May 1, 1992 through October 31, 1992.

DMR NUMBER	MONIT. PERIOD END DATE	VIO	DSN NO.	PARAMETER	LOAD CONC	LIMIT TYPE	LIMIT	UNITS	DATA
92080032	8/31/92	EFF	001	TOC	CONC	MAX	50.00	mg/l	97.00

The deficiencies noted above have placed your facility in significant violation of the terms and conditions of your NJPDES permit and/or the Water Pollution Control Act Regulations (N.J.A.C. 7:14A-1 et seq.). You are therefore DIRECTED to institute corrective measures. A written report concerning specific details of remedial measures to be instituted, as well as an implementation timetable, must be submitted to this Department within fourteen (14) calendar days of the date of this correspondence.

You are advised that the New Jersey Water Pollution Control Act (N.J.S.A.

920990152

58:10A-1 et seq.) provides for substantial monetary and criminal penalties in cases of permit violations.

Please direct all correspondence and inquiries to Anthony Memoli the member of my staff responsible for this case, who can be reached at (201) 669-3900, or by letter through this Bureau.

Failure to fully comply with the above will result in the initiation of enforcement action by this Department. This shall in no way be construed, however, to indicate any exemption on your part from possible penalties for violations indicated by the Compliance Evaluation Inspection, as stated above.

Very truly yours,

Stefan Sedlak
Section Chief
Metro Bureau of Water and
Hazardous Waste Enforcement

E36:G

c: Chief, Permits Administration Branch, USEPA
Mr. Patrick Durack, USEPA
Edward Grosvenor, Health Officer

bc: Zaheer Hussain
Edward Bonanno, Criminal Justice
Central file
Bureau file

1/81

NEW JERSE EPARTMENT OF ENVIRONMENTAL PRO. .TION
DIVISION OF WATER RESOURCES
CN 029, Trenton, N.J. 08625

DISCHARGE SURVEILLANCE REPORT

PERMIT # NJ0000655 NO. OF DISCHARGES WTP/381 CLASS Mat - Ind

DISCHARGER Kearny Generating Station

OWNER Public Service Electric + Gas Company

MUNICIPALITY Kearny COUNTY Hudson WATERSHED CODE 4

LOCATION Hackensack Avenue

RECEIVING WATERS Hackensack River STREAM CLASS SE-3

LICENSED OPERATOR & PLANT CLASS Ph. / Distaso / N-2

TRAINEE/ASSISTANT _____ OTHER INFO. 430-8759

DEFICIENCIES OR COMMENTS

See Cover Letter

OVERALL RATING ☐ Acceptable ☐ Conditionally Acceptable ☒ Unacceptable

EVALUATOR [illegible] TITLE Environmental Specialist

INFORMATION FURNISHED BY (Name) [illegible]

(Title) [illegible] (Organization) [illegible]

DATE OF INSPECTION [illegible]

920990154

Form DWR-053-A
/78

N.J.D.E.P.
D.W.R.
DISCHARGE SURVEILLANCE REPORT

Permit #: NJ[illegible]
Date: [illegible]

INDUSTRIAL TREATMENT PROCESS EVALUATION

RATING CODES: S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable

		RATING	COMMENTS
GENERAL	DISCHARGE # WTP	—	Sump Pumps, Oil Water Separators, Air Heater, Wash Water
	WASTEWATER SOURCE(S)	—	Boiler Blowdown, Storm Water, Demineralized water
	CONTINUITY OF OPERATION	—	Intermittent
	BYPASSES/OVERFLOWS	NA	
	S.P.C.C. PLAN	S	December 1990
	ALARM SYSTEMS	S	High pH, High Level on all Tanks, Oil Contamination
	ALTERNATE POWER SUPPLY	S	Jet engine
	BMR ?		June 26 1989
TREATMENT PROCESSES			
	Oil/Water Separator	S	
	Chemical Mix Tank		
	Demineralization Tanks -		Rate of mixing
	Settling Tanks (3) (4)		
SLUDGE HANDLING	Sludge from WWTP		Portable Belt Press - Not in use No Dewatering or Processing of Sludge Sent to Dupont in Delaware - Manifested Sludge Cake 1027
	Waste Oil		Gen ID# NJ 1000730424
	Transporter	S	Env Transfer NJD000692061
	DISPOSAL SITE	S	Clean Harbors MOD980555189 Aetc NJD980536593
INFORMATION	FLOW METER & RECORDER	S	
	RECORDS	S	Permit / DMRs Manifests MWA
	SAMPLING PROCEDURES	S	PSE&G Kearny Temp + TR-Cl2 + PH - cert = 09586
	ANALYSES PERFORMED BY	S	PSE+G Linden Cert # 20357 IT Corp Cert # 12064
OTHER	FINAL EFFLUENT APPEARENCE	NA	
	REC. WATERS APPEARENCE		

920990155

D.W.R.
DISCHARGE SURVEILLANCE REPORT

Permit #: [illegible] SS
Date: [illegible]

INDUSTRIAL TREATMENT PROCESS EVALUATION

RATING CODES: S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable

		RATING	COMMENTS
GENERAL	DISCHARGE # 381	—	Intake from Hackensack River
	WASTEWATER SOURCE(S)	—	NCCW: Turbine
	CONTINUITY OF OPERATION	—	Intermittant
	BYPASSES/OVERFLOWS	N/A	
	S.P.C.C. PLAN	S	December 1990
	ALARM SYSTEMS	N/A	
	ALTERNATE POWER SUPPLY	S	Backup Generator - Jet Engine
TREATMENT PROCESSES	Influent Bar Screen		Screenings → Dumpster → Allstate Carting
	PreChlorination Inlet	S	Changed to a hydrofeed system
SLUDGE HANDLING		N/A	
	DISPOSAL SITE		
OTHER INFORMATION	FLOW METER & RECORDER	S	Meter & Recorder
	RECORDS	S	Permit DMRs
	SAMPLING PROCEDURES	S	PSE&G Kearny Cert # 09586
	ANALYSES PERFORMED BY	S	PSE&G Linden Cert # 20357
	Approximately 144 Employees		
	FINAL EFFLUENT APPEARENCE	N/A	Covered Discharge
	REC. WATERS APPEARENCE		Hackensack River

920990156

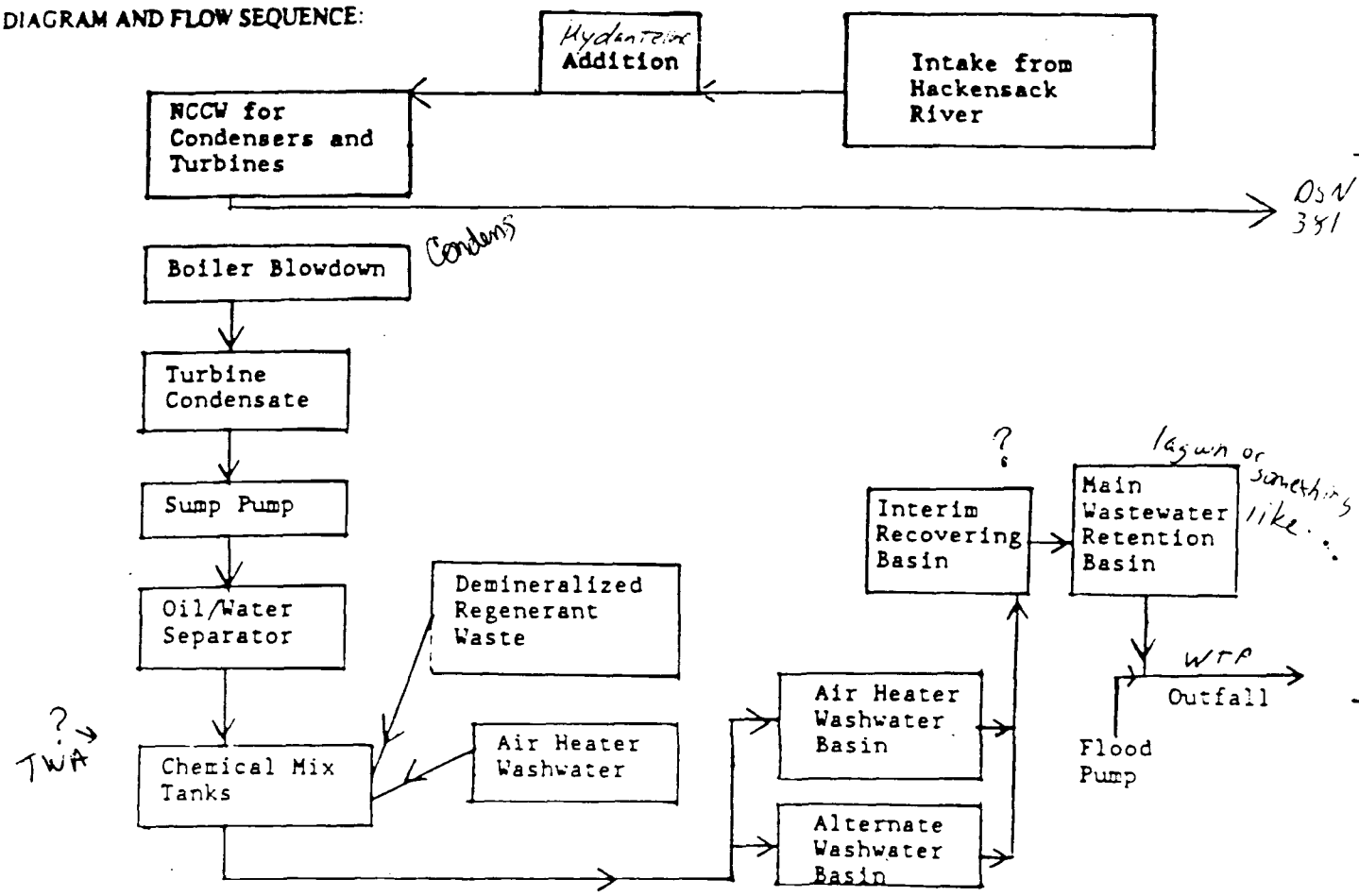
orm DWR-053
/31

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 029, Trenton, N.J. 08625

DISCHARGE SURVEILLANCE REPORT

Permit # NJ 0000655
Date 12/9/92

ANT DIAGRAM AND FLOW SEQUENCE:



DISCHARGE DATA

RCE [illegible] PERIOD: 5/1/92 - 10/31/92

R MBER	MONITORING PERIOD	VIOLATION TYPE	DSN No.	SAMPLE TYPE	PARAMETER	PERMIT LIMITS	DATA
[illegible]	[illegible]	[illegible]	[illegible]		TOC	50 mg/L Avg	[illegible]

ING DEFICIENCIES See [illegible]

920990157

A.2. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning EDPM and lasting through Sept. 30, 1990 the permittee is authorized to discharge from serial number: WTP, process wastewater.

There shall be no discharge of floating solids or visible foam in other than trace amounts attributable to plant operations.

Samples taken in compliance with the specified monitoring requirements shall be taken at the following location: at the outfall of DSN WTP; and shall be reported monthly.

	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS	
Effluent Characteristics	Minimum	Average	Maximum	Frequency	Sample type
Flow (MGD)	N/A	N/A	N/A	Continous	-
Total Organic Carbon (mg/l)	N/A	N/A	50	Twice Monthly	Composite
Total Suspended Solids (mg/l)	N/A	30	100	Twice Monthly	Composite
Petroleum Hydrocarbons (mg/l)(1)	N/A	10	15	Monthly	Grab
Copper (mg/l)	N/A	N/A	1.0	Monthly	Composite
Iron (mg/l)	N/A	N/A	1.0	Monthly	Composite
Nickel (mg/l)	N/A	N/A	1.0	(2)	Composite
Zinc (mg/l)	N/A	N/A	1.0	(2)	Composite
Acute Toxicity	LC50 ≥ 50%	N/A	N/A	See Part IV	
Chronic Toxicity	NL(3)	N/A	N/A	See Part IV	

(1) And no visible sheen.
(2) Sampling shall be performed only during discharge of chemical/metal cleaning wastes;
(3) No Limit but monitoring and reporting required.

9209990158

A.1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning EDP and lasting through 9/30/90 the permittee is authorized to discharge from outfall serial number: 381, non-contact cooling water.

There shall be no discharge of floating solids or visible foam in other than trace amounts attributable to plant operation.

Samples taken in compliance with the specified monitoring requirements shall be taken at the following location: at the outfall of DSN 381, and shall be reported monthly.

Effluent Characteristics	DISCHARGE LIMITATIONS Minimum	Average	Maximum	MONITORING REQUIREMENTS Frequency	Sample Type
Flow (MGD)	N/A	N/A	N/A	Daily	Calculated (5)
pH - Influent (S.U.)	N/A	N/A	N/A	(3)	Grab
pH - Effluent (S.U.)	6.5 (2)	N/A	8.5 (2)	(3)	Grab
Temperature - Influent °F(°C)(1)	N/A	N/A	N/A	Continuous	-
Temperature - Effluent °F(°C)(1)	N/A	N/A	124(51)	Continuous	-
Temperature - Difference °F(°C)(1)	N/A	N/A	30(16.7)	Daily	Calculated
Heat - Net (MBtu/hr)(1)	N/A	N/A	1230	Daily	Calculated
Chlorine-Total Residual (mg/l)(4)	N/A	N/A	0.2	(3)	Grab

(1) See page 19, Part IV, D.4.
(2) When intake pH is less than 6.5, the discharge pH limit shall be the intake pH; when the intake pH is greater than 8.5, the discharge pH limit shall be the intake pH.
(3) Samples shall be taken once every other normal work day, preferably on Mondays, Wednesdays and Fridays.
(4) This limit shall be expressed as Total Residual Oxidants when feeding alternate biocide.
(5) If practical, the permittee may install a flow meter to obtain direct readings.

9209990159

JESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDES NJPDES

PERMIT NUMBER NJ0000655 (ID 77)
FINAL

Permittee	Co-Permittee
PUBLIC SERVICE ELEC & GAS KEARNY GENERATING STATION 80 PARK PLACE - ROOM 8317 NEWARK, NJ 07101	

Property Owner	Location of Activity
PUBLIC SERVICE ELECTRIC & GAS 80 PARK PLAZA NEWARK, NJ 07101	KEARNY GENERATING STATION FOOT OF HACKENSACK AVENUE KEARNY, NJ

Type of Permit Covered By This Approval	Issuance Date	Effective Date	Expiration Date
B :Ind/Comm.SW Discharge	8/30/85	10/01/85	9/30/90
C :Thermal SW Discharge	8/30/85	10/01/85	9/30/90
B1:DPCC-DCR/BMP Plan	10/30/87	11/01/87	9/30/90

This permit grants permission to implement Discharge Prevention Containment and Countermeasure Plan and Discharge Cleanup and Removal Plan (DPCC/DCR Plans) as prepared by the Public Service Electric and Gas Company, Kearny Generating Station in August 1979 and subsequently updated in 1982 and 1986 and certified by Gerald Slifer, P.E. herein approved as a segment of a Best-Management Practice Plan in accordance with the additional general and special conditions as set forth in Parts I and II hereof.

By Authority of:
George G. McCann, P.E.
Director
Division of Water Resources

DEP AUTHORIZATION
Arnold Schiffman, Administrator
Water Quality Management

NJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDE

NJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDES NJPDES

New Jersey Pollutant Discharge Elimination System

The New Jersey Department of Environmental Protection hereby restricts and controls the discharge of pollutants to waters of the State from the subject facility/activity in accordance with applicable laws and regulations. The permittee is responsible for complying with all terms and conditions of this authorization and agrees to said terms and conditions as a requirement for the construction, installation, modification or operation of any facility for the collection, treatment or discharge of any pollutant to waters of the State.

PERMIT NUMBER NJ0000655
DRAFT

Permittee	Co-Permittee
PSE&G P.O. BOX 570 NEWARK, NJ 07101	

Property Owner	Location of Activity
PUBLIC SERVICE ELECTRIC & GAS P.O. BOX 570 NEWARK, NJ 07101	PSE&G KEARNY GENERATING STA FOOT OF HACKENSACK AVENUE SOUTH KEARNY MEADOWS KEARNY, NJ 07032

Type of Permit Covered By This Approval	Issuance Date	Effective Date	Expiration Date
B :Ind/Comm.SW Discharge	/ /	/ /	/ /
C :Thermal SW Discharge	/ /	/ /	/ /
Y :316 Variance Work	/ /	/ /	/ /
B1:DPCC-DCR/BMP Plan	/ /	/ /	/ /

Modification to categories B and C

DISCHARGED TO: Hackensack River CLASSIFICATION: SE3

By Authority of:
Jorge H. Berkowitz, Ph.D
Acting Director
Division of Water Resources

DEP AUTHORIZATION

(Terms, conditions and provisions attached hereto)

State of New Jersey Department of Environmental Protection/Division of Water Resources

NJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDESNJPDE

920990162

920990163

A.1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning EDP and lasting through 9/30/90 the permittee is authorized to discharge from outfall serial number: 381, non-contact cooling water.

There shall be no discharge of floating solids or visible foam in other than trace amounts attributable to plant operation.

Samples taken in compliance with the specified monitoring requirements shall be taken at the following location: at the outfall of DSN 381, and shall be reported monthly.

Effluent Characteristics	DISCHARGE LIMITATIONS Minimum	Average	Maximum	MONITORING REQUIREMENTS Frequency	Sample Type
Flow (MGD)	N/A	N/A	N/A	Daily	Calculated (5)
pH - Influent (S.U.)	N/A	N/A	N/A	(3)	Grab
pH - Effluent (S.U.)	6.5 (2)	N/A	8.5 (2)	(3)	Grab
Temperature - Influent °F(°C)(1)	N/A	N/A	N/A	Continuous	-
Temperature - Effluent °F(°C)(1)	N/A	N/A	124(51)	Continuous	-
Temperature - Difference °F(°C)(1)	N/A	N/A	30(16.7)	Daily	Calculated
Heat - Net (MBtu/hr)(1)	N/A	N/A	1230	Daily	Calculated
Chlorine-Total Residual (mg/l)(4)	N/A	N/A	0.2	(3)	Grab

(1) See page 19, Part IV, D.4.
(2) When intake pH is less than 6.5, the discharge pH limit shall be the intake pH; when the intake pH is greater than 8.5, the discharge pH limit shall be the intake pH.
(3) Samples shall be taken once every other normal work day, preferably on Mondays, Wednesdays and Fridays.
(4) This limit shall be expressed as Total Residual Oxidants when feeding alternate biocide.
(5) If practical, the permittee may install a flow meter to obtain direct readings.

9209990164

A.2. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning EDPM and lasting through Sept. 30, 1990 the permittee is authorized to discharge from serial number: WTP, process wastewater.

There shall be no discharge of floating solids or visible foam in other than trace amounts attributable to plant operations.

Samples taken in compliance with the specified monitoring requirements shall be taken at the following location: at the outfall of DSN WTP; and shall be reported monthly.

	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS	
Effluent Characteristics	Minimum	Average	Maximum	Frequency	Sample type
Flow (MGD)	N/A	N/A	N/A	Continous	-
Total Organic Carbon (mg/l)	N/A	N/A	50	Twice Monthly	Composite
Total Suspended Solids (mg/l)	N/A	30	100	Twice Monthly	Composite
Petroleum Hydrocarbons (mg/l)(1)	N/A	10	15	Monthly	Grab
Copper (mg/l)	N/A	N/A	1.0	Monthly	Composite
Iron (mg/l)	N/A	N/A	1.0	Monthly	Composite
Nickel (mg/l)	N/A	N/A	1.0	(2)	Composite
Zinc (mg/l)	N/A	N/A	1.0	(2)	Composite
Acute Toxicity	LC50 ≥ 50%	N/A	N/A	See Part IV	
Chronic Toxicity	NL(3)	N/A	N/A	See Part IV	

(1) And no visible sheen.
(2) Sampling shall be performed only during discharge of chemical/metal cleaning wastes.
(3) No Limit but monitoring and reporting required.

920990165

A.3. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning EDP and lasting through EDP + 5 years the permittee is authorized to discharge from outfall(s) serial number(s):382, 383 and 384.

There shall be no discharge from these outfalls. The pipes are no longer in service and have been sealed.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 029, Trenton, N.J. 08625

DISCHARGE SURVEILLANCE REPORT

PERMIT # NJ0000655 NO. OF DISCHARGES WTP/381 CLASS MAJ-IND

DISCHARGER Kearny Generating Station

OWNER Public Service Electric and Gas Company

MUNICIPALITY Kearny COUNTY Hudson WATERSHED CODE H

LOCATION Hackensack Avenue

RECEIVING WATERS Hackensack River STREAM CLASS SE-3

LICENSED OPERATOR & PLANT CLASS Philip Distasio - Instrument Supervisor N-2

OTHER INFO. (201)430-5131

DEFICIENCIES OR COMMENTS Iron exceedance for June 1993 DMR # 93060029 outfall discharge WTP. Daily Max = 1.0 mg/l ; Result = 2.4 mg/l

OVERALL RATING ☐ Acceptable ☐ Conditionally Acceptable ☒ Unacceptable

EVALUATOR Sheila Grimes Alfonso Gonzalez TITLE Senior Environmental Specialist Environmental Specialist Trainee

INFORMATION FURNISHED BY (Name) Philip Distasio

(Title) Instrument Supervisor (Organization) DSE&G

DATE OF INSPECTION 12-8-93

BJA000043

920990167

Form DWR-053-A
4/78

N.J.D.E.P.
D.W.R.
DISCHARGE SURVEILLANCE REPORT

Permit #: NJ0000655
Date: 12-9-93

INDUSTRIAL TREATMENT PROCESS EVALUATION

RATING CODES: S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable

		RATING	COMMENTS
GENERAL	DISCHARGE # WTP	—	Sump Pump Oil Water Separator Air Heater Wash Water
	WASTEWATER SOURCE(S)	—	Boiler Blowdown, Storm Water Demineralized Water
	CONTINUITY OF OPERATION	—	Intermittent (4 month year)
	BYPASSES/OVERFLOWS	N/A	—
	S.P.C.C. PLAN	S	July 15 1993
	ALARM SYSTEMS	S	High pH, High Levels on all tanks oil contamination
	ALTERNATE POWER SUPPLY	S	Jet Engine - Used once a month for a simulated black out (Best strap)
	Best Management Plan - BMP	M	No dated plan at this time of inspection
TREATMENT PROCESSES			Emergency Plan - DPCC - DCR observed
	Oil Water Separator	S	
	Chemical Mix Tank	S	
	Demineralization Tank	S	
	Settling Tank (3)	S	
SLUDGE HANDLING	Sludge from WWTP		Portable unit - Schedule for dissludge via measurment (once/2 yrs) last disposed 1991 - See Compliance Inspection 12-9-92 for disposal site and transporter
			- disposed by volume.
	DISPOSAL SITE		
OTHER INFORMATION	FLOW METER & RECORDER	S	
	RECORDS	M	Permit/DMRs TWA
	SAMPLING PROCEDURES	S	PSE & G Kearny Personnel (for Temp, TRC, pH) Cert #09586
	ANALYSES PERFORMED BY	S	~~PSE & G Linden Cert # 20357~~
		S	IT Corp for Bioassy Cert # 12064
	~~Rose~~ P.S. Research + Testing Laboratory		~~[illegible]~~ Maplewood. Cert # 07180
			IT Corp for Bioassay Cert # 12064
		NA	
	FINAL EFFLUENT APPEARENCE	NI	Not INSPECTED (underground)
		NA	
	REC. WATERS APPEARENCE	S	Hackensack River

920990168

Form DWR-053-A
4/78

N.J.D.E.P.
D.W.R.
DISCHARGE SURVEILLANCE REPORT

Permit #: NJ0000655
Date: 12-8-93

INDUSTRIAL TREATMENT PROCESS EVALUATION

RATING CODES: S = Satisfactory M = Marginal U = Unsatisfactory NA = Not Applicable

		RATING	COMMENTS NI = Not Inspected
GENERAL	DISCHARGE # 381	—	Intake From Hackensack River
	WASTEWATER SOURCE(S)	—	NCCW: Turbine Condenser
	CONTINUITY OF OPERATION	—	Intermittent (4 months year) when Running
	BYPASSES/OVERFLOWS	N/A	
	S.P.C.C. PLAN ✓	S	July 15 1993
	ALARM SYSTEMS ✓	N/A	
	ALTERNATE POWER SUPPLY ✓	S	Jet Engine - Used once a month for Mock simulated blackout (Black Strap)
TREATMENT PROCESSES	Influent Bar Screen ✓	S	Screening → Dumpster → Allstate Carting
	Hydantoin (Biocide) Shut down - only used when Water H2O is above 40°		(to avoid clogging of pipework)
SLUDGE HANDLING	DISPOSAL SITE		
INFORMATION	FLOW METER & RECORDER ✓	S	Meter Recorder Temp, PH,
	RECORDS ✓	S	Permit / DMRs TRC.
	SAMPLING PROCEDURES ✓		PSE+G Kearny Lab # 095816
	ANALYSES PERFORMED BY		PSE+G ~~Linden Lab # 2035T~~ Maplewood
OTHER	FINAL EFFLUENT APPEARENCE	NI	underground/under river
	REC. WATERS APPEARENCE	S	Hackensack River

920990169

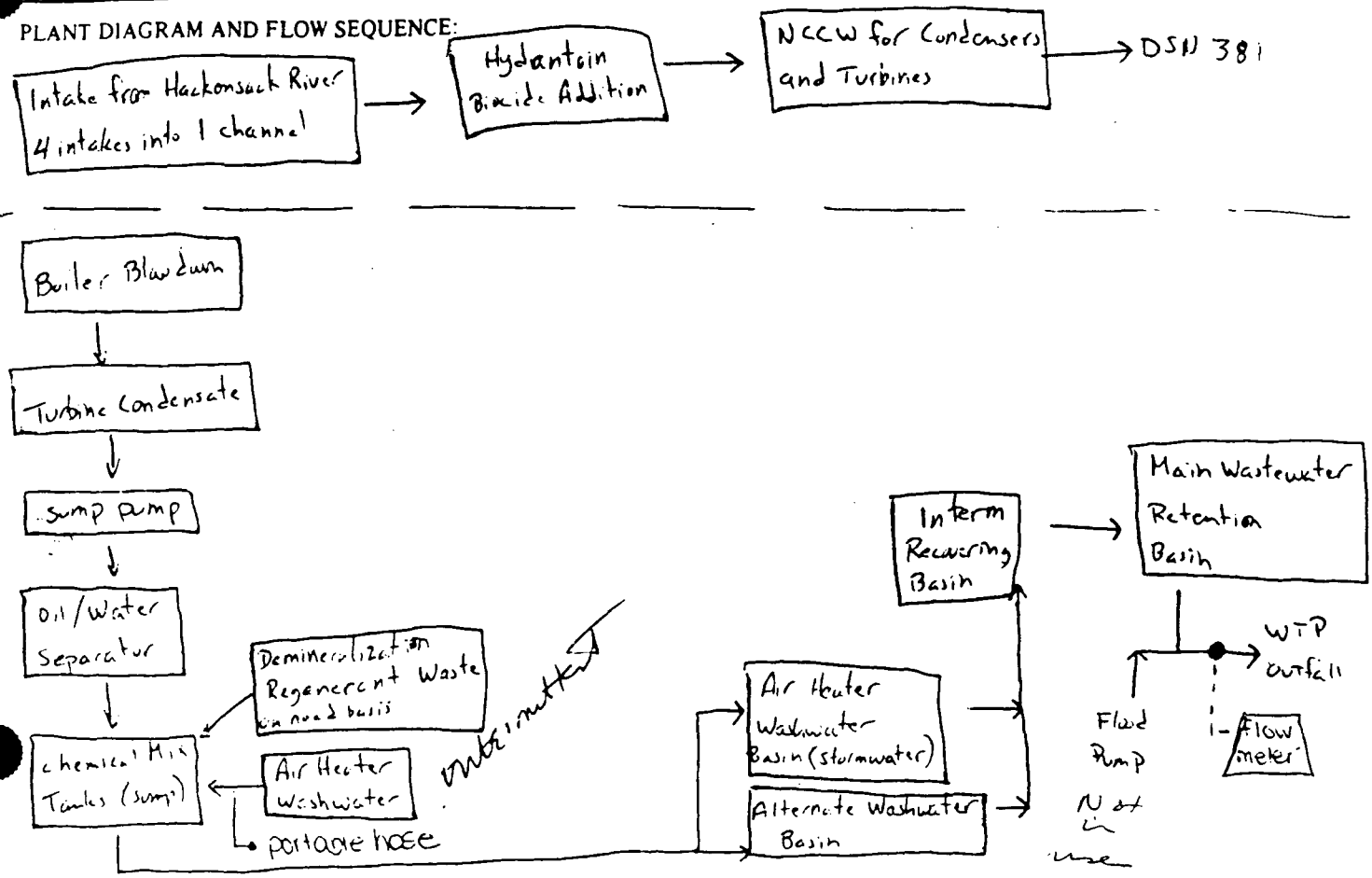
Form DWR-053
3/81

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 029, Trenton, N.J. 08625

DISCHARGE SURVEILLANCE REPORT

Permit # NJ0000655
Date 12-8-93

PLANT DIAGRAM AND FLOW SEQUENCE:



DISCHARGE DATA

SOURCE: DMRs PERIOD: 3-93 to 9-93

DIS	PARA	SAMPLE TYPE	PERMIT LIMITS	DATA	DMR #				
WTP	Fe	Grab	1.0 mg/l	2.4 mg/l				93060029	

MONITORING DEFICIENCIES: See ABOVE

920990170

State of New Jersey
Department of Environmental Protection and Energy
Division of Enforcement Field Operations
Metro Bureau of Water and Hazardous Waste Enforcement
2 Babcock Place
West Orange, NJ 07052-5504
Tel. # 201-669-3900
Fax. # 201-669-3907

Jeanne M. Fox
Acting Commissioner

James K. Hamilton
Assistant Director

December 28, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Edward G. Waugh
Environmental & Safety Manager - Northern Region
Public Service Electric and Gas Company
Hackensack Avenue
Kearny, New Jersey 07032

Re: Offer of Settlement
Public Service Electric and Gas Company
NJPDES No. NJ 0000655
Kearny/Hudson County

Dear Mr. Waugh:

Representatives of the New Jersey Department of Environmental Protection and Energy (hereinafter "NJDEPE" or the "Department") and a representative of Public Service Electric and Gas Company (hereinafter "PSE&G") agreed on December 17, 1993, to amicably resolve the following Findings without the necessity for adversarial proceedings.

FINDINGS

1. PSE&G operates a facility located at Block 298, Lot 19A, 19R, 20R, Hackensack Avenue, Kearny, Hudson County, New Jersey.

2. NJDEPE issued a New Jersey Pollutant Discharge Elimination System ("NJPDES") Discharge to Surface Water Permit No. 0000655 ("the Permit"), to PSE&G on August 30, 1985. The effective date of the Permit was October 1, 1985 and the expiration date was September 30, 1990. In addition, PSE&G, on or about June 1990, submitted a Permit renewal application to the Department. Pursuant to the Administrative Procedure Act, N.J.S.A. 52:14B-11 et seq., the conditions of the expired Permit remain in effect until the Department's issuance of a renewed Permit.

3. Pursuant to the Permit, PSE&G discharges pollutants, as defined by N.J.A.C. 7:14A-1.9, into the waters of the State.

4. No person shall discharge any pollutant except in conformity with a valid NJPDES Permit issued pursuant to the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq.

5. Part III - B/C, Page 1 of 3, of the Permit sets forth specific parameters to be reported on Discharge Monitoring Reports ("DMR's") and identifies discharge limitations for each parameter for each permitted outfall.

6. PSE&G has submitted DMRs to NJDEPE as required by the Permit for the period of March 1993 through September 1993. The DMRs demonstrate that PSE&G reported a violation of the discharge limits of the Permit. Listed below is the date and parameter of the violation:

DMR NUMBER	MONIT. PERIOD END DATE	VIOL	DSN NO.	PARA-METER	LOAD CONC	MIN AVG MAX	LIMIT	UNITS	DATA
93060029	* 06/31/93	E90	WTP	Fe	CONC	MAX	1.0	MG/L	2.4

* Serious violation as defined by N.J.S.A. 58:10A-3(v) and N.J.A.C. 7:14-8.2

The following abbreviations were used in the table above:

E90 - Effluent Violation CONC - Concentration Fe - Iron
MAX - Maximum MG/L - Milligrams per liter

Pursuant to N.J.S.A. 58:10A-10(d) and N.J.A.C. 7:14-8, the Department is willing to compromise its claim for a maximum civil administrative penalty and accept a penalty from PSE&G in the amount of $15,000 for the violation set forth in the Findings above.

PSE&G shall submit within thirty (30) calendar days of the date of this letter, payment in the amount of $15,000. Payment shall be made by cashier's check or certified check payable to "Treasurer, State of New Jersey" and shall be submitted along with the white copy of Form DEP-062A (attached) to:

Bureau of Revenue
New Jersey Department of Environmental Protection and Energy
CN -417
428 East State Street, First Floor
Trenton, New Jersey 08625-0402

in the event that PSE&G fails to submit full payment within thirty (30) calendar days of the date of this letter, this settlement agreement shall be considered null and void and the Department shall seek to collect maximum civil administrative penalties.

Any questions or correspondence pertaining to this letter should be directed to Alfonso Gonzalez, who may be reached at (201)669-3900 or by letter through this Bureau.

Very truly yours,

Peter T. Lynch, Chief
Metro Bureau of Water and
Hazardous Waste Enforcement

E 17

Enclosure

c: Robert Vaughn, USEPA
Edward Grosvenor, H.O.
Russ Furnari, Environmental Coordinator

bc: James K. Hamilton
Dennis Hart, WFRE
Stefan D. Sedlak
Central File
Metro File
Criminal Justice
Enforcement Actions

DEP-062A
10/91

New Jersey Department of Environmental Protection and Energy

☐ Check here if Revised Billing

ENFORCEMENT INVOICE

Document #
Date Rec'd
Amount

DIVISION Enforcement Field Operations/Hdq
PROGRAM NJDPES

TYPE: ☒ Fine/Penalty ☐ Cost Recovery

FACILITY ID NO. NJ0000655
PROGRAM ID NO.

Case/Company Name Public Service Electric and Gas Company
Address Foot Hackensack Ave.
Kearny, NJ 07032

Please identify appropriate category:
☐ County ☐ Local ☒ Private
Authority: ☐ Regional ☐ Local
☒ Industrial ☐ Commercial ☐ Other - _____ Specify

DATE ASSESSED	DESCRIPTION	AMOUNT
December 23, 1993	offer of settlement letter for effluent limitation violation.	$ 15,000.00
DATE DUE: 30 Days after receipt	AMOUNT DUE:	$ 15,000.00

Make check payable to: **Treasurer, State of New Jersey**

Mail to: **NJDEPE, Bureau of Revenue**
CN 417, Trenton, N.J. 08625-0417

COPY DISTRIBUTION: White - Remittance Copy Yellow - Company Pink - Bureau of Revenue Goldenrod - Division

920990176

DEP-062A
10/91

N. Jersey Department of Environmental Protection & Energy

Water

ME-121893-0

Document # 12/28/93-
Date Rec'd 1-18-94
Amount

☐ Check here if Revised Billing

ENFORCEMENT INVOICE

DIVISION Enforcement Field Operations/Metro

FACILITY ID NO. NJ 0000655

PROGRAM NJPDES

TYPE: ☒ Fine/Penalty ☐ Cost Recovery

PROGRAM ID NO.

Case/Company Name Public Service Electric and Gas Company

Address Foot of Hackensack Avenue
Kearny, NJ 07032

Please identify appropriate category:

☐ County ☐ Authority: ☒ Industrial
☐ Local ☐ Regional ☐ Commercial
☒ Private ☐ Local ☐ Other - _____ Specify

DATE ASSESSED	DESCRIPTION	AMOUNT
12/28/93	Offer of Settlement for Effluent Limitation Violation	$15,000.00
DATE DUE:	Thirty (30) days after receipt AMOUNT DUE:	$15,000.00

Make check payable to: **Treasurer, State of New Jersey**

Mail to: **NJDEPE, Bureau of Revenue**
CN 417, Trenton, N.J. 08625-0417

COPY DISTRIBUTION: White - Remittance Copy Yellow - Company Pink - Bureau of Revenue Goldenrod - Division

CHASE MANHATTAN BANK — CARRIER TOWER BRANCH
SYRACUSE, NEW YORK

PSEG

PUBLIC SERVICE
ELECTRIC & GAS CO.
NEWARK, N.J. 07101

79001614 50-937/213

THIS IS WATERMARKED PAPER AND CONTAINS VISIBLE FIBERS
SEE OTHER SIDE FOR CASHING CAUTIONS!

*****15,000 DOLLARS 0 CENTS DATE 01/04/94

PAY TO THE ORDER OF

TREASURER STATE OF NEW JERSEY
BUREAU OF REVENUE
CN417

TRENTON NJ 08625

DOLLARS	CENTS
$*******15,000	00

AUTHORIZED SIGNATURE

AUTHORIZED SIGNATURE

⑈79001614⑈ ⑆021309379⑆ 601⑈2⑈99639⑈ ⑈0001500000⑈

920990177

920990178

NEW PUBLIC SERVI[illegible] UNIT EXCELS [illegible] SHOALS [illegible]

[illegible]

Monday. [illegible] opening [illegible] will [illegible] Thomas [illegible] honor Tuesday [illegible]

The Ke[illegible] mately [illegible] second se[illegible] The unit [illegible] $30,000,000 [illegible] ple are [illegible]

Work [illegible] when the [illegible] support [illegible] crete, in [illegible] On top [illegible] placed [illegible] bricks [illegible] sixty [illegible] fiber [illegible]

Aside [illegible] which [illegible] is [illegible] covered with appa- ratus [illegible] pping up of the volt- age generated [illegible] the station for eco- nomical transmission to distant sub- stations, where it is stepped down for distribution to the consumer.

Adjoining, and connected by convey- [illegible] the boiler house [illegible] ker house and storage [illegible] Between 1,000 and 1,600 tons of coal are used daily in the completed unit. Most of the coal comes by barge, its unloading being almost entirely me- chanical.

When the entire station is complet- ed, about 100 days' supply of coal, ap- proximately 250,000 [illegible] on the grounds.

There are twelve 2,[illegible] boilers, three on each [illegible] ing aisles in the boiler [illegible] has a heating surface of [illegible] feet and contains 90 [illegible] twenty feet long. They [illegible] tomatically.

Five turbines gener[illegible] ly, three being fro[illegible] plant of the General [illegible] and two from the Pitt[illegible] Westinghouse Electric [illegible] turing Co. Each of the [illegible] capacity of 32,200 K[illegible] of 48,750 Kv-a. [illegible] almost equals the [illegible] lic Service power [illegible]

In the outdoor sub[illegible] power is stepped [illegible] Kv-a banks of [illegible] for each of the five [illegible] in the adjoining [illegible] consists of [illegible] each phase. [illegible] teen feet high [illegible] diameter.

The plant was designed [illegible] the Pub- lic Service Production Company [illegible] owned by Public Service Electric Pow- er Company and is leased and operat- ed by Public Service Electric & Gas Co.

2.

BJA000055

WEST HUDSON RECORD
11/17/26

920990179

Start Work On New PS Plant Here

OBSERVER 5/31/51

Kearny Generating Station Plant to be Expanded With Additions

FOR ELECTRIC POWER

Further details on the expansion of the Public Service Electric and Gas Company generating station in South Kearny were announced this week by company officials. Construction work has been started on the new addition which will double the present plant's output of electric power.

The new installation will include two 145,000-kilowatt, high pressure, high efficiency generating units and the necessary auxiliary apparatus, buildings, dock installations, electrical switching and transformer equipment and connecting transmission lines. The largest turbine-generators in the company's electric system will be installed at the Kearny plant.

Work is scheduled to be completed on the first unit by the Fall of 1952 and the second unit will be placed in service in the Spring of 1953.

The present Kearny station has seven turbine-generators with a combined capacity of 334,000 kw. The new station will have a capacity of 290,000 kilowatts, bringing the total generating capacity to 624,000 kilowatts.

Part of Link System

Since 1925, Public Service has been carrying forward a comprehensive plan of linking its generating stations with major industrial load areas throughout its territory by means of high-voltage transmission tower lines. These lines now extend north near Paterson, south to Camden and westward to Roseland, where they interconnect with the transmission systems of other electric companies in Pennsylvania and New Jersey.

When the high-voltage transmission system was originally planned, provisions were made to accommodate additional power sour-

(Continued on Page 14)

PS Plant

(Continued from Page 1)

ces as required by the growth.

The new equipment to be installed at Kearny will incorporate the latest developments in steam-electric generation. Each of the two 145,000-kilowatt turbine-generators will be supplied with high-pressure, high temperature steam at 2,350 pounds per square inch and 1,100 degrees Fahrenheit by a single large boiler capable of evaporating 525 tons of water per hour. This steam after passing through several stages of the turbine is returned to the boiler and is resuperheated to 1,050 degrees Fahrenheit and then re-enters the turbine.

Use Special Pumps

An unusual feature of the boilers is that water is circulated through the steam-producing tubes by means of special circulating pumps. All boilers of the Public Service system to date depend on natural circulation. As boiler pressures increase, there are a number of unique advantages in the positive circulation system.

The boilers will be equipped to burn either pulverized coal or fuel oil, or both simultaneously. Under full load conditions each boiler will burn approximately 1,100 tons of pulverized coal or 1,200 barrels of fuel oil daily.

The turbine-generators will be of the tandem compound, condensing type, having a capacity of 145,000-kilowatts. In order to condense the steam after it has passed through the turbines, surface condensers having an area of 70,000 square feet will be installed. Water for condensing the steam will be pumped through each condenser at the rate of 100,000 gallons per minute.

The electric generators will be cooled by hydrogen at a pressure of 30 pounds per square inch, which circulates through the windings and over cooling coils to maintain proper temperatures under all load conditions. Because of the lightness and superior heat-conducting properties of hydrogen as compared with air, a maximum electrical output is obtainable.

In order to make the new capacity available on the system, four 100,000 kva transformers will be installed. These will receive the output of the generators at 20,000 volts and raise it to 132,000 volts, at which voltage it will be fed into Kearny switching station for transmission over the high-voltage transmission tower lines.

Upon completion of the installation, these two units operating together will produce one kilowatt-hour of electricity from 2/3 of a pound of coal making this installation the most efficient generating capacity in the Public Service system, and also one of the most efficient contemplated anywhere.

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P.S. Hearing
Seeks to Bar
Kearny Hotel

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Big Public Service Power Station At Kearny Is Rapidly Taking Shape

Machinery for Generating and Distributing Current Installed and Expected to Operate [illegible] Buildings Will Be Finished

[illegible] of iron work for [illegible] the equipment of the super-power station [illegible] Hackensack River [illegible] the extreme eastern end of [illegible] workmen are engaged in installing machinery for generating and distributing the current to be made [illegible] the calculations of the engineers in charge of the work are carried through, as they will doubtless be, it is not at all unlikely that the current from the plant will be turning the wheels of industrial concerns and otherwise aiding the forward march of progress, several weeks and perhaps months before the finishing touches are placed on the building housing the equipment.

In the early days of electrical plant development and in fact until a few years ago it was thought necessary to have the building to house the equipment fully completed before the work of installing equipment was begun. At that time the equipment was so constructed that exposure to the weather rendered it useless. A drop of water falling into a generator doing more damage than the proverbial monkey wrench in industrial machinery. Research work and the genius of man, working hand in hand, have perfected machinery that the elements can not harm, with the result that not only is equipment installed in buildings while construction work is being carried on, but also the buildings of out-of-door plants or sub-stations is becoming more and more prevalent. At the new plant the transformers for converting the voltage generated in the buildings to the required voltage for sending over the transmission lines will have only the sky as a roof.

The completion of this station will add another to the fourteen plants scattered about the state, now being operated by the Public Service Electric & Gas Co. for the producing of electrical current, and three more units to the seventy-two generating units in these stations. The output of the new station will be nearly half as much as the output of the combined capacity of the units now in operation. The fourteen stations have a combined capacity of [illegible] 1,000 kilovolt amperes, the boiler capacity being approximately 2,113,000 horsepower, which, if transformed into mech power would be approximately [illegible] horsepower or 1,120,000 men, working twenty-four hours a day. The plant of the new station in operation will raise this to 2,879,375 horsepower or 6,[illegible],750 manpower. Working on a basis of an eight-hour day, the working day of the average laborer [illegible] this would be multiplied by three [illegible] the power required to [illegible] 3,000,000 men [illegible]

[illegible] units producing 195,000 kw. The second [illegible] the Marion station [illegible] hours producing 103,500 kw. [illegible] station is third with three units [illegible] 37,500 kw.

[illegible] the plant was started [illegible] and has progressed [illegible] the [illegible] engaged [illegible] foundations [illegible] great [illegible] more than [illegible] comprising the [illegible] buildings [illegible] unit, with their outside covering of brick and limestone. It is expected that this unit will be placed in service about the middle of 1926. The second unit, of the same size as the first, will be erected as soon as the capacity requirements make it necessary.

The trio of buildings in this unit, coal bunker and boiler house, turbine room and switch house, have a floor space of 225,000 square feet, the interior of the buildings having a volume of 10,000,000 cubic feet. The out-of-door sub-station will have a floor capacity practically the same as the buildings themselves.

The construction of the plant has required the solving of more than the usual number of engineering problems. When the Public Service took over the 100 acres along the shore of the Hackensack, it was typical marshland. A narrow roadway, passable only in the dry seasons of the year, running from [illegible] lation ambulance [illegible] by the construction company. The building is heated by steam day and night so that there will be no delay in starting the engine of the machine should it be needed. Stretchers are kept available at various points in the construction area and every attempt is made to insure immediate attention to those unfortunate enough to be injured while at work. Runs have been made to the Jersey City Hospital by the ambulance landing the patient in a bed in that institution ten minutes after he met with the accident at the plant.

Others of the frame buildings are used in various phases of work incidental to the construction work, such as blacksmith shops, compressed air generator buildings and storage warehouses.

Scattered about the grounds are thousands of tons of building material, electrical equipment and great piles of coal. These were brought in over sidings constructed over ground which had to be made through fills, the sidings being connected with the meadow yards of the Pennsylvania Railroad. Over this railroad and by barges on the Hackensack River will come the thousands of tons of coal which will be required daily to keep the boilers of the plant in operation.

Use Large Amount of Water

Water sufficient to supply [illegible] of the inhabitants of a small sized city will be required for the plant. Potable water will be used for the boilers while river water will be used for condensing purposes and for washing the ashes from underneath the boilers to the pits outside the plant. The needs of the boilers have not yet been computed but it is estimated that the condensers of the first unit will require 400,000 gallons of water a minute and that when the two units are built the amount required will be in excess of 800,000 gallons a minute.

The initial instalment of equipment will consist of three General Electric turbo generator units, each of 39,200 kva. capacity, and two Westinghouse units of each 41,750 kva capacity, all designed for a throttle pressure of 325 pounds and 271 degrees superheat, the total steam temperature to be 700 degrees Ferenheit. The auxiliaries will be electrically driven, the power being taken from the main generators, alternating current being used. Emergency apparatus will include turbine driven boiler feed pumps in sufficient number to keep the boilers on the line without load if service to the electric auxiliaries should be interrupted, a steam driven circulating pump cross-connected so that it can be used for any one of the five generating units and a steam driven condensate pump for each unit.

[illegible] Piping will be [illegible] and another [illegible] Each [illegible] will be supplied with [illegible] capable of delivering [illegible] cubic feet of air per minute at a [illegible] pressure of seven inches and each boiler will be served [illegible] 800 cubic feet of [illegible] boiler will [illegible] power [illegible]

[illegible] bunker house fronts and coming from [illegible] the [illegible] dollars an [illegible] When [illegible] turned [illegible] for operation [illegible] organize its [illegible]

Trackage Facilities

Trackage facilities [illegible] which building [illegible] way are sufficient [illegible] nearly 100 cars a [illegible] incoming [illegible] was at its height [illegible] mon for over six [illegible] tracks at one time [illegible] number coming [illegible] less. But there [illegible] arriving daily [illegible] working crew [illegible] loading. While [illegible] sending material [illegible] the land side, [illegible] alongside what [illegible] into a modern do[illegible] crushed stone and [illegible] terials and the tow[illegible] the coal for the b[illegible] ized to unload [illegible] Through the use [illegible] stone, sand and ce[illegible] into the elevated m[illegible] which it was sent [illegible] cod by chutes suspended [illegible]

The ash disposal syste[illegible] ployed will be similar [illegible] ployed in the Hell Gate [illegible] New York Edison Company. [illegible] will be delivered from the [illegible] grinders underneath the boilers [illegible] sluicing trough and a stream of [illegible] will wash them into the ash pits. [illegible] the pits the ashes will be pumped [illegible] various parts of the tract to be [illegible] for fill or loaded into barges or on [illegible] for other disposal. The water for sluicing purposes will come from the river, intakes being perpendicular to the river front [illegible] a separate stream to each [illegible] The discharge tunnel will be parallel with the river front and discharge at either end of the river, the necessary apparatus being installed to force the discharge of water in the direction for the tide and to prevent it from flowing from the condensers past the intakes and into the condensers [illegible]

Current will be generated [illegible] volts, sixty cycles, three phase [illegible] will be stepped up to transmission voltage in the out-of-door substation through five banks of transformers, each bank consisting of [illegible] single phase units coupled [illegible] high tension outdoor [illegible] which the power will be [illegible] transformed to [illegible] mission lines [illegible] any number [illegible] power [illegible]

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[illegible] wheels, be, it is not at [illegible] that the current from the [illegible] turning the wheels of industry [illegible] and otherwise aiding in the forward march of progress, several weeks and perhaps months before the finishing touches are placed on the building housing the equipment.

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The plant was started [illegible] 27 and has progressed [illegible] there [illegible] more than [illegible] comprising the [illegible] with [illegible] limestone. It is expected that this unit will be placed in service about the middle of 1925. The second unit, of the same size as the first, will be erected as soon as the capacity requirements make it necessary.

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The construction of the plant has required the solving of more than the usual number of engineering problems. When the Public Service took over the 100 acres along the shore of the Hackensack, it was typical marshland. A narrow roadway, passable only in the dry seasons of the year, running from the turnpike to the Lincoln Highway, passed through the property. The first move on the part of the Public Service Production Company, which received the contract for building the power plant, was to build a roadway several feet above the surface of the marshland. Boring was then made and it was found that the driving of piles would be necessary before building operations could be started. As a result more than 22,000 piles, each seventy feet long, were sunk in the meadowland. Approximately 36,000 cubic yards of concrete were then laid for foundations and the work of erecting the framework was begun. Thus far about 12,000 tons of steel have been either used or are on the ground ready for use. About 7,000,000 bricks will be used for walls.

[illegible] Swenson, construction superintendent, and his staff. A short distance away is a fully equipped first aid hospital with a male nurse in attendance. Adjoining this is a building housing a regu-

[illegible] the ambulance landing the patient in a bed in that institution ten minutes after he met with the accident at the plant.

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The furnaces will be so constructed [illegible] the surrounding wall [illegible] will be fired by superstokers, [illegible] approximately seventeen feet [illegible] one sec having fifteen retorts [illegible] together sixteen retorts each. Each [illegible] will be supplied with air by a forced draft fan capable of delivering 135,000 cubic feet of air per minute at a static pressure of seven inches and [illegible] boiler will be served by an induced draft fan with a capacity of 270,000 cubic feet of air per minute [illegible] boiler will [illegible] rating of [illegible] power.

The coal handling apparatus will be that of a tower having a capacity of 350 tons per hour which will both take the coal from barges moored alongside the dock [illegible] the [illegible]

way are suf[illegible] nearly 100 car[illegible] incoming flow[illegible] was at its he[illegible] mon for over [illegible] tracks at one, [illegible] number coming [illegible] less, but there [illegible] arriving daily [illegible] working crew [illegible] loading. Whi[illegible] sending materi[illegible] the land side, [illegible] alongside wha[illegible] into a modern, [illegible] crushed stone [illegible] terials and the [illegible] the coal for th[illegible] ized to unl[illegible] Through the [illegible] stone, sand an[illegible] into the elevate[illegible] which it was a[illegible] job by chutes [illegible] air.

The ash disp[illegible] ployed will be [illegible] ployed in the H[illegible] New York Edison [illegible] will be deliver[illegible] grinders underr[illegible] sluicing trough [illegible] will wash them [illegible] the pits the ash [illegible] various parts o[illegible] for fill or loaded [illegible] for other dispo[illegible] sluicing purpose[illegible] river. Intakes [illegible] the river front [illegible] stream to each [illegible] tunnel will be [illegible] front and discha[illegible] the river, the [illegible] being installed [illegible] of water in the [illegible] and to prevent [illegible] the condensers [illegible] into the condens[illegible]

Current will b[illegible] volts, sixty cycl[illegible] will be stepped [illegible] voltage in the o[illegible] through five ba[illegible] each bank cons[illegible] single phase [illegible] high tension ou[illegible] which the powe[illegible] transformers to [illegible] mission lines will [illegible] any number of [illegible] power to any of [illegible] There will be a[illegible] bus and, several[illegible] breakers and even[illegible] failure of any [illegible] oil circuit break[illegible] have a rupturing [illegible] kva. the maximu[illegible] manufactured, [illegible]

The superpower [illegible] in with both the E[illegible] tions, the former [illegible] the Passaic River [illegible] planned to not[illegible] lines running fro[illegible] station, so that [illegible] by the company [illegible] insured of an amp[illegible] for both industria[illegible] uses.

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as utilized by the street railway operations. Today, the electric apacity of the system is 9,061,000 kilowatts—more than 200 times much. There were less than 200,000 gas meters in service in 1903, day there are 1,350,000.

Remembering that Public Service started as a "going concern" by quiring operating companies, much of the early effort was devoted integrating these companies, both electric and gas, into unified systems. New gas mains were laid and existing gas manufacturing plants ere expanded to meet the increasing demand for gas as the Public ervice salesmen extolled the virtues of gas stoves and water heaters. he gas send-out grew from five billion cubic feet in 1904 to 20 billon cubic feet in 1924. In the mid-'20s, the company began promotg gas for home and commercial heating. That business grew slowly uring the depression years but following World War II, which rought shortages of both coal and heating oil, thousands of homeeating customers were signed up. The West End Works in Jersey ity was rebuilt, additional ovens were installed at the Camden Coke Vorks and the manufacturing capacity at Harrison was doubled. iquid petroleum facilities which made gas from butane or propane nd air were located around the state. Still, the demand grew and as threatening to outstrip capacity. At this point, the company rned to natural gas suppliers as a source of additional gas.

In 1949, we began receiving natural gas at the rate of four and a alf million cubic feet a day from the Texas Eastern Transmission orporation and the following year deliveries started at the rate of o million cubic feet a day from Transcontinental Gas Pipeline Cororation. The gas from these two suppliers has increased over the ears and currently they supply 80 to 90% of our gas requirements hich range up to 200 billion cubic feet a year. At first the natural as was used as a raw material in the manufacturing process but, eginning in 1955, customers were gradually converted to straight atural gas—a process that was completed ten years later. Today, the ld gas manufacturing plants that still exist are used only for peaking apacity.

During the late '60s, Public Service engineers recognized that a hortage of natural gas might well occur—consumption was outstripping discoveries and reserves were dropping. Several things have been one since then in an attempt to reinforce our gas supplies as pipeiners have curtailed their contract commitments. In 1972, the company signed preliminary agreements to purchase Algerian liquefied natural gas from Distrigas of New York Corporation over a 22-year period, but delays in obtaining necessary government approvals and the Arab oil embargo which brought higher prices led to contract cancellation by the Algerians. However, the company now owns two LNG storage tanks on Staten Island which it financed under the Distrigas agreement. Plans are now under way to install liquefaction equipment at this location—liquefy gas from the pipeline system and use the tanks for peak storage service.

Early in the '70s, the company also authorized the construction of two SNG (synthetic natural gas) plants which use naptha as a feed stock. A 20-million-cubic-feet-per-day plant was installed at Harrison and a 125-million-cubic-feet-per-day plant (10% owned by Elizabethtown Gas Company) was installed at Linden. Because of the high price of naptha, these plants are used only during the coldest winter periods.

An agreement to purchase refinery gas from Exxon at Bayway was signed in 1971, and gas is still being obtained from that source.

A very positive step to increase gas supplies for the future was taken in 1972 with the establishment of a subsidiary company, Energy Development Corporation, whose primary purpose is gas exploration and development. Working with other exploration and development companies, EDC has participated in the drilling of 230 wells, and 108 of them have been successful. Most of the wells are in the Texas-Louisiana area and during the first ten months of this year over five billion cubic feet of gas has been delivered from these wells to New Jersey.

Currently, we are receiving many requests for oil-to-gas house heating conversions and we have been able to satisfy these requests because our other customers are conserving and gas is, therefore, available. The future of the gas business is somewhat uncertain, but I do not *think* it will go the way of the trolley cars.

Contrary to the expectation of our company's founder, the electric business prospered and grew at a much greater rate than either the transportation or the gas business. When the Public Service Corporation was organized in 1903, the electric properties included 14 generating stations with 113 boilers and 156 generators having a total capacity of 40,075 kilowatts—and most of that capacity was used to

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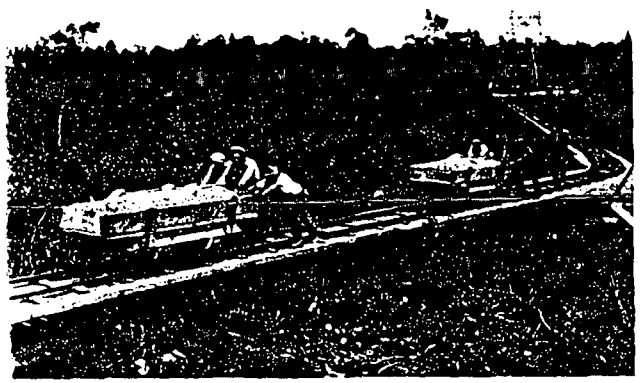
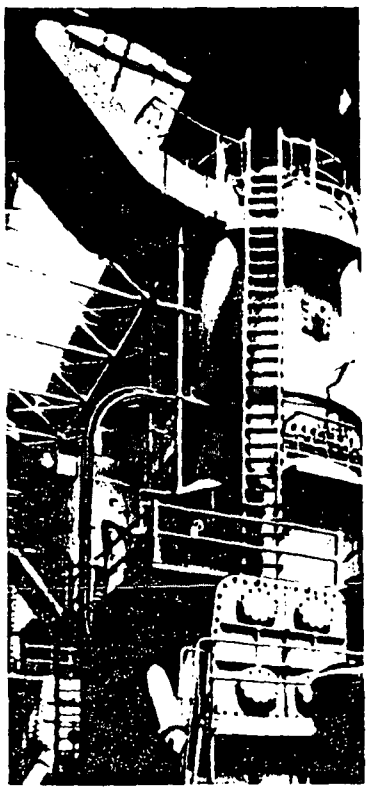
FORERUNNER OF THE PENNSYLVANIA-NEW JERSEY-MARYLAND INTERCONNECTION CAME WITH TWO HIGH-VOLTAGE LINES BEING CONSTRUCTED BETWEEN THE ROSELAND SWITCHING STATION AND ON INTO PENNSYLVANIA.

THE COMPANY INSTALLED THE FIRST ROTATING STEAM TURBINE AND THE FIRST VERTICAL STEAM TURBINE.

IN 1930, A 20,000 KW BOILER-TURBINE—THE LARGEST OF ITS KIND IN THE WORLD—WAS PUT IN SERVICE AT KEARNY GENERATING STATION.





supply the railway system. Today, there are 13 generating sites with an installed capacity of 9,061,000 kilowatts. Electric revenues have grown from $3.5 million in 1904 to $1.565 billion in 1978.

The original generators were driven by reciprocating steam engines, but the more efficient rotating steam turbine appeared on the scene at about the time the company started business and, in 1905, the first such machine was installed at Coal Street generating station in Newark. Three more vertical steam turbines were installed at the new Marion Generating Station in Jersey City during 1905 and 1906. The 6,000-kilowatt units at Marion, although tiny by today's standards, were the last word in generator construction and engineers from all over the country came to New Jersey to see them. The maximum transmission voltage was 13,200 in those days—today it is 500,000. The electric system had nine substations and 47 miles of transmission lines in 1905—today there are 37 switching stations, 253 substations and over 126,000 miles of transmission lines.

Kearny Generating Station opened in November 1926 and Tom McCarter was there with Thomas Edison and Governor A. Harry Moore.

During the following year, 1927, contracts were executed with Philadelphia Electric Company and Pennsylvania Power and Light Company for interconnection and mutually beneficial exchange of power. The interconnection began operation in 1928 with a 230,000 volt transmission ring as the world's first integrated power pool. Connections to the Public Service system were made at Roseland Switching Station with two high-voltage lines going into Pennsylvania. In 1956, Baltimore Gas and Electric Company and the four subsidiaries of General Public Utilities joined the pool and it became the Pennsylvania-New Jersey-Maryland Interconnection—PJM. The present structure was established in 1965 when Potomac Electric Power Company, Atlantic City Electric Company, Delmarva Power and Light Company, and UGI Corporation joined the group. Today, this network of transmission lines links more than 500 generating units located throughout the 50,000 square mile region and provides 21 million customers with lower cost and more reliable power than any single company could furnish. This year direct customer benefits resulting from the interconnection arrangement will be approximately $400 million.

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Throughout its history, Public Service has pioneered advanced techniques in the art of electric power generation. The first 3,600-rpm turbine-generator was installed at Burlington Generating Station in 1932. This 18,000-kw topping unit advanced steam conditions to 650-psi and 850 degrees F.

A year later, a 20,000-kilowatt mercury boiler-turbine—the largest such unit in the world—was put in service at Kearny Generating Station. The design of this unit was based on a smaller 10,000-kilowatt prototype unit which had operated satisfactorily in Hartford. In this binary-vapor cycle, the mercury vapor generated in the boiler at 960F., and 125-psi, drove the mercury turbine and exhausted to the mercury condenser where it generated enough steam to drive another 30,000-kw of steam turbine capacity.

The mercury unit was highly efficient with a heat rate 30 to 40% less than the standard steam units available at the time. There were problems with the unit—the mercury boiler had to be completely redesigned—but it generated over four billion kilowatt-hours during its 20-year life.

Throughout its history, the company pioneered in advancing turbine steam temperatures—the 1050F. at Sewaren in 1948 and the 1100F. at Kearny in 1953 were both world "firsts."

One of the company's most interesting and complex projects was Linden Generating Station which supplies process steam at two different pressures to Exxon's adjacent Bayway refinery. In exchange for the steam, the refinery provides fuel and raw water for the generating station. Two 225,000-kw combination extraction/condensing turbines furnish the process steam and a 3,500-GPM demineralization plant—one of the largest in the world—treats the raw water for the boilers. First operated in 1957, the facility continues to function as one of the world's largest co-generation installations.

During the 1960s, Public Service joined with other members of the PJM Interconnection to build four 900-mw coal-mine-mouth units in western Pennsylvania at two generating stations—Keystone and Conemaugh. Public Service's 775-mw share of the output from these plants is delivered to New Jersey by means of 500-kv transmission lines. These lines were the start of the high voltage transmission system, overlaying the original 230-kv system, which now forms the backbone of the PJM Interconnection. The low fuel costs obtained by

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PSE&G WAS AN INNOVATOR IN APPLYING AIRPLANE TYPE JET ENGINES AS PRIME MOVERS TO DRIVE ELECTRIC GENERATORS. TODAY, PSE&G OWNS 150 ENGINES.

ND POWER EXPERIM
WERE CARRIED ON IN 1

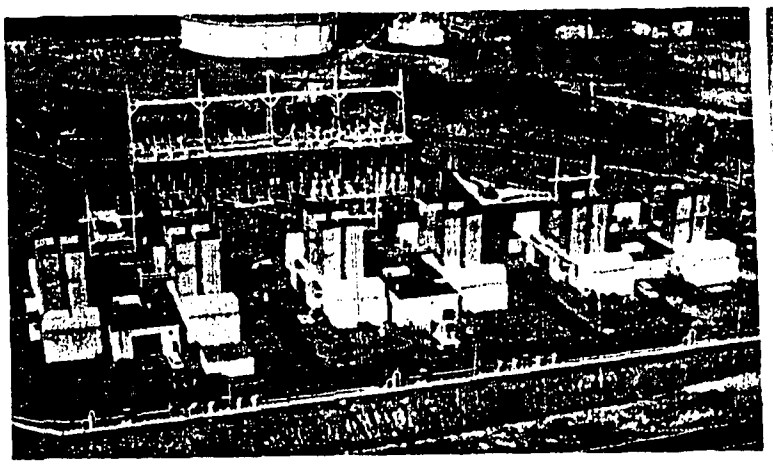
COMPANY ACTIVELY SUPPORTS FUSION POWER RESEARCH BEING CARRIED ON IN PRINCETON, N.J.

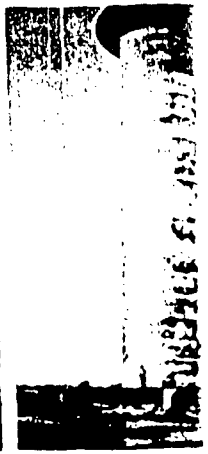
EXPERIMENTS DERIVING METHANE GAS FROM LANDFILL HAVE BEEN SUCCESSFUL IN SUPPLYING GAS TO A MAJOR CUSTOMER.

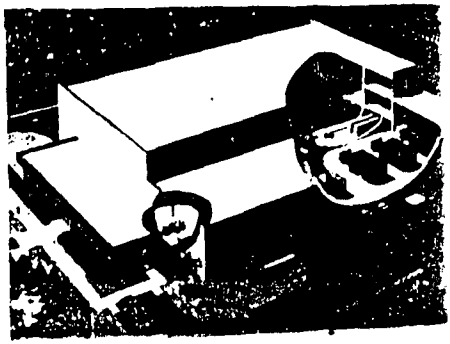
SOLAR DEMONSTRATIO
CUSTOMERS' HOMES REPRE
A THREE-YEAR FEASIB
ST

RENDERING OF NUCLEAR TRAINING CENTER TO BE BUILT IN SALEM COUNTY.

BATTERY ENERGY STORAGE TEST FACI
HUGE BATTERIES WILL BE USED TO SU
OFF-PEAK PO







locating the plants at the coal mines results in appreciable savings to our customers.

Another innovation on the Public Service system was the application of airplane type jet engines as prime movers to drive electric generators. Working with jet engine manufacturers, company engineers developed a unit of 125,000-kw capacity utilizing eight jet engines, four power wheels and a single generator. The first unit, installed at Sewaren in 1967, was the forerunner of many others which were installed in the late '60s and early '70s. Designed basically for peaking operation, they have low capital cost and relatively high operating cost. Today, Public Service owns some 150 jet engines, and we are known by some as the world's largest non-flying airline.

In partnership with Jersey Central Power and Light Company, Public Service installed a pumped-storage generating plant in the Kittatinny Mountains of northwestern New Jersey. This plant, Yards Creek, pumps water to an upper reservoir during off-peak hours and operates as a hydro-power plant by letting the water run back down during the peak demand period. It is one of only a few plants of this type operating in the country today.

Public Service began to enter the nuclear age during the '60s when studies of joint projects were made with Philadelphia Electric Company, Atlantic City Electric Company and Delmarva Power and Light Company. Out of these studies came the decision to build two nuclear plants—one at Peach Bottom by Philadelphia Electric, and one at Salem by Public Service. Each plant has two 1,100-mw units—boiling water reactors in the Philadelphia Electric plant and pressurized water reactors in the Public Service plant. Public Service and Philadelphia Electric own 42 percent of each unit with Atlantic City and Delmarva each owning 8 percent. The Peach Bottom units were put in service in 1974 and the first Salem unit began commercial operation in 1977. The second unit at Salem was essentially ready for its operating license when the nuclear accident occurred at Three Mile Island last March, and we do not now anticipate operation of this unit until sometime next spring.

Meanwhile, construction is continuing on our two 1,100-mw boiling water reactor units at Hope Creek, adjacent to the Salem site. Atlantic City Electric has a small interest in these units which are scheduled for service in 1985 and 1987.

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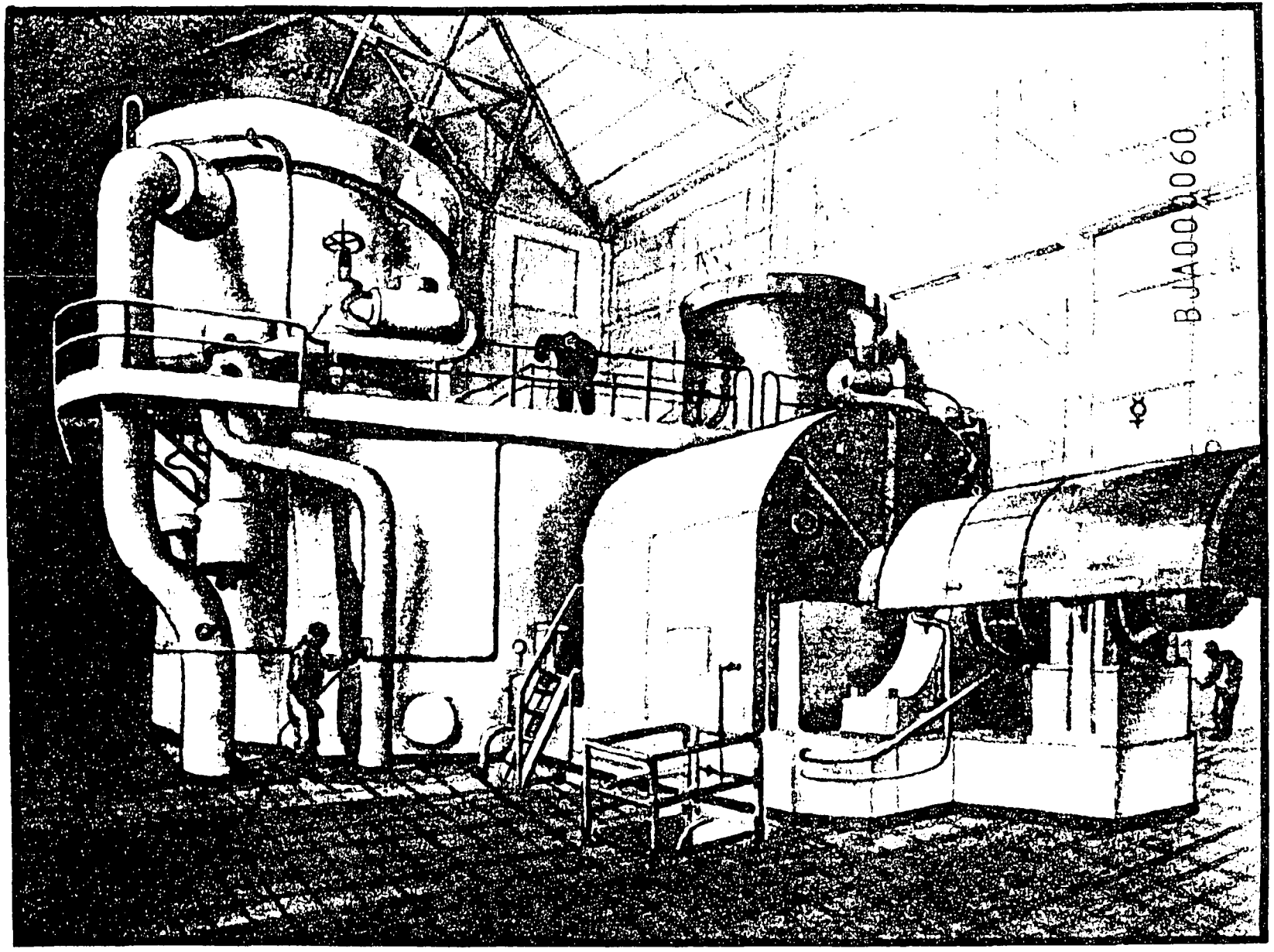
A unique nuclear plant design—a plant mounted on a floating barge—has been developed by Public Service engineers. Four units of this type were ordered in 1972-73, two of which were to be located 2.8 miles off the Jersey coast about 12 miles northeast of Atlantic City for service in the early '80s. This type of plant has a number of attractive features, but with the drastic reduction in load growth which followed the OPEC oil embargo in 1973, the need for these units was pushed so far into the future that the project was abandoned.

Many of our power plants burn oil—foreign oil—for which we are now paying over $29 a barrel. For our national security, as well as for economic reasons, we must reduce our consumption of foreign oil. This can be done by using coal and uranium, and Public Service is striving to do just that. Most of our fossil-fueled power plants were designed to burn coal, with oil as the back-up fuel. In the late 1960s, with the advent of the environmental movement and the air pollution legislation which that movement brought, we switched most of our coal burning plants to low sulphur (0.3%) fuel oil. Now, with the Federal Government interested in shifting these units back to coal, there are environmental laws on the books which make a return to coal burning economically prohibitive—if not technically impossible of accomplishment—in our area of the country. However, it may be feasible to reconvert one or two of our units, particularly a unit at Burlington, and we are taking steps to obtain the necessary permits for a conversion.

In the aftermath of Three Mile Island, the installation of new nuclear plants and even the continued operation of existing plants is being questioned. Many of the investigative reports on Three Mile Island, particularly the report of the President's Kemeny Commission, conclude that more extensive operator training is required. To that end, Public Service announced last week their plans for a 40,000-square-foot training center to be located in southern New Jersey. This $20,000,000 facility will contain 17 classrooms, six shops, three laboratories and two control room simulators—duplicates of the Salem and Hope Creek control rooms—to continuously upgrade the training and review the performance of nuclear plant operators.

Energy alternates other than coal and uranium should be and are being actively pursued. The Electric Power Research Institute, funded by the electric utility companies, was established six years ago to direct the industry's effort. Individual utilities, including Public Service,



ONE OF THREE IN THE U.S.: MERCURY TURBINE AT KEARNY

Its 300,000 pounds of mercury at 958° Fahrenheit generate 20,000 kw., and in cooling off develops enough water steam for 33,000 more. (For the first mercury turbine see FORTUNE, April, 1933.) Its superior thermal efficiency, which wrests a kilowatt hour from 10,000 B.t.u.'s (as against 15,000 for steam), makes its generating cost less by .4 mills per kw.h. It cost $3,000,000 installed. The sign on the wall means mercury or, in a resemblant Egyptian hieroglyphic, life.

[illegible] (as it was hoped) strong power and tr[illegible]

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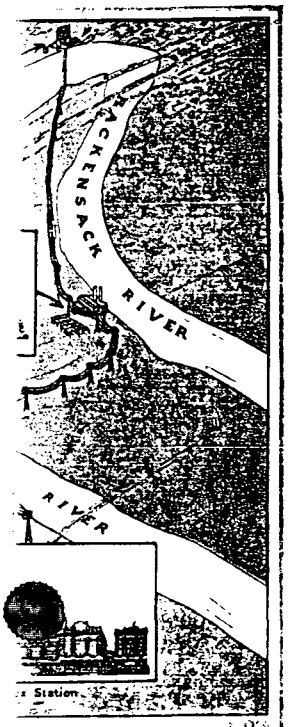

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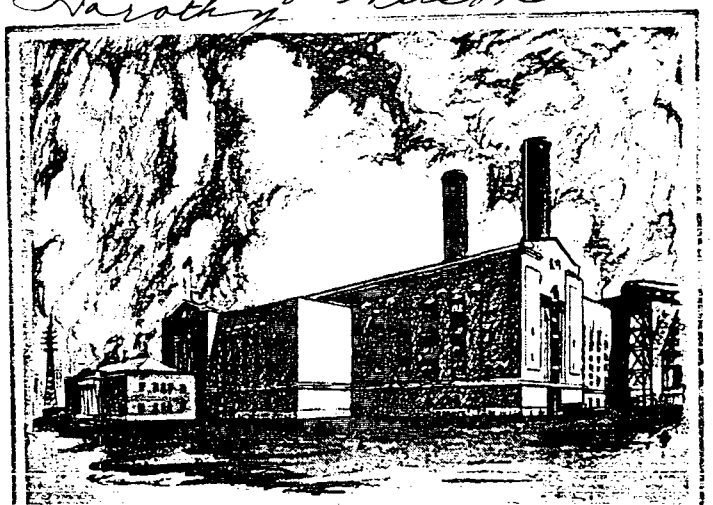
Dorothy L. Wilson



KEARNY ELECTRIC POWER STATION

PUBLIC SERVICE
ELECTRIC AND GAS COMPANY

11.

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Kearny Electric Power Station

KEARNY ELECTRIC POWER STATION, situated on the banks of the Hackensack River in the town of Kearny, N. J., is one of the largest and most modern of the nation's electric generation plants. Its first section, now completed and in operation, has a capacity equal to 250,000 horse power, which is two and one-half times the primary power at the Wilson Dam, Muscle Shoals.

The second section of the station, which will be built as need requires, is to have an equal capacity, so that the two sections will have a combined capacity amounting to 100,000 horse power in excess of the maximum power of which the Wilson Dam is capable.

Work on the present section of the station was started on July 12, 1923, and the first unit of its generation equipment was put in service November 12, 1925. The cost of the section is upwards of $30,000,000. It was designed and built by Public Service Production Company, is owned by Public Service Electric Power Company and is leased and operated by Public Service Electric and Gas Company.

In connection with the Essex and Marion stations it supplies electric energy which lights hundreds of thousands of homes and many miles of streets and highways and turns the wheels in thousands of factories throughout the northern section of New Jersey, including Essex, Hudson, Passaic, Bergen, Union, Middlesex and Somerset Counties.

Kearny station is the latest and most valuable contribution made by Public Service to the prosperity and progress of the state.

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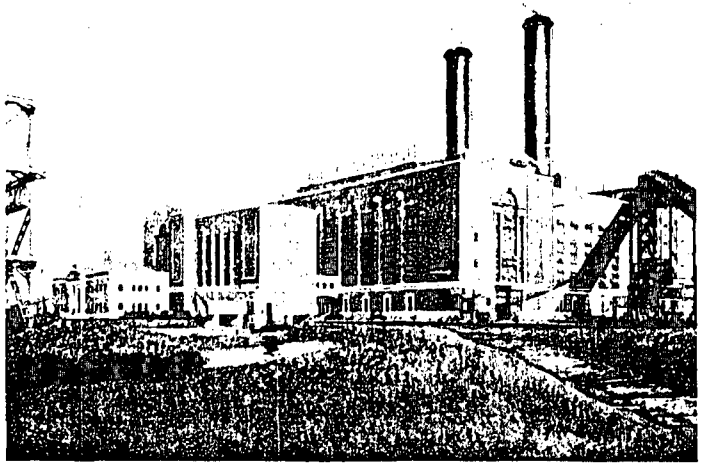
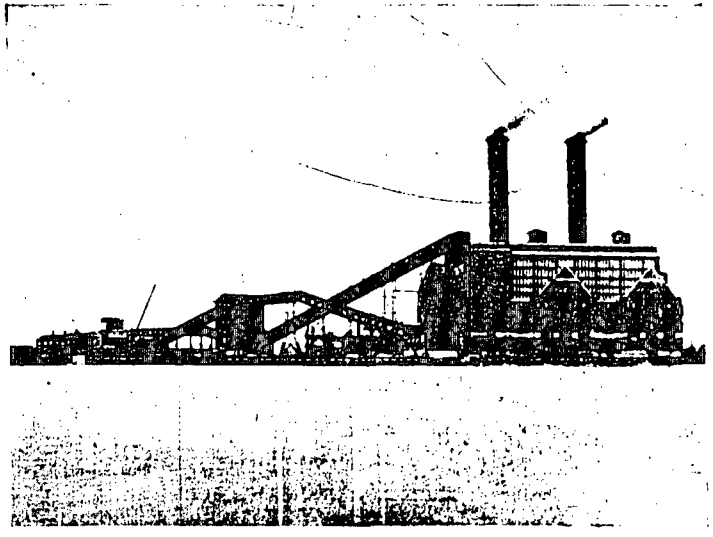


Kearny Station

THIS view of Kearny station looking northeast, shows the administration building, the switch house, the turbine room and the boiler house. The amount of material that was used in the construction of the buildings gives some idea of the magnitude of the structure. As a base for the foundations 28,500 piles varying in length from thirty to seventy-five feet were driven into the mud of the marsh; some 89,000 cubic yards of concrete requiring 580,000 bags of cement, 48,800 cubic yards of sand and 71,400 cubic yards of stone were used in the structure; 16,000 tons of steel went into the skeleton of the buildings and 6,000,000 bricks were used to enclose them. In the wiring of the building, 585 miles of cable and wire, sixty miles of iron and ten miles of fibre conduit were used.



Kearny From Across the River

THIS view of Kearny station was made from the east bank of the Hackensack River. It shows on the river front the bunker house, behind which is the boiler house. Immediately at the left of the building is the coal hoist used in unloading fuel from barges. From the hoist coal is sent through the conveyors to the breaker house, seen still further to the left. Here it is broken into usable sizes and reconveyed to the bunkers, or distributed among the storage piles located in the spacious station grounds. The station is at the present time using between 1,000 and 1,500 tons of coal a day, depending upon the number of generation units that are in service. When the second section is completed about 2,500 tons a day will be used.

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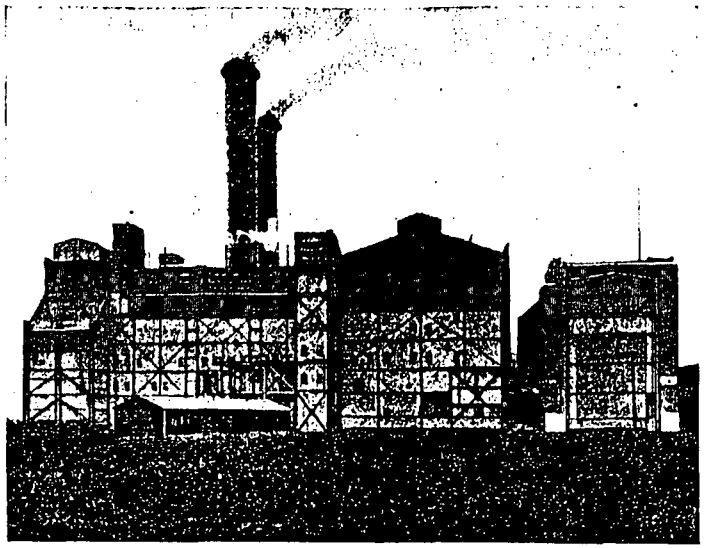
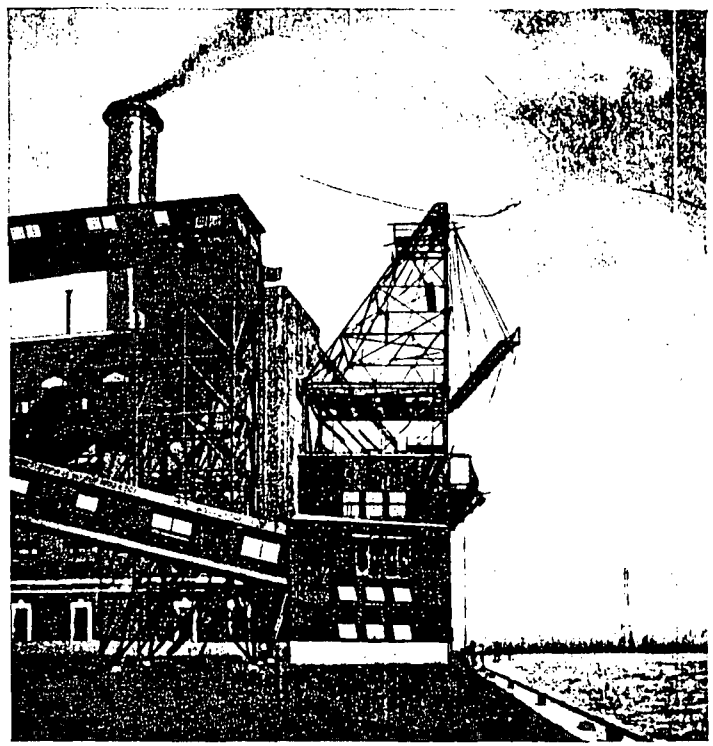


For Future Growth

HERE is the north end of the Kearny station, as it has been left ready for connection with the second section that is to be built as need for increased generation capacity arises. When the new section is built the capacity of the station will be at least doubled and if larger sized generation units are used, as will undoubtedly be the case, will be more than doubled. Public Service builds with the future requirements of the territory it serves constantly in mind. Its experience and its constant study of the development of New Jersey has firmly implanted in the minds of its officers confidence in the continuing growth of the state and its expansion program has been planned in order to fully meet future demands for service.



Marine Coal Hoist

EVENTUALLY about seventy-five per cent. of the coal used under Kearny's boilers will be received by barge. It will be handled by the hoist shown in the picture and sent through the conveyor to the Breaker House, where, after being broken into suitable sizes, it will be sent to the station coal bunkers or storage piles. The location of the plant upon the banks of the Hackensack River assures ample facilities for the receipt of coal by water; besides affording the extensive water supply needed for condensing purposes.

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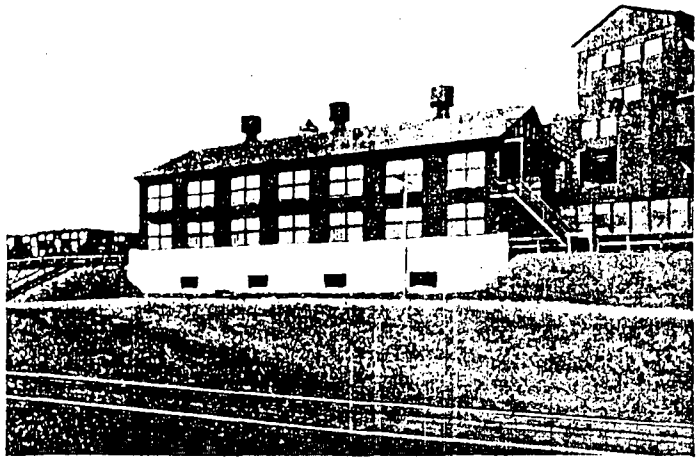
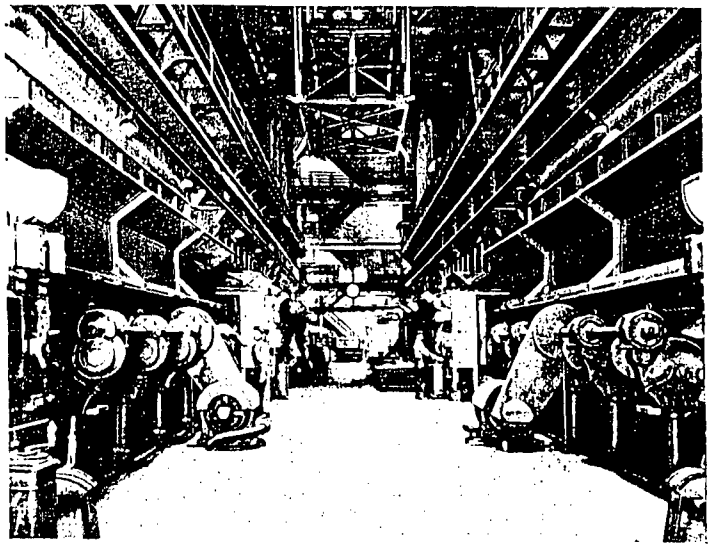


Coal By Rail

A CONSTANT supply of coal is necessary to the operation of Kearny station and its coal handling equipment is unusually complete. When the station is fully completed storage for some 250,000 tons of coal—a hundred days' supply—will be available. Coal is received both by rail and water and the illustration shows the car unloading house, which is provided with pits that permit the unloading of four cars at one time. Coal is dumped from the cars into the pits and conveyors take it to the breaker house from which it is carried either to the coal bunkers next to the boiler house or to the storage piles. In order to insure coal supply, Public Service Electric and Gas Company owns and keeps in service between its plants and the mines, 600 large and modern steel coal cars.



A Firing Aisle

STEAM is used to operate the turbo-generators which produce electricity in the Kearny plant and the steam equipment of the station is as complete and efficient as is the electrical equipment. The picture shows one of the two firing aisles in the boiler house. Six 2,360 horse power boilers, three on a side, are served from each aisle. Each boiler has a heating surface of 23,600 square feet and each contains 960 tubes, each twenty feet in length. The boilers are automatically stoked. Coal from the bunkers above the boiler room is dropped into twenty-five ton traveling weigher larries, motor driven, of which one serves each aisle. From the larries the coal is dropped into the boiler hoppers and fed by gravity to the fires, forced draft and if necessary induced draft being used.

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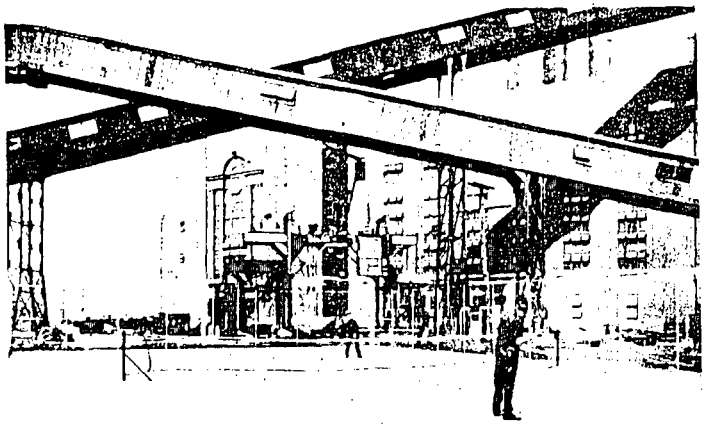
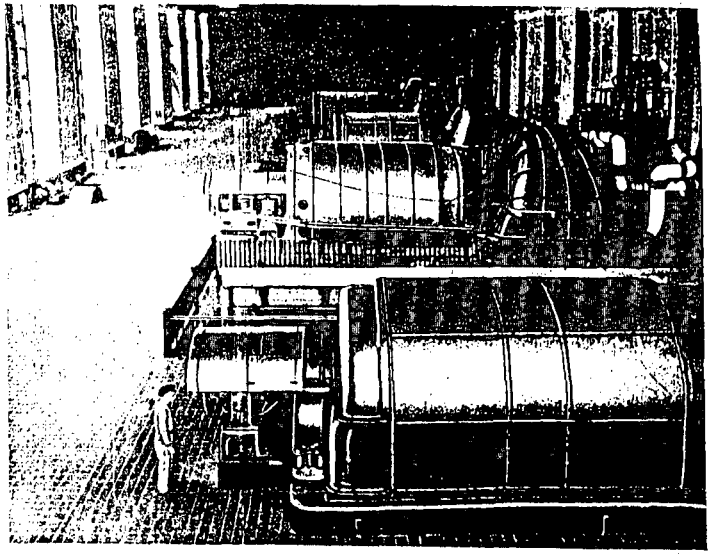


Over the Discharge Canal

THIS picture shows part of the southern end of the Kearny station and part of the coal conveying system. One of the conveyor lines leads from the coal hoist on the dock to the coal breaker; the other from the breaker to the station bunkers. The tennis court is built over the discharge canal. Water taken from the Hackensack River at one end of the plant, is used for condensing purposes in the plant and discharged at the other end. The immense quantity of water used in a station like Kearny, is one of the reasons why location near some great supply such as the Hackensack River affords is necessary. Kearny uses some 551,000,000 gallons of water a day, which is more than ten times as much as is consumed by the City of Newark.



The Turbine Room

THE Turbine Room is the heart of the Kearny station. Here five great turbines generate electric energy that, distributed throughout the northern section of New Jersey, lightens the physical labors of a population of nearly 2,000,000 people, brings light and comfort and conveniences into thousands of homes and plays an almost overwhelming part in the industry of the state.

Three of the five generators were turned out by the General Electric Company in their Schenectady plant. Each has a capacity of 39,200 Kv-a. The other two were manufactured by the Westinghouse Electric and Manufacturing Company at Pittsburgh, and each has a capacity of 43,750 Kv-a. The combined capacity of the five machines is equal to 205,100 Kv-a—almost as much as was the total capacity of all Public Service plants in 1915.

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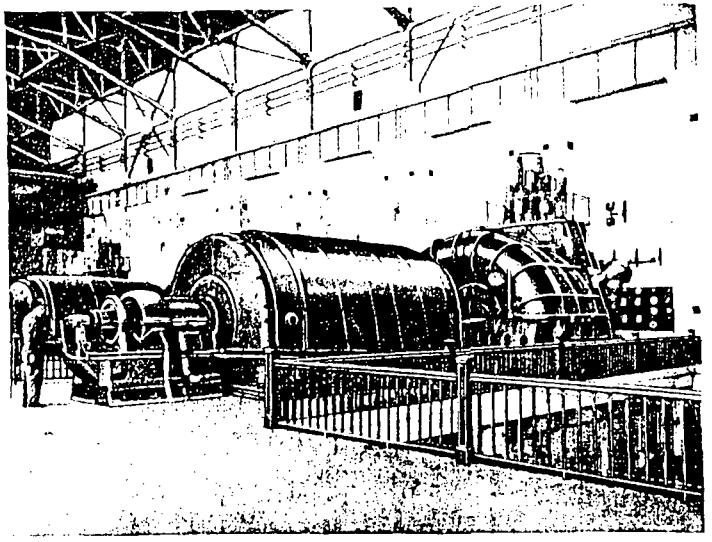
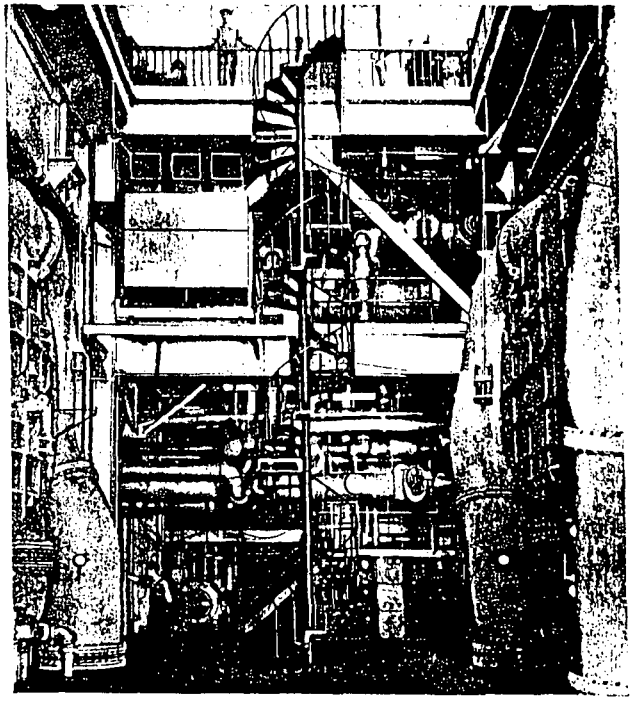


A Giant Generator

HERE is one of the big Westinghouse turbo-generators! It has a capacity of 43,750 Kv-a and shares with its sister unit, also in operation at Kearny station, the distinction of being the largest on the Public Service system. Wholesale production of energy resulting in part from the use of larger generation units is one of the reasons for the marvelous increase in the use of electricity and the maintenance of low rates. In 1885, the largest generation unit in use by what is now Public Service had a capacity of 240 Kv-a; in 1895, the capacity of the largest unit was 850 Kv-a; in 1905, it was 6,000 Kv-a; in 1915 it was 25,000 Kv-a; in 1925 it was 40,000 Kv-a. Progress in the electric art is indicated by the fact that the generator illustrated here has more than 181 times the capacity of that of 1885.



Beneath the Generators

IT is interesting to note that the immensely powerful turbo-generators of today with capacities and capabilities far in excess of their old time predecessors are in appearance much less impressive. The central station of the past with its great throbbing steam engines and formidable looking dynamos, gave a striking picture of force and power. Nevertheless, the modern generator is a giant among machines. The condensers and circulating pumps of the Kearny turbines extend some thirty-five feet below the turbine room level as will be seen from this illustration.

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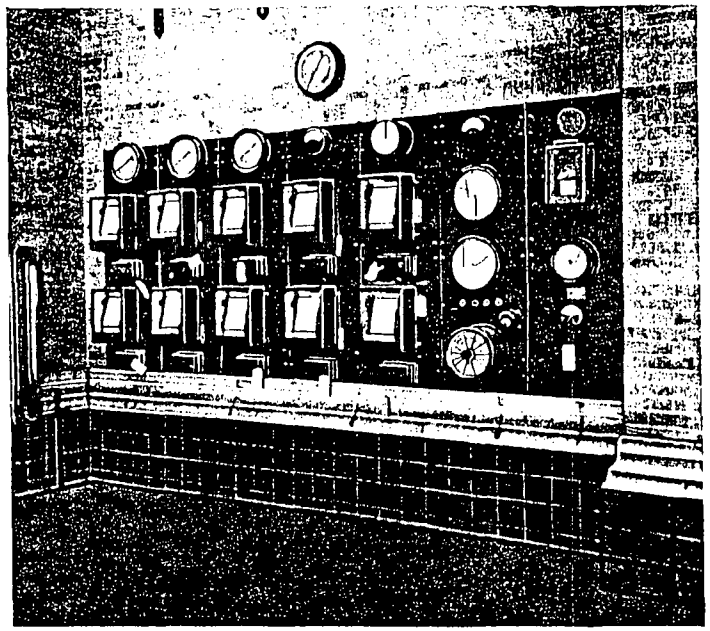
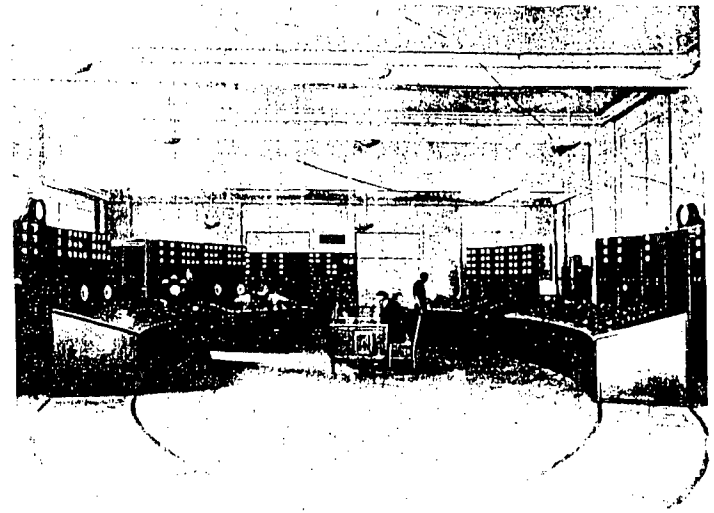


An Instrument Board

For each of the five turbo-generators in the Kearny station there is provided a complete outfit of recording instruments and meters that permit the operators to see at a glance the exact performance of the unit. There are twenty-four of these gauges and meters mounted opposite each generator. Among the instruments which keep the attendants informed are a steam pressure gauge, recording temperature gauges which show the temperatures at various points in the turbine, a flow meter which indicates the amount of steam that is being used at any given time, an electric recording tachometer showing speed of rotation and a telegraph like that on the bridge of a ship which transmits signals to the control room.



The Control Room

The control room shown in this picture may properly be designated the nerve center of the Kearny plant. From it are controlled the hundred or more electrically operated oil switches, which control the flow of energy both in the station proper and in the outdoor substation.

It is hard to present an impressive picture of the tremendous energy which is under the guidance of the operators at the control board. It equals 250,000 horse power, or if we estimate one horse power at ten man power, it equals 2,500,000 man power, which means that the electric current generated in the plant can do the work of that great number of men and do it not merely for eight hours a day but for the full twenty-four hours a day, if that is necessary.

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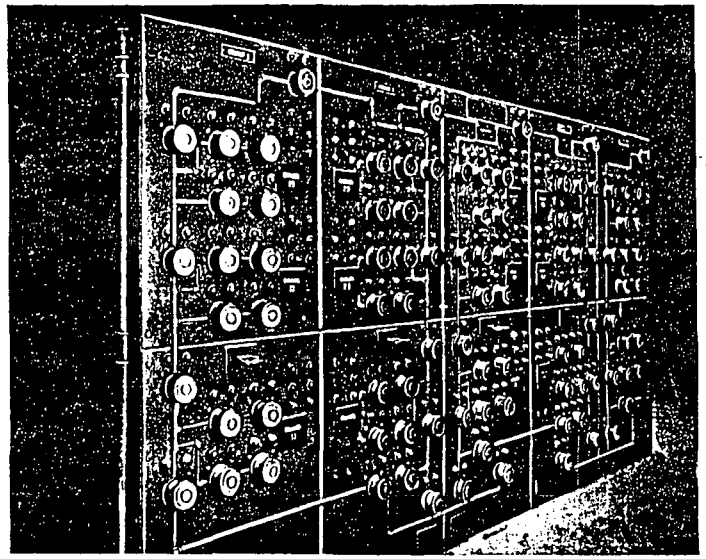
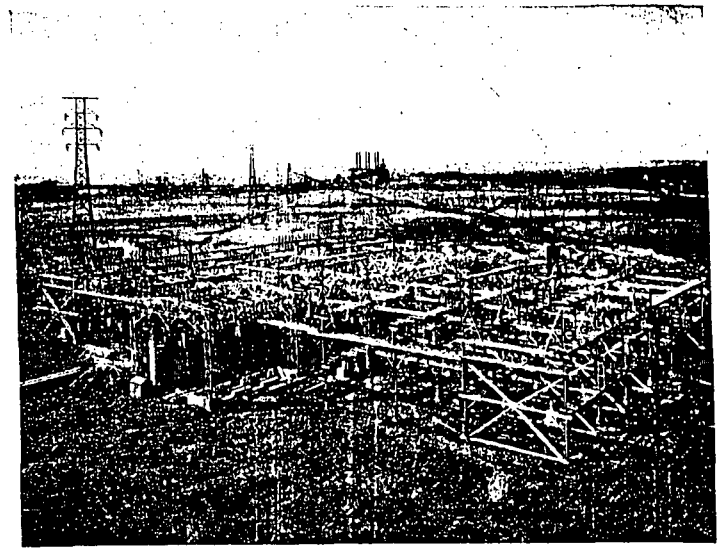


Steam Valve Control

THE extent to which safe operation has entered into the plans for Kearny station is well illustrated by the installation of a Dean automatic control board through which are controlled the approximately ninety electrically operated valves on the station's various steam lines. The board is located on the bridge which connects the turbine room and the switch house and from this point every important steam valve in the plant can be operated. There are five master switches controlling five separate groups of valves and by operating these switches every valve in the plant can be closed. In addition there is a separate switch for each valve, so that each can be closed without affecting any other. This control board is to be used only in case of emergency, and is in addition to the controls placed near each valve.



Outdoor Substation

THE current from the turbo-generators inside the station is conducted through heavy copper cables to the transformers of the substation where its voltage is stepped up for economical transmission to the company's many substations where the process is reversed and current is stepped down again to distribution voltage. In the Kearny outdoor substation there are five 45,000 Kv-a banks of transformers, and all oil switches are controlled from the control room in the station's switch house. In the picture can be seen the tower line that connects Kearny with Essex station. A similar line connects Kearny with Marion station, at each of which plants similar substations are located.

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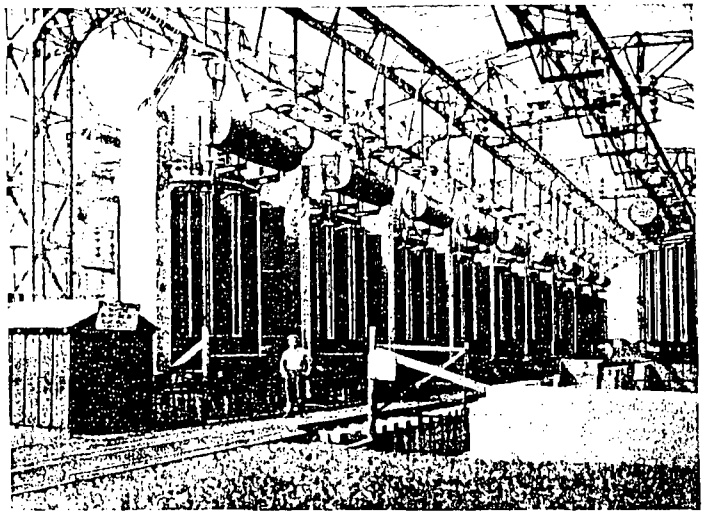
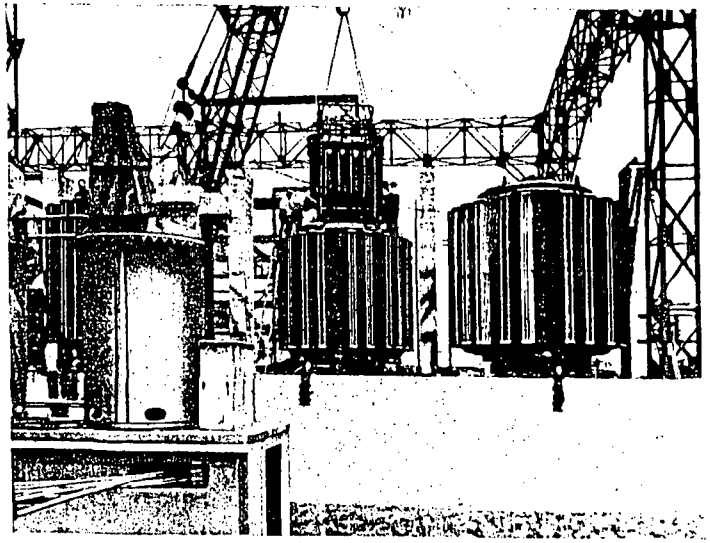


Substation Transformers

THERE are five 45,000 Kv-a banks of transformers in the Kearny outdoor substation, one bank for each of the five turbo-generators that the station contains. Each bank consists of three transformers, one for each phase. Improvement in apparatus for and methods of distributing electrical energy has been one of the marked developments of the industry during recent years. Economy in distribution has been secured and the range of distribution has been widely extended. Substations such as that at Kearny represent betterment in the electric art which has enabled the central station companies not only to keep pace with greatly increased demand but to keep down cost of electric service at a time when most others have been soaring. No one thing has done more to increase American production, than the spread in the use of electricity.



Transformers

ALMOST everyone is familiar with the transformers which are to be seen upon electric light poles for the purpose of stepping down current voltage for domestic use and of which there are more than 36,000 in the Public Service distribution system. By contrasting such transformers with those seen in the picture, a good idea may be secured of the magnitude of the equipment of the Kearny outdoor substation. At the left workmen are seen directing the course of the great core that is being lowered by means of a giant crane into the case of the transformer, which is itself some fifteen feet high. Apparatus of the size indicated is necessary to the handling of current at the voltages which are required for transmission over the wide range of territory served by Kearny.

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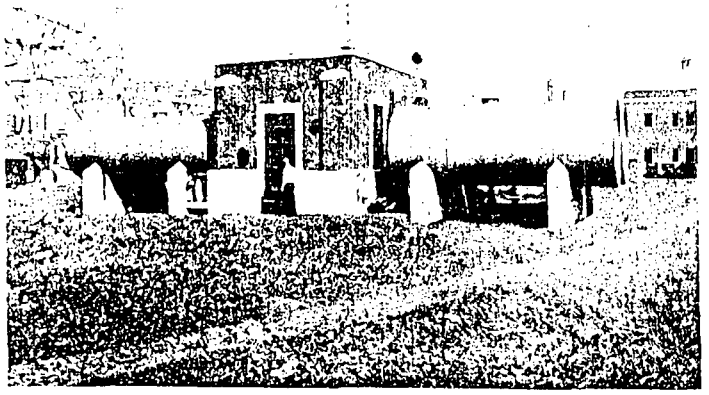

Oil Purifying House

OIL in great quantities is used in the transformers and switches of the Kearny outdoor substation. At frequent intervals this oil is tested as to its electrical characteristics, upon which depends its ability to do the work that it is required to do.

When the tests show the need, the oil is pumped from transformers and switches and replaced with a new supply. The old oil is sent through a system of mains to the purifying house where it is thoroughly filtered and made ready for use again. Two of the four big tanks shown in the picture are used for the storage of clean or new oil, the other two for receiving dirty or used oil before it is sent through the purifying system. Oil switches are necessary to the safe handling of high voltage current.

The Station Restaurant

A FORCE of some 200 employes, working in eight hour shifts is required to operate Kearny station. For the accommodation of these men and women, the Company maintains in the administration building a completely equipped restaurant where luncheon is served daily to such of the staff as desire to use the facilities offered. Full restaurant equipment has been provided and the meals are in charge of a capable chef. The restaurant is operated without profit and prices are low enough to suit the purses of everyone. The welfare of employes is the subject of great attention in all Public Service companies and the Public Service Welfare Plan is one of the most comprehensive and generous in effect in American industry.

920990205

State of New Jersey
Department of Environmental Protection

Richard J. Codey
Acting Governor

Bradley M. Campbell
Commissioner

Northern Bureau of Water Compliance and Enforcement
7 Ridgedale Avenue
Cedar Knolls, New Jersey 07927-1112
Telephone (973) 656-4099 Fax (973) 656-4400

May 31, 2005

Mr. Bruce Petrovski, Senior Environmental Engineer
PSE&G Kearny Generating Station
Foot of Hackensack Avenue
Kearny, NJ 07032

Dear Mr. Petrovski:

Re: Compliance Evaluation and Assistance Inspection
Kearny Generating Station
PI # 46809
NJPDES No. NJ0000655
NJPDES No. NJG0120511
Class: IND-DSW/General Stormwater
Kearny Town/Hudson County

A Compliance Evaluation and Assistance Inspection of your facility was conducted on March 30, 2005. Any comments or items marked "OC" ("out of compliance") or "ON" ("out of compliance, non-referred") in the attached report must be addressed within thirty (30) days in a written response directed to the undersigned.

Should you have any questions regarding this matter, please contact me at (973) 656-4099 or by letter at the above letterhead address.

Very truly yours,

David King
Environmental Specialist
Northern Bureau of Water
Compliance and Enforcement

BJA000068

Attachments
c:
Joseph M. Mikulka, Chief, Northern Bureau of Water Compliance & Enforcement
John P. Sarnas, MA, Kearny Health Department
Barry Chalofsky, Chief, Bureau of Nonpoint Pollution Control

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Date Printed: 5/31/2005

Compliance Evaluation Summary

Activity: **SCI050001 *Standard Compliance Inspection (46809)**

Start Date/Time: 3/30/2005 12:30 **End Date/Time:** 3/30/2005 15:30

Lead Investigator: King, David

Other Investigators:

Persons Interviewed: Bruce Petrovski (Senior Environmental Engineer)
973-430-8789

Witnesses:

Program Interest: 46809 KEARNY GENERATING STATION (NJPDES)
FOOT OF HACKENSACK AVE
Kearny Town, Hudson County

Block 298, Lot 19A, 19R, 20R

Responsible Entities: PSE&G FOSSIL LLC

Comments: NJPDES #NJG0000655
EDP: 7/1/2001
EXP: 6/30/2006
NJPDES #NJG0120511
EDP: 6/1/2002
EXP: 5/31/2007
Reviewed DMR's from March 2004 thru February 2005. Permittee is reminded to resubmit the DMR for February 2005, for outfall #381A, to the Department.
Facility is reassessing thier need for additional BMP's in regard to discharge to Groundwater, and has not submitted Attachment D for 2004. Pusuant to Section C.2.c.i of the General Permit, the facility has 24 months from the new calander quarter designated for submittal of the recertification, to submit Attachment D to the Department.

920990208

Compliance Evaluation Report

Start Date: 3/30/2005

Activity: SCI050001 *Standard Compliance Inspection Lead Investigator: King, David

6809 KEARNY GENERATING STATION, Kearny Town (NJPDES)

Requirement	Status RTC	Results or Comments	Reqt. Source Ref # Reqt. Type
Subject Item: 5G2 - Basic Industrial Stormwater GP - NJ0088315 (5G2) **Operating Status:** No status specified. **Comments:** No comments added.			
Did the permittee prepare an SPPP as required by the permit?. [N.J.A.C. 7:14A- 2(11)c]	IC	Yes.	DST020001 55 T
Did the permittee develop an SPPP that demonstrates, once it has been implemented, that there will be no exposure, during and after storm events, of source materials to stormwater as required by the permit? . [N.J.A.C. 7:14A- 2(11)c]	IC	Yes.	DST020001 56 T
When did the permittee submit Attachment C to the Department?.	IC	12/12/1994.	DST020001 66 T
RECORDKEEPING.	H		DST020001 75 T
Did the permittee make the SPPP available for review?. [N.J.A.C. 7:14A- 2(11)c]	IC	Yes.	DST020001 76 T
Did the permittee amend its SPPP to reflect changes at the facility and/or discharges to ground water?. [N.J.A.C. 7:14A- 2(11)c]	NA	No changes.	DST020001 79 T
Did the permittee conduct and document annual inspections of the facility as required by the permit?. [N.J.A.C. 7:14A- 2(11)c]	IC	Yes.	DST020001 83 T
Has the Attachment D due date changed from the last permit? If so, what is the new due date?. [N.J.A.C. 7:14A- 2(11)c]	IC	Yes. April-June of every year.	DST020001 88 T
Did the permittee have any discharges not authorized by the permit?. [N.J.A.C. 7:14A- 2(4)b]	IC	No.	DST020001 100 T
Does the facility maintain at least 5 years of Attachment D recertifications?. [N.J.A.C. 7:14A- 6.6]	IC	Facility has not submitted Attachment D to the Department for 2004 as stated in the comments section of this report.	DST020001 128 T
STORMWATER POLLUTION PREVENTION PLAN. [N.J.A.C. 7:14A- 6(2)a1]	H		DST020001 168 T
Does the SPPP include a categorical list of all source materials located at the facility?. [N.J.A.C. 7:14A- 6(2)a1]	IC	Yes.	DST020001 171 T

IC - In Compliance ND - Compliance Not Determined OC - Out of Compliance NA - Not Applicable NI - Not Inspected
PV - Potential Violation NC - No Obvious Concern ON - Out of Compliance, Non-referred H - Heading Y - Yes
N - No DC - Data Collection

Compliance Evaluation Report

Start Date: 3/30/2005

Activity: SCI050001 *Standard Compliance Inspection Lead Investigator: King, David

6809 KEARNY GENERATING STATION, Kearny Town (NJPDES)

Requirement	Status RTC	Results or Comments	Reqt. Source Ref # Reqt. Type
Subject Item: 5G2 - Basic Industrial Stormwater GP - NJ0088315 (5G2)			
Operating Status: No status specified.			
Comments: No comments added.			
Does the SPPP include a list of the facility's non-stormwater discharges to surface or ground water?. [N.J.A.C. 7:14A- 6(2)a1]	IC	Yes.	DST020001 172 T
Does the SPPP include a list of any final or draft NJPDES permits, pending NJPDES permit applications, or pending requests for authorization under another general NJPDES permit? . [N.J.A.C. 7:14A- 6(2)a1]	IC		DST020001 173 T
Does the SPPP include a map developed as required by the permit?. [N.J.A.C. 7:14A- 6(2)a1]	IC	Yes.	DST020001 175 T
Does the SPPP include a complete narrative description concerning the management of all source materials at the facility as required by the permit?. [N.J.A.C. 7:14A- 6(2)a1]	IC	Yes.	DST020001 184 T
Does the SPPP include best management practices which will ensure no exposure of source materials to stormwater? . [N.J.A.C. 7:14A- 6(2)a1]	IC	Yes.	DST020001 192 T
Does the SPPP include a schedule for full implementation of best management practices by the applicable deadlines specified in the permit?. [N.J.A.C. 7:14A- 6(2)a1]	IC	Yes.	DST020001 196 T
Does the SPPP include a schedule for providing regular and appropriate maintenance and repairs of all structural best management practices?. [N.J.A.C. 7:14A- 6(2)a1]	IC	Yes.	DST020001 198 T
Does the SPPP include a schedule for regular inspection by facility personnel of designated areas, operations, and equipment, inclusive of an annual inspection of the entire facility, as required by the permit? . [N.J.A.C. 7:14A- 6(2)a1]	IC	Yes.	DST020001 200 T
Does the SPPP include reports summarizing each annual inspection of the facility and, if non-compliance is found during an inspection, is the non-compliance reported to the Department?. [N.J.A.C. 7:14A- 6(2)a1]	IC	Yes.	DST020001 202 T
Does the SPPP record any incidents such as leaks or accidental discharges, and any failures or breakdowns of structural BMPs and ensure that, in such instances, corrective measures are implemented and inspected, and full remediation is achieved?. [N.J.A.C. 7:14A- 6(2)a1]	IC	Yes.	DST020001 203 T
If the facility has a SPCC, DPCC, and/or DCR Plan, does the SPPP include, or cite the location of, said plans?. [N.J.A.C. 7:14A- 6(2)a1]	IC	Yes.	DST020001 208 T
If the facility is undergoing any construction activities, has the SPPP been amended to reflect such construction as required by the permit? . [N.J.A.C. 7:14A- 6(2)a1]	NA	No construction.	DST020001 209 T

IC - In Compliance ND - Compliance Not Determined OC - Out of Compliance NA - Not Applicable NI - Not Inspected
PV - Potential Violation NC - No Obvious Concern ON - Out of Compliance, Non-referred H - Heading Y - Yes
N - No DC - Data Collection

Compliance Evaluation Report

Start Date: 3/30/2005

Activity: SCI050001 *Standard Compliance Inspection Lead Investigator: King, David

16809 KEARNY GENERATING STATION, Kearny Town (NJPDES)

Requirement	Status RTC	Results or Comments	Reqt. Source Ref # Reqt. Type
Subject Item: B - Industrial Wastewater			
Operating Status: No status specified.			
Comments: No comments added.			
MONITORING REQUIREMENTS	H		DSW000002 1 T
Were all analyses performed by a New Jersey Certified Laboratory? Indicate lab name(s). [N.J.A.C. 7:14A- 6.5(a)2]	IC	PSE&G Personnel Lab, Certification #09586 PSE&G Research and Lab, Maplewood, NJ Certification #00194 New England Bioassay, 77 Batson Avenue, Manchester, CT Certification #06040	DSW000002 3 T
Were analyses of wastewater performed in accordance with the appropriate analytical test procedures? . [N.J.A.C. 7:14A- 6.5(a)2]	IC	Yes.	DSW000002 4 T
Was sampling conducted in accordance with the Field Sampling Procedures Manual or other Department approved method?. [N.J.A.C. 7:14A- 6.5(b)4]	IC	Yes.	DSW000002 6 T
Was all monitoring conducted in accordance with Part III of the Permit?. [N.J.A.C. 7:14A- 6.5(b)]	IC	Yes.	DSW000002 7 T
Was annual and semi-annual wastewater testing conducted in different quarters during the permit cycle?. [N.J.A.C. 7:14A- 6.2(a)1]	IC	Yes.	DSW000002 9 T
Were WCR samples collected at the same time as the Whole Effluent Toxicity samples?. [N.J.A.C. 7:14A- 6.2(a)1]	IC	Yes.	DSW000002 10 T
Were analyses of residuals performed in accordance with the appropriate analytical test procedures? . [N.J.A.C. 7:14A-19.3(c)7]	NA	No sludge removed.	DSW000002 11 T
Flow shall be measured using pump in-service hours at DSN 381A and a flow meter at DSN WTPA. [N.J.A.C. 7:14A- 6.2(a)1]	IC		DSW000002 12 T
Did the permittee obtain a Chlorine Produced Oxidants sample once during each two hour period of chlorination?. [N.J.A.C. 7:14A- 6.2(a)1]	IC	Yes.	DSW000002 15 T
RECORDKEEPING	H		DSW000002 18 T
Does the permittee appropriately retain monitoring records? . [N.J.A.C. 7:14A- 6.6(a)]	IC	Yes.	DSW000002 20 T

IC - In Compliance ND - Compliance Not Determined OC - Out of Compliance NA - Not Applicable NI - Not Inspected
PV - Potential Violation NC - No Obvious Concern ON - Out of Compliance, Non-referred H - Heading Y - Yes
N - No DC - Data Collection

920990211

Compliance Evaluation Report

Start Date: 3/30/2005

Activity: SCI050001 *Standard Compliance Inspection Lead Investigator: King, David

46809 KEARNY GENERATING STATION, Kearny Town (NJPDES)

Requirement	Status RTC	Results or Comments	Reqt. Source Ref # Reqt. Type
Subject Item: B - Industrial Wastewater **Operating Status:** No status specified. **Comments:** No comments added.			
Does the permittee retain copies of all reports required by a NJPDES permit and records of all data used to complete the application for a NJPDES permit for a period of at least 5 years? . [N.J.A.C. 7:14A- 6.6(a)]	IC ☐	Yes.	DSW000002 22 T
REPORTING	H ☐		DSW000002 24 T
Did the highest ranking official having day-to-day managerial and operational responsibilities for the discharging facility sign the monitoring reports?. [N.J.A.C. 7:14A- 6.9(a)]	IC ☐	William Viola, Director of Asset Operations.	DSW000002 35 T
Did the permittee complete monitoring reports in accordance with the current Discharge Monitoring Report Manual and any updates?. [N.J.A.C. 7:14A- 6.2(a)1]	IC ☐	Yes.	DSW000002 41 T
Does the permittee maintain a current O&M Manual which includes an emergency plan?. [N.J.A.C. 7:14A- 6.12(c)&(d)]	IC ☐	Yes.	DSW000002 48 T
Did the permittee discharge only at the authorized location(s)?. [N.J.A.C. 7:14A-13.16(a)1]	IC ☐	Yes.	DSW000002 53 T
Was there a discharge of or evidence of foam, objectional color or odor, and/or visable sheen in the receiving stream?. [N.J.A.C. 7:14A-12.6(a)]	IC ☐	No.	DSW000002 54 T
Does the permittee operate and maintain the treatment works as specified in the O&M Manual?. [N.J.A.C. 7:14A- 6.12(a)]	IC ☐	Yes.	DSW000002 67 T
Subject Item: GDR - General Discharge Requirements **Operating Status:** No status specified. **Comments:** No comments added.			
Are all violations reported to the Department as required in N.J.A.C. 7:14A-6.10?. [N.J.A.C. 7:14A- 6.10]	IC ☐		DSW000002 13 T
Does the facility employ a licensed operator who holds the appropriate classification of license to operate the treatment works?. [N.J.A.C. 7:10A- 1.1]	IC ☐	Yes.	DSW000002 21 T
Has the permittee notified the Department's Examination and Licensing Unit of any changes in licensed operator status?. [N.J.A.C. 7:10A- 1.1]	IC ☐		DSW000002 23 T

IC - In Compliance ND - Compliance Not Determined OC - Out of Compliance NA - Not Applicable NI - Not Inspected
PV - Potential Violation NC - No Obvious Concern ON - Out of Compliance, Non-referred H - Heading Y - Yes
N - No DC - Data Collection

Compliance Evaluation Report

Start Date: 3/30/2005

Activity: SCI050001 *Standard Compliance Inspection Lead Investigator: King, David

46809 KEARNY GENERATING STATION, Kearny Town (NJPDES)

Requirement	Status RTC	Results or Comments	Reqt. Source Ref # Reqt. Type
Subject Item: GDR - General Discharge Requirements			
Operating Status: No status specified.			
Comments: No comments added.			
Does the permittee have any discharges not authorized by a valid permit?. [N.J.A.C. 7:14A- 6.2(a)1]	IC ☐	No.	DSW000002 25 T
Is the permittee in compliance with land-based sludge management criteria and the requirements for the management of residuals and grit and screenings?. [N.J.A.C. 7:14A- 6.15(a)]	IC ☐		DSW000002 27 T

IC - in Compliance ND - Compliance Not Determined OC - Out of Compliance NA - Not Applicable NI - Not Inspected
PV - Potential Violation NC - No Obvious Concern ON - Out of Compliance, Non-referred H - Heading Y - Yes
N - No DC - Data Collection

State of New Jersey

James E. McGreevey
Governor

Department of Environmental Protection
Northern Bureau of Water Compliance and Enforcement
1259 Route 46, Building 2
Parsippany, New Jersey 07054-4191
Telephone (973) 299-7592 Fax (973) 299-7719

Bradley M. Campbell
Commissioner

Certified Mail
Return Receipt Requested

May 6, 2004

Mr. Bruce Petrovski, Senior Environmental Engineer
PSE&G Kearny Generating Station
Foot of Hackensack Avenue
Kearny, NJ 07032

Dear Mr. Petrovski:

BJA000070

Re: Compliance Evaluation and Assistance Inspection
Kearny Generating Station
PI # 46809
NJPDES No. NJ0000655
Class: Major-IND-DSW
Kearny Town/Hudson County

A Compliance Evaluation and Assistance Inspection of your facility was conducted on March 18, 2004. Any comments or items marked "OC" ("out of compliance") or "ON" ("out of compliance, non-referred") in the attached report and the noncompliance item in the attached Notice of Violation (NOV) must be addressed within thirty (30) days in a written report directed to the undersigned.

Please note that the NOV included with this correspondence requires you to begin monthly monitoring beginning in May 2004, for Petroleum Hydrocarbons at discharge number WTPA, due to a NJPDES permit effluent violation for Petroleum Hydrocarbons for July 2003. Please see the enclosed NOV for the specific requirements. Your attention to the changed monitoring and reporting requirements is essential to avoid further enforcement action issued by the Department which may include the assessment of penalties.

Please be advised that the Petroleum Hydrocarbons effluent violation noted above is a "serious" violation as defined by the Water Pollution Control Act (Act), N.J.S.A. 58:10A-1 et

seq., and triggers mandatory penalties pursuant to the Act. Should PSE&G wish to discuss settlement of the accrued penalty liability for the violation noted above before the issuance by the Department of a formal enforcement action, please contact me at (973) 299-7592 or by letter through this Bureau. Should you have any questions regarding this matter, please do not hesitate to contact me.

Very truly yours,

David King
Environmental Specialist
Northern Bureau of Water
Compliance and Enforcement

Attachments

c: Joseph M. Mikulka, Chief, Northern Bureau of Water Compliance & Enforcement
John P. Sarnas, MA, Kearny Health Department

Water Compliance & Enforcement
Northern Regional Office
1259 Route 46 East, Bldg. #2
Parsippany, NJ 07054-4191
Telephone: (973) 299-7592 Fax: (973) 299-7719

CERTIFIED MAIL/RRR

NOTICE OF VIOLATION

EA ID #: PEA040001 - 46809

Name of violator: PSE&G
Location: FOOT OF HACKENSACK AVE, Kearny Town, NEW JERSEY 07032-0000
Identifying #: 46809
Person interviewed and title: Bruce Petrovski, Senior Environmental Engineer

You are hereby NOTIFIED that the Department has documented the following violation of the New Jersey Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and the New Jersey Pollutant Discharge Elimination System regulations (N.J.A.C. 7:14A-1 et seq.). This violation shall be recorded as part of the permanent enforcement history of PSE&G at the above location.

Subject: GDR

Requirement: Pursuant to N.J.A.C. 7:14A-6.2(a)1, a NJPDES permittee shall comply with all the conditions of the NJPDES permit.

Description of Noncompliance: Monitoring Period: 07/01/2003-07/31/2003 Monitored Location: WTPA Parameter: Petroleum Hydrocarbons Sample Point: Effluent Gross Value Limit: 10 Limit Units: MILLIGRAMS PER LITER Reported Value: 12 Reported Units: MILLIGRAMS PER LITER Percent Excursion: 20% Statistical Base: Monthly Average - Column 1 or 4 Violation Type: **Numeric Viol Avg Conc.**

Because the parameter you violated is reported to the Department less frequently than monthly as specified in your NJPDES permit, N.J.A.C. 7:14A-6.5(d) requires that you begin monitoring and reporting for the parameter on a monthly basis. **Therefore, you must take the following corrective actions:**

1. Immediately comply with the Water Pollution Control Act and your NJPDES permit.

2. Begin monthly monitoring for Petroleum Hydrocarbons at discharge number WTPA, starting in May 2004. Monthly monitoring must continue until PSE&G has submitted six (6) consecutive monthly DMRs which show compliance with the NJPDES Permit

effluent limitation for Petroleum Hydrocarbons at discharge number WTPA, at which time PSE&G may resume the original schedule in its NJPDES Permit.

Since you already receive monthly DMRs for other parameters at the same monitoring location, you should use those DMRs to report the parameter you violated. You will not receive additional DMRs if you already receive DMRs at the same monitoring location. It will not be acceptable to report Code = N, which stands for monitoring not required during the monitoring period starting in May 2004, on these monthly DMRs.

You are required to monitor and report on a monthly basis until such time as you have submitted six (6) consecutive months of compliant monitoring data for the parameter you violated or until the Department advises you that you have satisfied the requirements of N.J.A.C. 7:14A-6.5(d)3. Should you fail to monitor and report on a monthly basis as directed in this notice, the Department will be required to assess mandatory penalties as specified in the Act. Since the Department does not have the discretion to waive such penalties, your attention to these changed monitoring and reporting requirements is essential.

Issuance of this Notice of Violation serves as notice to you that the Department has determined that a violation has occurred and does not preclude the State of New Jersey or any of its agencies from initiating administrative or judicial enforcement action, or from assessing penalties or from modifying this Notice of Violation, with respect to this or other violations. Violations of the above regulations are subject to penalties of up to $50,000 per day/offense.

Issued by: DAVE KING Date: 5/6/04
Print Name

Signature:
Sign Name

Date Printed: 5/6/2004

Compliance Evaluation Summary

Activity: SCI040001 *Standard Compliance Inspection (46809)

Start Date/Time: 3/18/2004 08:30 **End Date/Time:** 3/18/2004 10:30

Lead Investigator: King, David

Other Investigators:

Persons Interviewed: Bruce Petrovski (Senior Environmental Engineer)
973-430-8789

Witnesses:

Program Interest: 46809 KEARNY GENERATING STATION (NJPDES)
FOOT OF HACKENSACK AVE
Kearny Town, Hudson County

Block 298, Lot 19A, 19R, 20R

Responsible Entities: PSE&G
PSE&G FOSSIL LLC

Comments: NJDEPS # NJ0000655
EDP: 7/1/2001
EXP: 6/30/2006
Reviewed DMR's from July 2002 thru February 2004.

920990219

Requirement	Status	Results or Comments
Subject Item: B - Industrial Wastewater		
Custom Requirement	H	
The monitoring for CPO at DSN 381A shall be performed only during the application of a biocide.	IC	
The monitoring for Temperature Effluent, Temperature Influent, Temperature Difference and Thermal discharge at DSN 381A shall be performed when Units 7 and 8 circulating pumps are in operation.	IC	
The calculated value for Thermal Diacharge and Thermal Difference between Intake and Discharge for outfall DSN 381A is the average measurement taken over a 24-hour period. The daily maximum shall be reported as the largest 24-hour measurement during the monitoring period. The monthly average shall be the average 24-hour average measurement during the reporting period.	IC	
If the influent pH for outfall DSN 381A is less than 6.5 s.u., the minimum pH shall be the influent pH. If the influent pH is greater than 8.5 s.u., the maximum pH shall be the intake pH.	IC	
The calculated value for Flow at outfall DSN 381A shall be based on the pump in-service hours.	IC	
Several grab samples for outfall DSN WTPA may be collected to satisfy the composite sampling requirement.	IC	
The sampling for Total Recoverable Nickel and and Total Recoverable Zinc shall be performed only during discharge of chemical/metal cleaning wastes.	IC	
Flow shall be measured using pump in-service hours at DSN 381A and a flow meter at DSN WTPA. [N.J.A.C. 7:14A- 6.2(a)1]	IC	
Did the permittee obtain a Chlorine Produced Oxidants sample once during each two hour period of chlorination?. [N.J.A.C. 7:14A- 6.2(a)1]	IC	
Monitoring for temperature shall only be conducted when cooling water from Units 7 & 8 is discharged during the monitoring period. [N.J.A.C. 7:14A- 6.2(a)1]	IC	
Submit an acute whole effluent toxicity test report: within twenty-five days after the end of every 6 month monitoring period beginning from the effective date of the permit (EDP). The permittee shall submit toxicity test results on appropriate forms. [N.J.A.C. 7:14A-13.6(a)]	IC	
Did the permittee discharge only at the authorized location(s)?. [N.J.A.C. 7:14A-13.16(a)1]	IC	
Was there a discharge of or evidence of foam, objectional color or odor, and/or visable sheen in the receiving stream?. [N.J.A.C. 7:14A-12.6(a)]	IC	No evidence of foam, odor, or visible sheen.

Compliance
Out of Compliance
NI - Not Inspected
NC - No Obvious Concern
H - Heading
N - No

ND - Compliance Not Determined
NA - Not Applicable
PV - Potential Violation
ON - Out of Compliance, Non-referred
Y - Yes
DC - Data Collection

Requirement	Status	Results or Comments
bject Item: B - Industrial Wastewater		
MONITORING REQUIREMENTS	H	
Was all monitoring conducted in accordance with Part III of the Permit?. [N.J.A.C. 7:14A- 6.5(b)]	IC	
Was sampling conducted in accordance with the Field Sampling Procedures Manual or other Department approved method?. [N.J.A.C. 7:14A- 6.5(b)4]	IC	
Were all analyses performed by a New Jersey Certified Laboratory? Indicate lab name(s). [N.J.A.C. 7:14A- 6.5(a)2]	IC	PSE&G Personnel Lab Certification #09586 PSE&G Reaserch and Lab, Maplewood, NJ Certificatin #00194 New England Bioassay,77 Batson Avenue, Manchester, CT Certification #06040
Were analyses of wastewater performed in accordance with the appropriate analytical test procedures? . [N.J.A.C. 7:14A- 6.5(a)2]	IC	
Were analyses of residuals performed in accordance with the appropriate analytical test procedures? . [N.J.A.C. 7:14A-19.3(c)7]	IC	
Were WCR samples collected at the same time as the Whole Effluent Toxicity ıples?. [N.J.A.C. 7:14A- 6.2(a)1]	IC	WCR samples were collected as per requirement of the permit.
Was annual and semi-annual wastewater testing conducted in different quarters during the permit cycle?. [N.J.A.C. 7:14A- 6.2(a)1]	IC	Semi-annual wastewater testing was conducted as required by the permit.
REPORTING	H	
Did the permittee complete monitoring reports in accordance with the current Discharge Monitoring Report Manual and any updates?. [N.J.A.C. 7:14A- 6.2(a)1]	IC	
Did the highest ranking official having day-to-day managerial and operational responsibilities for the discharging facility sign the monitoring reports?. [N.J.A.C. 7:14A- 6.9(a)]	IC	Andres Gomez (Station Manager) and James Sanford (Director-Asset Operations)
RECORDKEEPING	H	
Does the permittee appropriately retain monitoring records? . [N.J.A.C. 7:14A- 6.6(a)]	IC	
Does the permittee retain copies of all reports required by a NJPDES permit and records of all data used to complete the application for a NJPDES permit for a period of at least 5 years? . [N.J.A.C. 7:14A- 6.6(a)]	IC	

- In Compliance
- Out of Compliance
NI - Not Inspected
NC - No Obvious Concern
H - Heading
N - No
ND - Compliance Not Determined
NA - Not Applicable
PV - Potential Violation
ON - Out of Compliance, Non-referred
Y - Yes
DC - Data Collection

Requirement	Status	Results or Comments
Subject Item: B - Industrial Wastewater		
Does the permittee maintain a current O&M Manual which includes an emergency plan?. [N.J.A.C. 7:14A- 6.12(c)&(d)]	IC	
Does the permittee operate and maintain the treatment works as specified in the O&M Manual?. [N.J.A.C. 7:14A- 6.12(a)]	IC	
Subject Item: GDR - General Discharge Requirements		
Are all violations reported to the Department as required in N.J.A.C. 7:14A-6.10?. [N.J.A.C. 7:14A- 6.10]	IC	
Is the permittee in compliance with land-based sludge management criteria and the requirements for the management of residuals and grit and screenings?. [N.J.A.C. 7:14A- 6.15(a)]	H	
Does the permittee have any discharges not authorized by a valid permit?. [N.J.A.C. 7:14A- 6.2(a)1]	IC	
Does the facility employ a licensed operator who holds the appropriate classification license to operate the treatment works?. [N.J.A.C. 7:10A- 1.1]	IC	Bruce Petrovski N-2.
Has the permittee notified the Department's Examination and Licensing Unit of any changes in licensed operator status?. [N.J.A.C. 7:10A- 1.1]	IC	
Subject Item: WCP1 - Water - Comply with Permit		
Did the permittee comply with the conditions of the NJPDES permit?.[N.J.A.C. 7:14A- 6.2(a)1]	OC	Failure to comply with the conditions of the NJPDES permit. Permittee exceeded the limits for Petroleum Hydrocarbons in July 2003. Effluent Gross Value Limit: 10 mg/l. Reported Value: 12 mg/l. This is a serious violation as defined by the Water Pollution Control Act, which triggers a mandatory penalty and mandatory monthly monitoring for 6 consec months w/ no violation of the limit.

In Compliance
Out of Compliance
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NC - No Obvious Concern
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ND - Compliance Not Determined
NA - Not Applicable
PV - Potential Violation
ON - Out of Compliance, Non-referred
Y - Yes
DC - Data Collection

920990223

Town of Kearny

Department of Public Health
Walter J. Nicol Health Center
645 Kearny Avenue
Kearny, New Jersey 07032
(201) 997-0600
Fax (201) 997-9703
www.kearnyusa.com

John P. Sarnas
Health Officer

DATE: 4/1/05

NAME: P.S.E.G. Kearny Generating Station

ADDRESS: Foot of Hackensack Avenue
So. Kearny NJ 07032

DEAR Mr. Petrowski

A SURVEY HAS SHOWN THAT YOU ARE IN VIOLATION OF THE MUNICIPAL CODE, CHAPTER 58 (BRUSHES/WEEDS) AND PUBLIC HEALTH NUISANCE CODE OF NEW JERSEY, FOR THE FOLLOWING CONDITIONS:

____ A. BRUSH/WEEDS – OBNOXIOUS GROWTH

____ B. PERMITTING A MOSQUITO BREEDING AREA – STAGNANT WATER

✓ C. ACCUMULATION OF GARBAGE – Please line all areas of property

____ D. PROVIDING HARBORAGE FOR INSECTS AND RODENTS

✓ E. OTHER: Must clean/mow all areas of property, remove litter/debris.

FAILURE ON YOUR PART TO ABATE AND REMOVE THIS VIOLATION BY April 15, 2005 (DATE) MAY BE CAUSE FOR COURT SUMMONS TO BE ISSUED.

Marcella Allison
INSPECTOR
KEARNY HEALTH DEPARTMENT

Notified 4/26/05

BJA000072

920990224

EPA

ACKNOWLEDGEMENT OF NOTIFICATION OF HAZARDOUS WASTE ACTIVITY
(VERIFICATION)

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act *(RCRA)*. Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER ➤ NJD000730424

KEARNY GENERATING STATION
80 PARK PLAZA 15A
NEWARK NJ 07101

INSTALLATION ADDRESS ➤ FOOT OF HACKENSACK AVE
KEARNY NJ 07032

EPA Form 8700-12B (4-80) 11/07/80

BJA000073

920990226

ACKNOWLEDGEMENT OF NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

REGION 2

05/29/00

This is to acknowledge that you have filed a **Notification of Hazardous Waste Activity** for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER	→	NJD000730424
INSTALLATION NAME	→	PSE&G - KEARNY GENERATING STATION
INSTALLATION ADDRESS	→	HACKENSACK AVE FOOT OF KEARNY, NJ 07032
MAILING ADDRESS	→	HACKENSACK AVE FOOT OF KEARNY, NJ 07032

EPA Form 8700-12AB (4-80)

USEPA - REGION 2
RCRA Programs Branch
290 Broadway, 22nd Floor
New York, NY 10007-1866

ATTN: JACK HOYT
Tel : (212) 637-4106
Fax: (212) 637-4949

TO: PSE&G - KEARNY GENERATING STATION or Current Occupant
ATTN: PEACH, JAMES - SR ENVIRON ENGR
HACKENSACK AVE FOOT OF
KEARNY, NJ 07032

920990227

ACKNOWLEDGEMENT OF NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

10/31/2002

This is to acknowledge that you have filed a **Notification of Hazardous Waste Activity** for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER	NJD000730424
INSTALLATION NAME	PSEG FOSSIL LLC - KEARNY GEN STA
INSTALLATION ADDRESS	E HACKENSACK AVE FOOT OF KEARNY, NJ 070324635
MAILING ADDRESS	E HACKENSACK AVE FOOT OF KEARNY, NJ 070324635

EPA Form 8700-12AB (4-80)

USEPA - REGION 2
RCRA Programs Branch
290 Broadway, 22nd Floor
New York, NY 10007-1866

ATTN: JACK HOYT
Tel : (212) 637-4106
Fax: (212) 637-4949

TO: PSEG FOSSIL LLC - KEARNY GEN STA
or Current Occupant
ATTN: WILLIE WASHINGTON - SR ENV ENGR
E HACKENSACK AVE FOOT OF
KEARNY, NJ 070324635

920990228

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0028 Expires 12/31/02
GSA No. 0246-EPA-OT

Please refer to Section V. Line-by-Line Instructions for Completing EPA Form 8700-12 before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).

Notification of Regulated Waste Activity

EPA United States Environmental Protection Agency

2002 OCT

Date Received (For Official Use Only)

I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

[ ] A. Initial Notification [X] B. Subsequent Notification (Complete Item C)

C. Installation's EPA ID Number: NJD000730424

II. Name of Installation (Include company and specific site name)

PSEG FOSSIL LLC KEARNY GEN STA

III. Location of Installation (Physical address not P.O. Box or Route Number)

Street: FOOT OF HACKENSACK AVENUE E.

Street (Continued):

City or Town: KEARNY | State: NJ | Zip Code: 07032-4635

County Code: 017 | County Name: HUDSON

IV. Installation Mailing Address (See instructions)

Street or P.O. Box: SAME

City or Town: | State: | Zip Code: -

V. Installation Contact (Person to be contacted regarding waste activities at site)

Name (Last): WASHINGTON | (First): WILLIE

Job Title: SR ENVIRON ENGR | Phone Number (Area Code and Number): 973-430-8789

VI. Installation Contact Address (See Instructions)

A. Contact Address: Location [X] Mailing [ ]

B. Street or P.O. Box:

City or Town: | State: | Zip Code: -

VII. Ownership (See instructions)

A. Name of Installation's Legal Owner: PSEG FOSSIL L.L.C.

Street, P.O. Box, or Route Number: 80 PARK PLAZA, MAIL CODE T25L

City or Town: NEWARK | State: NJ | Zip Code: 07101-

Phone Number (Area Code and Number): 973-430-5392

B. Land Type: P

C. Owner Type: P

D. Change of Owner Indicator: Yes [ ] No [X]

Date Changed: Month Day Year

920990229

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 12/31/02
GSA No. 0246-EPA-OT

ID - For Official Use Only

VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes. Refer to Instructions)

A. Hazardous Waste Activities

1. Generator (See Instructions) (*)
   - ☐ a. Greater than 1000kg/mo (2,200 lbs.)
   - ☐ b. 100 to 1000 kg/mo (220-2,200 lbs.)
   - ☐ c. Less than 100 kg/mo (220 lbs)
2. Transporter (Indicate Mode in boxes 1-5 below)
   - ☐ a. For own waste only
   - ☐ b. For commercial purposes

Mode of Transportation
- ☐ 1. Air
- ☐ 2. Rail
- ☐ 3. Highway
- ☐ 4. Water
- ☐ 5. Other - specify

☐ 3. Treater, Storer, Disposer (at Installation) Note: A permit is required for this activity, see instructions.

4. Exempt Boiler and/or Industrial Furnace
   - ☐ a. Smelting, Melting, and Refining Furnace Exemption
   - ☐ b. Small Quantity On-Site Burner Exemption
5. ☐ Underground Injection Control

C. Used Oil Management Activities

1. Used Oil Transporter/Transfer Facility - Indicate Type(s) of Activity(ies)
   - ☐ a. Transporter
   - ☐ b. Transfer Facility
2. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
   - ☐ a. Processor
   - ☐ b. Re-refiner
3. ☐ Off-Specification Used Oil Burner
4. Used Oil Fuel Marketer
   - ☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Used Oil Burner
   - ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

B. Universal Waste Activity

☐ Large Quantity Handler of Universal Waste

IX. Description of Hazardous Wastes (Use additional sheets if necessary)

A. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)

1	2	3	4	5	6
F001					
7	**8**	**9**	**10**	**11**	**12**

ENVIRONMENTAL SECTION
2002 OCT 2 PM 4:53

B. Characteristics of Nonlisted Hazardous Wastes. (Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24; See instructions if you need to list more than 4 toxicity characteristic waste codes.)

(List specific EPA hazardous waste number(s) for the Toxicity Characteristic contaminant(s))

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic	1	2	3	4
X	X		X	D018	D007		

C. Other Wastes. (State-regulated or other wastes requiring a handler to have an I.D. number; See instructions.)

1	2	3	4	5	6

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Name and Official Title (Type or print)	Date Signed
X Albert A. Fralinger III	ALBERT A. FRALINGER III MANAGER - MATLS RESOURCE RECOV.	9/30/02

XI. Comments

(*) GENERATOR STATUS MAY VARY BETWEEN LARGE QUANTITY, SMALL QUANTITY, OR CONDITIONALLY-EXEMPT SMALL QUANTITY

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section IV of the booklet for addresses.)

920990230

Resource Recovery
243 West Jefferson St., Gibbstown, NJ 08027

ENVIRONMENTAL PROTECTION
2002 OCT -2 PM 4:52

PSEG
Services Corporation

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
ARTICLE NUMBER: 7000 1530 0004 7189 5589

September 30, 2002

U. S. Environmental Protection Agency, Region 2, RCRA
290 Broadway, 22nd Floor
New York, NY 10007-1866

Attention: Jack Hoyt

RE: EPA FORM 8700-12,
NOTIFICATION OF REGULATED WASTE ACTIVITY:
SUBSEQUENT NOTIFICATIONS FOR
PSEG FOSSIL L.L.C. KEARNY & LINDEN GENERATING STATIONS
(EPA ID NOs. NJD000730424 & NJD000574376)

REF: PRR-E2002-261

Enclosed are subsequent notifications for the two subject PSEG facilities. Please contact Don Bowman of my staff at (856) 224-1640 if you have any questions.

Sincerely,

Albert A. Fralinger III
Manager – Materials Resource Recovery

Enclosures (2)

920990231

EPA United States Environmental Protection Agency

Handler Information

RCRA

PSEG FOSSIL LLC - KEARNY GEN STA KEARNY NJD000730424

Select the information to process:

Basic Handler Information

Handler Id	Handler Name	Facility Identifier	Extract Flag	Region	State	Universes
NJD000730424	PSEG FOSSIL LLC - KEARNY GEN STA		X	02	NJ	LQ

Previous Name Information

Act Loc	Receive Date	Handler Name

Location Address Information

Act Loc	Street No.	Street	City	County	State	Zip	Land Type	State District
NJ		HACKENSACK AVE FOOT OF	KEARNY	HUDSON	NJ	07032	P	METRO

Mailing Address Information

Act Loc	Street No.	Street	City	State	Zip
NJ		HACKENSACK AVE FOOT OF	KEARNY	NJ	07032

Contact Information

Add Contact

Act Loc	Type	Title	First Name	Last Name	Phone	Street	City	State	Zip
NJ	A	MANAGER	H	DECKER	973-430-8880	FOOT OF HACKENSACK AVE	KEARNY	NJ	07032
NJ	N	SR ENVIRON ENGR	JAMES	PEACH	973-504-3331	HACKENSACK AVE FOOT OF	KEARNY	NJ	07032

Owner Information

Add Owner

Act Loc	Seq	Indicator	Type	Change Date	Owner/Operator Name	Phone	Street	City	State	Zip
NJ	1	CO	P	8/21/2000	PSEG FOSSIL LLC	973-430-8675	80 PARK PLZ T16	NEWARK	NJ	07102

Operator Information

Add Operator

Act Loc	Seq	Indicator	Type	Change Date	Owner/Operator Name	Phone	Street	City	State	Zip
NJ	2	CP	P		PUBLIC SERIVCE ELECTRIC & GAS	973-430-7000	80 PARK PLAZA 15A	OPERCITY	NJ	99999

Miscellaneous Information

Add/Update Miscellaneous Information

Act Loc	Previous Id	Second Id	Ack Flag	Ack Date	River Basin	TSD Date	Non-notifier	Off-site receipt	Accessibility
NJ									

Location Coordinates — Add/Update Latitude/Longitude

Act Loc	Source	Latitude Measure	Longitude Measure
NJ	A	40 46 08.0	074 08 50.0

Environmental Priority Ranking
Add EPR

Act Loc	EPR Date	EPR Status	EPR Notes

SIC Information — Add SIC

Act Loc	Seq	Source	Code	Primary
NJ	0001	R	4931	P

Other Permit Information
Add Other Permit

Act Loc	Number	Type	Permit Description

Activity Summary Information — Add Activity

Act Loc	Source	Seq	Receipt Date	Gen - Fed Reg.	Trans - Fed Reg.	TSD - Fed Reg.	HW Fuel - Fed Reg.	Used Oil - Fed Reg.	UIC	Recy
NJ	A	1	11/19/1980	-	-	N - N	-	-		
NJ	E	1	7/15/1999	SQG - R	-	N - N	-	-		
NJ	N	1	1/12/2000	LQG - R	-	-	-	-		
NJ	N	2	9/19/2000	LQG - R	-	-	-	-		

Hazardous Waste Stream Information — Add Waste Stream

Act Loc	Sequence	Source	Date	Amount	Unit of Measure	Desc
NJ	0001	A	11/19/1980	7257.6	M	
NJ	0001	N	1/12/2000	0		

Go To

URL: /Handler/HAND_info_main.asp

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
32 E. Hanover St., CN 028, Trenton, N.J. 08625

MARWAN M. SADAT, P.E.
DIRECTOR

LINO F. PEREIRA, P.E.
DEPUTY DIRECTOR

28 SEP 1984

Mr. Chris Sebastian
USEPA Region II
26 Federal Plaza
New York City, NY 10007

Dear Mr. Sebastian:

Enclosed is a copy of a letter from Mr. James A. Shissias of PSE&G requesting the following information change(s);

1) Company Name _____

2) Corporate name/ownership _____

3) Company Contact _____

4) EPA ID Number _____

5) Notification Status to: TSD _____
Transporter _____
Generator _____
Non-Handler X

6) Facility Closure _____

7) Other * See attached printout which supports the Delisting request.

Please make the indicated changes to your RCRA mailing address file. Your attention in this matter would be greatly appreciated.

Sincerely,

Nancy Power
Program Manager

PR24:jl
Enclosure

New Jersey Is An Equal Opportunity Employer

920990234

June 14, 1984

Dr. Richard A. Baker, Chief
Permits Administration Branch
U. S. Environmental Protection Agency
Region II
26 Federal Plaza
New York, New York 10278

Dear Dr. Baker:

GENERATOR STATUS WITHDRAWAL
FOSSIL PRODUCTION
PUBLIC SERVICE ELECTRIC AND GAS COMPANY

At the suggestion of Mr. Chris Sebastian of your staff, the purpose of this letter is to request that Public Service Electric and Gas Company be permitted to withdraw from the Generator Status under RCRA and relinquish our Generator Numbers for the Central Maintenance Shop (NJD 000758226) and the following fossil generating stations:

STATION	GENERATOR NO.
Bayonne	NJD 980649610
Bergen	NJD 000768218
Burlington	NJD 000768036
Edison	NJD 980649628
Essex	NJD 000574004
Hudson	NJD 094961042
Kearny	NJD 000730424
Linden	NJD 000574376
Mercer	NJD 000768010
National Park	NJD 000574046
Sewaren	NJD 000768226

CHRIS,
I BELIEVE THESE FACILITIES HAVE ALREADY BEEN DELISTED. PLEASE VERIFY.
THANX

These facilities do not routinely generate any hazardous waste. Occasionally, at some facilities, waste oil may be generated, but it can be disposed of in accordance with N.J.A.C. 7:26 Subchapter 7.7(b) by a registered hazardous waste hauler. In accordance with the state regulations, a licensed transporter is permitted

920990235

to manifest his collections of waste oil, provided each one is less than 1,001 gallons, for disposal at licensed facilities.

The reason for this request stems from the N. J. Department of Environmental Protection's Regulations for Generators (see N.J.A.C. 7:26-9.3) which do not differentiate between the routine and occasional or emergency situation generator. A review of the manifests written for the last two years showed, with the exception of waste oil and oil contaminated debris, that only three shipments from all eleven facilities required manifests. The waste oil could have been handled in accordance with N.J.A.C. 7:26 - 7.7(b), as mentioned above, and the oil contaminated debris was a result of upset or spill conditions and handled in accordance with our SPCC Plans.

If, in the future, any hazardous waste is generated at any of these facilities, it would be disposed of with a temporary EPA I.D. Number. It is our understanding that temporary or emergency numbers can be obtained over the telephone from your Edison office.

If you have any questions, please contact Mr. G. Slifer, Chemical Plant Engineer, at (201) 430-7386.

Sincerely,

ORIGINAL SIGNED BY:
James A. Shissias
General Manager - Environmental Affairs

James A. Shissias
General Manager -
Environmental Affairs

C Joel Golumbek, Chief
NJ/Caribbean Haz. Waste Sec.
USEPA

David J. Leu, Ph.D., Chief
Bureau of Haz. Waste Class. & Manifest
Div. of Waste Mgmt.
NJDEP

COPIES

Let's protect our earth

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF HAZARDOUS WASTE MANAGEMENT
John J. Trela, Ph.D., Director
401 East State St.
CN 028
Trenton, N.J. 08625
609 - 633 - 1408

C 305 = $
C 119 = $
C 303 = $
C 1105 = $

12-9-87

James A. Shissias
General Manager
Environmental Affairs
Public Service Electric and Gas
80 Park Plaza T10C
Newark, New Jersey 07101

NOV 4 1987

RE: Delisting of Hazardous Waste TSD Classifications for PSE&G Generating Companies as listed below:

Gen. Sta.	EPA ID #	RCRA Activity
Bergen	NJD000768218	(S04, T01) CMT 11
Burlington	NJD000768036	(S02, T01) CMT 11
Hudson	NJD094961042	(S02, T01) CMT 11
Kearny	NJD000730424	(S02, T01) CMT 11
Linden	NJD000574376	(S04, T02) CMT 11
Mercer	NJD000768010	(S04, T04) CMT 11
Sewaren	NJD000768226	(S02, T01) CMT 10

(S02=storage in tanks, T01=treatment in tanks, S04=storage in impoundments, T02=treatment in impoundments).

The Bureau of Hazardous Waste Engineering (BHWE) has completed a review of PSE&G's generating stations delisting requests. Previously, PSE&G's generating stations as listed above, filed Part A Permit Applications on November 11, 1980 with the USEPA. Upon review of the files, the (BHWE) has reached the following determination that all of the listed RCRA activities are for waste water treatment facilities, and that the waste waters from the 7 generating stations are non-hazardous and therefore qualify for a non-hazardous classification. If this determination is incorrect, or incomplete, please contact the (BHWE) immediately. If this determination is correct, PSE&G's 7 generating stations as listed above are excluded from applicable hazardous waste treatment, storage or disposal facility permit requirements under N.J.A.C. 7:26-1 et seq.

This written acknowledgement of the exclusion of these facilities from New Jersey Department of Environmental Protection's list of existing hazardous waste TSD facilities is based expressly on the review of the current files of the 7 generating stations. This letter makes no claim as to the extent

NOV 4 1987

and physical conditions of the actual hazardous waste activities presently occurring at the sites mentioned above.

The issuance of this delisting letter by the department does not indicate, or imply, and should not be construed as a waiver of any requirements pursuant to the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq. and regulations promulgated thereunder concerning the New Jersey Pollutant Discharge Elimination System, N.J.A.C. 7:14-1 et seq. If your facilities are in any of the regulated categories identified in the above cited regulations, you are hereby directed to apply for any and all permits necessary within ninety days (or 180 days- at the option of the Division of Water Resources) to the Bureau of Groundwater Quality Management, CN 029 Trenton, New Jersey 08625. Applications may be obtained by calling (609) 292-0424.

PSEG's 7 generating stations as listed above are no longer included in DEP's list of "Existing Facilities" (see N.J.A.C. 7:26-1.4 and 12.3), and therefore, they do not need to conform with the interim operating requirements of N.J.A.C. 7:26-9 et seq. for "existing facilities", which would include the TSD facility annual report. It is the facilities responsibility to operate within the conditions listed above. To operate a hazardous waste facility without prior approval from the DEP is a violation of the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. If you have any questions on these matters, please contact Mr. James Koroniades of my staff at (609) 292-9880.

Very truly yours,

Ernest J. Kuhlwein, Jr.

Ernest J. Kuhlwein, Jr., Chief
Bureau of Hazardous Waste Engineering

EP66/lr
C: Barry Tornick,
USEPA, Region II

DOCUMENT: PUBLIC2
FOLDER: LXRMCB

920990238

Please print or type in the unshaded areas only.

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

INSTALLATION'S EPA I.D. NO.

I. NAME OF INSTALLATION

II. INSTALLATION MAILING ADDRESS

III. LOCATION OF INSTALLATION

PLEASE PLACE LABEL IN THIS SPACE

INSTRUCTIONS: If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave Items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

DETACH

FOR OFFICIAL USE ONLY

COMMENTS: C

INSTALLATION'S EPA I.D. NUMBER	APPROVED	DATE RECEIVED (yr., mo., & day)
F NJD000730424 T/A 1		800818

I. NAME OF INSTALLATION

KEARNY GENERATING STATION

II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX: 380 PARK PLAZA 15A

CITY OR TOWN	ST.	ZIP CODE
NEWARK	NJ	07101

III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER: FOOT OF HACKENSACK AVE

CITY OR TOWN	ST.	ZIP CODE
KEARNY	NJ	07032

IV. INSTALLATION CONTACT

NAME AND TITLE (last, first, & job title)	PHONE NO. (area code & no.)
DECKER H MANAGER	201-430-8880

V. OWNERSHIP

A. NAME OF INSTALLATION'S LEGAL OWNER: PUBLIC SERVICE ELECTRIC & GAS COMPANY

B. TYPE OF OWNERSHIP (enter the appropriate letter into box): M

F = FEDERAL
M = NON-FEDERAL

VI. TYPE OF HAZARDOUS WASTE ACTIVITY (enter "X" in the appropriate box(es))

- [X] A. GENERATION
- [ ] B. TRANSPORTATION (complete item VII)
- [X] C. TREAT/STORE/DISPOSE
- [ ] D. UNDERGROUND INJECTION

VII. MODE OF TRANSPORTATION (transporters only – enter "X" in the appropriate box(es))

- [ ] A. AIR
- [ ] B. RAIL
- [ ] C. HIGHWAY
- [ ] D. WATER
- [ ] E. OTHER (specify):

VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your Installation's EPA I.D. Number in the space provided below.

- [X] A. FIRST NOTIFICATION
- [ ] B. SUBSEQUENT NOTIFICATION (complete item C)

C. INSTALLATION'S EPA I.D. NO.

X. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

920990239

ACKNOWLEDGEMENT OF NOTIFICATION OF REGULATED WASTE ACTIVITY

REGION 2

11/03/2000

This is to acknowledge that you have filed a **Notification of Regulated Waste Activity** for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting regulated wastes; on all Annual Reports that generators of regulated waste, and owners and operators of regulated waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Regulated Waste Permit; and other regulated waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER →	NJD000730424
INSTALLATION NAME →	PSEG FOSSIL LLC - KEARNY GEN STA
INSTALLATION ADDRESS →	HACKENSACK AVE FOOT OF KEARNY, NJ 07032
MAILING ADDRESS →	HACKENSACK AVE FOOT OF KEARNY, NJ 07032

EPA Form 8700-12AB (4-80)

USEPA - REGION 2
RCRA Programs Branch
290 Broadway, 22nd Floor
New York, NY 10007-1866

ATTN: JACK HOYT
Tel : (212) 637-4106
Fax: (212) 637-4949

TO: PSEG FOSSIL LLC - KEARNY GEN STA
or Current Occupant
ATTN: JAMES PEACH - SR ENVIRON ENGR
HACKENSACK AVE FOOT OF
KEARNY, NJ 07032

920990240

TED X

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0028 Expires 10/31/99
GSA No. 0246-EPA-OT

Please refer to Section V. Line-by-Line Instructions for Completing EPA Form 8700-12 before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).

Notification of Regulated Waste Activity

EPA United States Environmental Protection Agency

Date Received (For Official Use Only)

I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

[ ] A. Initial Notification [X] B. Subsequent Notification (Complete Item C)

C. Installation's EPA ID Number: NJD000730424

II. Name of Installation (Include company and specific site name)

KEARNY GENERATING STATION

III. Location of Installation (Physical address not P.O. Box or Route Number)

Street: FOOT OF HACKENSACK AVENUE

Street (Continued):

City or Town: KEARNY | State: NJ | Zip Code: 07032 –

County Code: 017 | County Name: HUDSON

IV. Installation Mailing Address (See Instructions)

Street or P.O. Box: SAME

City or Town: | State: | Zip Code: –

V. Installation Contact (Person to be contacted regarding waste activities at site)

Name (Last): PEACH | (First): JAMES

Job Title: SR. ENVIRON. ENGR. | Phone Number (Area Code and Number): 973-504-3331

VI. Installation Contact Address (See Instructions)

A. Contact Address: Location [X] Mailing [ ]

B. Street or P.O. Box:

City or Town: | State: | Zip Code: –

VII. Ownership (See Instructions)

A. Name of Installation's Legal Owner: PSEG FOSSIL LLC

Street, P.O. Box, or Route Number: 80 PARK PLAZA, T16

City or Town: NEWARK | State: NJ | Zip Code: 07102 –

Phone Number (Area Code and Number): 973-430-8675

B. Land Type: P

C. Owner Type: P

D. Change of Owner Indicator: Yes [X] No [ ]

(Date Changed) Month: 08 Day: 21 Year: 00

920990241

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 10/31/99
GSA No. 0246-EPA-OT

KEARNY

ID - For Official Use Only

VIII. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes. Refer to instructions)*

A. Hazardous Waste Activity

1. Generator (See instructions)
   - ☐ a. Greater than 1000kg/mo (2,200 lbs.)
   - ☐ b. 100 to 1000 kg/mo (220-2,200 lbs.)
   - ☐ c. Less than 100 kg/mo (220 lbs)
2. Transporter (Indicate Mode in boxes 1-5 below)
   - ☐ a. For own waste only
   - ☐ b. For commercial purposes

Mode of Transportation
- ☐ 1. Air
- ☐ 2. Rail
- ☐ 3. Highway
- ☐ 4. Water
- ☐ *5. Other - specify*

☐ 3. Treater, Storer, Disposer (at installation) Note: A permit is required for this activity, see instructions.

4. Hazardous Waste Fuel
   - ☐ a. Generator Marketing to Burner
   - ☐ b. Other Marketers
   - ☐ c. Boiler and/or Industrial Furnace
     - ☐ 1. Smelter Deferral
     - ☐ 2. Small Quantity Exemption

Indicate Type of Combustion Device(s)
- ☐ 1. Utility Boiler
- ☐ 2. Industrial Boiler
- ☐ 3. Industrial Furnace

☐ 5. Underground Injection Control

B. Used Oil Recycling Activities

1. Used Oil Recycling Marketer
   - ☐ a. Marketer Directs Shipment of Used Oil to Off-Specification Burner
   - ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications
2. Used Oil Burner - Indicate Type(s) of Combustion Device
   - ☐ a. Utility Boiler
   - ☐ b. Industrial Boiler
   - ☐ c. Industrial Furnace
3. Used Oil Transporter - Indicate Type(s) of Combustion Device(s)
   - a. Transporter
   - b. Transfer Facility
4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
   - ☐ a. Process
   - ☐ b. Re-refine

IX. Description of Regulated Wastes *(Use additional sheets if necessary)*

A. Characteristics of Nonlisted Hazardous Wastes. *(Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)*

1. Ignitable *(D001)*	2. Corrosive *(D002)*	3. Reactive *(D003)*	4. Toxicity Characteristic	(List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))			
X							

B. Listed Hazardous Wastes. *(See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)*

1	2	3	4	5	6
7	8	9	10	11	12

C. Other Wastes. *(State or other wastes requiring a handler to have an I.D. number; See instructions.)*

1	2	3	4	5	6

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Name and Official Title *(Type or print)*	Date Signed
[illegible]	Raymond A. Tripodi Manager - Licenses & Permits	9/12/00

XI. Comments

Generator status may vary between large quantity, small quantity or conditionally-exempt small quantity.

Note: Mail completed form to the appropriate EPA Regional or State Office. *(See Section III of the booklet for addresses.)*

920990242

Change (Name)

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0028 Expires 10/31/99
GSA No. 0246-EPA-OT

Please refer to Section V. Line-by-Line Instructions for Completing EPA Form 8700-12 before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).

Notification of Regulated Waste Activity

EPA United States Environmental Protection Agency

Date Received (For Official Use Only)

I. Installation's EPA ID Number *(Mark 'X' in the appropriate box)*

[ ] A. Initial Notification [X] B. Subsequent Notification *(Complete Item C)*

C. Installation's EPA ID Number: NJD000730424

II. Name of Installation *(Include company and specific site name)*

KEARNY GENERATING STATION

III. Location of Installation *(Physical address not P.O. Box or Route Number)*

Street: FOOT OF HACKENSACK AVENUE

Street *(Continued)*:

City or Town: KEARNY | State: NJ | Zip Code: 07032-

County Code: 017 | County Name: HUDSON

IV. Installation Mailing Address *(See Instructions)*

Street or P.O. Box: SAME

City or Town: | State: | Zip Code: -

V. Installation Contact *(Person to be contacted regarding waste activities at site)*

Name *(Last)*: LIU-RAUFFER | *(First)*: PHYLLIS

Job Title: SR. ENVIRON. ENGR. | Phone Number *(Area Code and Number)*: 973-430-8789

VI. Installation Contact Address *(See Instructions)*

A. Contact Address Location [X] Mailing [ ] | B. Street or P.O. Box:

City or Town: | State: | Zip Code: -

VII. Ownership *(See Instructions)*

A. Name of Installation's Legal Owner: PSEG FOSSIL LLC

Street, P.O. Box, or Route Number: *80 PARK PLAZA, T16

City or Town: NEWARK | State: NJ | Zip Code: 07102-

Phone Number *(Area Code and Number)*: 973-430-8675

B. Land Type: P

C. Owner Type: P

D. Change of Owner Indicator: Yes [ ] [X] No | (Date Changed) Month Day Year

920990243

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GSA No. 0246-EPA-OT

ID - For Official Use Only

VIII. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes. Refer to instructions)*

A. Hazardous Waste Activity

1. Generator (See instructions) *
   - ☐ a. Greater than 1000kg/mo (2,200 lbs.)
   - ☐ b. 100 to 1000 kg/mo (220-2,200 lbs.)
   - ☐ c. Less than 100 kg/mo (220 lbs)
2. Transporter (indicate Mode in boxes 1-5 below)
   - ☐ a. For own waste only
   - ☐ b. For commercial purposes

Mode of Transportation
- ☐ 1. Air
- ☐ 2. Rail
- ☐ 3. Highway
- ☐ 4. Water
- ☐ *5. Other - specify*

☐ 3. Treater, Storer, Disposer (at installation) Note: A permit is required for this activity, see instructions.

4. Hazardous Waste Fuel
   - ☐ a. Generator Marketing to Burner
   - ☐ b. Other Marketers
   - ☐ c. Boiler and/or Industrial Furnace
     - ☐ 1. Smelter Deferral
     - ☐ 2. Small Quantity Exemption

Indicate Type of Combustion Device(s)
- ☐ 1. Utility Boiler
- ☐ 2. Industrial Boiler
- ☐ 3. Industrial Furnace

☐ 5. Underground Injection Control

B. Used Oil Recycling Activities

1. Used Oil Recycling Marketer
   - ☐ a. Marketer Directs Shipment of Used Oil to Off-Specification Burner
   - ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications
2. Used Oil Burner - Indicate Type(s) of Combustion Device
   - ☐ a. Utility Boiler
   - ☐ b. Industrial Boiler
   - ☐ c. Industrial Furnace
3. Used Oil Transporter - Indicate Type(s) of Combustion Device(s)
   - a. Transporter
   - b. Transfer Facility
4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
   - ☐ a. Process
   - ☐ b. Re-refine

IX. Description of Regulated Wastes *(Use additional sheets if necessary)*

A. Characteristics of Nonlisted Hazardous Wastes. *(Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)*

1. Ignitable *(D001)*	2. Corrosive *(D002)*	3. Reactive *(D003)*	4. Toxicity Characteristic	(List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))			
X							

B. Listed Hazardous Wastes. *(See 40 CFR 261.31 - 33; See Instructions if you need to list more than 12 waste codes.)*

1	2	3	4	5	6
7	8	9	10	11	12

C. Other Wastes. *(State or other wastes requiring a handler to have an I.D. number; See Instructions.)*

1	2	3	4	5	6

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Name and Official Title *(Type or print)*	Date Signed
Raymond A. Tripodi	Raymond A. Tripodi, Manager Licenses & Permits	12/12/94

XI. Comments

*Generator status may vary vetween large quantity, small quantity or conditionally exempt small quantity.

Note: Mail completed form to the appropriate EPA Regional or State Office. *(See Section III of the booklet for addresses.)*

920990244

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0028 Expires 10-31-99
GSA No. 0246-EPA-OT

Please refer to Section V. Line-by-Line Instructions for Completing EPA Form 8700-12 before completing this form. The information requested here is required by law (Section 3010 of the *Resource Conservation and Recovery Act*).

Notification of Regulated Waste Activity

EPA United States Environmental Protection Agency

Date Received (For Official Use Only)

00 JAN 12 PM 2:22

I. Installation's EPA ID Number *(Mark 'X' in the appropriate box)*

[ ] A. Initial Notification [X] B. Subsequent Notification *(Complete item C)*

C. Installation's EPA ID Number: NJD000730424

II. Name of Installation *(Include company and specific site name)*

KEARNY GENERATING STATION

III. Location of Installation *(Physical address not P.O. Box or Route Number)*

Street: FOOT OF HACKENSACK AVENUE

Street *(Continued)*:

City or Town: KEARNY | State: NJ | Zip Code: 07032-

County Code: 017 | County Name: HUDSON

IV. Installation Mailing Address *(See instructions)*

Street or P.O. Box: SAME

City or Town: | State: | Zip Code: -

V. Installation Contact *(Person to be contacted regarding waste activities at site)*

Name *(Last)*: PEACH | *(First)*: JAMES

Job Title: SR ENVIRON ENGR | Phone Number *(Area Code and Number)*: 973-504-3331

VI. Installation Contact Address *(See instructions)*

A. Contact Address Location [X] Mailing [ ]

B. Street or P.O. Box:

City or Town: | State: | Zip Code: -

VII. Ownership *(See Instructions)*

A. Name of Installation's Legal Owner: PUBLIC SERVICE ELECTRIC & GAS CO

Street, P.O. Box, or Route Number: 80 PARK PLAZA, P.O. BOX 570

City or Town: NEWARK | State: NJ | Zip Code: 07101-0570

Phone Number *(Area Code and Number)*: 973-430-7000

B. Land Type: P

C. Owner Type: P

D. Change of Owner Indicator: Yes [ ] No [X] (Date Changed) Month Day Year

1/13/2000 Listed as a Inactive Site since 1/1/92

920990245

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Form Approved, OMB No. 2050-0028 Expires 10/31/99
GSA No. 0246-EPA-OT

ID - For Official Use Only

VIII. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes. Refer to instructions)*

A. Hazardous Waste Activity

1. Generator (See instructions) (*)
   - ☐ a. Greater than 1000kg/mo (2,200 lbs.)
   - ☐ b. 100 to 1000 kg/mo (220-2,200 lbs.)
   - ☐ c. Less than 100 kg/mo (220 lbs)
2. Transporter (Indicate Mode in boxes 1-5 below)
   - ☐ a. For own waste only
   - ☐ b. For commercial purposes

   Mode of Transportation
   - ☐ 1. Air
   - ☐ 2. Rail
   - ☐ 3. Highway
   - ☐ 4. Water
   - ☐ *5. Other - specify*
3. ☐ Treater, Storer, Disposer (at installation) Note: A permit is required for this activity, see instructions.
4. Hazardous Waste Fuel
   - ☐ a. Generator Marketing to Burner
   - ☐ b. Other Marketers
   - ☐ c. Boiler and/or Industrial Furnace
     - ☐ 1. Smelter Deferral
     - ☐ 2. Small Quantity Exemption

     Indicate Type of Combustion Device(s)
     - ☐ 1. Utility Boiler
     - ☐ 2. Industrial Boiler
     - ☐ 3. Industrial Furnace
5. ☐ Underground Injection Control

B. Used Oil Recycling Activities

1. Used Oil Recycling Marketer
   - ☐ a. Marketer Directs Shipment of Used Oil to Off-Specification Burner
   - ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications
2. Used Oil Burner - Indicate Type(s) of Combustion Device
   - ☐ a. Utility Boiler
   - ☐ b. Industrial Boiler
   - ☐ c. Industrial Furnace
3. Used Oil Transporter - Indicate Type(s) of Combustion Device(s)
   - a. Transporter
   - b. Transfer Facility
4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
   - ☐ a. Process
   - ☐ b. Re-refine

IX. Description of Regulated Wastes *(Use additional sheets if necessary)*

A. Characteristics of Nonlisted Hazardous Wastes. *(Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)*

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic	(List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))
X				

B. Listed Hazardous Wastes. *(See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)*

1	2	3	4	5	6
7	**8**	**9**	**10**	**11**	**12**

C. Other Wastes. *(State or other wastes requiring a handler to have an I.D. number; See instructions.)*

1	2	3	4	5	6

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Name and Official Title *(Type or print)*	Date Signed
Albert Fralinger III	ALBERT FRALINGER III Manager - Mat'l Resource Recovery	1/6/00

XI. Comments

(*) KEARNY'S STATUS HAS CHANGED SINCE THE INITIAL NOTIFICATION FROM 'GENERATOR' AND 'TREATER, STORER, DISPOSER' TO ONLY 'GENERATOR', AND GENERATOR STATUS MAY VARY BETWEEN LARGE QUANTITY, SMALL QUANTITY, OR CONDITIONALLY-EXEMPT SMALL QUANTITY

Note: Mail completed form to the appropriate EPA Regional or State Office. *(See Section III of the booklet for addresses.)*

920990246

Environment, Health & Safety
80 Park Plaza, T17A, Newark, NJ 07102-4194
tel: 973 430.7000

September 12, 2000

PSEG
Services Corporation

Mr. Jack Hoyt
United States EPA Region II
290 Broadway, 22nd Floor, AWMD
New York, New York 10007-18[illegible]5

RE: Notification of Ownership Transfer of Hazardous Waste Generator / EPA ID Numbers

Dear Mr. Hoyt:

By this letter, Public Service Electric and Gas Company (PSE&G) is providing notice of its transfer of ownership of all of its Hazardous Waste Generators / EPA ID Numbers in accordance with the Resource Conservation and Recovery Act Section 3010, for the facilities listed below, to PSEG Fossil LLC. PSEG Fossil LLC is a wholly owned subsidiary of PSEG Power LLC, which is a wholly owned subsidiary of PSE&G's parent corporation, Public Service Enterprise Group Incorporated (PSEG).

This transfer of assets has been necessitated by the New Jersey Electric Discount and Energy Competition Act and the implementing Orders of the Board of Public Utilities (BPU), which require a functional separation of a public utility's competitive electric generation service from its regulated services and functions. Therefore, in response to this requirement, PSE&G has transferred its ownership of electric generation-related assets to PSEG Fossil LLC and PSEG Power LLC, separate non-utility corporate entities owned by PSEG. The respective station contacts, station locations, response actions, emergency personnel and standard operating procedures will not change. The transfer occurred on August 21, 2000. Attached please find the following items for your review:

Attachment A: List of Facilities - Hazardous Waste Generator / EPA ID Numbers
Attachment B: Bayonne Generating Station - Notification of Regulated Waste Activity Form
Attachment C: Bergen Generating Station - Notification of Regulated Waste Activity Form
Attachment D: Burlington Generating Station - Notification of Regulated Waste Activity Form
Attachment E: Central Maintenance Shop - Notification of Regulated Waste Activity Form
Attachment F: Edison Generating Station - Notification of Regulated Waste Activity Form
Attachment G: Essex Generating Station - Notification of Regulated Waste Activity Form
Attachment H: Hudson Generating Station - Notification of Regulated Waste Activity Form
Attachment I: Kearny Generating Station - Notification of Regulated Waste Activity Form
Attachment J: Linden Generating Station - Notification of Regulated Waste Activity Form
Attachment K: Maplewood Testing Services - Notification of Regulated Waste Activity Form
Attachment L: Mercer Generating Station - Notification of Regulated Waste Activity Form
Attachment M: National Park Generating Station - Notification of Regulated Waste Activity Form
Attachment N: Sewaren Generating Station - Notification of Regulated Waste Activity Form

Should you have any questions concerning this matter you may contact Mr. Joseph E. Rosina at (973) 430-5259. Thank you for your prompt consideration in this matter.

Very truly yours:

Raymond A. Tripodi, Manager
Licenses & Permits

920990247

Attachment A

List of Facilities - Hazardous Waste Generator / EPA ID Numbers

Facility Name	Street	City	EPA ID #
Bayonne Generating Station	Hook Road	Bayonne NJ 07002	NJD980649610
Bergen Generating Station	Victoria Terrace	Ridgefield NJ 07657	NJD000768218
Burlington Generating Station	West Broad Street & Devlin Avenue	Burlington NJ 08016	NJD000768036
Central Maintenance Shop	749 Cliff Road	Sewaren NJ 07077-1439	NJD986596732
Edison Generating Station	164 Silver Lake Avenue	Edison NJ 08817	NJD980649628
Essex Generating Station	155 Raymond Boulevard	Newark NJ 07105	NJD000574004
Hudson Generating Station	Duffield & Van Keuren Avenue	Jersey City NJ 07306	NJD094961042
Kearny Generating Station	Foot of Hackensack Avenue	Kearny NJ 07032	NJD000730424
Linden Generating Station	Grasselli Area of Wood Avenue South	Linden NJ 07036	NJD000574376
Maplewood Testing Services	200 Boyden Avenue	Maplewood NJ 07040	NJD089216915
Mercer Generating Station	Lamberton Road	Hamilton NJ 08611	NJD000768010
National Park Generating Station	Grove Street	National Park, NJ 08063	NJD000574046
Sewaren Generating Station	751 Cliff Road	Sewaren NJ 07077-1439	NJD000768226

Attachment B

* Summary Sheet
* Copy of "ACKNOWLEDGEMENT OF NOTIFICATION OF REGULATED WASTE ACTIVITY"
* Copy of Previous EPA Form 8700-12 submission dated September 12, 2000

Summary Sheet

List of Facilities - Hazardous Waste Generator / EPA ID Numbers

Facility Name	Owner	Street	City	EPA ID #
Bayonne Generating Station	PSEG Fossil LLC	Hook Road	Bayonne NJ 07002	NJD980649610
Bergen Generating Station	PSEG Fossil LLC	Victoria Terrace	Ridgefield NJ 07657	NJD000768218
Burlington Generating Station	PSEG Fossil LLC	West Broad Street & Devlin Avenue	Burlington NJ 08016	NJD000768036
Central Maintenance Shop	PSEG Power LLC	749 Cliff Road	Sewaren NJ 07077-1439	NJD986596732
Edison Generating Station	PSEG Fossil LLC	164 Silver Lake Avenue	Edison NJ 08817	NJD980649628
Essex Generating Station	PSEG Fossil LLC	155 Raymond Boulevard	Newark NJ 07105	NJD000574004
Hudson Generating Station	PSEG Fossil LLC	Duffield & Van Keuren Avenue	Jersey City NJ 07306	NJD094961042
Kearny Generating Station	PSEG Fossil LLC	Foot of Hackensack Avenue	Kearny NJ 07032	NJD000730424
Linden Generating Station	PSEG Fossil LLC	Wood Avenue South	Linden NJ 07036	NJD000574376
Maplewood Testing Services	PSEG Power LLC	200 Boyden Avenue	Maplewood NJ 07040	NJD089216915
Mercer Generating Station	PSEG Fossil LLC	Lamberton Road	Hamilton NJ 08611	NJD000768010
National Park Generating Station	PSEG Fossil LLC	Grove Street	National Park, NJ 08063	NJD000574046
Sewaren Generating Station	PSEG Fossil LLC	751 Cliff Road	Sewaren NJ 07077-1439	NJD000768226

Attachment A

EPA Form 8700-12 for Kearny and Linden Generating Stations

Current EPA ID 8700 Form Amendments (enclosed within)

List of Facilities - Hazardous Waste Generator / EPA ID Numbers

Facility Name	Street	City	EPA ID #
Kearny Generating Station	Foot of Hackensack Avenue	Kearny NJ 07032	NJD000730424
Linden Generating Station	Wood Avenue South	Linden NJ 07036	NJD000574376

920990250

Change (Name)

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 10/31/99
GSA No. 0246-EPA-OTS

Please refer to Section V. Line-by-Line Instructions for Completing EPA Form 8700-12 before completing this form. The information requested here is required by law (Section 3010 of the *Resource Conservation and Recovery Act*).

Notification of Regulated Waste Activity

EPA United States Environmental Protection Agency

Date Received (For Official Use Only)
DEC 13 2000

I. Installation's EPA ID Number *(Mark 'X' in the appropriate box)*

[ ] A. Initial Notification [X] B. Subsequent Notification *(Complete Item C)*

C. Installation's EPA ID Number: NJD000730424

II. Name of Installation *(Include company and specific site name)*

KEARNY GENERATING STATION

III. Location of Installation *(Physical address not P.O. Box or Route Number)*

Street: FOOT OF HACKENSACK AVENUE

Street *(Continued)*:

City or Town: KEARNY | State: NJ | Zip Code: 07032-

County Code: 017 | County Name: HUDSON

IV. Installation Mailing Address *(See Instructions)*

Street or P.O. Box: SAME

City or Town: | State: | Zip Code: -

V. Installation Contact *(Person to be contacted regarding waste activities at site)*

Name (Last): PEACH | (First): JAMES

Job Title: SR. ENVIRON. ENGR. | Phone Number (Area Code and Number): 973-504-3331

VI. Installation Contact Address *(See Instructions)*

A. Contact Address: Location [X] Mailing [ ]

B. Street or P.O. Box:

City or Town: | State: | Zip Code: -

VII. Ownership *(See instructions)*

A. Name of Installation's Legal Owner: PSEG FOSSIL LLC

Street, P.O. Box, or Route Number: 80 PARK PLAZA, T16

City or Town: NEWARK | State: NJ | Zip Code: 07102-

Phone Number *(Area Code and Number)*: 973-430-8675

B. Land Type: P

C. Owner Type: P

D. Change of Owner Indicator: Yes [X] No [ ]

(Date Changed) Month: 08 Day: 21 Year: 00

920990251

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 10/31/99
GSA No. 0246-EPA-OT

KEARNY

ID - For Official Use Only

VIII. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes. Refer to instructions)*

A. Hazardous Waste Activity

1. Generator (See instructions)
   - ☐ a. Greater than 1000kg/mo (2,200 lbs.)
   - ☐ b. 100 to 1000 kg/mo (220-2,200 lbs.)
   - ☐ c. Less than 100 kg/mo (220 lbs)
2. Transporter (Indicate Mode in boxes 1-5 below)
   - ☐ a. For own waste only
   - ☐ b. For commercial purposes

Mode of Transportation
- ☐ 1. Air
- ☐ 2. Rail
- ☐ 3. Highway
- ☐ 4. Water
- ☐ 5. *Other - specify*

☐ 3. Treater, Storer, Disposer (at installation) Note: A permit is required for this activity, see instructions.

4. Hazardous Waste Fuel
   - ☐ a. Generator Marketing to Burner
   - ☐ b. Other Marketers
   - ☐ c. Boiler and/or Industrial Furnace
     - ☐ 1. Smelter Deferral
     - ☐ 2. Small Quantity Exemption

Indicate Type of Combustion Device(s)
- ☐ 1. Utility Boiler
- ☐ 2. Industrial Boiler
- ☐ 3. Industrial Furnace

☐ 5. Underground Injection Control

B. Used Oil Recycling Activities

1. Used Oil Recycling Marketer
   - ☐ a. Marketer Directs Shipment of Used Oil to Off-Specification Burner
   - ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications
2. Used Oil Burner - Indicate Type(s) of Combustion Device
   - ☐ a. Utility Boiler
   - ☐ b. Industrial Boiler
   - ☐ c. Industrial Furnace
3. Used Oil Transporter - Indicate Type(s) of Combustion Device(s)
   - a. Transporter
   - b. Transfer Facility
4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
   - ☐ a. Process
   - ☐ b. Re-refine

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A. Characteristics of Nonlisted Hazardous Wastes. *(Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)*

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic	(List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))			
X							

B. Listed Hazardous Wastes. *(See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)*

1	2	3	4	5	6
7	8	9	10	11	12

C. Other Wastes. *(State or other wastes requiring a handler to have an I.D. number; See instructions.)*

1	2	3	4	5	6

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Name and Official Title *(Type or print)*	Date Signed
Raymond A. Tripodi	Raymond A. Tripodi Manager - Licenses & Permits	9/12/00

XI. Comments

Generator status may vary between large quantity, small quantity or conditionally-exempt small quantity.

Note: Mail completed form to the appropriate EPA Regional or State Office. *(See Section III of the booklet for addresses.)*

920990252

(Fill-in areas are spaced for elite type, i.e., 12 characters/inch.)

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

F N J D 0 0 0 7 3 0 4 2 4 3

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, aff it in the designated space. Review the infor ation carefully; if any of it is incorrect, cro through it and enter the correct data in tl appropriate fill-in area below. Also, if any the preprinted data is absent *(the area to tl left of the label space lists the informatic that should appear)*, please provide it in tl proper fill-in area*(s)* below. If the label complete and correct, you need not comple Items I, III, V, and VI *(except VI-B whic must be completed regardless)*. Complete items if no label has been provided. Refer the instructions for detailed item descri tions and for the legal authorizations und which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge to waters of the U.S.**? (FORM 2A)		X	
C. Is this a facility which currently results in **discharges to waters of the U.S.** other than those described in A or B above? (FORM 2C)	X		
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)	X		
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge to waters of the U.S.**? (FORM 2B)		X	
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)		X	
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP KEARNY GENERATING STATION

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2 DECKER H MANAGER	201 430 8880

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

3 FOOT OF HACKENSACK AVE

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 KEARNY	NJ	07032

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 FOOT OF HACKENSACK AVE

B. COUNTY NAME

HUDSON

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
6 KEARNY	NJ	07032	

CONTINUE ON REVERS

920990253

FORM 3 RCRA

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE PERMIT APPLICATION

Consolidated Permits Program

(This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER: F N J D 0 0 0 7 3 0 4 2 4 3

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)	COMMENTS
	8 0 1 1 1 9	

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION *(place an "X" below and provide the appropriate date)*

[X] 1. EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)*

[ ] 2. NEW FACILITY *(Complete item below.)*

FOR EXISTING FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

C.	YR.	MO.	DAY
8	7 9	0 6	0 1

FOR NEW FACILITIES PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR IS EXPECTED TO BEGIN

YR.	MO.	DAY

B. REVISED APPLICATION *(place an "X" below and complete Item I above)*

[ ] 1. FACILITY HAS INTERIM STATUS

[ ] 2. FACILITY HAS A RCRA PERMIT

III. PROCESSES – CODES AND DESIGN CAPACITIES

A. **PROCESS CODE** – Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code*(s)* in the space provided. If a process will be used that is not included in the list of codes below, then describe the process *(including its design capacity)* in the space provided on the form *(Item III-C)*.

B. **PROCESS DESIGN CAPACITY** – For each code entered in column A enter the capacity of the process.
1. AMOUNT – Enter the amount.
2. UNIT OF MEASURE – For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER *(barrel, drum, etc.)*	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D79	GALLONS OR LITERS
LANDFILL	D80	ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER
LAND APPLICATION	D81	ACRES OR HECTARES
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)*	T04	GALLONS PER DAY OR LITERS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	Q
GALLONS PER DAY	U	LITERS PER HOUR	H		

EXAMPLE FOR COMPLETING ITEM III *(shown in line numbers X-1 and X-2 below)*: A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S02	600	G	
X-2	T03	20	E	
5	S02	356,000	G	
6	T01	576,000	U	
7				
8				
9				
10				

920990254

NOTE: Photocopy this page before completing if you have more than 26 wastes to list. KEARNY Form Approved OMB No. 158-S80004

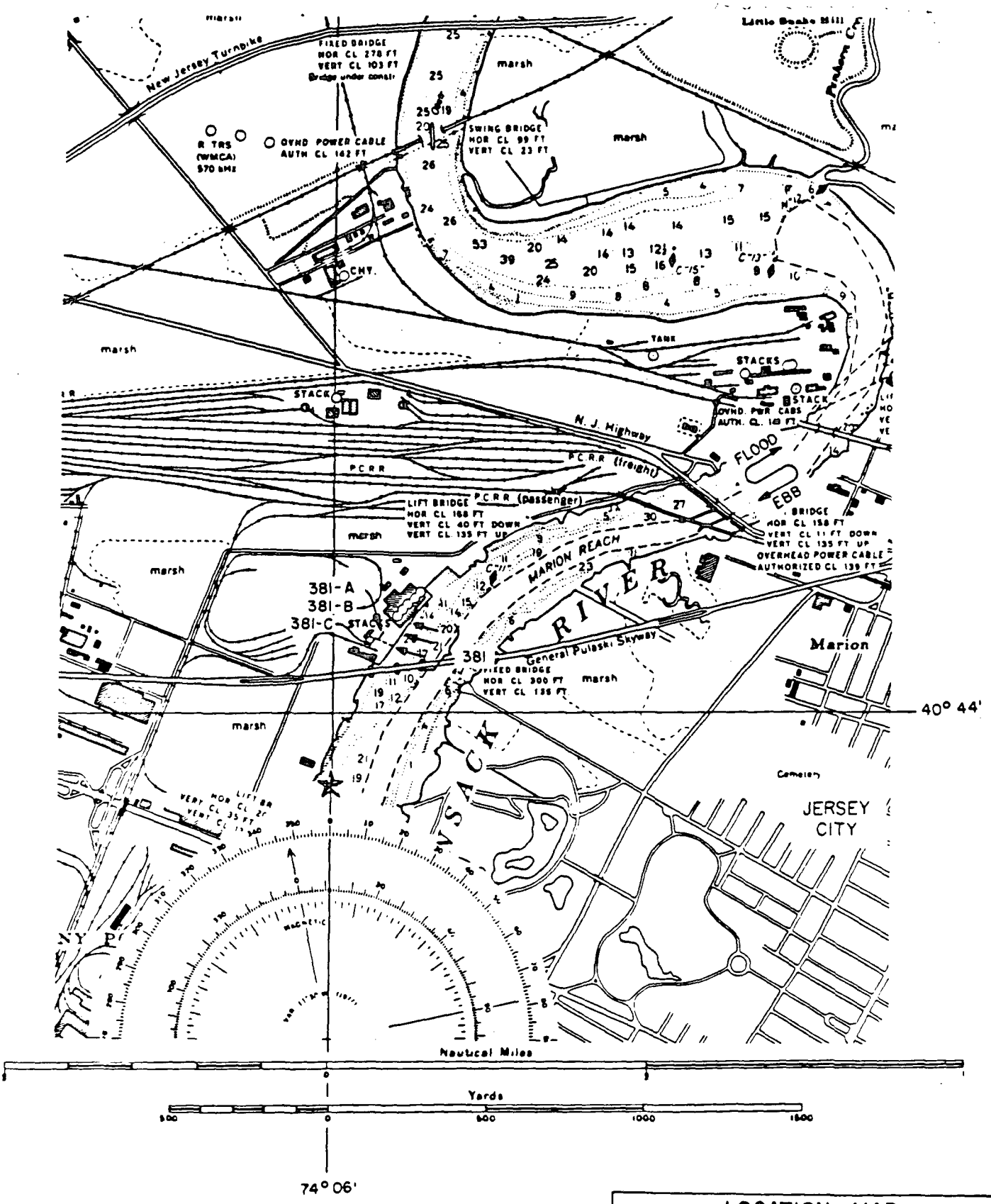
EPA I.D. NUMBER (enter from page 1)	FOR OFFICIAL USE ONLY
W N J D 0 0 0 7 3 0 4 2 4 T/A 3 C 1	W DUP T/A 3 C 2 DUP

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	D002	8,000000	T	S02 T01	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

EPA Form 3510-3 (6-80) CONTINUE ON REVERSE

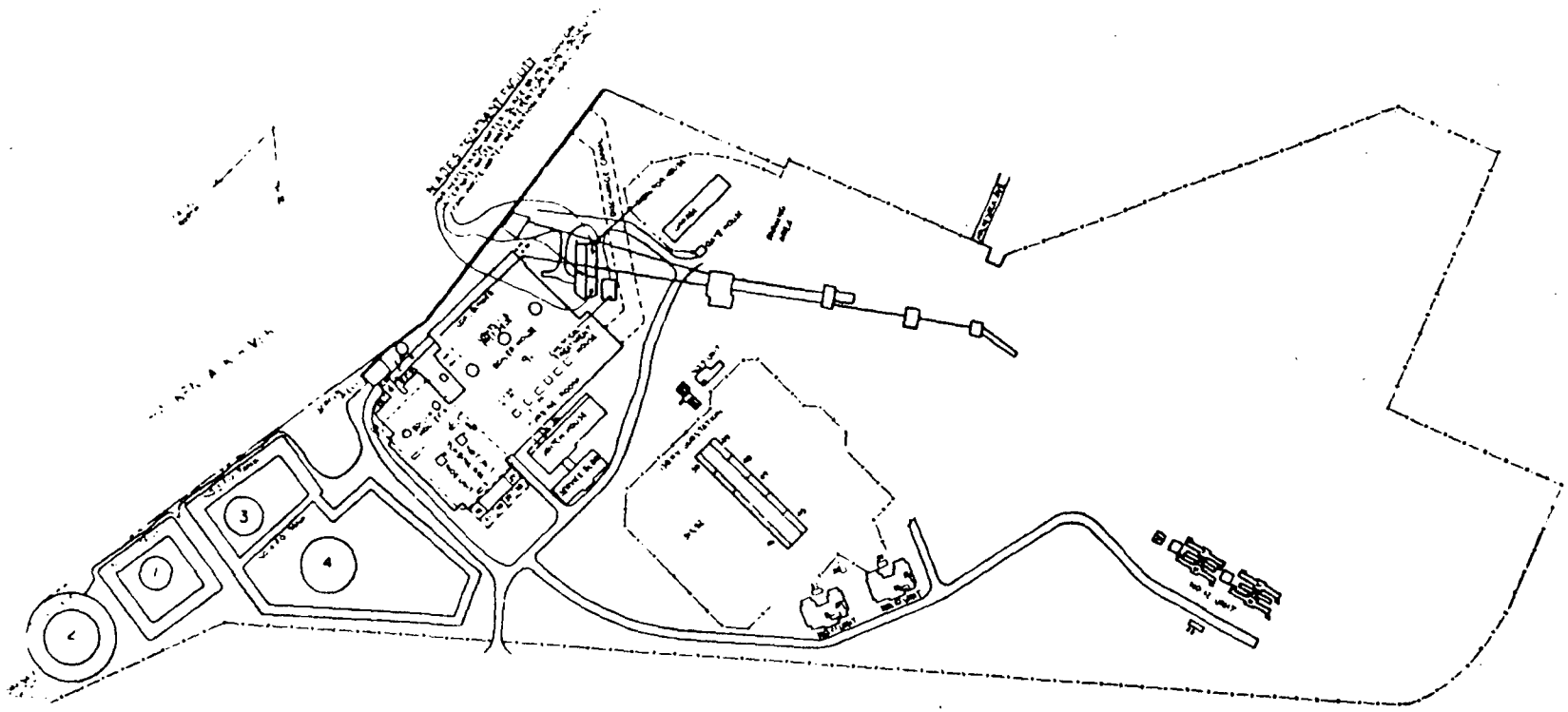
920990255



LOCATION MAP
FROM C. & G.S. MAP No. 287
PUBLIC SERVICE ELECTRIC & GAS CO.
KEARNY GENERATING STATION
KEARNY TOWNSHIP
COUNTY OF HUDSON
STATE OF NEW JERSEY

JUNE 1 1979 PAGE 1 OF 1

920990256



PUBLIC SERVICE ELECTRIC & GAS CO.
HOBOKEN GENERATING STATION
HOBOKEN, N.J.
NO. 7, 8, 9, 10, 11 & 12 UNITS
CHEMICAL STORAGE AND WASTE
WASTE TREATMENT FACILITY
LOCATION
LATITUDE : 40 DEG. 44 MIN., 0 SEC.
LONGITUDE : 74 DEG. 02 MIN., 47 SEC.

SOX

920990257

U.S. Environmental Protection Agency

Envirofacts Data Warehouse

Query Results

Report an Error

Envirofacts

Name: Containing: fossil
ZIP Code: 07032
Location Address: HACKEN
City Name: kearny
County Name: hudson
State Abbreviation: NJ

LIST OF EPA-REGULATED FACILITIES IN ENVIROFACTS

To see a report on a facility click on the underlined Facility Name. Click on the underlined "View Facility Information" link to view EPA Facility information for the facility.

Go To Bottom Of The Page

FACILITY NAME/ADDRESS	FACILITY INFORMATION	Permitted Discharges to Water?	Toxic Releases Reported?	Hazardous Waste Handler?	Active or Archived Superfund Report?	Air Releases Reported?
PUBLIC SERVICE ELECTRIC AND GAS KEARNY GENERATING STATION 118 HACKENSACK AVENUE KEARNY, NJ 07032	View Facility Information	YES	YES	YES	NO	YES

Go To Top Of The Page

Total Number of Facilities Displayed: 1

U.S. Environmental Protection Agency

Envirofacts Data Warehouse

MultiSystem Report

Envirofacts

Report an Error

PUBLIC SERVICE ELECTRIC AND GAS KEARNY GENERATING STATION
118 HACKENSACK AVENUE
KEARNY, NJ 07032

Map this facility

EPA Facility Information

This query was executed on JUN-24-2005

Toxic Releases for Reporting Year 2003

TRI FACILITY ID: 07032KRNYGHACKE

SIC Codes for 2003

SIC CODE	SIC CODE DESCRIPTION
4911	ELECTRIC SERVICES

Chemicals Released to Air

CHEMICAL NAME	TRI CHEM ID	DOCUMENT	RELEASE AMOUNTS LBS/YR	RELEASE BASIS CODE	FUGITIVE OR STACK INDICATOR
POLYCYCLIC AROMATIC COMPOUNDS	N590	1303201367327	3.3	PUBLISHED EMISSION FACTORS	STACK OR POINT EMISSIONS

Chemicals Transferred to other Sites

There was no data of this type reported for this facility.

Chemicals Released via Underground Injection

There was no data of this type reported for this facility.

920990259

Chemicals Released to Land

There was no data of this type reported for this facility.

Chemicals Released to Surface Water

There was no data of this type reported for this facility.

Additional Information can be obtained from the Toxics Release Inventory System TRIS Query.

Water Discharge Permit Information (PCS)

NPDES: NJ0000655
SIC CODE: 4911 SIC DESCRIPTION: ELECTRIC SERVICES

This facility has permits to discharge the following chemical/substances through the points (pipes) listed in the table below:

PARAMETER CODE	PARAMETER DESCRIPTION	NUMBER OF DISCHARGE POINTS
00010	TEMPERATURE, WATER DEG. CENTIGRADE	1
00015	THERMAL DISCHARGE MILLION BTUS PER HR.	1
00400	PH	1
00530	SOLIDS, TOTAL SUSPENDED	1
00551	HYDROCARBONS,IN H2O,IR,CC14 EXT. CHROMAT	1
00680	CARBON, TOT ORGANIC (TOC)	1
00980	IRON TOTAL RECOVERABLE	1
01074	NICKEL TOTAL RECOVERABLE	1
01094	ZINC TOTAL RECOVERABLE	1
01119	COPPER TOTAL RECOVERABLE	1
50050	FLOW, IN CONDUIT OR THRU TREATMENT PLANT	2
TAN3E	LC50 STATRE 96HR ACU MYSID. BAHIA	1

Additional Information can be obtained from Water Discharge Permit Infomation PCS Query.

Water Discharge Permit Information (PCS)

NPDES: NJ0120511
SIC CODE: SIC DESCRIPTION:

The current PCS database does not have permitted discharge data for this facility.

920990260

Additional Information can be obtained from Water Discharge Permit Infomation PCS Query.

AIRS / AFS Information

PLANT NAME:	PSE&G KEARNY GENERATING STATION	COMPLIANCE SYSTEM PLANT ID:	00002
AFS PLANT ID:	00002	NATIONAL EMISSIONS DATA SYSTEM PLANT ID:	0022
LATITUDE:	0	LONGITUDE:	0
DUNS NUMBER:	120453469	PRINCIPAL PRODUCT:	ELECTRIC GENERATION
INVENTORY YEAR:	90	EMERGENCY CONTROL:	ECAP not required
CLASS CODE:	ACTUAL OR POTENTIAL EMISS ARE ABOVE THE APPLICABLE MAJOR SOURCE THRESHOLD.	COMPLIANCE STATUS:	IN COMPLIANCE WITH PROCEDURAL REQUIREMENTS

The current AIRS/AFS database does not have any pollutant data for this facility.

RCRAInfo

HANDLER ID: NJD000730424

LIST OF NAICS CODES AND DESCRIPTIONS

NAICS CODE	NAICS DESCRIPTION
2211	Electric Power Generation, Transmission and Distribution

HANDLER / FACILITY CLASSIFICATION

HANDLER TYPE
Large Generator
Subject Non-TSD

LIST OF PROCESS UNIT INFORMATION FOR GROUP TANK

PROCESS	LEGAL	UNIT OF	CAPACITY			

920990261

CODE / DESCRIPTION	OPERATING STATUS	MEASUREMENT TYPE / DESCRIPTION	TYPE / DESCRIPTION	QUANTITY	CAPACITY	EFFECTIVE DATE
S02 - TANK STORAGE	NEVER REGULATED AS A TSD - PROTECTIVE FILER	G - GALLONS	D - DESIGN	1	356000	19-NOV-80

LIST OF PROCESS UNIT INFORMATION FOR GROUP TANKTRT

PROCESS CODE / DESCRIPTION	LEGAL OPERATING STATUS	UNIT OF MEASUREMENT TYPE / DESCRIPTION	CAPACITY TYPE / DESCRIPTION	QUANTITY	CAPACITY	EFFECTIVE DATE
T01 - TANK TREATMENT	NEVER REGULATED AS A TSD - PROTECTIVE FILER	U - GALLONS PER DAY	D - DESIGN	1	576000	19-NOV-80

Additional Information can be obtained from Resource Conservation and Recovery Information Query. RCRAInfo

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U.S. Environmental Protection Agency

Facility Registry System (FRS)

Facility Detail Report

Report an Error

FRS

Facility Name:	PUBLIC SERVICE ELECTRIC AND GAS KEARNY GENERATING STATION
Location Address:	118 HACKENSACK AVENUE
Supplemental Address:	FOOT OF HACKENSACK AVENUE
City Name:	KEARNY
State	NJ
County Name:	HUDSON
ZIP/Postal Code:	07032
EPA Region:	02
Congressional District Number:	13
Legislative District Number:	
HUC Code:	02030103
Federal Facility:	NO
Tribal Land :	
Latitude:	40.737972
Longitude:	-74.097139
Method:	GPS CARRIER PHASE STATIC RELATIVE POSITION
Reference Point Description:	PLANT ENTRANCE (GENERAL)
Duns Number:	120453469
Registry ID:	110006367528

Map this facility

Environmental Interests

Information System	Information System ID	Environmental Interest Type	Data Source	Last Updated Date	Supplemental Environmental Interests:
AIRS/AFS	NJ0082504	AIR MAJOR	AIRS/AFS	11/01/2001	
CAMDBS	2404	AIR PROGRAM	CAMDBS		
ICIS	33688	FORMAL ENFORCEMENT	ICIS	10/18/2001	ICIS-02-2001-9111 FORMAL

		ACTION			ENFORCEMENT ACTION
NCDB	I02#20000417155171	COMPLIANCE ACTIVITY	NCDB		
NEI	NEI7653	CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY	NEI		
NJ-NJEMS	15972	STATE MASTER	NJEMS	03/04/2003	- AIR PROGRAM - AIR PROGRAM - RELEASE ASSESSMENT - EPCRA - HAZARDOUS WASTE PROGRAM - LABORATORY - MINERAL EXPLORATION - NPDES PERMIT - STATE CLEANUP SITE
PCS	NJ0000655	NPDES MAJOR	NPDES PERMIT	04/06/1990	
PCS	NJ0120511	NPDES NON-MAJOR	NPDES PERMIT	02/05/1996	
RCRAINFO	NJD000730424	HAZARDOUS WASTE BIENNIAL REPORTER	RCRAINFO	03/29/2001	
RCRAINFO	NJD000730424	LQG	NOTIFICATION (RCRA)	09/19/2000	
TRIS	07032KRNYGHACKE	TRI REPORTER	TRI REPORTING FORM	07/02/2001	

Facility Mailing Addresses

Affiliation Type	Delivery Point	City Name	State	Postal Code	Information System
ALTERNATE MAILING ADDRESS	FOOT OF HACKENSACK AVE	KEARNY	NJ	07032	PCS
CONTACT/GENERAL	E HACKENSACK AVE FOOT OF	KEARNY	NJ	070324635	RCRAINFO
CONTACT/GENERAL	FOOT OF HACKENSACK AVE	KEARNY	NJ	07032	PCS

920990264

CONTACT/GENERAL	FT OF HACKENSACK AVE	KEARNY	NJ	07032-3306	TRIS
CONTACT/OWNER	80 PARK PLAZA	NEWARK	NJ	07102	PCS
CONTACT/OWNER	80 PARK PLAZA MAILCODE T25L	NEWARK	NJ	07101	RCRAINFO
CONTACT/REGULATORY	E HACKENSACK AVE FOOT OF	KEARNY	NJ	070324635	RCRAINFO

NAICS Codes

Data Source	NAICS Code	Description	Primary
NEI	2211		

SIC Codes

Data Source	SIC Code	Description	Primary
CAMDBS	4911	ELECTRIC SERVICES	
AIRS/AFS	4911	ELECTRIC SERVICES	
ICIS	4911	ELECTRIC SERVICES	
NCDB	4911	ELECTRIC SERVICES	
NEI	4911	ELECTRIC SERVICES	
PCS	4911	ELECTRIC SERVICES	
TRIS	4911	ELECTRIC SERVICES	

Contacts

Affiliation Type	Full Name	Office Phone	Information System	Mailing Address
COGNIZANT OFFICIAL	EDWARD G WAUGH	2012173670	PCS	
COGNIZANT OFFICIAL	PATRICK COLGAN	9734305640	PCS	
CONTACT/COMPLIANCE	R. HIGHTON	2014308880	AIRS/AFS	
CONTACT/GENERAL	BRUCE PETROVSKI	7327502037	TRIS	
CONTACT/REGULATORY	WILLIE WASHINGTON	9734308789	RCRAINFO	View
CONTACT/TECHNICAL	BRUCE PETROVSKI	7327502037	TRIS	

Organizations

Affiliation Type	Name	DUNS Number	Information System	Mailing Address
CONTACT/OWNER	PSE&G COMPANY		PCS	View
CONTACT/OWNER	PSEG FOSSIL LLC		PCS	View

920990265

CONTACT/OWNER	PSEG FOSSIL LLC		RCRAINFO	View
OWNER/OPERATOR		120453469	AIRS/AFS	
OWNER/OPERATOR	PSEG FOSSIL LLC		CAMDBS	
OWNER/OPERATOR	PSEG POWER, LLC		CAMDBS	

Alternative Names

Alternative Name
KEARNY
KEARNY GENERATING STA
KEARNY POWER & LIGHT
PSE & G CO. ATTN ENVIRONMETAL
PSE&G KEARNY GENERATING STA
PSEG FOSSIL LLC - KEARNY GEN STA
PSEG POWER L.L.C. KEARNY GENERATING STATION
PUBLIC SERVICE ENTERPRISE GROUP

Query executed on: JUN-24-2005

EPA Home | Privacy and Security Notice | Contact Us

Last updated on Friday, June 24th, 2005

EPA United States Environmental Protection Agency

Handler - Handler Search

RCRA .../

Enter the Handler ID you wish to search on:

Handler ID: njd000730424

Search Cancel Clear

Your search has found 1 handler(s).

Search Results

Act Loc	Handler Name	EPA Id	Street No.	Street Address	City	State	Zip Code	County	In a Universe
NJ	PSEG FOSSIL LLC - KEARNY GEN STA	NJD000730424		E HACKENSACK AVE FOOT OF	KEARNY	NJ	070324635	HUDSON	Y

URL: /HANDLER2/Handler_srch.asp

EPA United States Environmental Protection Agency

Handler Detail

RCRA

PSEG FOSSIL LLC - KEARNY GEN STA KEARNY NJD000730424

** = Indicates source record used for Universe Calculations

Handler Universes										
In a Universe	Genstatus	Transporter	Univ Waste	Recycler	Used Oil	Furnace Exempt	Importer	Onsite Burner Exem	Mixed Waste Gen	Underground Injection
Y	LQG	N	N	N	NNNNNNN	U	U	U	U	N

Permitting and Corrective Action Universes								
Permit Workload	Closure Workload	Postclosure Workload	Permit Progress	CA Workload	Subject to CA	Subject to CA - TSD	Subject to CA - Discretion	Subject to CA - Non-TSD
—	—	—	—	N	N	N	N	Y

Compliance, Monitoring and Enforcement and GPRA Universes							
Full Enforcement	Operating TSDF	SNC	BOYSNC	GPRA Permit	GPRA Postclosure	GPRA CME	GPRA CA
—	—	N	N	N	N	N	N

Source Summary Table				
Act Loc	Source	Sequence	Receipt Date	Non-notifier
NJ	A	1	11/19/1980	
NJ	I	2	4/18/2002	
NJ	I	1	7/15/1999	
NJ	** N	3	10/2/2002	
NJ	N	2	9/19/2000	
NJ	N	1	1/12/2000	
NJ	R	4	3/29/2001	
NJ	R	3	2/25/1994	
NJ	R	2	2/28/1992	
NJ	R	1	4/30/1990	

Add Site Identification Form

RCRA Site Detail Report

Universe Justification

Create New Activity Location Go To

URL: /Handler2/HAND_main.asp

920990268

WESTON

Results of Borings Nos. 8, 9, 10 and 11
For the Mercury Contamination Investigation at the
Public Service Electric & Gas Company Kearny Plant

Borings Nos. 8, 9, 10 and 11 were constructed near the underground sheet pilings in order to further determine the extent of mercury contamination.

Results of the borings and laboratory analyses by flameless atomic absorption methods are shown in Table 1 and on the logs of the borings. The locations of the borings are shown on Figure 1.

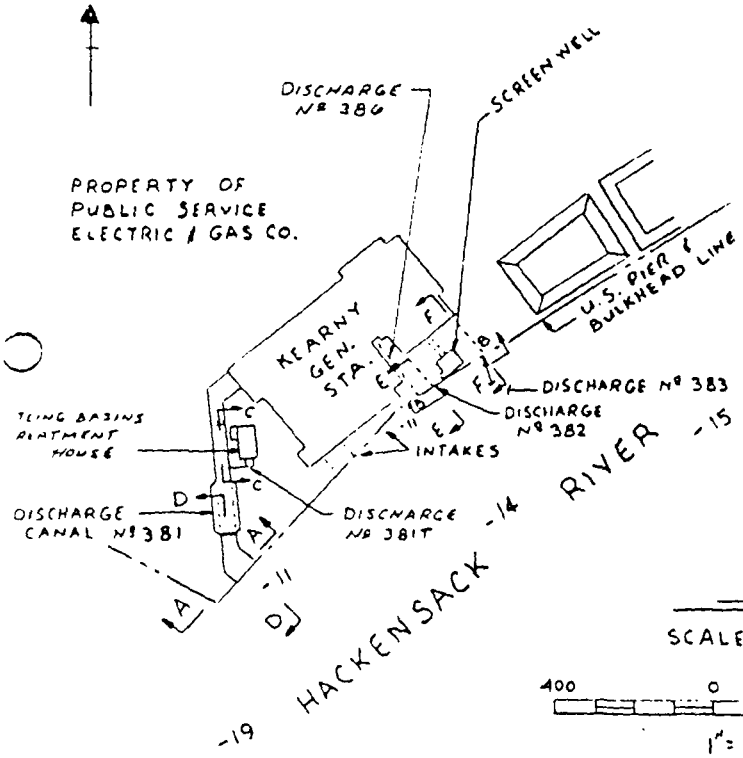
These results indicate that some mercury is present in the soil. It is, however, at much lower levels than near the oil separator excavation. Furthermore, all samples at depths greater than 13 feet show concentrations less than 5 ppm.

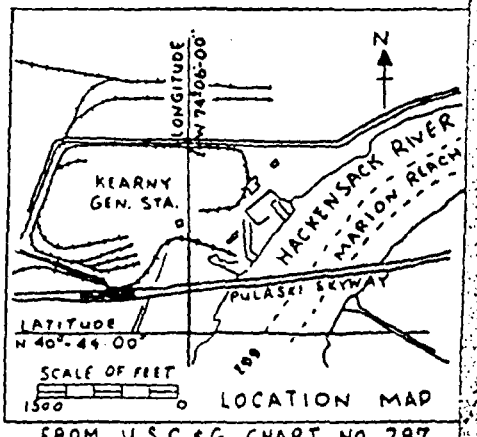
Water samples taken from Borings Nos. 10 and 11 show mercury concentrations of 0.002 and 0.007 ppm, respectively. These concentrations are much less than the concentrations of mercury found in ground water from borings near the oil separator excavation. Analyses of ground water are included in Table 1.

RECEIVED
OCT 24 1978
DEPT. ENVIRONMENTAL PROTECTION
NEWARK OFFICE

920990270

HYDRAULIC PROFILE





FROM U.S.C.&G CHART NO. 287

PLAN

SCALE OF FEET

400 0 400 800

1" = 400' APPROX.

BJA000075

KEARNY GENERATING STATION
EXISTING DISCHARGE ARRANGEMENT
IN THE HACKENSACK RIVER
AT KEARNY GENERATING STATION

COUNTY OF HUDSON, STATE OF NEW JERSEY
APPLICATION BY PUBLIC SERVICE ELEC/GAS
SHEET 1 OF 5 DATE 2-78

SOUNDINGS ARE IN FEET AND REFER TO MEAN LOW WATER
ELEVATIONS ARE IN FEET AND REFER TO U.S. COAST / GEODETIC SURVEY SANDY HOOK DATUM

920990272

Reed comment 1/7

MEMORANDUM

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO: Robert Reed, Passaic Basin MS&E (through) William Althoff

FROM: Robert Gordon, Ground Water Management Unit

SUBJECT: Mercury Contamination, PSE&G, Kearny Generating Station.

DATE: June 8, 1979

A final report entitled "Mercury Contamination Investigation at the Kearny Generating Station, Kearny, New Jersey" dated April 19, 1979, submitted by Roy F. Weston, Inc., was reviewed. The following comments concerning the report are offered for your consideration:

1. The presence or absence of the sheet pile bulkhead was not determined. Material in our files indicate that this is information that the company was directed to supply.

2) It appears from the data submitted by Roy F. Weston, Inc., that movement of the mercury is mainly in a downward manner. In all probability, if the mercury remains in the elemental form, its lateral movement will be minimal and a vertical movement will occur preferentially. However, if there is a transformation from elemental Hg to a more soluble form, the contaminant may move to the river, albeit slowly. The literature in this Division indicates that elemental Hg is very insoluble in water but that some of the mercury salts are highly soluble. Therefore, it would be beneficial to determine the form in which the Hg is present in the ground water. There may also be a slight movement of the ground water toward the river; it would also be well to determine the rate however slight.

3) There appears to be a migration of mercury beneath the peat/clay layers in Wells #6,7,9 and 11. Since soil logs were not submitted for borings #1 through 5, nor for the excavation, there is no way of knowing at what depth the peat and clay layers occur in each of the five borings and excavation. The report states that the peat and clay layers should stop the downward movement of the contaminant; however it would appear that some Hg manages to occur beneath these layers. The reasons for this migration can be speculated about: holes in the layers and/or travel along the clay layer surface which may be inclined.

4) The recommendation by Roy F. Weston, Inc., that no further disturbance of the area be caused seems to have merit, when the information supplied in the final report is considered:
   1) no more Hg is being added, therefore there is a limited amount in the soil and ground water;
   2) the movement of the Hg, if there is any, is quite

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slow laterally since there is only a minimal amount of precipitation entering the section and, therefore, very little flushing;

3. the "basin" in which the Hg is entrapped probably experiences very little flushing due to tidal affects;

4. the excavation and movement of the contaminated soil would probably spread the Hg contamination further.

5) It is reasonable to expect that elemental Hg will move preferentially in a downward manner; this would probably cause a build up, in time, along the peat/clay layer. If the clay layer dips, as it probably does, the elemental Hg may move along the face of the clay; this would most likely be slight. If the Hg moves laterally due to ground water transport it will most likely be moved in a combined form, i.e., as an inorganic salt or as an organic compound. As long as the present physical conditions of the site remain, such transport would most likely be very slow.

RG/frb

LOG
RECD
TAN MT. 7/19

PSEG

Public Service Electric and Gas Company 80 Park Place Newark, N.J. 07101 201/430-5858

James A. Shissias General Manager
Environmental Affairs

RECEIVED
JUL 6 2 17 PM '79
NJ DEPT ENV
DIV WATER RESOURCES
MS&E

July 3, 1979

RECEIVED
JUL 11 1979
DEPT. ENVIRONMENTAL PROTECTION
NEWARK OFFICE

Mr. Richard E. Bellis, Assistant Director
Division of Water Resources
State of New Jersey
Department of Environmental Protection
P. O. Box CN029
Trenton, New Jersey 08625

Dear Mr. Bellis:

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
KEARNY GENERATING STATION
PERMIT NO. NJ 0000655

On Monday, June 25, 1979 at 0112 hr. approximately 70,000 gallons of boiler house sump water was discharged via a storm drain into the Hackensack River from Kearny Generating Station. The cause of the discharge was a loss of power to the No. 1 and No. 2 Chemical Waste Sump Pumps which discharge, from an oil separator, to the waste treatment facility. The operation of the oil separator was not affected. The loss of these pumps allowed the oil separator discharge to overflow the chemical waste sump and enter a storm drain to the river.

The discharge was halted at 1010 hr. when a temporary feed was supplied to one chemical waste sump pump, allowing the water to proceed on its normal path to the waste treatment facility.

A sample of the discharged water, a composite of river, city, and demineralized water was found to contain 0.08 ppm copper and 0.88 ppm iron. The water was clear and visibly oil free. The environmental impact on the river is assumed to be zero since the concentrations were found to be below the NPDES permit limits.

The normal feed to the second chemical waste sump pump was returned to service at 1610 hr. on the same day. Plans are being made to install a separate feed to each pump to prevent a recurrence of the incident.

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75 YEARS

95-6000 DM

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A telephone report of this incident was made to Jak Litsch of the Coast Guard at 1612 hr. on June 25, 1979 and to Lucille Makee of the New Jersey Department of Environmental Protection at 1618 hr. on June 25, 1979.

Sincerely,

J. A. Shissias
General Manager
Environmental Affairs

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF AUTHORIZATION

PERMIT NO.	ISSUANCE DATE	EFFECTIVE DATE	EXPIRATION DATE
NJ0000655	August 30, 1985	Ocotber 1, 1985	September 30, 1990

ISSUED TO	FOR ACTIVITY/FACILITY AT	OWNER
Public Service Electric and Gas Company 80 Park Place Newark, New Jersey 07101	Kearny Generating Station South Kearny Meadows Kearny, Hudson County, New Jersey	Same as Applicant

ISSUING DIVISION	TYPE OF PERMIT	STATUTE(S)	APPLICATION NO.
Water Resources	NJPDES-DSW	N.J.S.A. 58:10A-1 et seq.	NJ0000655

A PERMIT TO

Discharge to the Hackensack River, classified as SE3 waters, in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, III, and IV hereof.

By the Authority of:
John W. Gaston Jr., P.E.
Director
Division of Water Resources

DEP AUTHORIZATION

DEP-008
7/84

THIS NOTICE MUST BE CONSPICUOUSLY DISPLAYED AT THE ACTIVITY/FACILITY SITE.

BJA000079

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37

920990281

Public Service Electric & Gas Company
Kearny Generating Station
2SD OXW 2 000157

Public Service Electric & Gas Company, Kearny Generating Station, has a power generation capacity of 600 megawatts. Low sulfur oil is used for generation purposes.

There are four discharges from the plant with a total maximum flow of 974 MGD. Discharge 381, which has a maximum flow of 307,000 gpm, is the main condenser cooling water discharge. All effluents are discharged into the Hackensack River, an estuary which is classified according to New Jersey Water Quality Standards as Class TW-3; thermal criteria for tidal, estuarine waters apply. According to the permit application, the maximum discharge temperature is 102.0°F, and the maximum discharge-intake temperature difference is 17.0°F during the summer.

The conditions specified herein are based upon New Jersey Water Quality Standards and an evaluation of total cumulative heat loading, entrainment damage, velocity effects, chlorination and other chemical effects upon the aquatic environment. It should be noted that it is the responsibility of the State to define the dimensions of the mixing zone and passageway.

As a condition of this permit, the company will be required to perform a study of alternative cooling systems, and indicate the system with minimum impact on the aquatic environment. Based upon evaluation of the study, additional analyses, and implementation plans, the company shall install and place into operation additional cooling water heat rejection equipment and/or other necessary equipment.

Stringent limits for boiler chemical cleaning batch discharges, which contain large amounts of heavy metals and other chemicals, are specified upon issuance of this permit in order to prevent these highly concentrated and toxic wastes from being discharged without adequate treatment.

The recommended duration of this permit is 36 months from issuance.

BJA000080

920990282

New Jersey Department of Environmental Protection
Division of Water Resources
Industrial Waste Management
CN-029
Trenton, N.J. 08625
(609) 292-4860

PUBLIC NOTICE

NOTICE: ISSUANCE OF DRAFT NJPDES PERMIT NJ0000647

Notice is hereby given that:

Public Service Electric and Gas Company
80 Park Place
Newark, New Jersey 07101

has applied to the New Jersey Department of Environmental Prote (NJDEP) for a New Jersey Pollutant Discharge Elimination System (NJPDES) renewal permit to discharge from the Hudson Generating Station located at Duffield and Van Keuren Avenues, Jersey City Hudson County, New Jersey to the Hackensack River, classified a TW-3 waters. The applicant operates an electric power generati station (SIC 4931). This facility is defined as a major discha by the United States Environmental Protection Agency (USEPA).

Five existing discharges enter the Hackensack River via the mai discharge canal. Discharge 361 (892.8 MGD) is once-through noncontact cooling water which receives no treatment. The wastewater treatment plant discharge consists of low volume was (0.26 MGD) and chemical metal cleaning wastes (0.8 MGD) which undergo oil separation, pH adjustment, polymer addition and sedimentation prior to discharge. Discharge 361P (2.3 MGD) con of fly ash transport water which flows to two ash ponds in para before discharging. Discharge 361R (5.2 MGD) consists of botto transport water which flows to an ash pond before discharging. Discharge 361G (0.38 MGD) consists of untreated stormwater runo and equipment drains.

Six existing discharges flow directly to the Hackensack River. Discharge 363 (9.96 MGD) is untreated once-through noncontact cooling water from gas turbines used during peak loading period Discharge 364 (0.01 MGD) contains miscellaneous noncontact cool water which receives no treatment. Discharges 365 (9.33 MGD) a 366 (0.54 MGD) are untreated auxiliary noncontact cooling water Discharge 367 (0.18 MGD) is untreated boiler cooling water. Discharge 369 (0.02 MGD) is untreated cooling water and ground infiltration.

Two discharges enter the Hackensack River via a second discharg canal. Discharge 368 (0.28 MGD) is untreated miscellaneous noncontact cooling water. Discharge 370 (150 GPD) consists of untreated boiler blowdown.

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For an existing facility, issuance of the NJPDES permit is the enforcement mechanism by which pollutant discharges are brought into compliance with standards.

This notice is being given to inform the public that NJDEP has prepared a draft NJPDES permit. This draft permit contains conditions necessary to implement the provisions of the "Regulations Concerning the New Jersey Pollutant Discharge Elimination System" (N.J.A.C. 7:14A-1 et seq.), which were promulgated pursuant to the authority of the New Jersey "Water Pollution Control Act" (N.J.S.A. 58:10A-1 et seq.), "Solid Waste Management Act" (N.J.S.A. 13:1E-1 et seq.) and the "Pretreatment Standards for Sewage" (N.J.S.A. 58:11-49 et seq.).

The draft permit prepared by NJDEP is based on the administrative record which is on file at the offices of the NJDEP, Division of Water Resources, located at 1474 Prospect Street in the Township of Ewing, Mercer County, New Jersey. It is available for inspection, by appointment, between 8:30 a.m. and 4:00 p.m., Monday through Friday. Appointments for inspection may be scheduled by calling (609) 984-4428.

Interested persons may submit written comments on the draft permit to the Administrator, Water Quality Management, at the address cited above. All comments shall be submitted within 30 days of the date of this public notice. All persons, including applicants, who believe that any condition of this draft permit is inappropriate or that the Department's tentative decision to issue this draft permit is inappropriate, must raise all reasonably ascertainable issues and submit all reasonably available arguments and factual grounds supporting their position, including all supporting material, by the close of the public comment period. All comments submitted by interested persons in response to this notice, within the time limit, will be considered by the NJDEP with respect to the permit application. At the close of the public comment period, the Department will issue or deny the permit. The Department will respond to all significant and timely comments when a final permit is issued. The applicant and each person who has submitted written comments will receive notice of NJDEP's final decision.

Any interested person may request in writing that NJDEP hold a non-adversarial public hearing on the draft permit. This request shall state the nature of the issues to be raised in the proposed hearing and shall be submitted within 30 days of the date of this public notice to the Administrator, Water Quality Management at the address cited above. A public hearing will be conducted whenever the NJDEP determines that there is a significant degree of public interest in the permit decision. If a public hearing is held, the public comment period in this notice shall automatically be extended to the close of the public hearing.

Arnold Schiffman
Administrator
Water Quality Management

SPILL EVENT HISTORY

KEARNY GENERATING STATION

DATE: June 24, 1971

VOLUME: Unknown

CAUSE: Slight traces of oil could be seen on the surface of the water adjacent to the dock front. The great bulk of oil was securely trapped under the dock.

CORRECTIVE ACTION TAKEN: Secured the service of a cleanup contractor who removed all oil over a 32 day period.

Kearny Generating Station
August 9, 1971

To the General Superintendent of Generation

LETTER FROM THE UNITED STATES COAST GUARD
FUEL OIL SPILL UNDER DOCK
JUNE 24, 1971
KEARNY GENERATING STATION

We attach for your information a copy of a letter received from the United States Coast Guard relative to the recent oil spill onto the river under our dock. The letter states that we did not notify them of the spill soon enough.

At about 8 A.M. on June 24, some slight traces of oil could be seen on the surface of the water adjacent to the dock front. Coastal Services, an oil scavenging company, was promptly called to contain these traces of oil. The great bulk of the oil was securely trapped under the dock and was removed with considerable difficulty over a 32 day period.

In accordance with your letter of June 21, 1971, entitled, "New Jersey Water Quality Act of 1971", the Water Pollution Division of the New Jersey Department of Environmental Protection was promptly notified by phone. We recognized that the United States Coast Guard and the Federal Water Pollution Control Agency in New Brunswick should also be notified. Some difficulty was encountered in reaching the Coast Guard as no answer was received at the emergency number listed in the Newark telephone directory. A phone number for the Coast Guard was obtained from the Federal Water Pollution Control Agency and the Coast Guard was notified at about 1300 hour on that same day.

Superintendent
Kearny Generating Station

RWG:CP
Att.

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920990287

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

Address reply to:
COMMANDER (m)
Third Coast Guard District
Governors Island
New York, N.Y. 10004
(212) 20[illegible]-6723

5904
03-245/71m
3 August 1971

Public Service Electric and Gas Company
South Kearny
New Jersey 07032

Gentlemen:

A report has been received by this office that oil was allegedly discharged in harmful quantities, into or upon the navigable waters of the United States, the Hackensack River, at or about 8:00 AM on 24 June 1971, from your facility at the above address. This was reported by Owner's Mate, Third Class, [illegible], 380 034, USCG, attached to the office of the Captain of the Port, New York.

This report also indicates that the Coast Guard was not notified immediately of this discharge.

Subsection 11(b)(2) of the Federal Water Pollution Control Act of 1956, as amended by the Water Quality Improvement Act of 1970, prohibits the discharge of oil into or upon navigable waters of the United States, and/or adjoining shorelines, and/or the waters of the contiguous zone, in harmful quantities. Subsection 11(b)(5) of this Act provides, in any case where oil is knowingly discharged in violation of Subsection 11(b)(2), for a civil penalty of not more than $10,000. for each offense. In addition, Subsection 11(b)(4) requires any person in charge of a vessel, an onshore or offshore facility, to immediately notify the Coast Guard as soon as he has knowledge of any discharge of oil from the vessel or facility in violation of Subsection 11(b)(2) of the Act. Failure to give notification as required subjects the violator to a fine of not more than $10,000. or imprisonment for one year, or both, upon conviction.

After full and complete review of the reported facts and circumstances of this particular incident, further civil or criminal action will not be instituted in view of the prompt and effective measures taken by your company to limit the effects of the discharged oil. However, further violations of the Federal Water Pollution Control Act may result in severe penalties. Your future cooperation to avoid the possibility of such action is requested.

For your guidance there is enclosed a copy of the regulations for reporting the discharge of oil. It is recommended that this information be made known to all persons in charge of your facilities handling oil.

Sincerely yours,

H. L. HANEOUST
Captain, U. S. Coast Guard
Chief, Merchant Marine Safety Division
By direction of the District Commander

Encl: (1) Federal Register, Vol. 35, No. 227 - Saturday, November 21, 1970

BJA00004

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SPILL EVENT HISTORY

KEARNY GENERATING STATION

DATE: September 18, 1973

VOLUME: 2-3 bbls (approximately)

CAUSE: The spill was caused by a build up of pressure in the 10-inch Fuel Oil Unloading Line to the No. 1 Fuel Oil Tank. As a result the flange gasket at the dock front failed.

Pressure built up in the 10-inch line during the time a three way transfer valve was stuck in a mid position.

CORRECTIVE ACTION TAKEN: An operating instruction was written which dictates that when the three way valve is operated, return oil from the poilers is transferred to the inactive tank.

PLANS FOR PREVENTING RECURRENCE: Planning to install a new three way valve which does not have a dead spot.

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CC 1

920990290

Kearny Generating Station
September 18, 1973

OIL SPILL ON DOCK
FILLING LINE - (10")
SEPTEMBER 18, 1973

At approximately 0200 hour, it became necessary to store 4,000 barrels of No. 6 oil in No. 1 fuel oil tank to prevent over filling No. 2 fuel oil tank in order to take the entire 18,000 barrel shipment of No. 6 oil from the "Bouchard 60" barge.

At 0230 hour, the barge was told to stop pumping and the barge connection stop valve was closed as a precautionary measure before swapping the 10" Fill Line to No. 1 fuel oil tank from No. 2 fuel oil tank.

At approximately 0250 hour, when the 10" Fill Line three-way valve was being operated to switch the fuel delivery over to No. 1 fuel oil tank, it reached the mid-way position and could not be moved any further.

The three-way valve was immediately returned to the original position, with considerable effort, to No. 2 fuel oil tank.

Considerable pressure built up in the 10" filling line during the time the three-way valve was stuck in the mid-way position. This time was about 15-20 seconds.

No. 7 Unit, No. 41 and 43 boilers had a brief smoking condition. The appropriate air pollution agencies were notified.

The pipe line was checked immediately and a fuel oil leak was detected on the dock near the point where the filling line turns to go towards the Station "A" fuel oil room.

The Coast Guard was notified of the oil spoll at approximately 0320 hour and Coastal Services was called at 0330 hour.

Barges and a tug boat, at our dock, were used to contain the initial oil spill.

At 0400 hour, the Coast Guard arrived on the property.

At 0430 hour, Coastal Service arrived and began to clean up the oil spill.

All available station personnel were used to contain the oil spill until additional help arrived.

Before an oil boom could be deployed by station personnel, Coastal Service arrived and used their oil boom.

It was estimated that only 2 to 3 barrels of oil entered the river. The oil in the river was confined at our dock, between two barges and our dock. The river was patrolled by Coastal for several miles above and below our dock. No oil was found.

EJK:db

Chief Engineer
Kearny Generating Station

1836

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

MAILING ADDRESS:
COMMANDER (mep)
Third Coast Guard District
Governors Island
New York, N. Y. 10004
(212) 264-4916

5904
03-610/73mep
20 December 1973

Public Service Electric & Gas Company
South Kearny
New Jersey

Gentlemen:

A report has been received by this office that oil in harmful quantity was allegedly discharged into the waters of the United States on 18 September 1973 from your facility at Kearny, New Jersey.

The incident occurred when a gasket on a flange stand pipe at your dock failed allowing oil to escape into the Hackensack River.

The Federal Water Pollution Control Act, as amended in 1972, prohibits the discharge of oil in harmful quantities into or upon the waters of the United States, including the territorial sea. Section 311 of the Act states, in part, that the owner or operator of a facility or vessel from which oil is discharged shall be assessed a civil penalty of not more than $5,000.00 for each offense. The Act states further that no penalty may be assessed before the owner or operator is given notice and an opportunity for a hearing on such charge. A written statement may be submitted in addition to or in lieu of the hearing.

In determining the amount of the penalty to be assessed, or agreed to in compromise, the Act provides that the appropriateness of the penalty to the size of the business of the owner or operator charged, the effect on the owner or operator to continue in business, and the gravity of the violation shall be considered. Such information should be presented at the hearing or in any written statement submitted.

If you prefer, you may waive your statutory rights and close this case by forwarding your check or money order, payable to the U. S. Coast Guard, in the amount of $700.00 to the above address.

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CC2

920990292

5504
03-610/73mep
20 December 1973

If, before 10 January 1974, you do not request a hearing, submit a written statement or pay the amount specified to close this case, a civil penalty will be assessed solely upon the information now available to us.

Sincerely yours,

E. BIZZOZERO
Commander, U. S. Coast Guard
Chief, Marine Environmental Protection Branch
By direction of the District Commander

Attachment 7

41-5-4

January 2, 1974

To the General Manager - Generation

OIL SPILL - CIVIL PENALTY $700.
KEARNY GENERATING STATION

We are in receipt of the attached citation and a $700. civil penalty for an oil spill which occurred on September 18, 1973.

Also attached is the summary of the events which occurred on that date. It should be emphasized that only 2 to 3 barrels of oil entered the water and all of it was contained and later removed by Coastal Services. An inspection of the river by both the Coast Guard and Coastal Services, who did the clean up work, found no oil in the river beyond the contained area.

GWB

Superintendent
Kearny Generating Station

GWB:cp
Attachments 2

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CC3

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PSE&G

Public Service
Electric and Gas
Company

Kearny Generating Station
July 31, 1974

	INFO	ACTN	INIT
ASST GMG			
MGR NUC OPER			
MGR MAINTNC			
MGR PLT ENG			
MGR SYS OP			
ECW			
RETURN TO GMG			
COPY TO JAS.		SUPTS	
SUSPENSE		FILE	
ACTS REQ BY		OUT	

To the General Manager - Electric Production

OIL SPILL
JULY 30, 1974
KEARNY GENERATING STATION

On July 30, 1974 at approximately 0705 hour, an operator making his rounds saw that the jet fuel oil line, which is used to fill our "light off" oil tank, had parted at a coupling causing a spill of approximately 80 gallons of gas turbine fuel oil at elevation 100 underneath No. 7 Unit dust redlers.

Thirty bags of absorbent C were used to clean up and to contain this oil spill. It is estimated that a minimal amount of oil went down the road drain adjacent to 72 I.D. Fan. This road drain discharges to the river. At 1145 hour a very slight trace of oil was found at our discharge canal.

At this time, Coastal Services was called, they arrived at approximately 1230 hour and with absorbent pads removed the oil from the river at our dock front.

Coastal Services considered this a minimal spillage. The Coast Guard office in New York and the N.J. Water Pollution Division were notified but did not show up to inspect the spill.

Superintendent
Kearny Generating Station

EJK:cp

The Energy People

SPILL EVENT HISTORY

KEARNY GENERATING STATION

DATE: July 30, 1974

VOLUME: 80 gallons (approximately)

CAUSE: An operator making his rounds saw that the jet fuel oil line, which is used to fill the "light off" oil tank, had parted at a coupling. Oil went down a road drain and discharged into the river.

CORRECTIVE ACTION TAKEN: Secured the service of a cleanup contractor who promptly removed all oil.

PLANS FOR PREVENTION OF RECURRENCE: Fuel oil piping above and below ground is pressure tested and leak checked.

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920990297

41-5-4

SPILL EVENT HISTORY

KEARNY GENERATING STATION

DATE: April 9, 1976

VOLUME: Unknown

CAUSE: A drainage ditch, located on Public Service property adjacent to Fish House Road, is contaminated with an oily type pollutant. The exact origin of this oil is unknown.

CORRECTIVE ACTION TAKEN: Secured the services of a cleanup contractor to remove the oil accumulated and temporarily contain these pollutants from draining into the Hackensack River.

PLANS FOR PREVENTION OF RECURRENCE: Investigate the possibility of filling in the ditches. Fencing and posting of this property to prevent the unauthorized dumping of oil products into this area.

Kearny Generating Station
May 10, 1976

To the General Manager - Electric Production

CONTAMINATION OF DRAINAGE DITCH
KEARNY GENERATING STATION

We are again having problems with the drainage ditch located on Public Service property adjacent to Fish House Road. This ditch is contaminated with an oily type pollutant which involves the Department of Environmental Protection, the U.S. Coast Guard and the Board of Health of Kearny.

Prompt and permanent action must be taken to avoid this continuing problem.

This situation was investigated by station representatives and the Coast Guard on April 9, 1976. At this time samples of our fuel oil tanks and samples from the contaminated ditch were returned to the Coast Guard for analysis.

On April 28, 1976 we received a letter from the Coast Guard stating that it is our responsibility for taking adequate and proper actions to alleviate this ditch pollution in accordance with State and Federal regulations.

On April 28, 1976 Coastal Services was brought in to remove the oil accumulation and temporarily contain these pollutants from draining into the Hackensack River.

Observations:

1. Three black, oily-looking, isolated areas were seen in the ditch; areas 2, 3 and 4.

2. The entire bank of the ditch has a black oil appearance.

3. All four sections of the ditch, as numbered on the map, exhibited a rainbow colored sheen that gives the appearance that it is seeping from the west bank.

   The severity and intensity of this film differed the entire length of the creek with section #1 being the most severe and section #2 being the least severe.

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BJA000089

Actions taken to date:

1. Floating booms and absorbent cushions were put in the ditch at five various locations to either stop and/or absorb the pollutants.

2. Fuel samples were taken from fuel tanks #1, 2, 3 and 4 and from various portions of the ditch and were sent to the N.J.D.E.P. and to our Energy Lab for analysis.

3. Two inspection holes were dug where the Hess pipeline comes out of the ground at our receiving station and a static pressure test was put on the pipe to inspect the Hess line for leaks. A representative of Hess was present and the line showed no leaks.

4. The ground along Fish House Road, adjacent to #1 and 2 fuel oil tanks was probed with a "jam rod" probe, to the water table every two feet to check for tank leakage, none was found.

5. Ten trenches were dug, about 10-15 feet apart, 6' deep and 8' long, on either side of the ditch. Trenches were dug to the water table, no oil pollutants were found.

6. Coastal Services is retained to keep the ditch free of oil. To date their services has cost $8,500.

Recommendations:

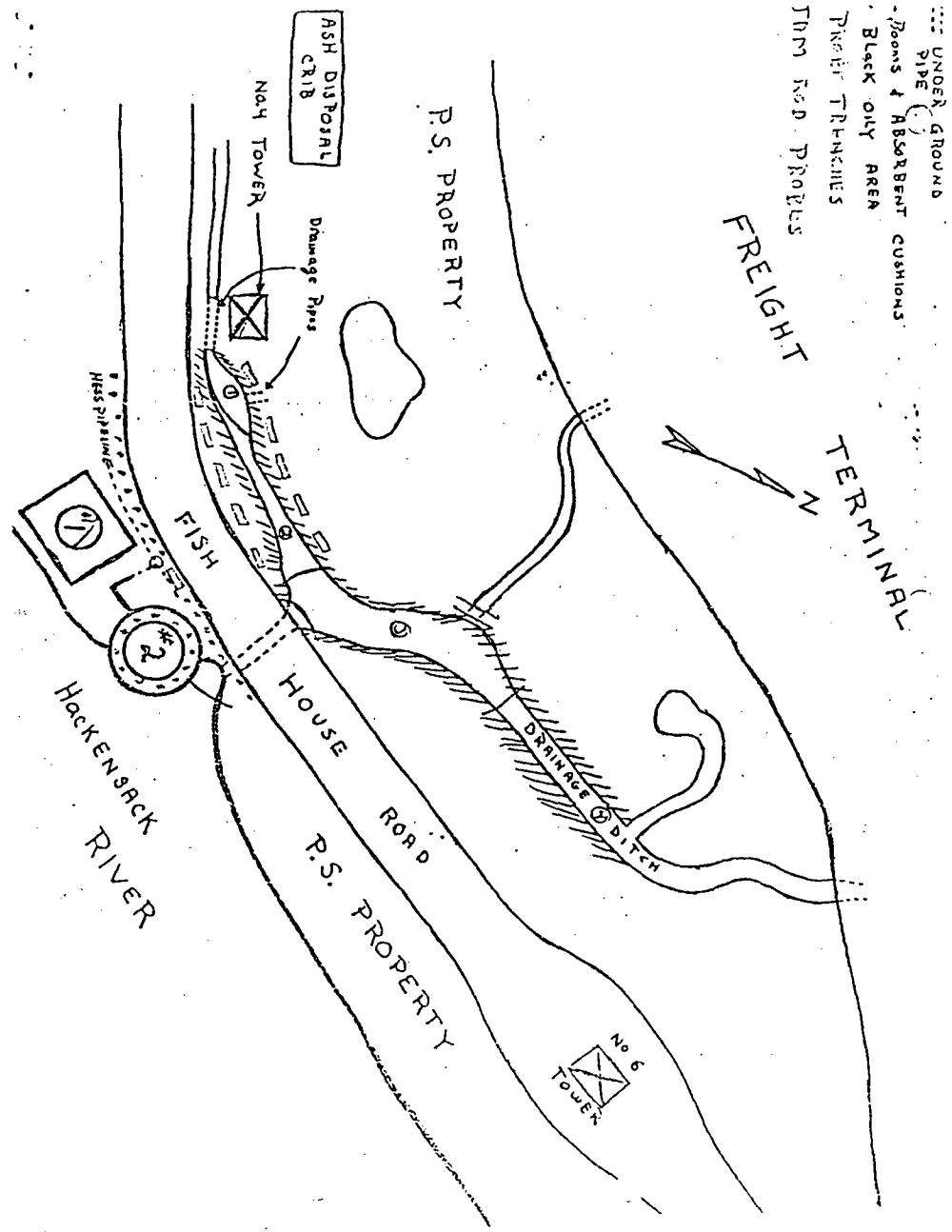
1. To have our Real Estate and Legal Departments investigate the possibility of filling in the ditches.

2. The fencing and posting of this property to prevent the unauthorized dumping of oil products into this ditch.

3. Cleaning of oil soaked bank of these ditches; estimated cost $10,000.

Manager - Kearny Generating Station

RWM,EJK:cp



EE2

920990299

920990300

PSE&G

Public Service Electric and Gas Company 80 Park Plaza, T10C Newark, N.J. 07101 201/430 5858

James A. Shissias General Manager
Environmental Affairs

June 12, 1981

Mr. Karl F. Birns
State of New Jersey
Department of
Environmental Protection
Hazardous Management Program
120 Route 156
Yardville, New Jersey 08620

Attention: Discharge Confirmation

Dear Mr. Birns:

OIL SPILL - MAY 26, 1981
KEARNY GENERATING STATION, KEARNY, NEW JERSEY

In compliance with N.J.A.C., 7-1E-2.2, this letter is written notification of an oil spill at Kearny Generating Station.

At approximately 1130 hours on Tuesday, May 26, 1981, a small amount of oil estimated at less than ten gallons was inadvertently pumped via the flood pump into the Hackensack River through the No. 6 Outlet Canal.

Station personnel placed an oil boom around the discharge canal penetration to the river and a clean-up contractor was called in to clean up the spill. The Coast Guard and the New Jersey Department of Environmental Protection were notified.

In order to avert a recurrence, station personnel will be instructed that the flood pump should not be operated unattended.

Sincerely,

BCC: Genl. Mgr. - Fossil Prod.
Mgr. - Kearny Gen. Sta.
Chemical Plant Engr.

920990301

G61

PSE&G

Public Service Electric and Gas Company Hackensack Avenue Kearny, New Jersey 07032

Kearny Generating Station
May 29, 1981

	INFO	ACTN	INIT
GM-Gas Prod			
GM-Fossil Prod.			
GM-Prod. Sup.			
GM-Nucl. Prod			
Mgr. S.s. Op.			
Mgr. Adm. & Pers.			
	X		
Return to A.V.P.	FILE		
SUSPENSE	ANS REQ BY		
COPY TO			

G.S.

To the General Manager - Fossil Production

OIL SPILL
KEARNY GENERATING STATION

At 1130 hours on Tuesday, May 26, 1981, a small amount of oil (less than 10 gallons) was inadvertently pumped into the Hackensack River through No. 6 Outlet Canal Screen.

Upon learning of the spill, station personnel erected an oil boom around the discharge canal penetration to the river. Modern Oil of Jacobus Avenue, South Kearny was called to clean up the spill. They proceeded to remove the oil trapped within the boom and erected a boom north of No. 8 Intake Canal to capture and remove the oil film that had migrated north with the tide. At 1215 hours the Senior Shift Supervisor, J. A. Cravo, reported to spill, by telephone, to Chief Simmons of the United States Coast Guard.

At 1245 hours the Senior Shift Supervisor, J. A. Cravo, reported the spill, by telephone, to Mr. Doug Moore of the New Jersey Department of Environmental Protection.

At 1430 hours L. Alheim BM[2] and M. Alles MST[1] of the United States Coast Guard visited the property to see the clean-up operation. They took pictures of the booms and were satisfied with the station efforts for containment and clean-up. The pump that caused the spill was tagged to control future discharges.

H. Decker

Manager
Kearny Generating Station

JHM:bo'g

BJA000090

ADMINISTRA

SEND COMPLETED FORM TO: GENERAL SOLIC

NAME OF AGENCY CONTACTED: U.S. Coast Guard

TYPE OF CONTACT:

☒ PERSONAL CC

☐ TELEPHONE C

☐ CONFERENCE

NAMES OF AGENCY PERSONNEL INVOLVED: J. Hallock BM U.S. Coa

NAMES OF PSE&G PERSONNEL INVOLVED: R. R. Mroczek

	INFO	ACTN	INIT
GM-Gas Prod.			
GM-Fossil Prod.			
GM-Prod Sup.	X	X	
GM-Nucl. Prod.			
Mgr. Sys. Op.			
Mgr. Adm. & Pers.			
Gash	X		
Return to A.V.P.	FILE		
SUSPENSE	ANS REQ BY		
COPY TO			

G.S.

RECEIVED

JUN 3 1981

GENERAL MANAGER — PRODUCTION SUPPORT

☐ STATE

☒ FEDERAL

OF CONTACT: ...DEN: PROD 1520 hours

...ast Guard

...EQUESTED BY:

	INFO	SPONSOR	SUPPORT	COPY
...& E.				
Prod.				
Prod.				
Prod.				
Prod.				
Sup.				
V.P. File				

TOPIC DISCUSSED AND COMMENTS:

J. Hallock, BM3 U.S. Coast Guard, arrived at Kearny Generating Station at 1520 hours to inspect oil spill clean-up. Oil was inadvertently pumped into the river yesterday, 5-26-81, and immediate action was taken to contain and remove oil from the river. J. Hallock was satisfied with the oil spill clean-up.

Attached is a written release from the Coast Guard closing this case.

...UTURE CONFERENCE/MEETING SCHEDULED:

DA... TIME:

PLA...

GG2

...RTED BY: R. Mroczek	LOCATION: Kearny Generating Station	EXTENSION: 8885
...TLE: Chief Engineer	DEPARTMENT: Electric Production	

...G: H. Decker RRM

...nager

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

MAILING ADDRESS
Captain of the Port
U.S. Coast Guard
Governors Island
New York, NY 10004

16465

Gentlemen:

On ... 19 ..., Coast Guard Water Pollution Investigators visited your facility at ... to monitor your continuing pollution problem. As long as oil enters any portion or tributary of the navigable waters of the United States, the Coast Guard will be monitoring the progress of your clean-up efforts.

The Captain of the Port is willing to provide assistance applicable to your situation. Initially, efforts should be directed towards immediate containment, control and removal of the oil which has reached the water in accordance with 33 CFR 153. Once this is accomplished, attention should be directed towards long term elimination of the source of the pollution.

Should you have any questions concerning this pollution or clean-up, contact the COTP Water Pollution Office, 212-668-7920 The Coast Guard Investigator, ... on this date noted the following:

CCGD3 -15 (R9-78)

BJA000091

920990303

ADMINISTRATIVE AGENCY CONTACT REPORT FORM

COMPLETED FORM TO: GENERAL SOLICITOR, ROOM 7113, 80 PARK PLACE, NEWARK, NJ

NAME OF AGENCY CONTACTED: U.S. Coast Guard

☐ STATE ☒ FEDERAL

TYPE OF CONTACT:
☒ PERSONAL CONVERSATION
☐ TELEPHONE CONVERSATION
☐ CONFERENCE/MEETING

DATE AND TIME OF CONTACT: 5-26-81 2:30 p.m.

INITIATED BY: U.S. Coast Guard

SCHEDULED OR REQUESTED BY:

NAMES OF AGENCY PERSONNEL INVOLVED:
L. Albion BM1
H. Allen MST1

NAMES OF PSE&G PERSONNEL INVOLVED:
R. R. Mroczek

TOPIC DISCUSSED AND COMMENTS:
U.S. Coast Guard arrived at Kearny Generating Station at 1430 hours to investigate an oil spill into the river, reported to the Coast Guard earlier at 1215 hours. Modern Oil, a contractor, had oil booms deployed in the river and containing the floating oil. Modern Oil had a large vacuum oil truck on site sucking oil out of the river. A Coast Guard representative took photographs of the cleaning operation. Coast Guard was satisfied with our cleaning operation. A form letter was given to me by the Coast Guard holding PSE&G responsible for the oil spill.

FUTURE CONFERENCE/MEETING SCHEDULED:
DATE: TIME:
PLACE:

GG3

R. R. Mroczek	Kearny Generating Station	
Chief Engineer	Electric Production	

9209990305

SPILL EVENT HISTORY

KEARNY GENERATING STATION

DATE: May 26, 1981

VOLUME: Less than 10 gallons (estimated)

CAUSE: Flood pump was put in manually and left unattended and pumping until dry, causing all the water and accumulated oil to be pumped out to the Hackensack River.

CORRECTIVE ACTION TAKEN: An oil boom was placed around the discharge canal penetration to the river and a clean-up contractor was called in to clean up the spill. The Coast Guard and the N. J. Department of Environmental Protection were notified.

PLANS FOR PREVENTION OF REOCCURRENCE: Station personnel will be instructed that the flood pump should not be operated unattended.

BJA000092

TO: T. F. Gleichmann, Jr.

FROM: R. Fernandez

SUBJECT: REGARDING INFORMATION FOR THE DEP

DATE: November 27, 1989

As required by the PSE&G Kearny Generating Station DPCC Plan, we submit the following report:

On Monday, November 20, 1989, a one inch drain line was found to be dripping No. 2 fuel oil onto the ground within three feet of the dock front bulkhead. About ten gallons of oil had accumulated, and it is estimated that approximately five gallons of oil had spilled into the river as a sheen was visible.

Investigation of the incident indicated that a one-inch valve on the drain line had leaked through and that the one-inch pipe cap which was also meant to prevent leakage was not on tightly enough. Although the cap did not leak prior to November 20, 1989, it is possible that the colder weather caused the threaded seal area to leak.

Upon finding the oil spill, the cap was renewed and tightened more firmly. The valve was also tightened firmly. Emergency clean-up activities began immediately and included placing several absorbent booms into the river to capture and contain the floating oil. Additional absorbent pads and material were used to clean-up the oil that accumulated on the ground. An oil spill contractor (Clean Venture, Inc.) was also contacted to assist in the total clean-up effort. Within two hours of initiating the clean-up, there was no visible oil on the river, and before the end of the day, the dock front bulkhead and ground were cleaned of any residual oil.

To minimize the possibility of reoccurrence, the valve will be inspected, pipe caps will be checked to assure tightness and a secondary containment will be erected to capture any leakage that may occur from the cap. In addition, a curbing will be installed on the dock front in front of the drain valve and fuel unloading area to contain any ground spills or drips and prevent them from entering the river.

RF:bb
DW4:89TFG:011

112

9209990307

AGENCY CONTACT MEMORANDUM M. Cullen

ENVIRONMENTAL AGENCY CONTACT
SEND COMPLETED FORM TO GENERAL MANAGER - ENVIRONMENTAL AFFAIRS
80 PARK PLAZA T10-C NEWARK N J

TOPIC AND LOCATION INVOLVED: Nov. 20, 1989 Oil Spill to River Kearny Generating Station	NAME OF AGENCY CONTACTED: Various ☐ STATE ☒ FEDERAL
TYPE OF CONTACT: X PERSONAL CONVERSATION; X TELEPHONE CONVERSATION; X CONFERENCE/MEETING	DATE, TIME AND PLACE OF CONTACT: Beginning on 11/20/89 - 11:30 am; INITIATED BY: R. A. Fernandez; SCHEDULED OR REQUESTED BY:
NAMES OF PSE&G PERSONNEL INVOLVED: R. A. Fernandez; J. Boczon	NAMES OF AGENCY PERSONNEL INVOLVED: Please see attached detailed discussion.

DISCUSSION:
Please see attached two page detailed discussion.

FUTURE CONFERENCE/MEETING SCHEDULED: DATE: ____ TIME: ____ PLACE: ____	FUTURE ACTION ITEMS:

REPORTED BY: R. A. Fernandez	LOCATION: Kearny Generating Station	EXTENSION: 8952
TITLE: Environmental and Technical Services Manager	DEPARTMENT: Production	

BJA000093

Discussion:

Between 11:00 am and 11:15 am on Monday, November 20, 1989, Equipment Operator Joseph Boczon noticed some No. 2 fuel oil leaking from a one-inch pipe cap onto the ground. Some oil had spilled into the river. The Operating Department immediately began containing and cleaning up the fuel oil and replaced the leaking pipe cap. Raymond Fernandez, Environmental and Technical Services Manager, was notified.

R. A. Fernandez observed the area at 11:30 am and estimated that less than ten gallons had entered the river and directed the Operating personnel to deploy additional absorbent pad booms between the dock and previously deployed booms. R. Fernandez also directed the Operating Department to call Clean Venture, Inc. and have them assist immediately in the clean-up of the wooden bulkhead which had some fuel oil on it.

At 11:55 a.m., the U. S. Coast Guard New York Port was contacted (Petty Officer Svenson) and informed of:

- type of fuel - No. 2 fuel or kerosene
- amount of fuel in river - approximately five gallons/less than 10 gallons
- size of oil slick - 2 feet by 100 to 150 feet
- cause of spill - leaking one-inch pipe cap
- location - Kearny Generating Station
- address - Foot of Hackensack Avenue, Kearny, NJ
- name of person reporting spill/phone - R. A. Fernandez - (201) 430-8952
- body of water affected - Hackensack River
- approximate time spill noticed - 11:15 am on 11/20/89
- duration of spill - unknown (no more than four to five hours)
- what clean-up contractor was called and when due - Clean Venture, Inc. at about 2:00 pm

At 12:05 pm on November 20, 1989, the U. S. Coast Guard National Response Center was notified and similar information given to David Benson who issued report number 20737.

At 12:10 pm, the NJDEP Hot Line was notified of similar information and Operator #8 issued report #89-11-20-1218.

At 12:30 pm, the Kearny Fire Department arrived to check the dock area. They were satisfied with the clean-up and left.

At 12:40 pm, the Kearny Police Department arrived to check the dock area. They were satisfied and left.

At 1:00 pm, the New Jersey State Police - Marine Division arrived by boat. They were satisfied with the clean-up, took similar information as above from R. Fernandez and issued Summons No. 51035 for allowing kerosene to enter waterways of the State of New Jersey.

At 2:00 pm, the U. S. Coast Guard drove onto property and inspected the area. At this time, there was no evidence of a sheen on the river. The Petty Officers took written statements from the Equipment Operator Joseph Boczon, who initially saw the leak, and the Environmental and Technical Service Manager, R. A. Fernandez, who inspected the situation and reported it to the U.S. Coast Guard. The Coast Guard left a copy of their inspection report and recommendations as well as a standard liability statement.

At 3:00 pm, R. Fernandez returned a call to the DEP Emergency Response Representative Les Jones and informed him of the present status.

At about 3:30 pm, Clean Venture, Inc. was on site and spent a number of hours cleaning the ground and wooden dock front bulkhead of any residual fuel oil.

On November 21, 1989 at 2:00 pm, R. Fernandez notified Petty Officer Jennings of the U. S. Coast Guard that the area was clean and secure.

On November 21, 1989 at 2:05 pm, the DEP was notified that the area was clean and secure.

On November 27, 1989 a letter will be given to the General Manager - Environmental Affairs to forward to the DEP Office of Hazardous Substances Control as required by DPCC the Plan.

RAFernandez

920990308

920990309

U.S. Department of Transportation
United States Coast Guard

CAPTAIN OF THE PORT NEW YORK

POLLUTION INCIDENT STATEMENT

RE: PSE&G KEROSENE 08 JUN 94

Statement made by: Russell J. Furnari

Job title: Environmental Coordinator

Time & date of incident: 1050 hours 6-8-94

Time & date of statement: 1230 hours 6-9-94

STATEMENT:

On 6-8-94 members of Public Service Electric & Gas (PSE&G. Company's SMD group and a subcontractor (National Water Mat) were cleaning the Kerosene unloading pipe in preparation for work on the pipeline. During this process a small amount of water/oil mix splashed onto the dock running down the north wall causing a sheen on the Hackensack River. PSE&G personnel took immediate action to place sorbent boom (sweep) into the water. This action was added by the fact that a section of deployment boom was in the river nearby which contained the sheen. Clean Harbors Inc. was called in to assist in cleanup of the side wall and to complete deployment of the boom.

(Signature) CHMM

(Witness(es)) MST3, USCG

ENCLOSURE (3)

PP1

920990310

MVCS MARINE VIOLATION CHARGE SHEET 16JUN94

KEY: SEND- FOR EVIDENCE

ORIGINATING PROGRAM/ POLLUTION-CG
VIOLATION/ MV94007759 DATE/ 10JUN94
PARTY CHARGED/ PSEG (KEARNY)
INVOLVED SUBJ/ PSEG

CONTROLLING UNIT/ NYCCP
INITIATING: UNIT/ NYCCP DIST/ 01M
IPN/ IP91017061
FIN/ HABOF134

1. CHARGE..../ 33 U.S.C. 1321(b)(3)

--- SPECIFICATIONS ---

a. CASE/ MC94011482 IDENT/ STATUS/ COMPLIANCE/

LAW/REGULATION../ 33 U.S.C. 1321(b)(3)
DESCRIPTION...../ Discharge, General
STATUS...../ RECOMMEND PEN ASSESS
RESOLUTION...../
RECOMMEND ASSESS/ 500.00

NATURE OF SPECIFICATION
Discharge of oil or a hazardous substance into the navigable waters of the United States, adjoining shoreline, or contiguous zone.

DETAILS OF VIOLATION:
This is a Class I, Category B violation. The spill was unintentional involving a small amount of oil discharged from a commercial source. No prior violations in the last 12 months. No significant impact.

BJA000004

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

DUTY OFFICER NOTIFICATION REPORT

CASE NO.

01-15-91 (Mo) (Day) (Yr) REC'D BY

INCIDENT REPORT BY:

Name: Mike Cullen Phone: 201-430-8789

Street: Hackensack

City: Kearny State:

Affiliation/Title: Hudson

INCIDENT LOCATION: ___ Transportation ✓ Facility ___ Other

Name (Site): PSE&G Phone:

Street: Hackensack Ave

City: Kearny County: Hudson State: NJ Zip Code:

Date of Incident: 01-15-91 (Mo) (Day) (Yr) Time: 1200

IDENTITY OF SUBSTANCE(S) SPILLED, RELEASED, ETC.: ___ Suspected ___ Unknown

Name of Substance(s) [Gas, Liquid, Solid]: #2 fuel oil (Kerosene)

Amount Released/Spilled: 500 ___ Actual ___ Potential ✓ Estimated Substance Contained (Y) N U

Type of Release/Spill: ___ Terminated ___ Continuous ___ Intermittent Hazardous Material (Y) N U

INCIDENT DESCRIPTION:

___ Fire ___ Explosion ___ Air Rel ✓ Spill ___ MVA ___ Derailment ___ Smoke/Dust

___ Odors ___ Sewage ___ NJPDES ___ Noise ___ Wildlife ___ Illegal Dumping ___ Drums

___ Equip Start-Up/Shutdown, Equip Fail/Upset, etc.

___ Other (specify)

Injuries Y (N) U — Public Exposure Y (N) U

Facility Evacuation Y (N) U — Fire Department at Scene Y (N) U

Population Evacuation Y (N) U — Police at Scene Y (N) U

Potable Water Source Y N U — Assistance Requested Y (N) U

Contamination of ___ Air ✓ Land ___ Water — Precipitation Y N U

Receiving Water — Wind Direction/Speed

Location Type: ___ Residential ✓ Industrial ___ Commercial ___ Rural ___ Sensitive Population (Hosp., School, Nurs. Home)

STATUS AT INCIDENT SCENE Basket failed on fuel line. Cleanup in progress.

BJA000095

RESPONSIBLE PARTY: ___ Suspected ___ Unknown

Company Name: PSE&G Phone: (201) 430-8789

Contact: Mike Cullen Title:

Street: Hackensack

City: Kearny County: Hudson State: Zip Code:

OFFICIALS NOTIFIED (Name/Title):

NJSP: Chas Pachuny Phone: Date/Time / (T/M)

Local Health: Chas Pachuny Phone: Date/Time / (T/M)

Local Munic: / Phone: Date/Time / (T/M)

USEPA: / Phone: Date/Time / (T/M)

Ron Russ

INCIDENT REFERRED TO:

___ DEQ ___ DWR ___ DSWM ___ DHSM ___ DHWM ___ DOH ___ DFG ___ DPF ___ DCJ ___ DCR

Region: ___ Northern ✓ Metro ___ Central ___ Southern ___ ER1 ___ ER2 ___ BUST

1. Name/Affil / Phone Date/Time / (T/M)

2. Name/Affil / Phone Date/Time / (T/M)

Name/Affil / Phone Date/Time / (T/M)

DEP RESPONSE Emergency Immediate Priority (No Response)

COMMENTS Called Mike Cullen to Chas Pachuny Called Ray Fernandez - Little Basket failed. Material used absorbent on place. Bio Clean Material used.

COPIES: White - Lead Agency Yellow - Other Pink - Other

920990312

SA-119

MALCOLM PIRNIE

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT

Kearny Power and Light
Site Name

85
Site ID Number

Stern Ave at Hackensack Ave
Address

Kearny, Hudson, NJ
City, State

Date of Off-Site Reconnaissance February 5, 1985

SITE DESCRIPTION

Kearny Power and Light (P.S.E.&G. Kearny Generating Station) occupies the entire corner of Pennsylvania and Central Avenues. The eastern border of the plant is formed by the Hackensack River. Oil tanks are located on the north-eastern corner of the property. The main building is adjacent to the tank field. The generator and turbine areas are separate from the main building and can both be seen from Pennsylvania Avenue. During a February 23, 1984 NJDEP inspection, oily soil was noted near the turbine area.

NJDEP recommended on February 27,1985 that the spill areas near the turbines be cleaned-up.

PRIORITY FOR FURTHER ACTION: High ____ Medium ____ Low X None ____

RECOMMENDATIONS

An inspection when time permits is appropriate for this site. The area near the turbines should be checked to see if cleanup as recommended by NJDEP was completed.
The process of disposing waste lubricating oil (containing PCB's) should be checked during inspection to identify any spills.
Drains at turbines which caused spillage should now be blocked to prevent spillage as noted in NJDEP inspection February 23, 1984.

BJA000097

Prepared by: Nicholas C. Rotonda **Date:** February 11, 1985

Of: Yurasek Associates

920990314

SA-119

EXPANDED SITE INVESTIGATION

KEARNY POWER & LIGHT
AKA: PSE&G KEARNY GENERATING STATION
KEARNY TOWN, HUDSON COUNTY
EPA ID NO.: NJD980770176

Volume 1 of 3

BJA000098

New Jersey Department of Environmental Protection
Division of Publicly Funded Site Remediation
Bureau of Environmental Measurements and Quality Assurance
Environmental Measurements and Site Assessment Section

920990316

PUBLIC SERVICE ELECTRIC AND GAS COMPANY SITE
FOOT OF HACKENSACK AVENUE
KEARNY, HUDSON COUNTY, NEW JERSEY
EPA ID No. NJD980770176

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ATTACHMENTS

A. PUBLIC SERVICE ELECTRIC AND GAS COMPANY (PSE&G), HISTORICAL DOCUMENT; 1924

B. COAL, WAYNE DAVIS; UNDATED

C. PSE&G, DISCHARGE PREVENTION, CONTAINMENT AND COUNTERMEASURES PLAN; JULY 15, 1993

D. PSE&G, REPORT ON THE HACKENSACK RIVER; NOVEMBER 30, 1988

E. SANBORN COMPANY, MAP OF KEARNY; 1907

F. PSE&G, SITE MAP; 1963

G. PSE&G, SITE MAP; 1978

H. PSE&G, LETTER REGARDING GENERATING STATION; OCTOBER 25, 1994

I. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA), NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (NPDES); JANUARY 31, 1975

J. PSE&G, HACKENSACK RIVER STUDY; SEPTEMBER 1, 1978

K. PSE&G, NPDES PERMIT APPLICATION; JULY 27, 1979

L. NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP), CERTIFICATION OF POLLUTION CONTROL PROJECT; FEBRUARY 22, 1981

M. USEPA, PRELIMINARY ASSESSMENT; FEBRUARY 11, 1985

N. NJDEP, HAZARDOUS WASTE INSPECTION; FEBRUARY 23, 1984

O. NJDEP, HAZARDOUS WASTE INSPECTION; AUGUST 15, 1990

P. NJDEP, HAZARDOUS WASTE MANIFEST INFORMATION REGARDING PSE&G; VARIOUS DATES

Q. NJDEP, DRAFT NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (NJPDES); APRIL 6, 1984

R. PSE&G, LETTER REGARDING WASTEWATER QUALITY AND ASH PONDS; JUNE 8, 1989

S. NJDEP, NJPDES PERMIT; DECEMBER 29, 1989

T. PSE&G, EFFLUENT DILUTION STUDY; JANUARY 1991

U. NJDEP, MEMO REGARDING TOXICITY OF EFFLUENT; JANUARY 31, 1992

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Y. PSE&G, ABOVE GROUND STORAGE TANK TESTS; VARIOUS DATES

Z. UNITED STATES COAST GUARD (USCG), INSPECTIONS OF BULK PETROLEUM STORAGE FACILITIES AT PSE&G; VARIOUS DATES

AA. PSE&G, DOCUMENTS REGARDING UNDERGROUND STORAGE TANKS; VARIOUS DATES

BB. PSE&G, SPILL REPORT; JUNE 24, 1971

CC. PSE&G, SPILL REPORT; SEPTEMBER 18, 1973

DD. PSE&G, SPILL REPORT; JULY 30, 1974

EE. PSE&G, SPILL REPORT; APRIL 9, 1976

FF. HUDSON REGIONAL HEALTH COMMISSION, SPILL REPORT; MAY 21, 1976

GG. PSE&G, SPILL REPORT; MAY 26, 1981

HH. PSE&G, SPILL REPORT; NOVEMBER 24, 1984

II. PSE&G, SPILL REPORT; NOVEMBER 20, 1989

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KK. HUDSON REGIONAL HEALTH COMMISSION, SPILL REPORT; FEBRUARY 16, 1992

LL. PSE&G, SPILL REPORT; APRIL 3, 1992

MM. PSE&G, SPILL REPORT; JULY 15, 1992

NN. PSE&G, SPILL REPORT; MARCH 13, 1992

OO. AMERADA HESS CORPORATION, SPILL REPORT; JANUARY 21, 1994

PP. USCG, SPILL REPORT; JUNE 8, 1994

QQ. NJDEP, NJPDES MODIFICATION PERMIT AND 1985 INSPECTION REPORT; MARCH 21, 1987

RR. PSE&G, LETTER RESPONDING TO MARCH 21, 1987 PERMIT AND REGARDING SPILL HISTORY AT PSE&G; APRIL 20, 1987

SS. NJDEP, NJPDES MODIFICATION PERMIT AND 1985 INSPECTION REPORT; NOVEMBER 2, 1987

TT. NJDEP, SOIL SAMPLING EPISODE; JANUARY 24, 1990

UU. NJDEP, AIR POLLUTION CONTROL APPLICATIONS AND PERMITS; VARIOUS DATES

VV. GERAGHTY & MILLER, INC., GEOLOGY OF KEARNY; MAY 1990

WW. NJDEP, TAX MAP INFORMATION; APRIL 19, 1994

XX. PSE&G, NPDES APPLICATION; JULY 12, 1974

YY. PSE&G, WESTON REPORT; APRIL 1979

ZZ. NJDEP, ADMINISTRATIVE CONSENT ORDER; SEPTEMBER 22, 1980

AAA. PSE&G, DATA FROM ABOVE GROUND STORAGE TANKS; NOVEMBER 1987

BBB. NJDEP, DOCUMENTS REGARDING WATER USE IN KEARNY; VARIOUS DATES

CCC. KEYSTONE ENVIRONMENTAL, STUDY OF SITE IN KEARNY; JULY 1988

DDD. HACKENSACK MEADOWLANDS DEVELOPMENT COMMISSION, STUDY OF THE KEARNY AREA; 1976

EEE. ROY F. WESTON, DATA FROM B. L. ENGLAND SITE; NOVEMBER 1982

FFF. ATLANTIC COUNTY SEWERAGE AUTHORITY, TIDAL STUDY; APRIL 1994

GGG. HANS SEILER, HANDBOOK ON TOXICITY OF INORGANIC COMPOUNDS; 1988

HHH. NJDEP, INFORMATION REGARDING USE OF HACKENSACK RIVER; MAY 1994

III. NJDEP, STATISTICAL SUMMARIES OF NEW JERSEY STREAMS; 1970

JJJ. NJDEP, CONSUMER ADVISORY REGARDING HACKENSACK RIVER; 1994

KKK. ARDEN CHEMICAL, SOIL SAMPLE RESULTS; APRIL 1991

LLL. PSE&G, EFFLUENT STUDY; MARCH 1, 1991

MMM. NJDEP, POPULATION DATA; JULY 28, 1994

NNN. NJDEP, ADMINISTRATIVE ORDER AND NOTICE OF CIVIL ADMINISTRATIVE PENALTY ASSESSMENT; DECEMBER 28, 1993

OOO. PSE&G, LETTER REGARDING DRAFT PERMIT; MAY 17, 1984

PPP. NJDEP, MISCELLANEOUS CORRESPONDENCE; 1994

QQQ. UNITED STATES OF AMERICA, CODE OF FEDERAL REGULATIONS; 1990

RRR. NJDEP, MEMO REGARDING WESTON REPORT; SEPTEMBER 14, 1994

SSS. NJDEP, MEMO REGARDING SLUDGE DATA, SEPTEMBER 27, 1994

TTT. NEW JERSEY DEPARTMENT OF HEALTH, LIST OF PSE&G SITES; 1964

UUU. NJDEP, AERIAL PHOTOGRAPH REVIEW; SEPTEMBER 30, 1994

VVV. KOPPERS COMPANY, INC., HANDBOOK ON MANUFACTURED GAS PLANT SITES; SEPTEMBER 1984

WWW. PSE&G SAMPLING RESULTS; 1996 AND 1997

XXX. NJDEP SEDIMENT SAMPLING RESULTS; 1999

YYY. NJDEP SEDIMENT SAMPLING PLAN AND FIELD NOTES; 1999

NARRATIVE

EXPANDED SITE INVESTIGATION REPORT

PART I: GENERAL INFORMATION

Site Name: Kearny Power & Light
AKA: PSE&G Kearny Generating Station
Address: Foot of Hackensack Avenue
Municipality: Kearny **State:** NJ **Zip Code:** 07032
County: Hudson **EPA ID No.:** NJD980770176 **EPA ID No.:** NJD000730424
Block: 298 **Lot(s):** 19A, 19R, 20, 20R, 21, 22
Block: 284 **Lot(s):** 42, 43
Latitude: 40° 44' 20" **Longitude:** 74° 05' 50"
Acreage: 90 **SIC Code:** 4911 (electric generation)

Current Owner/Operator: Public Service Electric and Gas Company
Mailing Address: 80 Park Plaza **City:** Newark **State:** NJ
Zip Code: 07101 **Telephone No.:** (201) 430-7000

Owner/Operator History:

Block 298, Lot 19A, 20, 21, 22

NAME	OWNER/OPERATOR	DATES	
		From	To
Public Service Electric Power Company	Owner/Operator	Unknown	4/1/27
Public Service Electric & Gas Company	Owner/Operator	4/1/27	Present

Block 298, Lots 19R

NAME	OWNER/OPERATOR	DATES	
		From	To
Thomas McCarter	Owner	Unknown	9/6/30
Public Service Electric & Gas Company	Owner/Operator	9/6/30	Present

Block 284, Lot 43

NAME	OWNER/OPERATOR	DATES	
		From	To
Holland Company	Owner	Unknown	9/4/40
Public Service Electric & Gas Company	Owner/Operator	9/4/40	Present

Block 284, Lot 42

NAME	OWNER/OPERATOR	DATES	
		From	To
NJ Railroad and Can Co.	Owner	Unknown	8/31/59
Public Service Electric & Gas Company	Owner/Operator	8/31/59	Present

Block 298, Lots 20R

NAME	OWNER OPERATOR	DATES	
		From	To
State of NJ	Owner	Unknown	9/9/40
Public Service Electric & Gas Company	Owner Operator	9/9/40	Present

(Attachment WW, Map 2)

Surrounding Land Use (zoning, adjacent properties): There are industrial properties to the south, north and west with the Hackensack River providing the eastern border of the site. (Map 1, Attachment XX, CCC, DDD)

Distance to Nearest Residence: 4,000 feet (Map 1)
Direction: east
Population Density (residents per square mile): According to the 1990 census, there are 3,815 people per square mile in Kearny. It is likely that this figure is high for the area of the subject site since it is located in a remote industrial zone of Kearny.

PART II: SITE OPERATIONS

Discuss all current and past operations at the site.

The Public Service Electric and Gas Company's (PSE&G) Kearny Generating Station (the site) is an electricity generating facility powered by fossil fuel. The facility was solely powered by thousands of tons of pulverized coal per day during the period 1925 to 1949. From 1952 until 1967, the site utilized both fuel oil and coal to power its generators. Use of coal was discontinued during 1967. (Attachments A, C, D, H)

A 1907 Sanborn Company map of Kearny, which was revised in 1935, 1940 and 1943, depicts the site and showed an "ash sluice" extending in a southwesterly direction from a boiler room to an "ash pit" of approximately 130 feet by 40 feet. The ash pit was adjacent to an "underground discharge canal" which was oriented so that it lead to a "ash house" just prior to its intersection with

the Hackensack River. Also shown were a 35,000 square feet "transformer field" and an oil purifying unit. (Attachment E)

By letter dated October 25, 1994, PSE&G submitted information to the New Jersey Department of Environmental Protection (NJDEP) regarding the site. The letter stated that ash generated in the original six units was washed into the above noted ash pit where settling occurred prior to discharge of washwater to the Hackensack River. Settled ash from the pit was transferred to barges or other conveyance for delivery to market for sale. The letter stated that ash wastewater was also discharged into "cribs" and a "pond" (impoundments) located on the north side of Fish House Road. Primary settling would also occur at these locations prior to discharge of the washwater to ditches which lead to the Hackensack River. The letter stated that ash was also removed from the cribs and pond for transport to market. (Attachment H)

A PSE&G diagram labeled "Kearny Generating Station Plant Layout" with revision dates from 1963 through 1978 listed the following facilities: a."foundation ash disposal pit and discharge canal"; b. "ash and dust piping to disposal area"; c."#1 Mercury Unit"; d. "Chemical Waste Sump"; e. "Ash Sluices"; f. "Pipe and Tunnel"; g. "Reclaiming Pit and Hopper"; h. "Oil Separator"; and, i. "Initial Coal Pile, 10,000 tons". The "air heater wash water surge basin", "waste water retention basin" and "main waste water retention basin" had the same shape, orientation and location as the facility labeled "ash pit" on the Sanborn Map. Another PSE&G diagram dated March 15, 1977 was labeled "Generating Station No. 7 & 8 Heating Boilers". The diagram depicted a trench that contained two 10-inch "ash" pipes and one 6-inch "dust" pipe. A December 28, 1992 diagram of the site published by PSE&G notes the existence of a shed with a placard marked "radioactive". (Attachments F, G, C25)

Residues from combustion of coal were ash and molten ash slag. Ash which was retrieved from the stack was a dust-like particulate called fly ash. Slag and coarse ash collected in the bottom of the burning units. These residues were cleaned from the burning units to maintain combustion efficiency (Attachment B). Studies of these types of wastes have discovered lead contents as high as 4,000 parts per million and arsenic contents as high as 250 parts per million. (Attachment VVV)

On January 31, 1975, the United States Environmental Protection Agency (USEPA) issued a National Pollutant Discharge Elimination System (NPDES) Permit No. NJ0000655 to the site which authorized discharge of effluent from discharge points designated as 381 (cooling water), 382 (boiler quench water), 383 (air heater wash), 384 (unit 8 floor drains) and 385 (boiler blowdown). A condition of the permit noted the existence of an "ash pond" and of the possible discharge of "ash sluice water" which was to be monitored for total mercury and other parameters. The permit required

construction of a wastewater treatment plant (WWTP) by April 1, 1977. (Attachment I)

During July 1978, PSE&G constructed an oil/water separator near the former location of a mercury vapor generating unit which was operated during the period 1932 to 1953. By report dated April 1979, Roy F. Weston, Inc. (Weston report) submitted sampling information collected at the Station during the Fall of 1978. The Weston report described a mercury spill recovery system which involved periodic excavation of "spilled [mercury], along with any contaminated ash or dirt" and a mercury recovery vessel which "was usually stationed in the immediate area of the excavation". Analysis of soil samples during 1978 revealed mercury contamination of up to 5.7 per cent. A summary of the soil analysis can be found in Part IV. (Attachment YY)

PSE&G notified NJDEP of its findings and executed an Administrative Consent Order (ACO) with NJDEP on September 22, 1980. The ACO established that NJDEP did not believe that the contaminated soil should be excavated. It also imposed ground water monitoring requirements for a period of two years and stated that at the end of that period NJDEP would evaluate whether mercury had migrated from the contaminated area. The need for additional remedial measures would be determined at the end of the monitoring period. Accordingly, PSE&G conducted ground water monitoring which discovered mercury in the ground water at levels up to 24,000 parts per billion (ppb). However, by the end of the two year monitoring period, PSE&G discovered that the concentration of mercury in ground water was below 1 ppb. The results of the ground water monitoring are summarized in Part V. (Attachments YY, ZZ)

A July 27, 1979, NPDES application from PSE&G stated that the WWTP received wastes "from floor drains, boiler drains, demineralizer regeneration and miscellaneous sumps", equipment chemical cleaning and from "furnace and precipitator washes". It also stated that some wastes which enter the WWTP must first pass through an oil/water separator and that caustic and polymer solutions were added to the WWTP to induce settling of solids. It stated that the wastewater contained arsenic, beryllium, cadmium, lead and mercury from the "metal cleaning" wastes. Finally, it noted a "new facility" going into operation in 1979. Documents issued by the NJDEP on June 5, 1979, and on February 22, 1981, indicate that a WWTP was constructed at the site during the late 1970s with public funds. (Attachments K, L)

A September 3, 1981, application from PSE&G for certification of pollution control facilities described the WWTP as including three wastewater retention basins totaling 500,000-gallons, a chemical waste sump, a 200-gallon per minute (gpm) oil/water separator, contaminated equipment drains and internal floor drains. PSE&G also stated that the wastewater contained a maximum petroleum

hydrocarbon concentration of 10 parts per million (ppm) and a maximum copper concentration of 0.8 ppm. (Attachment Q)

A May 2, 1983, letter from PSE&G stated that it is possible for oil spills to enter the wastestream that go through oil and water separators before discharge to "basins" where sludge is produced. The letter stated that sludge produced at the WWTP was not hazardous waste. Analytical results of leachate tests from WWTP sludge revealed lead at levels below the hazardous waste standard of 5 ppm. By letter dated September 7, 1983, NJDEP stated that analyses provided in an August 15, 1983, letter from PSE&G indicated that the WWTP sludge was not hazardous. An undated memo by NJDEP notes that PSE&G operated "settling basins" which contained sludge which was reportedly non-hazardous. (Attachments M6, OOO)

A February 23, 1984, hazardous waste inspection by NJDEP revealed that the site removed 24 shipments of hazardous waste between 1982 and 1983 and that waste oil collected from the oil/water separator was "fed back to the burners". While PSE&G no longer burns waste oil, recent sludge analysis revealed that petroleum content of the sludge has reached per cent levels on occasion. The 1984 inspection also noted that a waste is generated from a "bromate cleaning compound" used for boiler cleanouts and reiterated that NJDEP had classified the WWTP sludge as non-hazardous. However, an August 15, 1990, hazardous waste inspection of the Station by NJDEP stated that "every 18 months to 2 years a waste water treatment settling tank is cleaned out generating sludge classified as D008" (D008 waste exhibits the hazardous waste characteristic of lead toxicity). During 1989, 71,000 gallons of D008 waste was removed from the site. After 1989, D008 waste was not manifested from the site. But in the above noted October 25, 1994, letter, PSE&G stated that since the construction of the WWTP, wastewaters from boiler cleanouts have been discharged only to holding tanks until the waste characteristics were determined. PSE&G stated that on occasions when the wastewater was classified as D008, it was shipped off-site for treatment; only dilute wastes are discharged to the WWTP. PSE&G believes that the description found in the August 15, 1990, inspection regarding D008 was incorrect. Other types of hazardous waste generated are tank bottoms, maintenance shop waste oil and lubrication waste oil. Machine shop degreasing operations, which formerly generated a 1,1,1-trichloroethane waste handled by site personnel, were changed to utilize a commercial solvent recovery service which removed parts degreasing waste on a regular basis. (Attachments H, N, O, P)

On April 6, 1984, NJDEP issued a draft New Jersey Pollutant Discharge Elimination System (NJPDES) Permit No. NJ0000655 to PSE&G. The draft permit stated that the WWTP discharged 600,000 gallons per day of "low volume waste" along with 160,000 gallons per day of chemical metal cleaning wastes which was discharged

intermittently. In the above noted October 25, 1994, letter, PSE&G stated that the chemical metal cleaning occurred on an infrequent basis and should not be viewed as a part of daily operation and that hazardous wastes from the metal cleaning were not discharged to the WWTP. (Attachments H, Q)

By letter dated June 8, 1989, PSE&G stated that heavy metals sampling of the WWTP discharge was appropriate during periods when "chemical/metal cleaning" occurred and that the former ash ponds at the site had been "eliminated". (Attachment R)

A final NJPDES Permit No. NJ0000655 for the site was issued on December 29, 1989. It noted that outfalls 382, 383 and 384 were sealed and it imposed a requirement to sample effluent for lead, mercury and arsenic at the WWTP outfall. (Attachment S)

As a requirement of the permit, an effluent dilution study was completed for the site during January 1991. The study stated that the site discharged 288 million gallons of effluent per day of which 400 gallons per minute were from the WWTP on an intermittent basis. The study concluded that the WWTP effluent was not "well-mixed with the cooling waterflow by the time it reaches the Hackensack River". (Attachment T)

On July 15, 1993, a Discharge Prevention, Containment and Countermeasures Plan (DPCC) for the site was approved by NJDEP. The DPCC stated that there were 146 above ground tanks or other vessels at the Station which contain oils, fuels, solvents and other chemicals. Fuel oils for powering the generators are stored in four large above ground storage tanks (AGST). By letter dated January 29, 1993, PSE&G stated that its AGST #2 was permanently taken out of service. It was noted that AGST #2, which had a 1,050,000-gallon in-storage capacity, had been repaired in April 1989 after an inspection of the tank bottom. Since that time, it was observed that the tank did not have unaccounted-for reductions in fuel volume. The tank was used to store No. 6 fuel oil or bunker-C oil. (Attachments C, Y, Z)

The site has a long history of fuel discharges associated with the large AGSTs. Many of these discharges have impacted the Hackensack River. Discharges from other equipment have occurred, but available documents do not state what materials were discharged. Documentation of the known discharge incidents can be found at attachments BB through PP.

During a February 23, 1984, hazardous waste inspection and an August 27, 1985, DPCC inspection, NJDEP observed that spills at the site had resulted in soil and possibly groundwater contamination. The hazardous waste inspection stated that "oily contaminated soils" were apparent from spills at the jet turbine drains. The August 27, 1985, report referred to leaky transformers, areas in need of cleanup, groundwater monitor wells,

inadequate or poorly maintained secondary containment for bulk petroleum storage, "loose quantities of chemicals", inadequate training of staff, minimal spill containment equipment, a contaminated steam discharge to the ground, a bulk petroleum storage drain to the wastewater treatment system, and leaking connections. The report stated that "extensive small spillage could eventually discharge to the Hackensack River". It mentions an "old transil oil pipeline" and spills from the sump pit at Turbine Generating Units (TGU) 10 and 11. The draft DPCC plan noted the following specific areas of concern: the lube oil tank at TGU 10, the Chemical Additive tanks at TGUs 10, 11, 12 and the kerosene line filter at the barge dock. Soil contamination was noted at the Hess pipeline sampling meter station between tanks 1 and 2, at the transformer 132-3 central box pad, at the Crane and electric motor at TGU 11, at the oil cooler at TGU 11, at the valve between tanks 1 and 3, at the TGU building 9, at the gear boxes on the salt water pump, at the tank heater steam line, and at the "old slag and dust line trench and the unused fuel oil line". Also, the draft permit required repair of the berms at bulk storage tank #4 and at the barge loading area.(Attachment QQ)

During November 1987, PSE&G undertook a large soil sampling program in the area of its four large AGSTs. The sampling revealed that all four AGST areas were contaminated with petroleum from leaks associated with the AGSTs. Piezometers installed adjacent to AGST #2 revealed a floating layer of petroleum. An inspection of the sample area by a PSE&G contractor revealed that the petroleum was associated with spills from a steam line. Samples were also collected in the area of a ditch located 100 feet north of the AGSTs. A sample from the ditch location exhibited 16,801 ppm of Total Petroleum Hydrocarbons (TPH) at a depth of 4 to 6 feet. The sample was retrieved from below the ground water table. The soil sample analyses are summarized in Part IV. (Attachment AAA)

Underground storage tanks (USTs) are currently used at the site for storage of motor vehicle fuels. By letter dated May 3, 1994, PSE&G submitted an application to construct spill/overfill piping at two 4-year old USTs. There are no records on file at NJDEP regarding remedial work for USTs at the site, however, an NJDEP UST registration file disclosed that five USTs exist, three of which are 39 years old. Relative to whether there was a discharge from any of the three untested 39-year old tanks, one tank listed as not having a discharge, another was listed with no comments about discharge status, and the third was listed as having a discharge within the last 1 to 5 years. The tank which was reported as having a discharge is a 3,000-gallon UST listed as having contained kerosene. The other two USTs were listed as each being four years old with no discharge history. PSE&G has stated that the three older USTs were excavated prior to promulgation of UST rules. Post-excavation soil sampling was not conducted for any excavated UST. (Attachment AA, YY31)

On November 2, 1987, NJDEP issued a final modified NJPDES permit. A report associated with the permit stated, "significant discharges to both the ground water and the Hackensack River" may be occurring. The report noted that PSE&G had reported a ground water problem to NJDEP and that they did not have leak detection devices for USTs except for dip sticks. Part II of the permit required PSE&G to remove contaminated soils. (Attachment SS)

On January 24, 1990, NJDEP collected three soil samples from surface soils at the site for the purpose of chromium analysis. One location was between AGST #1 and the Hackensack River and the other two were adjacent to a railroad spur on the northern border of the site. The samples did not indicate use of chromium waste as fill at the site, at least at the surface where the samples were collected. The analytical results of the sampling event are summarized in Part VII. (Attachment TT)

The August 15, 1990, hazardous waste inspection by NJDEP revealed that most hazardous waste at the site "is coming from the spill cleanup operations". In the above noted October 25, 1994, letter from PSE&G, it was stated that some contaminated soils were removed from around AGSTs #1 and #2 and that the soils were classified and shipped off-site as X-910 wastes. (Attachments H, O, P)

Relative to locations where discharges are somewhat likely to occur, the DPCC stated that there are six unloading areas for tanker trucks which carry hazardous substances at the site. The six areas are as follows: a. Demineralizer Plant, b. Wastewater Treatment Plant, c. Yard Garage, d. Drum Storage Area, e. Power Plant Building, and f. Fuel Additive Area. The plan also stated that the plant utilizes dielectric fluid in transformers, oil circuit breakers and oilostatic cables. The cables are located underground. The cables have cathodic protection, a special coating, monthly inspection of cathodes and daily inspection of fluid pressure. The DPCC also notes the existence of hazardous substances in drums at ten locations. Some of the materials are hazardous wastes, and in part, the areas are as follows: a. Hazardous Waste Storage Area, b. Beneath Unit 8, c. Bunker House (spent solvents), d. Demineralizer Plant, e. Yard Garage, f. all generator compartments of TGU 12, g. TGU 10, and h. TGU 11. Finally, site plans associated with the DPCC show soil piles located in many locations at the site. The piles may be associated with remediation of contaminated soils. In the above noted October 25, 1994, letter from PSE&G, it was stated that the noted soil piles were removed from the site as non-hazardous wastes for recycling as asphalt. (Attachment C, H)

NJDEP has issued certificates to operate air pollution equipment at the site. Since some of the on-site boilers predates NJDEP's air pollution regulations, they do not require certificates.

However, certificates for operation were issued for the following equipment: turbines that burn natural gas, auxiliary boilers that burn No. 6 or No. 2 fuel, a steam generator, turbines which burn gas, No. 2 fuel or kerosene, petroleum storage tank #3 which contains kerosene or No. 2 fuel, and an emergency diesel fire pump. (Attachment UU)

During 1996 and 1997, PSE&G completed soil and ground water sampling at the site. Generally, the sampling confirmed widespread contamination of soils and ground water at the site. Detailed review of the results can be found at Parts IV and V.

On November 9, 1999, NJDEP conducted sediment sampling at the discharge point of the ditch leading to the Hackensack River from "cribs"(impoundments) located on the north side of Fish House Road. Settling PSE&G wastewaters would occur at the cribs prior to discharge of the effluent to ditches which lead to the Hackensack River. Results of the sampling event revealed no significant rise in mercury levels from background conditions in the Hackensack River. See Section VI below for a more detailed review of the data.

Area Of Concern (AOC) Summary Table

AOC Name	HRS Source Type	Physical State	Waste Quantity
1. Coal Storage Area	Contaminated Soil	Solid	Unknown
2. Transformer Switchyard	Contaminated Soil	Solid	Unknown
3. Mercury Spill Area	Contaminated Soil	Solid	Unknown
4. Wastewater Impoundment	Impoundment	Liquid	Unknown
5. Bulk Petroleum AGSTs	Tanks	Liquid	Unknown
6. Former USTs	Tanks	Liquid	Unknown
7. TGU and Truck Spills	Contaminated Soil	Solid	Unknown
8. Site Wide Fill	Landfill	Solid	1,750,000 cubic yards
9. Potentially Radioactive Area	Contaminated Soil	Solid	Unknown

PART III: PERMITS

A. NJPDES

Number	Discharge Activity	Date		Body of Water Discharged To
		Issued	Expired	
NJ0000655	DSW	1/31/75	Current	Hackensack River

(Attachment I)

B. New Jersey Air Pollution Control Certificates

Plant ID No.: 10022 **No. of Certificates:** 19

Equipment Permitted: diesel pump, storage tanks, jet turbines, steam generators and boilers (Attachment UU)

C. BUST Registration

Registration No.: 0053020 **No. of Tanks:** five

Tank No.	Capacity (gallons)	Contents of Tank	Integrity
A1	1,500	leaded gasoline (substance last used)	unknown
A2	3,000	kerosene (last used)	spill/leak in last 5 years
E1	1,500	unleaded gasoline	unknown
E2	1,000	unleaded gasoline	see below
E3	1,000	medium diesel	see below

The previously noted October 25, 1994, letter from PSE&G stated that tanks A1, A2 and E1 were excavated in 1988 and that tanks E2 and E3 are new tanks with in-place monitoring devices and no reported leaks. (Attachments H, AA)

D. Other Permits None found

PART IV: SOIL EXPOSURE

Describe soil type. Include soil series, makeup of the soil and permeability of the soil.

The first 5 to 20 feet of the site is made up of historic fill. The fill materials used vary from silt, clay and/or sand to waste materials such as slag, ash and demolition waste or any combination thereof. The permeability of this layer is highly variable. Below this layer is a 5 feet thick layer of meadow mat which is also highly permeable and absorbent. Below the meadow mat is sand or silty sand followed by a 30 feet thick layer of varved silt or clay. The sand is moderately permeable and the silt and clay layers are relatively impermeable. (Attachments H, CCC)

Briefly discuss contaminants identified in the soil. Include sampling date, sampling agency or company, sample locations, depth and contaminant level. Determine if the sample was collected on a residential property, school, daycare center, workplace, terrestrial sensitive environment or resource. State whether Level 1 or Level 2 contamination is present.

Since a resident population does not exist at or near the site, a Level 1 or Level 2 condition does not exist.

By report dated April 1979, Roy F. Weston, Inc. (Weston) submitted soil sampling information collected during July and October of 1978 at the site which confirmed mercury contamination of soils. The following table contains excerpted results of the Weston sampling episode. The results are expressed in parts per million (ppm). (Attachment YY)

Sample Location	Sample Depth	Mercury Concentration	Residential Soil Cleanup Criterion
Boring 1	17 feet	57,000	14
Boring 2	20 feet	3,200	14
Boring 3	14 feet	5,400	14
Boring 4	12 feet	21,000	14
Boring 5	6 feet	15,000	14
Boring 6	17 feet	3,415	14

During 1997, PSE&G undertook a follow-up soil investingation in the area of mercury spills that was sampled by Weston as noted above. The results of that investigation revealed mercury contamination in the soils which ranged from less than 1 ppm to 3,740 ppm. The 1997 samling event indicated that mecury contamination below 11 feet is significantly less than indicated by the 1979 sampling event.

During November 1987, PSE&G undertook a large soil sampling program in the area of its four large AGSTs. The sampling revealed that all four areas were contaminated with petroleum from leaks associated with the AGSTs. (Attachment AAA) In part, the sampling results for the soil revealed the following levels of TPH:

AGST LOCATION	SAMPLE DEPTH	SAMPLE RESULT	TOTAL ORGANIC CONTAMINANT SOIL CLEANUP CRITERION
1	0 ft to 2 ft	14,700 ppm	10,000 ppm
2	4 ft to 6 ft	25,100 ppm	10,000 ppm
3	0 ft to 2 ft	27,500 ppm	10,000 ppm
4	2 ft to 4 ft	7,620 ppm	10,000 ppm

On January 24, 1990, NJDEP collected three soil samples from the site for the purpose of chromium analysis. The sample which was collected 100 feet from a railroad track joint exhibited a concentration of ~47.5 ppm chromium. The sample which was collected at PSE&Gs fence near Pennsylvania Avenue exhibited a concentration of 267 ppm chromium. The sample which was collected at the AGST #1 adjacent to the Hackensack River exhibited a chromium concentration of 52.9 ppm. Based on the noted results, NJDEP determined that the site was not contaminated by chromium wastes. (Attachment TT)

During December 1996 and May 1997, PSE&G collected soil samples from the site. The table below summarizes some of the findings from those sampling events. The AOC noted in the table corresponds to the AOC Summary Table found at the beginning of this report. A complete list of results can be found in Attachment WWW.

AOC	Sample #	Contaminant	Result (ppm)	NJDEP SCC (ppm)
Wastewater Impoundment	SS-403	mercury	1,010	14
Wastewater Impoundment	SS-403	nickel	1,210	NA
Wastewater Impoundment	SS-403	vanadium	10,100	370
Wastewater Impoundment	SS-403	arsenic	64	20
Transformer Switchyard	SS-254	Aroclor 1260	3,880	0.49
TGU/Truck Spills	SS-709	mercury	38	14
TGU/Truck Spills	SS-101	arsenic	21	20
Coal Storage	SS-101	vanadium	1,360	370
Coal Storage	SS-101	mercury	78	14
Coal Storage	SS-709	arsenic	73	20
Coal Storage	SS-106	mercury	160	14
Coal Storage	SS-106	nickel	362	NA
Coal Storage	SS-106	vanadium	746	370
Site Wide Fill	SS-837	mercury	246	14
Site Wide Fill	SS-703	mercury	80	14
Site Wide Fill	SS-703	arsenic	67	20
Mercury Spill	B-309	mercury	3,470	14

The soil samples demonstrated a site-wide impact by metals, especially arsenic, mercury and vanadium which was significantly above background and NJDEP Residential Soil Cleanup Criteria. The impact was particularly evident in the area of the wastewater impoundments, where sludge from the impoundment may have spilled. The samples also demonstrated that PCBs were used and discharged at the site and were found in concentrations significantly above background and NJDEP Residential Soil Cleanup Criteria.

Background conditions of site soils for metals were established by sample SS-808A which revealed an arsenic concentration of 1.5 ppm, a mercury concentration of less than 0.13 ppm, a lead concentration of less than 11 ppm, a nickel concentration of 10.2

ppm, and a vanadium concentration of 19.8 ppm. Background conditions of site soils for volatile organic compounds were established by sample SS-706B which revealed no compounds above detection limits. Background conditions of site soils for semivolatile organic compounds were established by sample SS-704A which revealed no compounds above detection limits.

If no soil sampling has been conducted, discuss areas of potentially contaminated soil, areas that are visually contaminated or results from soil gas surveys.

Sampling events noted above have demonstrated that contamination exists at the site.

Total area of surficial contamination (square feet): The entire site, which is approximately 90 acres, exhibits contamination above background conditions.

Determine if any commercial agriculture, silviculture, livestock procedure or grazing are present on or within 200 feet of the site.
None of the subject activities were noted.

Number of people that occupy residences or attend school or day care on or within 200 feet of the site: zero (Attachment CCC)
Number of workers on or within 200 feet of the site: 100

Does a subsurface gas threat exist? (Y/N): no
If so, discuss the threat (include if in homes or occupied building).

PART V: GROUND WATER ROUTE

A. HYDROGEOLOGY

Describe geologic formations and aquifer(s) of concern. Include interconnections, confining layers, discontinuities, composition and permeability.

On November 30, 1988, PSE&G submitted a supplemental environmental impact study regarding the Hackensack River. The study included a general description of the geology of the Hackensack watershed. "The watershed is generally bounded on the east by the crest of the Palisades Ridge and on the west and northwest by the crest of

the Watchung and Ramapo Mountains. The topography in the upper two thirds of the Hackensack Valley is characterized by low, broad hills which range in elevation from 100 to 600 feet above mean sea level. The general elevation of the land decreases to the south, and the southerly third of the valley is wide and flat. In its lower 10 miles, the valley has been partly inundated by waters from the Atlantic Ocean and is under tidal influence." (Attachment D)

A May 1990 report by Geraghty and Miller described the Kearny area as comprised of "meadow mat mixed with fine-grained sediments. Underlying this organic rich layer are clay and silt deposits associated with sedimentation in a glacial lake that occupied the region 10,00 to 15,000 years ago. The fine-grained lake deposits are in turn underlain by glacial till composed mostly of sand and gravel (Agron 1980). The bedrock beneath the unconsolidated deposits consists of shale and sandstone of the Triassic-Jurassic age Passaic Formation of the Brunswick Group (Lyttle and Epstein 1987)." (Attachment VV)

A July 1988 report by Keystone Environmental Resources discusses a site less than 2,000 feet from the site. The report stated that the two major aquifers in the area are the noted glacial deposits and the Brunswick Formation. Both aquifers have highly variable yields. (Attachment CCC)

The Weston report revealed that stratigraphy under the Station mirrors the stratigraphy noted above with the exception that the upper layer generally consists of "12 to 15 feet of cinder ash material." The generalized geologic cross-section of the site indicated that groundwater was at 6.5 feet from grade, which is in the porous cinder material. (Attachment YY)

Depth to aquifer of concern: 6.5 feet (Attachment YY)
Thickness of aquifer: 800 feet (Attachment YY)
Depth from lowest point of waste disposal/storage to highest seasonal level of the saturated zone of the aquifer of concern: Waste has intersected the saturated zone (Attachment YY)
Permeability of the least permeable layer between the ground surface and the aquifer of concern: Not applicable, waste has intersected the saturated zone. (Attachments YY, QQQ, RRR)
Direction of ground water flow: southeast
Karst (Y/N): No **Wellhead Protection Area (Y/N):** No

B. MONITORING WELL INFORMATION

Pursuant to a February 17, 1995, Memorandum of Agreement (MOA) between NJDEP and PSE&G, the monitor wells noted below were installed.

Well	Screen	Formation	Location
MW-402S	9-14 ft bgs	Fill above Passaic Formation	Approximately 600 feet from bank of Hackensack River, at NE border of site.
MW-901S	5-10 ft bgs	Fill above Passaic Formation	Approximately 2,000 feet from bank of Hackensack River, at NW border of site
MW-902S	3-8 ft bgs	Fill above Passaic Formation	Approximately 100 feet from bank of Hackensack River, at SE border of site.
MW-903S	5-10 ft bgs	Sand/peat above Passaic Formation	Above Ground Storage Tank Area 200 feet from the river
MW-101S	9-14 ft bgs	Fill above Passaic Formation	Center of site
MW-125I	15-20 ft bgs	Sand above Passaic Formation	Central portion of site
MW-101I	17-22 ft bgs	Fill above Passaic Formation	Center of site
MW-125S	3-8 ft bgs	Fill above Passaic Formation	Central portion of site
MW-201S	10-15 ft bgs	Fill above Passaic Formation	Transformer area, 400 feet NNW of river
MW-202S	2-7 ft bgs	Fill above Passaic Formation	Approximately 1,100 feet NNW from bank Hackensack River,in transformer area.
MW-202I	18-23 ft bgs	Fine sand above Passaic Formation	Approximately 1,100 feet NNW from bank Hackensack River, in transformer area.
MW-301S	9-14 ft bgs	Fill above Passaic Formation	UST area, 150 feet from the river
MW-301I	20-25 ft bgs	Sand varved clay above Passaic Form	UST area, 150 feet from the river
MW-301D	57-62 ft bgs	Clayey silt above Passaic Formation	UST area, 150 feet from the river
MW-302S	5-10 ft bgs	Fill above Passaic Formation	Mercury unit area, 100 feet from the river at eastern border of site
MW-302I	15-20 ft bgs	Sand-clay above Passaic Formation	Mercury unit area, about 100 feet from the river
MW-302D	48-54 ft bgs	Silty sand atop Passaic Formation	Mercury unit area, about 100 feet from the river
MW-303S	6-11 feet bgs	Fill material above Passaic Formation	Mercury unit area, about 75 feet from the river

Identify the upgradient well(s): MW-901S and MW402S are the most hydrologically upgradient wells, but are located in fill material.

Briefly discuss why the monitoring wells were installed and describe contaminants identified in the monitoring wells. Include Well No., sampling date, sampling agency or company, contaminant levels and cleanup standards.

During 1981, monitor wells were installed in compliance with the 1980 ACO regarding mercury contamination at the site. PSE&G has stated that they are the same wells noted in the 1987 DPCC plan. Samples were collected from the wells during 1981, 1982 and 1983. Information regarding the well construction and current status was not located. The following table excerpts data collected from the wells during the noted period. The data represent the highest mercury values detected without regard to tidal cycle. Mercury is symbolized by (Hg). The NJDEP groundwater cleanup standard for mercury is 2 ppb. (Attachment YY)

Well Number	Date	Unfiltered Hg Sample	Filtered Sample Hg
12	6/22/81	540 ppb	<4.0 ppb
13	6/22/81	24,000 ppb	24 ppb
12	7/22/81	72 ppb	2.0 ppb
13	7/22/81	995 ppb	7.0 ppb
12	10/21/81	22 ppb	1.0 ppb
13	10/21/81	90 ppb	<1.0 ppb
12	6/22/82	990 ppb	2.0 ppb
13	6/22/82	770 ppb	3.0 ppb
12	11/4/82	13 ppb	<1.0 ppb
13	11/4/82	11 ppb	9.0 ppb
12	2/4/83	20 ppb	<1.0 ppb
13	2/4/83	50 ppb	<1.0 ppb
12	8/3/83	7 ppb	<1.0 ppb
13	8/3/83	<1 ppb	<1.0 ppb

The monitor wells installed pursuant to the 1995 MOA were installed to determine whether site-wide contamination existed.

Samples were collected from the wells on February 13, 1997, and May 6, 1997.

The table below summarizes selected results obtained during those sampling events. A complete list of the results can be found at attachment WWW. In the table below, GWQS stands for Ground Water Quality Standards.

Monitor Well #	Date	Contaminant	Result (ppb)	NJDEP GWQS (ppb)
MW-202S	2/13/97	methyl naphthalene	1,720	100
MW-202S	2/13/97	arsenic	287	8
MW-402S	2/14/97	arsenic	63	8
MW-402S	2/14/97	lead	239	10
MW-303S	2/13/97	mercury	4.4	2
MW-902S	2/13/97	arsenic	60.8	8
MW-902S	2/13/97	lead	115	10
MW-901S	2/13/97	arsenic	134	8
MW-901S	2/13/97	lead	1,540	10

Background conditions for ground water volatile and semivolatile organic compounds were established by MW-301D, MW-901I and MW-902S which exhibited no exceedances of a GWQS and few or no detections of contamination below a GWQS. Background conditions for ground water metals were established by MW-301D and MW101S.

The results noted in the table above, when compared with the background ground water conditions noted on-site, reveal that ground water has been impacted. Based on the demonstrated elevated concentrations of metals and petroleum products in site soils, NJDEP concludes that ground water at the site has been contaminated by metals contained in the fill and/or sludge material at the site and by organic compounds associated with spills and leaks at the site.

C. POTABLE WELL INFORMATION

Distance to nearest potable well: There are no known potable wells within 4 miles of the site. (Map 5, Attachment BBB)

Identify all public supply wells within 4 miles of the site: Public supply wells were not found within 4 miles of the site. (Map 5)

Discuss private potable well use within 4 miles of the site. Include depth, formation and distance, if available. There are no known private potable well within 4 miles of the site. (Map 5, Attachment BBB)

Discuss any evidence of contaminated drinking water or wells closed due to contamination.

There are no known private potable well within 4 miles of the site.
(Map 5, Attachment BBB)

Identify industrial/irrigation wells within the vicinity of the site. Include depth, formation, distance and direction, if available.

There are 21 industrial wells within 4 miles of the site. Except for the Mother Food Products, Inc. well (non-food use, 40.5 feet deep), all of the wells are greater than 200 feet deep and more than 2 miles from the site. All of the wells are screened in the sandstones and shales of the Brunswick Formation. (Map 5, Attachment BBB)

D. POTENTIAL

Discuss the potential for ground water contamination, including any other information concerning the ground water contamination route.

As noted above, ground water contamination has been confirmed at the site.

PART VI: SURFACE WATER ROUTE

A. SURFACE WATER

Does a migration pathway to surface water exist (Y/N): Yes
Flood plain: 100 year **Slope:** 1 per cent
(Map 5, Attachment C)

Does contaminated ground water discharge to surface water (Y/N):

Yes. It has been demonstrated that ground water at the site flows

toward the river. It has also been demonstrated that tidal fluctuations in the river can be correlated to fluctuations in the static water level of monitor wells at the site. The site is located directly adjacent to the river. (Attachment WWW)

Identify known or potentially contaminated surface water bodies. Follow the pathway of the surface water and indicate all adjoining bodies of water along a route of 15 stream miles.

Surface Water Body	Distance From Site	Flow (cfs)	Usage(s)
Hackensack River	0	>10,000	fishing, shipping
Newark Bay	2.4	>10,000	fishing, shipping

(Attachments HHH, III)

Identify drinking water intakes and fisheries within 15 miles downstream (or upstream in tidal areas) of the site. For each intake or fishery identify the distance from the point of surface water entry, the name of the fishery and/or supplier and population served.

On November 30, 1988, PSE&G submitted a supplemental environmental impact study regarding the Hackensack River. The study revealed that there are no intakes downstream of the site, since that area of the river is brackish. The river is tidal and potable water for the area is supplied by the Hackensack Water Company and the North Jersey District Water Supply Commission. These companies receive their water from reservoirs. (Attachments H, D)

As documented in various NJDEP documents found in Attachment HHH, the Hackensack River and the Newark Bay Complex are used for fishing. The Hackensack River borders the site. Advisories against consuming fish from the Newark Bay Complex have been issued by the NJDEP. It has been determined that fish from this area have unacceptable levels of PCBs and dioxins in their flesh. Sampling has also determined that mercury has been found in fish from the Hackensack River. (Attachment HHH)

Discuss surface water or sediment sampling conducted in relation to the site. Discuss visual observations if analytical data is not available (include date of observation). Include surface water body, sampling date, sampling agency or company, contaminant. State whether Level 1 or Level 2 contamination is present. For each sampling event, list the name, address and

certification number of the lab which performed the analyses. State who conducted the quality assurance review of the data and summarize any data qualifications.

Pursuant to their NJPDES permit, PSE&G submitted environmental impact statements to NJDEP which revealed that the Hackensack River is an impaired water body due to discharges from sewage treatment plants, landfills, roadways and industrial effluents. The ambient river water has petroleum concentrations of 2 to 3 ppm. River sediments exhibit petroleum and heavy metals contamination at "background" levels of hundreds of parts per million.(Attachment D) Lead, mercury, arsenic, nickel and zinc are found in river water at levels up to and exceeding New Jersey Surface Water Quality Standards. (Attachment LLL)

Surface water and sediment sampling in the Hackensack River was not conducted relative to this site by PSE&G, therefore, on November 9, 1999, NJDEP conducted sediment sampling.

Based upon the size of the site, the tidal nature of the Hackensack River and of the river's size, NJDEP concluded that contaminants from the site would be spread over a large area, therefore, NJDEP's sampling area would be extensive. Consequently, NJDEP determined that sampling should proceed in a phased manner.

NJDEP determined that the area which was most likely to exhibit contamination from PSE&G activities was the probable point of entry (PPE) from the wastewater "crib" ditch discharge. Phase one sampling took place at three locations within a sedimentation area located directly adjacent to the PPE. Five foot cores of sediments were obtained from each location which were designated as SED1, SED2 and SED3 (MAP 14a and 14b). At each location three cores were collected due to sample volume considerations. The cores were aligned via similar stratigraphic markings that were visible (PHOTO E). The cores were then cut into ten (10) equal segments of six (6) inches which were labeled "A" at the most shallow segment through "J" at the deepest segment.

The analytical results revealed that mercury concentrations in sediments were similar to mercury concentrations detected in background samples within a mile upstream or downsteam of PSE&G. Results were similar for vanadium and zinc. Results for semivolatile contaminants, pesticides and polychlorinated biphenyls revealed some contaminants detected below method detection limits. Background sampling for these parameters indicated that NJDEP's results were at or below background levels. The tables below provides all mercury data from the sampling episode and the background sampling. Maps 8 to 13 provide background sampling results for the other parameters specifically noted. The full list of analytical results and quality assurance review of same can be found at Attachment XXX.

Metals were analyzed by Chemtech Consulting Group of Englewood, New Jersey. Chemtech is approved by the United States Environmental Protection Agency (USEPA) within their Contract Laboratory Program (CLP).

Semivolatiles, pesticides and PCBs were analyzed by Ecology and Environment , Inc. of Lancaster N.Y. Ecology and Environment is an approved CLP lab.

All quality assurance reviews were conducted by USEPA which found that mercury should be considered an estimated value as all results appeared to be biased high. This does not effect NJDEP's decision concerning the data.

Analytical Results for November 9, 1999 NJDEP Sediment Sampling

DEPTH INTERVAL BELOW BENTHIC SURFACE	SED1 location Mercury (ppm)	SED2 location Mercury (ppm)	SED3 location Mercury (ppm)
A (0-6 inches)	3.4	6.0	6.3
B (6-12 inches)	5.3	2.3	3.7
C (12-18 inches)	4.2	2.4	4.5
D (18-24 inches)	2.7	1.3	3.3
E (24-30 inches)	2.3	1.1	3.0
F (30-36 inches)	2.7	1.3	2.3
G (36-42 inches)	1.6	0.93	1.7
H (42-48 inches)	1.9	0.94	1.9
I (48-54 inches)	1.4	0.55	1.6
J (54-60 inches)	1.5	0.53	1.2

"MARPLOT" Background Sediment Sampling

Distance from Site	Mercury Concentration (ppm)
2.5 miles upstream	9.1
2.0 miles upstream	1.1
1.6 miles upstream	2.3
0.0 miles from site	4.3
0.6 miles downstream	4.4
1.2 miles downstream	1.2
1.9 miles downstream	5.2
1.9 miles downstream	5.6

Determine if a contaminant on site displays bioaccumulative properties. Identify all bioaccumulative substances that may impact the food chain.

Both mercury and PCBs have been confirmed at contaminants in soils at the site. It is more likely that mercury will have discharged to surface water based on its widespread presence at the site. PCBs appear to have been confined to an area which is less likely to cause an impact to surface water.

Discuss the potential for surface water contamination, include any additional information concerning the surface water route.

As noted above, sediment sampling was conducted.

Determine if surface water is used for irrigation of commercial food or commercial forage crops, watering of commercial livestock or commercial food preparation.

Neither farming nor husbandry activities take place downstream of the site.

B. SENSITIVE ENVIRONMENTS

Identify all sensitive environments, including wetlands, along the 15 stream-mile pathway from the site:

According to the United States Fish and Wildlife Service Wetlands Inventory maps, a 15 stream-mile pathway would include the Hackensack River, Newark Bay and Kill Van Kull. Those water bodies include estuarine intertidal flats (E2FL), and estuarine intertidal emergent (E2EM) habitats as noted in the table below. (Map 7)

Environment Type	Surface Water Body	Flow (cfs)	Distance from site	Wetland frontage
E2FL	Hackensack River	>10,000	0.5 mile	0.5 mile
E2EM	Hackensack River	>10,000	0.2 mile	0.5 mile
E2FL	Newark Bay	>10,000	2.4 miles	1.0 mile

PART VII: AIR ROUTE

Discuss observed or potential air release.

The site has had occasional releases of black smoke associated with poor combustion of fuel oil during the start-up of generation equipment. The releases have been of brief duration and did not cause NJDEP to require any additional pollution equipment at the facility. (Attachment UU)

Populations that reside within 4 miles of the site.

Distance (miles)	Population
0 - 1/4	1,866
1/4 - 1/2	2,985
1/2 - 1	11,855
1 - 2	42,651
2 - 3	105,497
3 - 4	185,467

(Attachment MMM)

Identify sensitive environments and wetland acreage within 1/2 mile of the site.

Since this site does not pose an air threat, this pathway was not evaluated.

Identify all land resources (commercial agriculture, silviculture or recreation) within 4 miles of the site.

There are no agriculture or silviculture activities within 4 miles of the site. Recreational areas were not discovered within 4 miles of the site. (Attachment DDD)

PART VIII: REMOVAL ACTION AND/OR IEC CONDITION

Discuss conditions which constitute an Immediate Environmental Concern (IEC) or warrant EPA Removal Action consideration (improper storage of incompatible/reactive materials, leaking or unsound containers, inadequate site security, subsurface gas threat).

The site does not represent an immediate environmental concern nor are there conditions which would warrant an EPA Removal Action.

PART IX: ENFORCEMENT ACTIONS

1. **Type of enforcement activity:** Administrative Order
   Issuing agent: Bureau of Air Pollution Control
   Date: April 19, 1974
   Description of violations: Exceedance of smoke opacity criteria.
   Follow-up activity: Compliance was achieved on May 6, 1974

2. **Type of enforcement activity:** Administrative Order
   Issuing agent: Bureau of Air Pollution Control
   Date: August 4, 1976
   Description of violations: Exceedance of smoke opacity criteria.
   Follow-up activity: Compliance was achieved on August 19, 1976

3. **Type of enforcement activity:** Notice of Prosecution
   Issuing agent: Bureau of Air Pollution Control
   Date: February 20, 1981
   Description of violations: Exceedance of smoke opacity criteria.
   Follow-up activity: Compliance was achieved on March 7, 1981

4. **Type of enforcement activity:** Notice of Prosecution
   Issuing agent: Bureau of Air Pollution Control
   Date: July 24, 1981
   Description of violations: Exceedance of smoke opacity criteria.
   Follow-up activity: Compliance was achieved on August 8, 1981

5. **Type of enforcement activity:** Administrative Order
   Issuing agent: Hudson Regional Health Commission
   Date: July 26, 1984
   Description of violations: Exceedance of opacity criteria.
   Follow-up activity: Unknown

6. **Type of enforcement activity:** Administrative Order and Notice of Civil Administrative Penalty Assessment
Issuing agent: Bureau of Air Pollution Control
Date: November 9, 1987
Description of violations: Construction and operation of pollution control equipment without proper authorization.
Follow-up activity: Unknown

7. **Type of enforcement activity:** Administrative Order and Notice of Civil Administrative Penalty Assessment
Issuing agent: Bureau of Air Pollution Control
Date: November 9, 1987
Description of violations: Construction and operation of pollution control equipment without proper authorization, specifically, changing contents of fuel tank #4.
Follow-up activity: Unknown

8. **Type of enforcement activity:** Administrative Order and Notice of Civil Administrative Penalty Assessment
Issuing agent: Bureau of Air Pollution Control
Date: June 7, 1989
Description of violations: Failure to submit documents required under the Toxic Catastrophe Prevention Act.
Follow-up activity: Unknown

9. **Type of enforcement activity:** Administrative Penalty Assessment
Issuing agent: Metro Bureau of Water Enforcement
Date: December 28, 1993
Description of violations: Discharge of iron not in conformance with the NJPDES permit.
Follow-up activity: Unknown (Attachment NNN)

PART X: CONCLUSIONS AND RECOMMENDATIONS

It should be noted that in each instance below where area specific discussion refers to contamination, that contamination is significantly greater than of the background conditions established in Parts IV and V and exceeds NJDEP GWQS or SCC.

Area of Concern (AOC) #1 - Coal Storage

Arsenic, beryllium, copper, lead, mercury, nickel, thallium, vanadium, and zinc exceed NJDEP Soil Cleanup Criteria (SCC) for residential sites. Ground water contaminated with metals is demonstrated at this area in MW-101. A localized area of petroleum contamination in soil and ground water was also observed at this AOC. Further remediation is required for this area.

Area of Concern #2 - Transformer Switchyard

PCB concentrations up to 3,850 ppm in surface soils were detected at portions of this AOC. Sampling within these contaminated areas was predominantly within the first 2 feet of grade. Where deep soil samples were obtained (transformer oil recycling facility), PCB contamination was detected as deep as 16 feet. Since ground water can generally be found within the first 10 feet from grade, and since monitor wells were not constructed in locations to monitor this contamination, it is recommended that monitor wells be constructed at the oil purification unit and at points within the PCB transformer area. It should be noted MW304, which is adjacent to the PCB transformer area, exhibited sheens and petroleum odors noted in its well log but was not sampled for any type of hydrocarbon. It is also recommended that additional soil sampling occur at a closer proximity to the oil purification unit and that deeper soil samples be collected at the PCB transformer area. Further remediation is required for this area.

Area of Concern #3 - Mercury Spill Area

Percent levels of mercury have been detected in soils at this AOC. Both lead and arsenic have also been found as contaminants in subsurface soils from this area. Ground water has repeatedly been found to be impacted by mercury at this AOC. Lead, arsenic and gasoline components are also ground water contaminants at this location. A hydraulic connection between monitor wells and the Hackensack River has been demonstrated. Furthermore, it appears from testpits that the sheetpile barrier does not exist in this area, allowing for unimpeded ground water flow. Therefore a pathway exists for the mercury, lead, arsenic and gasoline components in ground water to discharge to the Hackensack River.

Further remediation is required for this area.

Area of Concern #4 - Wastewater "Crib" (Impoundment)

Soil sampling in this area revealed high concentrations of metals, especially mercury and vanadium. Since this area was used as a settling basin for ash carried in PSE&G's wastewaters, NJDEP concludes that the high metals concentrations found in this area represent metal content which, at least at one time, characterized sludge produced from PSE&G's wastewater treatment. In light of PSE&G's admission that wastewaters from this treatment system discharged to the Hackensack River, and since review of aerial photographs revealed a high turbidity discharge from the PSE&G's wastewater canal to the Hackensack River, NJDEP concludes that the metals-laden waste may have been directly or indirectly discharged to the Hackensack River.

Since the Hackensack River and Newark Bay are designated as an impaired water bodies due to mercury contamination and due to the demonstrated impact to fisheries in these waterbodies, NJDEP undertook sampling of sediments in the Hackensack River relative to this AOC. Sediment analytical results, which included metals and organic parameters, failed to confirm a release to sediments of the Hackensack River from this AOC. Furthermore, because the NJDEP determined that this AOC had the greatest potential to impact the Hackensack River sediments, but the analytical results did not confirm a release, the NJDEP concludes that surface water and sediment sampling relative to other AOCs was not warranted.

NJDEP did not conduct sampling which was meant to assess the ground water to surface water pathway or any actual leachate from sediments. NJDEP's conclusion about further surface water and sediment sampling does not refer to any future techniques which may be developed to address these issues.

Further remediation is required for this AOC.

Area of Concern #5 - Bulk Petroleum AGSTs

Free petroleum product has been discovered in a piezometer installed in this area of concern. Soil sampling was absent in this area. While PSE&G undertook extensive contaminated soil excavation in this area, the floating product would suggest that contamination remains at this AOC. It is suggested that soil sampling and additional monitor wells be installed in this area to assess ground water quality. Further remediation is required for this area.

Area of Concern #6 - Former USTs

Soil samples were obtained from the area of USTs which indicated that contamination was within NJDEP guidelines.

Area of Concern #7 - TGU and Truck Spills

Soil samples indicated that diesel and other petroleum spills have impacted soils and ground water at localized areas associated with the turbine generating units and other areas where activities are not well documented. PSE&G has proposed soil remediation for these areas. Further remediation is required for this area.

Area of Concern #8 - Site-Wide Fill

Sampling conducted by PSE&G in December 1996 and in February and May of 1997 reveal contamination of surface and subsurface soils by mercury, nickel, arsenic, lead and vanadium on a site-wide basis. Sampling of on-site monitor wells revealed site-wide contamination of ground water by metals and localized areas of contamination by organic compounds. Since most of the site is built upon ash fill, a clearly defined natural background area does not exist. Few of the shallow monitor wells were screened in natural geologic material. However, MW903S, which was screened in sands, exhibits ground water quality which is orders of magnitude less contaminated than other monitor wells screened in fill at the site.

Additional Considerations

PSE&G did not address the potential for radioactive materials to have been spilled at the site. A December 28, 1992 diagram of the site depicts a shed which was placarded "radioactive".

No further action at this site is warranted under CERCLA.

Submitted by: Nick Sodano
Title: HSMS II
NJDEP, Division of Publicly Funded Site Remediation,
Office of Site Assessment
Date: July 12, 2000

PART XI: POTENTIALLY RESPONSIBLE PARTIES

NAME	OWNER/OPERATOR/ KNOWN DISCHARGER	CURRENT ADDRESS
Public Service Electric and Gas Company	All of the above	80 Park Plaza Newark, NJ 07101 (201) 430-7000

Pfaffer

United States
Environmental Protection
Agency

Region 2
26 Federal Plaza
New York NY 10007

New Jersey, New York,
Puerto Rico,
Virgin Islands

EPA

NJ0000655

June 30, 1978

Mr. James A. Shissias
General Manager
Environmental Affairs
Public Service Electric and Gas Company
80 Park Place
Newark, New Jersey 07101

Re: Settlement of Adjudicatory Hearing;
Docket Nos.: II-WP-75-22, 23, 24,
27, 28, 29, 30, 31, 45, 46

Dear Mr. Shissias:

Enclosed please find a copy of the executed Settlement Agreement for the above-referenced adjudicatory hearing dockets. You will find enclosed, in addition, a copy of the replacement modified NPDES permit pages for those permits which result from the agreements embodied in the Settlement Agreement. I am forwarding a copy of this letter to Judge Jones, who will issue to all active parties an official certificate noticing the closing of these cases.

The enclosed permit pages are deemed to have superseded the corresponding pages of your original final NPDES permits as of June 27, 1978. Accordingly, you should insert the new pages at the appropriate places in your permit and mark the replaced pages as superseded, so that no confusion will arise.

Please note that the terms and conditions of your modified NPDES permits are effective and enforceable against PSE&G as of June 27, 1978. These new limitations should be noted by the responsible personnel at PSE&G and strictly complied with.

Let me at this time extend my thanks to you and the many other PSE&G employees who have worked with me in our efforts to settle the PSE&G hearings since 1975. It was, by any measure, a herculean task, and one for which all the parties are to be commended. I am hopeful that in the years ahead EPA can look forward to a history of compliance by PSE&G with the limitations and other conditions of its permits.

Sincerely yours,

Henry Glickstern

Henry Glickstern
Attorney
Enforcement Division

NJ0000100

Enclosure

920990354

cc: Helen Lee
Regional Hearing Clerk

Honorable Marvin E. Jones
Administrative Law Judge
United States Environmental
Protection Agency
1735 Baltimore
Kansas City, Missouri 64108

All Active Parties

55

920990356

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION II
26 Federal Plaza
New York, New York 10007

In the Matter of National Pollutant Discharge Elimination System Permits for Public Service Electric and Gas Company, Newark, New Jersey Permit Nos.: NJ 000 0639 (Essex Generating Station), NJ 000 0647 (Hudson Generating Station), NJ 000 0655 (Kearny Generating Station), NJ 000 0621 (Bergen Generating Station), NJ 000 4995 (Mercer Generating Station), NJ 000 0680 (Sewaren Generating Station), NJ 000 0663 (Linden Generating Station), NJ 000 5002 (Burlington Generating Station), NJ 000 5590 (Burlington Generating Station, Unit 105), NJ 000 5622 (Salem Generating Station)	Docket Nos.: II-WP-75-22, 23, 24, 27, 28, 29, 30, 31, 46, 45

SETTLEMENT AGREEMENT

Public Service Electric and Gas Company (hereinafter, "the permittee"), the United States Environmental Protection Agency (EPA), the New Jersey Department of Environmental Protection (NJDEP), the Interstate Sanitation Commission, the New Jersey Board of Public Utility Commissioners, by their attorney, the New Jersey Department of Law and Public Safety, Office of the Attorney General, the Port Authority of New York and New Jersey, the Hackensack Meadowlands Development Commission, the Burlington County Bridge Commission, the Town of Kearny, Kearny, New Jersey, the City of Trenton, Trenton, New Jersey, the City of Jersey City, Jersey City, New Jersey, Sky Service, Inc., and the Public Interest Research Foundation of New Jersey hereby agree as follows with regard to the above-referenced consolidated administrative action:

BJA000101

920990357

(1) The permittee hereby withdraws its request for an Adjudicatory Hearing on all issues, subject to the conditions set forth below.

(2) The parties joined in this proceeding pursuant to 40 C.F.R. §125.36(d) hereby withdraw their requests to be parties to this proceeding, subject to the conditions set forth below.

(3) As to any issues raised by any of the parties to this proceeding relating to the thermal component of the discharge or the cooling water intake system(s) at the facilities to which this settlement agreement relates, including the possible construction of cooling towers as part of a closed cycle cooling system, any of the parties to this proceeding shall have the right to renew and reinstate its request for an Adjudicatory Hearing on such issue(s), with the same force and effect that request originally had, at such time as final determinations are made by EPA either on the permittee's request for the imposition of alternative thermal limitations pursuant to 33 U.S.C. §1326(a) or on the location, design, construction or capacity of cooling water intake structures pursuant to 33 U.S.C. §1326(b), which final determinations any of the parties may deem adverse to its interests.

(4) The National Pollutant Discharge Elimination System (NPDES) permits which are the subject of this proceeding shall be modified as set forth herein:

A. Condition 3 in all permits shall read as follows:

> 3. Notwithstanding Condition 2 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 a toxic pollutant which, as a result of plant operation, is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this permit, the Regional Administrator shall revise or modify the permit in accordance with the toxic effluent standard or prohibition and so notify the permittee.

B. Condition 9 in all permits shall read as follows:

9. GENERAL LIMITATIONS

a. Except as specifically authorized in this permit, the permittee shall not discharge floating solids attributable to plant operations.

C. All required limitations on Total Nickel and Total Zinc (Condition 10.a.(1)) shall be modified by following each numerical limitation by the word "interim**"; the following asterisked footnote comment shall be included:

** Limits to become final one year from the commencement of Sampling Schedule III of Condition 12, unless the permittee demonstrates to EPA, Region II that, based upon treatment plant operating experience, Best Practicable Control Technology Currently Available (BPCTCA) will not achieve such limits.

For all permits which are the subject of this Stipulation, Condition 10.a.(1) shall additionally be modified as set forth in the modified permit pages, attached hereto and made a part hereof.

D. Condition 10.a.(2) (Condition 10.a.(3) for Burlington Generating Station (permit No. NJ 000 5002), Condition 10.a.(1) for Burlington Generating Station, Unit 105 (permit No. NJ 000 5690), and not applicable to Salem Generating Station (permit No. NJ 000 5622) or Essex Generating Station (permit No. NJ 000 0639), shall read as follows:

(2) Concentrations of Free Available Chlorine in waste water discharged from non-recirculating and recirculating cooling water systems shall not exceed an average of 0.2 mg/l* and an instantaneous maximum of 0.5 mg/l*. Neither free available nor total residual chlorine may be discharged from a single individual circulating water system for more than two hours in any one day and not more than a single individual circulating water system may discharge free available or total residual chlorine at any time.

* These limits may be modified if the permittee demonstrates to the Regional Administrator that the generating units to which these limits apply cannot operate at or below this level of chlorination. Such a modification is authorized at 40 C.F.R. §423.12(b)(9).

Condition 10.a. of permit No NJ 000 5622 (Salem Generating Station) shall read as follows:

(2) Concentrations of Free Available Chlorine in waste water discharged at the plant outfall from non-recirculating and recirculating cooling water systems shall not exceed an average of 0.2 mg/l* and an instantaneous maximum of 0.5 mg/l*. Neither free available nor total residual chlorine may be discharged from a single individual circulating water circuit for longer than a thirty minute period, and not more than three times per day. Chlorination of more than three of the twelve circulating water intakes at one time shall not be permitted.

* On March 3, 1976 the permittee submitted an outline of the Biocide Test program to EPA, Region II. This program will run for approximately 12 months. The above limitations may be modified should the results of the program demonstrate to the Regional Administrator that the Salem generating units cannot operate at or below this level of chlorination. Such a modification is authorized at 40 C.F.R. 5423.12(b)(9). The final report will be submitted fifteen months after commencement of commercial operation of Unit #1.

Condition 10.a.(2) for the Essex Generating Station shall read as follows:

(2) Concentrations of Free Available Chlorine in waste water discharged from non-recirculating and recirculating cooling water systems shall not exceed an average of 0.4 mg/l* and an instantaneous maximum of 1.0 mg/l*. Neither free available nor total residual chlorine may be discharged from a single individual circulating water system for more than two hours in any one day and not more than a single individual circulating water system may discharge free available or total residual chlorine at any time.

* These limits may be modified if the permittee demonstrates to the Regional Administrator that the generating units to which these limits apply cannot operate at or below this level of chlorination. Such a modification is authorized at 40 C.F.R. 5423.12(b)(9).

E. The single asterisk following Condition 12 shall read as follows:

* The flow of condenser cooling water discharges shall be monitored and recorded by means of the station log of pump operation; for all other dischages or internal waste streams (only those which are limited), the flow shall be measured and recorded at a frequency coinciding with the most frequently sampled parameter. When applicable, methods, equipment, installation and procedures shall conform to those prescribed in the Water Measurement Manual, U.S. Department of the Interior, Bureau of Reclamation, Washington, D.C. (1976).

F. The monitoring requirement for Free Available Chlorine (Condition 12.a.(1) in all permits) should be changed to read as follows:

Free Available Chlorine	Continuous during chlorination periods

G. For all permits which are the subject of this agreement, Condition 12.a.(2) shall be modified as set forth in the modified permit pages, attached hereto and made a part hereof.

H. For all permits which are the subject of this agreement, Conditions 12.b.(1) and 12.b.(2) shall be modified as set forth in the modified permit pages, attached hereto and made a part hereof.

I. Regarding the Biological Monitoring Schedule, Condition 12.c., the permittee accedes to EPA's determination that biological data submitted to EPA, Region II pursuant to 33 U.S.C. §1326(b) at the time permittee's submittal pursuant to 33 U.S.C. §1326(a) was made is insufficient for the Regional Administrator to make a determination. The permittee agrees to submit an acceptable biological monitoring program by November 1, 1977 and to implement such program by January 1, 1978.

J. For the Salem Generating Station (permit No. NJ 000 5622) a new Condition 12.c.(2) shall be added, to read as follows:

> The permittee shall perform biological monitoring to determine the magnitude of impingement and entrainment and shall first submit its proposed program to the Regional Administrator and the State Certifying Agency for approval by December 1, 1977.

K. The following final effluent limitation and monitoring provision for Oil and Grease shall be inserted in all permits to which this proceeding relates:

In exercise of its right to request the imposition of alternative thermal limitations, the permittee has agreed to submit to the Regional Administrator demonstrations pursuant to 40 C.F.R. §§122.5, 122.7, and 122.9. Such demonstrations shall be submitted in preliminary form not later than September 1, 1978 and shall be supplemented not later than September 1, 1979 for all plants with additional data to be required by EPA. After evaluation of those submittals, the Regional Administrator will determine whether alternative thermal limitations less stringent than those presently required of the permittee should be imposed. Because of its exercise of its rights under §316(a) of the Act, the permittee will be unable to meet final thermal limitations by July 1, 1977.

(1) Bergen Generating Station (NJ 000 0621)

The permittee shall comply with the following pollution abatement schedule:

(a) The permittee shall complete an engineering report and submit it to NJDEP in accordance with State requirements by September 1, 1976.

(b) The permittee shall complete final plans and specifications for the treatment facilities and submit them to NJDEP in accordance with State requirements by June 1, 1977.

(c) The permittee shall submit a report detailing its progress toward completion of the facilities required to comply with Condition 10 by June 15, 1978.

(d) The permittee shall complete construction of the facilities by March 1, 1979.

(e) The permittee shall attain the operational levels required to achieve the limits specified in Condition 10 by July 1, 1979.

(2) Burlington Generating Station (NJ 000 5002)

The permittee shall comply with the following pollution abatement schedule:

(a) The permittee shall complete an engineering report and submit it to NJDEP in accordance with State requirements by September 1, 1976.

(b) The permittee shall complete final plans and specifications for the treatment facilities and submit them to NJDEP in accordance with State requirements by December 1, 1977.

(c) The permittee shall submit a report detailing its progress toward completion of the facilities required to comply with Condition 10 by December 15, 1978.

(d) The permittee shall complete construction of the facilities by September 1, 1979.

(e) The permittee shall attain the operational levels required to achieve the limits specified in Condition 10 by December 1, 1979.

(3) Essex Generating Station (NJ 000 0639)

The permittee shall comply with the following pollution abatement schedule:

(a) The permittee shall complete an engineering report and submit it to NJDEP in accordance with State requirements by September 1, 1976.

(b) The permittee shall complete final plans and specifications for the treatment facilities and submit them to NJDEP in accordance with State requirements by March 1, 1977.

(c) The permittee shall submit a report detailing its progress toward completion of the facilities required to comply with Condition 10 by March 15, 1978.

(d) The permittee shall complete construction of the facilities by December 1, 1978.

(e) The permittee shall attain the operational levels required to achieve the limits specified in Condition 10 by April 1, 1979.

(4) Hudson Generating Station (NJ 000 0647)

The permittee shall comply with the following pollution abatement schedule:

(a) The permittee shall complete an engineering report and submit it to NJDEP in accordance with State requirements by September 1, 1976.

(b) The permittee shall complete final plans and specifications for the treatment facilities and submit them to NJDEP in accordance with State requirements by December 1, 1977.

(c) The permittee shall submit a report detailing its progress toward completion of the facilities required to comply with Condition 10 by December 15, 1978.

(d) The permittee shall complete construction of the facilities by September 1, 1979.

(e) The permittee shall attain the operational levels required to achieve the limits specified in Condition 10 by December 31, 1979.

(5) Kearny Generating Station (NJ 000 0655)

The permittee shall comply with the following pollution abatement schedule:

(a) The permittee shall complete an engineering report and submit it to NJDEP in accordance with State requirements by September 1, 1976.

(b) The permittee shall complete final plans and specifications for the treatment facilities and submit them to NJDEP in accordance with State requirements by May 1, 1977.

(c) The permittee shall submit a report detailing its progress toward completion of the facilities required to comply with Condition 10 by May 15, 1978.

(d) The permittee shall complete construction of the facilities by February 1, 1979.

(e) The permittee shall attain the operational levels required to achieve the limits specified in Condition 10 by June 1, 1979.

(6) Linden Generating Station (NJ 000 0663)

The permittee shall comply with the following pollution abatement schedule:

(a) The permittee shall complete an engineering report and submit it to NJDEP in accordance with State requirements by September 1, 1976.

(b) The permittee shall complete final plans and specifications for the treatment facilities and submit them to NJDEP in accordance with State requirements by December 1, 1977.

(c) The permittee shall submit a report detailing its progress toward completion of the facilities required to comply with Condition 10 by December 15, 1978.

(d) The permittee shall complete construction of the facilities by September 1, 1979.

(e) The permittee shall attain the operational levels required to achieve the limits specified in Condition 10 by December 1, 1979.

(7) Mercer Generating Station (NJ 000 4995)

The permittee shall comply with the following pollution abatement schedule:

(a) The permittee shall complete an engineering report and submit it to NJDEP in accordance with State requirements by September 1, 1976.

(b) The permittee shall complete final plans and specifications for the treatment facilities and submit them to NJDEP in accordance with State requirements by November 1, 1977.

(c) The permittee shall submit a report detailing its progress toward completion of the facilities required to comply with Condition 10 by November 15, 1978.

(d) The permittee shall complete construction of the facilities by August 1, 1979.

(e) The permittee shall attain the operational levels required to achieve the limits specified in Condition 10 by December 1, 1979.

(8) Sewaren Generating Station (NJ 000 0680)

The permittee shall comply with the following pollution abatement schedule:

(a) The permittee shall complete an engineering report and submit it to NJDEP in accordance with State requirements by September 1, 1976.

(b) The permittee shall complete final plans and specifications for the treatment facilities and submit them to NJDEP in accordance with State requirements by August 1, 1977.

(c) The permittee shall submit a report detailing its progress toward completion of the facilities required to comply with Condition 10 by August 15, 1978.

(d) The permittee shall complete construction of the facilities by May 1, 1979

(e) The permittee shall attain the operational levels required to achieve the limits specified in Condition 10 by September 1, 1979.

(9) The permittee shall submit its demonstrations pursuant to 40 C.F.R. §§122.5 and 122.9 to both EPA and NJDEP not later than July 1, 1978 and September 1, 1979, as set forth above, for all its facilities which are the subject of this agreement.

(10) Under the terms of this settlement agreement the permittee shall continue to discharge thermal effluent in such a manner as to meet the initial thermal limitations of its permits at all times. This settlement agreement does not constitute approval by EPA of those thermal limitations authorized to be discharged from the permittee's facilities during the pendency of the §316(a) process for the purpose of the adjudicatory proceedings to which this agreement refers or any other proceeding before any other governmental agency.

(5) NJDEP, by this agreement, exercises its right to recertify the amended permits resulting from this stipulation, pursuant to 33 U.S.C. §1341 and regulations promulgated thereunder at 40 C.F.R. §125.32(e)(8)(vi).

Following a final determination by EPA to amend any limitation as a result of EPA's evaluation of studies submitted to it by the permittee pursuant to Items 4.C., 4.D., 4.F., and 4.J. of this stipulation, NJDEP may, pursuant to 40 C.F.R. §§125.15 and 125.22(b), exercise its right to certify that those limitations are consistent with State Water Quality Standards for a period of 30 (THIRTY) days from the date of their receipt of EPA's final determination. NJDEP's failure to certify or deny certification within said 30 (THIRTY) day period shall be deemed a waiver of such certification rights.

(6) The parties to this proceeding agree that all chemical effluent limitations shall be expressed in terms of both poundage and concentration limitations.

(7) The final NPDES permits issued as a result of this agreement shall have required chemical limitations and monitoring schedules modified in accordance with the revised permit pages, which are attached hereto and made a part hereof. Certain of the modifications contained in the revised permit pages are based on new data submitted by the permittee in amendment to its original permit applications.

(8) This agreement and attendant modifications to the issued NPDES permits to which it refers, as embodied in the attached modified permit pages, shall be in full force and effect from and after the execution of this agreement by the Director, Enforcement Division, EPA Region II, who shall be the last signatory to this agreement.

(9) There are no parties to this agreement other than the parties executing this settlement agreement.

Dated by the last signatory hereto: June 27, 1978

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

By: Christopher J. Dunsky
Office of Water Enforcement

Public Service Electric and Gas Company

By: James A. Shissias, General Manager-Environ. Affairs

New Jersey Department of Environmental Protection

By: J. J. Erickson, Acting Director, Division of Water Resources

920990367

File

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
TRENTON, NEW JERSEY 08625

Arnold Schiffman
Director

March 9, 1981

Mr. James A. Shissias, General Manager
Environmental Affairs
Public Service Electric & Gas Company
80 Park Place
Newark, New Jersey 07101

Re: Mercury Monitoring Wells
PSE&G Kearny Generating Station

Dear Mr. Shissias:

This refers to the meeting of November 18, 1980 at the Kearny PSE&G Plant. Messrs. Decker, Musillo, Venturi and Graham from PSE&G participated, as well as Mr. Thomas of the Roy F. Weston Company, Mr. Andres of NJDEP's Bureau of Ground Water Management and Mr. Pfeiffer of this office.

In accordance with the Consent Order dated September 22, 1980, the location of two new mercury monitoring wells intended to assess the lateral movement of mercury in the water table was agreed upon with no difficulty. These were supposed to have been installed in December 1980, but due to the severe weather, were postponed. According to Mr. Decker, as of February 2, 1980 they have still not been installed, but will be in the very near future. Please provide us with the status of installation.

The Bureau of Ground Water Management has some concerns which were raised by a review of photographs taken during construction of the facilities by PSE&G. These photographs indicate that an old bulkhead 35 feet deep had been removed. It is feared that if the bulkhead had penetrated below the underlying clay layer, then the replacement fill, whether contaminated or not, would act as a wick to the ground water below.

NJDEP therefore requests that two test borings be made precisely where the old bulkhead was previously located to determine (1) if the fill replacing the old bulkhead was contaminated and (2) if the bulkhead has penetrated below the clay layer.

BJA000102

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It was additionally noted that Wells No. 9, 10 and 11 had been damaged; NJDEP recommends that they be repaired, properly sealed and protected against further vehicular damage in accordance with N.J.A.C. 7:9-9.1 et seq.

Please provide the requested information within thirty (30) days from the date of this letter.

If you have any questions, please call Mr. Robert Pfeiffer at (201) 648-2200.

Very truly yours,

Mox Tan

Mox Tan
Supervisor of Enforcement
Region I
Enforcement & Regulatory
Services Element

E40:E69:G25

cc: Mr. Keith Onsdorff
Mr. William Althoff, WQM
Mr. Scott Andres, WQM

RECEIVED

MAY 16 12 38 PM '79

NJ DEPT ENV PROTECTION
DIV WATER RESOURCES
MS&E

May 10, 1979

KEARNY GENERATING STATION

PERMIT NO. NJ0000655

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

PROGRESS REPORT

BJA000106

P79 41 48/57

920990371

May 10, 1979
NJ 0000655

BACKGROUND

As per paragraph M (5) (d) and (e) of the Settlement Agreement (Kearny Generating Station), Public Service Electric and Gas Company (The Company) was required to complete construction of the waste treatment facility by February 1, 1979 and to attain operational levels required to achieve the limits specified in Condition 10 of the NPDES Permit by June 1, 1979. The following is a report on the progress towards meeting these requirements and the events that have delayed completion of the construction of the Kearny Generating Station waste treatment facility.

920990372

May 10, 1979
NJ 0000655

STATUS

The project is presently 95 percent complete, with the completion of construction expected by May 15, 1979 for those components required to process low volume wastes, boiler blowdown and air heater wash water in accordance with Condition 10.a.(1) of the NPDES Permit. The Company will not discharge boiler chemical cleaning wastes at this station after this date until the complete system is operational. The Company will be in compliance with the discharge requirements as of June 1, 1979.

920990373

May 10, 1979
NJ 0000655

OPERATIONAL COMPLIANCE

The present schedule indicates that construction of the waste treatment facility for the Kearny Generating Station will be completed by May 15, 1979 and will be in operational compliance by the EPA-II mandated date of June 1, 1979.

920990374

EXTENUATING CIRCUMSTANCES

The procurement of construction permits has had an adverse effect on the schedule.

The Company began procuring permits for the construction early in 1978 to allow construction to begin in accordance with the original CPM late start date in April of the same year. Application for site plan approval was submitted to the town of Kearny (the Town) on January 18, 1978. Approval was received on March 1, 1978. Application for municipal endorsement was submitted to the Town on March 6, 1978 and the endorsement was received on March 21, 1978. Application for a Stage 2 Construction Permit was submitted to the New Jersey Department of Environmental Protection (NJDEP) on March 31, 1978. This approval was not received until June 1, 1978.

On May 10, 1978 an application for the required local building permits was submitted to the Town. The building permit approval was issued by the Town on May 17, 1978, forty-three days from our initial CPM scheduled late date for start of construction of April 4, 1978.

The ironworker's contract terminated on June 30, 1978 and a strike caused a two week delay in construction of the chemical

920990375

EXTENUATING CIRCUMSTANCES (Cont'd)

treatment building and the waste basin. On July 7, 1978, mercury was uncovered in the excavation for the oil separator effluent and chemical waste sump. This discovery halted the construction of this part of the facility until soil sample analyses were obtained and the data forwarded to NJDEP.

On October 16, 1978 a letter was received from NJDEP authorizing us to proceed with the installation of the oil separator in its originally planned location. This delay of over three months had a direct impact on our schedule for installing this equipment and the reconditioning of its related collecting sump and interconnecting piping.

Three of the five new pumps for our inplant drainage sumps were received in damaged condition. They had to be returned to the manufacturer for reconditioning. Approximately two months elapsed before these pumps were returned to the site in early December. While certain pipe sections were installed during the interim, the work of removing the old pumps, reconditioning the sumps, and installing and connecting the new pumps was delayed for two months due to this situation. An eight week delay in the receipt of basin weir gates from October 21 to December 15, 1978 was also experienced.

920990376

EXTENUATING CIRCUMSTANCES (Cont'd)

The original waste basin contractor was relieved, due to poor performance, on August 6, 1978 and was replaced on August 28, 1978. The loss of time due to poor perfomance and the three week stoppage, precluded the basin coating from being applied prior to December 15, 1978. In order to maintain the minimum specified temperature at which the coating could be applied, the construction of a shelter was required which was completed on January 13, 1979. The basin coating was completed by April 1, 1979.

In summary, the above has had a negative 21 week impact on the completion of construction of the Kearny Generating Station waste treatment facility.

920990377

May 10, 1979
NJ 0000655

EXTRAORDINARY MEASURES

The Company has taken extraordinary measures to minimize the delays in the completion of construction. It has expended over 1100 engineering and design overtime man-hours and expects to expend approximately 100 overtime construction craft man-hours in an attempt to recoup lost time and get back on schedule.

920990378

May 10, 1979
NJ 0000655

CONSIDERATIONS FOR FUTURE PROJECTS

The schedule for the design, construction, and pre-operational checkout was submitted to the U.S. Environmental Protection Agency - Region II in August, 1976.

In the last half of 1977 and early 1978, the State of New Jersey Department of Environmental Protection in accordance with the applicable provision of N.J.A.C. 7:14-2.18 et. seq. as per Docket No. DEP.029-77-05 dated July 26, 1977, formulated procedures for Monitoring, Surveillance and Enforcement Element Application for Stage 2 (Construction) Treatment Works Approval. This procedure requires municipal endorsement of the project prior to submission of adequate information for a Stage 1 and Stage 2 Construction Permit, and a 90 day review process prior to approval. Only after State approval can application be filed at the local and regional level for final construction permits. The original Kearny permit process, which was not affected by the new NJDEP permit procedure, required 61 days from the date of local endorsement to the granting of the local building permit as compared to the following realized in the processing of permits for the other projects:

920990379

CONSIDERATIONS FOR FUTURE PROJECTS (Cont'd)

Sewaren NJ 0000680 - 356 days from the date of initial denial of local endorsement to granting of local construction permit.

Hudson NJ 0000647 - 346 days from date of initial request for local endorsement to granting of local construction permit.

Linden NJ 0000663 - 280 days from date of local endorsement to granting of local building permit.

Mercer NJ 0004995 - 245 days from date of local endorsement to granting of local construction permit.

Burlington NJ 0005002 - 218 days from date of local endorsement to granting of local construction permit.

Bergen NJ 0000621 - 178 days from date of local endorsement to granting of local construction permit.

In view of the present state-prescribed procedure, it is now evident that future projects of this type must allow a greater time interval for obtaining the required permits from the respective agencies. To minimize delays in future projects of this type, the Company would allow a greater time interval for obtaining local, regional, and state permits.

920990380

State of New Jersey

Christine Todd Whitman
Governor

Department of Environmental Protection
Division of Water Quality
P.O. Box 029 Trenton, NJ 08625-0029
FAX: (609) 777-0432

Robert C. Shinn, Jr.
Commissioner

OCT 0 3 2000

Patrick D. Colgan, Vice President
PSEG Fossil, LLC
80 Park Plaza
PO Box 570
Newark, NJ 07102

RE: NJPDES Minor Modification

NJPDES Permit No.:	NJ0000639	NJ0000663	NJ0004995	NJ0117951	NJ0122181
	NJ0000647	NJ0000680	NJ0005002	NJ0110213	NJ0120324
	NJ0000655	NJ0003603	NJ0110795	NJ0120511	NJ0126691

Dear Mr. Colgan:

The Department is in receipt of your request to transfer ownership of the above referenced NJPDES permits from PSE&G Company to PSEG Fossil, LLC.

In accordance with N.J.A.C. 7:14A-16.2, the Department is modifying your NJPDES Permit to reflect this change. All other permit conditions remain unchanged. Enclosed is the revised permit page with the new company name.

Please note that you must notify the Department of Treasury, if you change licensed operators. Notification must be sent to:

Department of Treasury
Division of Revenue
Examination and Licensing Unit
P.O. Box 417
Trenton, New Jersey 08625 – 0417

If you have any questions please feel free to contact Carthen M. Baker of my staff at (609) 984-4428.

Sincerely,

William F. Boehle

William F. Boehle, P.E., Acting Chief
Bureau of Permit Management

c: Bureau of Nonpoint Pollution Control
Bureau of Point Source Permitting Region 1
Bureau of Point Source Permitting Region 2
Northern, Southern, & Central Bureaus of Water Compliance and Enforcement
Administrative Review Unit
Central File – Administrative Records

BJA000110

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920990382

New Jersey Department of Environmental Protection
Bureau of Nonpoint Pollution Control
Division of Water Quality
PO Box 029
Trenton, NJ 08625-0029
(609) 633-7021

AUTHORIZATION TO DISCHARGE
5G2 -General Permit Stormwater Basic

Facility Name: **PI #:** 46809

KEARNY GENERATING STATION

Facility Address: **NJPDES #:** NJG0120511
FOOT OF HACKENSACK AVE
KEARNY, NJ 07032-0000

SIC Code: 4911

Type of Activity: Stowmwater Discharge Minor Modification
Owner:
PSEG POWER LLC
80 PARK PLZ
PO BOX 570
NEWARK, NJ 07102

Operating Entity:
PSEG FOSSIL LLC
80 PARK PLZ
PO BOX 570
NEWARK, NJ 07102

Issuance Date:	Effective Date:	Expiration Date:
05/05/1997	05/05/1997	01/31/2002

Your Request for Authorization under NJPDES General Permit No. NJ0088315 has been approved by the New Jersey Department of Environmental Protection.

Minor Modification to Transfer Ownership **Issued: 09/01/00** **Effective: 09/01/00**

_____ **Date:** 09/01/00

Barry Chalofsky, P.P., Chief
Bureau of Nonpoint Pollution Control
Division of Water Quality
New Jersey Department of Environmental Protection

MF00015972/PI46809

920990383

NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM

The New Jersey Department of Environmental Protection hereby grants you a NJPDES permit for the facility/activity named in this document. This permit is the regulatory mechanism used by the Department to help ensure your discharge will not harm the environment. By complying with the terms and conditions specified, you are assuming an important role in protecting New Jersey's valuable water resources. Your acceptance of this permit is an agreement to conform with all of its provisions when constructing, installing, modifying, or operating any facility for the collection, treatment, or discharge of pollutants to waters of the state. If you have any questions about this document, please feel free to contact the Department representative listed in the permit cover letter. Your cooperation in helping us protect and safeguard our state's environment is appreciated.

Permit Number: NJ0000655

Final: Minor Modification

Permittee:
PSEG FOSSIL LLC
80 PARK PLZ
PO BOX 570
NEWARK, NJ 07102

Co-Permittee:

Property Owner:
PSEG POWER LLC
80 PARK PLZ
PO BOX 570
NEWARK, NJ 07102

Location Of Activity:
KEARNY GENERATING STATION
FOOT OF HACKENSACK AVE
KEARNY, NJ 07032-0000

Authorization(s) Covered Under This Approval	Issuance Date	Effective Date	Expiration Date
B -Industrial Wastewater	08/30/1985	11/01/1985	09/30/1990

MINOR MODIFICATION TO TRANSFER OWNERSHIP ISSUED: 09/01/00 EFFECTIVE: 09/01/00

By Authority of:

920990384

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	85

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Kearny Power and Light	Hackensack Avenue

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG. DIST.
Kearny	NJ	07032	Hudson		

09 COORDINATES LATITUDE	LONGITUDE	BLOCK	LOT
40 44 10.0	74 06 00.0	19A	298

10 DIRECTIONS TO SITE (Starting from nearest public road) N.J.Turnpike South -exit 15E.Exit to Jersey City on Lincoln Highway East, take first exit to Jacobus Ave. Follow to 3rd St.,make right. Follow to end , make left onto Hackensack Avenue.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
Public Service Electric and Gas	80 Park Plaza, T10C

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Newark	NJ	07101	(201)4305858

07 OPERATOR (If known and different from owner)	08 STREET (Business, mailing, residential)
Mr Joseph Musillo	Hackensack Avenue

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
Kearny	NJ	07032	( )

13 TYPE OF OWNERSHIP (Check one)

[X] A. PRIVATE [ ] B. FEDERAL _____ (Agency name) [ ] C. STATE [ ] D. COUNTY [ ] E. MUNICIPAL

[ ] F. OTHER _____ (Specify) [ ] G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

[ ] A. RCRA 3001 DATE RECEIVED: _____ (MONTH DAY YEAR) [ ] B. UNCONTROLLED WASTE (CERCLA 103c) DATE RECEIVED: _____ (MONTH DAY YEAR) [X] C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION

[X] YES DATE 2/23/84 (MONTH DAY YEAR)
[ ] NO

BY (Check all that apply)

[ ] A. EPA [ ] B. EPA CONTRACTOR [X] C. STATE [ ] D. OTHER CONTRACTOR
[ ] E. LOCAL HEALTH OFFICIAL [ ] F. OTHER _____ (Specify)

CONTRACTOR NAME (S) _____

02 SITE STATUS (Check one)

[X] A. ACTIVE [ ] B. INACTIVE [ ] C. UNKNOWN

03 YEARS OF OPERATION

_____ BEGINNING YEAR | _____ ENDING YEAR [ ] UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Oil-contaminated soil found near the turbines possibly contain PCB's, waste oil, and a demineralizer reagent. (Attachments A - D)

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

NJDEP observed oil contaminated soil on-site near the turbines. (Attachment A)

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)

[ ] A. HIGH (Inspection required promptly) [ ] B. MEDIUM (Inspection required) [X] C. LOW (Inspection on time available basis) [ ] D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
Fred Schmitt	NJDEP/BEERA	(609)2921215

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Nicholas C. Rotonda		Yurasek	(201)3277404	2/11/85 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

BJA000114

920990386

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJ	

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES *(Check all that apply)*

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☐ C. SLUDGE
- ☐ D. OTHER _____ *(Specify)*
- ☐ E. SLURRY
- ☒ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE *(Measures of waste quantities must be independent)*

TONS _____
CUBIC YARDS _____
NO. OF DRUMS _____

03 WASTE CHARACTERISTICS *(Check all that apply)*

- ☒ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☐ D. PERSISTENT
- ☒ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE	unknown		
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES	unknown		
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES *(See Appendix for most frequently cited CAS Numbers)*

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OLW	Polychlorinated -				
	biphenyls	1336-36-3			
BAS	Bromate cleaning-				
	compound	999			
	Attachments A - D				

V. FEEDSTOCKS *(See Appendix for CAS Numbers)*

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION *(Cite specific references, e.g. state files, sample analysis, reports)*

NJDEP Files: Attachments A, B, C, and D

EPA FORM 2070-12 (7-81)

920990387

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION — 02 [ ] OBSERVED (DATE: ____) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ 04 NARRATIVE DESCRIPTION

Potential contamination of Hackensack River from contaminated runoff created during spills.

01 [ ] B. SURFACE WATER CONTAMINATION — 02 [ ] OBSERVED (DATE: ____) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ 04 NARRATIVE DESCRIPTION

01 [X] C. CONTAMINATION OF AIR — 02 [ ] OBSERVED (DATE: ____) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ 04 NARRATIVE DESCRIPTION

Poor housekeeping and oil handling practices may result in a fire hazard. (Attachment A)

01 [X] D. FIRE/EXPLOSIVE CONDITIONS — 02 [ ] OBSERVED (DATE: ____) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ 04 NARRATIVE DESCRIPTION

A potential exists if spilled oil contains PCB.

01 [X] E. DIRECT CONTACT — 02 [X] OBSERVED (DATE: 2/23/84) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ 04 NARRATIVE DESCRIPTION

Contaminated soil was noted during 2/23/84 NJDEP inspection. Waste oil has leaked out into soil around turbine during lubricating oil changes. Attachment A)

01 [ ] F. CONTAMINATION OF SOIL — 02 [ ] OBSERVED (DATE: ____) [ ] POTENTIAL [ ] ALLEGED
03 AREA POTENTIALLY AFFECTED: ____ (Acres) 04 NARRATIVE DESCRIPTION

01 [X] G. DRINKING WATER CONTAMINATION — 02 [ ] OBSERVED (DATE: ____) [X] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ 04 NARRATIVE DESCRIPTION

A potential exists if spilled oil contains PCB.

01 [ ] H. WORKER EXPOSURE/INJURY — 02 [ ] OBSERVED (DATE: ____) [ ] POTENTIAL [ ] ALLEGED
03 WORKERS POTENTIALLY AFFECTED: ____ 04 NARRATIVE DESCRIPTION

01 [ ] I. POPULATION EXPOSURE/INJURY — 02 [ ] OBSERVED (DATE: ____) [ ] POTENTIAL [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ____ 04 NARRATIVE DESCRIPTION

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: NJ
02 SITE NUMBER: 85

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums) — 02 ☒ OBSERVED (DATE: 2/23/84) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

Oily soil was noted near jet driven turbines during 2/23/84 inspection. (Attachment A)

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

Violations were found when NJDEP inspected site on 2/23/85. Contamination of soil outside turbine area has occurred due to spills during lubrication changes. NJDEP directed a cleanup on 2/23/84. A bromate cleansing agent is used on occasion for cleaning purposes.

V. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

NJDEP - Attachments A, C, and D
P.S.E.&G. - Attachment B

EPA FORM 2070-12 (7-81)

920990389

920990390

Form DEP-061 C
9/88

09-07-43

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

DUTY OFFICER NOTIFICATION REPORT

09-07-43

CASE NO. 89 (Yr) - 11 (Mo) - 26 (Day) - [illegible] (Time)

DATE 11 (Mo) - 26 (Day) - 89 (Yr) REC'D BY [illegible] TIME 1226

INCIDENT REPORT BY:

Name [illegible] Phone [illegible]

Street

City State

Affiliation/Title USCG [illegible] NY

INCIDENT LOCATION: ___ Transportation ___ Facility ___ Other:

Name (Site): Kearny Generating Plant Phone [illegible]

Street [illegible]

City Kearny County Hudson State Zip Code

Date of Incident: 11 (Mo) - 26 (Day) - 89 (Yr) Time:

IDENTITY OF SUBSTANCE(S) SPILLED, RELEASED, ETC.: ___ Suspected ___ Unknown

Name of Substance(s) [Gas, Liquid, Solid]: DIESEL + KEROSENE

Amount Released/Spilled [illegible] ___ Actual ___ Potential ___ Estimated Substance Contained (Y) N U

Type of Release/Spill: ✓ Terminated ___ Continuous ___ Intermittent Hazardous Material (Y) N U

INCIDENT DESCRIPTION:

___ Fire ___ Explosion ___ Air Rel ✓ Spill ___ MVA ___ Derailment ___ Smoke/Dust

___ Odors ___ Sewage ___ NJPDES ___ Noise ___ Wildlife ___ Illegal Dumping ___ Drums

___ Equip Start-Up/Shutdown, Equip Fail/Upset, etc.

___ Other (specify)

Injuries	Y (N) U	Public Exposure	Y (N) U
Facility Evacuation	Y (N) U	Fire Department at Scene	Y (N) U
Population Evacuation	Y (N) U	Police at Scene	Y (N) U
Potable Water Source	Y (N) U	Assistance Requested	Y (N) U
Contamination of ___ Air ___ Land ✓ Water		Precipitation	Y (N) U
Receiving Water [illegible]		Wind Direction/Speed	/

Location Type: ___ Residential ✓ Industrial ___ Commercial ___ Rural ___ Sensitive Population (Hosp., School, Nurs. Home)

STATUS AT INCIDENT SCENE [illegible]

RESPONSIBLE PARTY: ___ Suspected ___ Unknown

Company Name [illegible] Phone [illegible]

Contact [illegible] Title

Street [illegible]

City [illegible] County [illegible] State Zip Code

OFFICIALS NOTIFIED (Name/Title):

NJSP: / Phone Date/Time / (T/M)

Local Health: / Phone Date/Time / (T/M)

Local Munic: / Phone Date/Time / (T/M)

USEPA: / Phone Date/Time / (T/M)

INCIDENT REFERRED TO:

___ DEQ ___ DWR ___ DSWM ___ DHSM ✓ DHWM ___ DOH ___ DFG ___ DPF ___ DCJ ___ DCR

Region: ___ Northern ✓ Metro ___ Central ___ Southern ___ ER1 ___ ER2 ___ BUST

Name/Affil / Phone Date/Time / (T/M)

Name/Affil / Phone Date/Time / (T/M)

3. Name/Affil / Phone Date/Time / (T/M)

BJA000115

DEP RESPONSE Emergency Immediate Priority (No Response)

COMMENTS [illegible]

920990391

920990392

10-K 1 a39290.htm PUBLIC SERVICE ELECTRIC AND GAS COMPANY

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2004,

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE TRANSITION PERIOD FROM TO .

Commission File Number	Registrants, State of Incorporation, Address, and Telephone Number	I.R.S. Employer Identification No.
001-09120	PUBLIC SERVICE ENTERPRISE GROUP INCORPORATED (A New Jersey Corporation) 80 Park Plaza, P.O. Box 1171 Newark, New Jersey 07101-1171 973 430-7000 http://www.pseg.com	22-2625848
001-00973	PUBLIC SERVICE ELECTRIC AND GAS COMPANY (A New Jersey Corporation) 80 Park Plaza, P.O. Box 570 Newark, New Jersey 07101-0570 973 430-7000 http://www.pseg.com	22-1212800
000-49614	PSEG POWER LLC (A Delaware Limited Liability Company) 80 Park Plaza—T25 Newark, New Jersey 07102-4194 973 430-7000 http://www.pseg.com	22-3663480
000-32503	PSEG ENERGY HOLDINGS LLC (A New Jersey Limited Liability Company)	42-1544079

BCA000129

920990393

80 Park Plaza—T20
Newark, New Jersey 07102-4194
973 456-3581
http://www.pseg.com

Securities registered pursuant to Section 12(b) of the Act:

Registrant	Title of Each Class	Name of Each Exchange On Which Registered
Public Service Enterprise Group Incorporated	Common Stock without par value	New York Stock Exchange

Participating Equity Preference Securities (consisting of a Purchase Contract and a Preferred Trust Security), $50 par value at 10.25%, issued by PSEG Funding Trust I (Registrant) and registered on the New York Stock Exchange.

Trust Originated Preferred Securities (Guaranteed Preferred Beneficial Interest in PSEG's Debentures), $25 par value at 8.75%, issued by PSEG Funding Trust II (Registrant) and registered on the New York Stock Exchange.

Registrant	Title of Each Class	Title of Each Class			Name of Each Exchange On Which Registered
Public Service Electric and Gas Company	***Cumulative Preferred Stock $100 par value Series:***	***First and Refunding Mortgage Bonds:***	***Series***	***Due***	
	4.08%	9½%	BB	2005	
	4.18%	9¼%	CC	2021	
	4.30%	6¾%	UU	2006	New York Stock Exchange
	5.05%	6¾%	VV	2016	
	5.28%	6½%	WW	2007	
		6¾%	YY	2023	
		8%		2037	
		5%		2037	

(Cover continued on next page)

(Cover continued from previous page)

Securities registered pursuant to Section 12(g) of the Act:

Registrant	Title of Class
Public Service Enterprise Group Incorporated	Floating Rate Capital Securities (Guaranteed Preferred Beneficial Interest in PSEG's Debentures), $1,000 par value issued by Enterprise Capital Trust II (Registrant), LIBOR plus 1.22%. Trust Originated Preferred Securities (Guaranteed Preferred Beneficial Interest in PSEG's Debentures), $25 par value at 7.44%, issued by Enterprise Capital Trust I (Registrant). Trust Originated Preferred Securities (Guaranteed Preferred Beneficial Interest in PSEG's Debentures), $25 par value at 7.25%, issued by Enterprise Capital Trust III (Registrant).
Public Service Electric and Gas Company	6.92% Cumulative Preferred Stock $100 par value Medium-Term Notes, Series A Medium-Term Notes, Series B Medium-Term Notes, Series C
PSEG Power LLC	Limited Liability Company Membership Interest
PSEG Energy Holdings LLC	Limited Liability Company Membership Interest

The aggregate market value of the Common Stock of Public Service Enterprise Group Incorporated held by non-affiliates as of June 30, 2004 was $9,313,972,867 based upon the New York Stock Exchange Composite Transaction closing price.

The number of shares outstanding of Public Service Enterprise Group Incorporated's sole class of Common Stock, as of the latest practicable date, was as follows:

Class	Outstanding at January 31, 2005
Common Stock, without par value	238,350,363

PSEG Power LLC and PSEG Energy Holdings LLC are wholly-owned subsidiaries of Public Service Enterprise Group Incorporated and meet the conditions set forth in General Instruction I(1)(a) and (b) of Form 10-K and are filing their respective Annual Reports on Form 10-K with the reduced disclosure format authorized by General Instruction I.

As of January 31, 2005, Public Service Electric and Gas Company had issued and outstanding 132,450,344 shares of Common Stock, without nominal or par value, all of which were privately held, beneficially and of record by Public Service Enterprise Group Incorporated.

Indicate by check mark whether the registrants (1) have filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrants were required to file such reports) and (2) have been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to

this Form 10-K. ☒

Indicate by check mark whether each registrant is an accelerated filer (as defined in Rule 12b-2 of the Exchange Act).

Public Service Enterprise Group Incorporated	Yes ☒	No ☐
Public Service Electric and Gas Company	Yes ☐	No ☒
PSEG Power LLC	Yes ☐	No ☒
PSEG Energy Holdings LLC	Yes ☐	No ☒

DOCUMENTS INCORPORATED BY REFERENCE

Part of Form 10-K of Public Service Enterprise Group Incorporated	Documents Incorporated by Reference
III	Portions of the definitive Proxy Statement for the 2005 Annual Meeting of Stockholders of Public Service Enterprise Group Incorporated, which definitive Proxy Statement is expected to be filed with the Securities and Exchange Commission on or about April 30, 2005, as specified herein.

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FORWARD-LOOKING STATEMENTS

Certain of the matters discussed in this report constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements are subject to risks and uncertainties, which could cause actual results to differ materially from those anticipated. Such statements are based on management's beliefs as well as assumptions made by and information currently available to management. When used herein, the words "will," "anticipate," "intend," "estimate," "believe," "expect," "plan," "hypothetical," "potential," "forecast," "project," variations of such words and similar expressions are intended to identify forward-looking statements. Public Service Enterprise Group Incorporated (PSEG), Public Service Electric and Gas Company (PSE&G), PSEG Power LLC (Power) and PSEG Energy Holdings LLC (Energy Holdings) undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. The following review should not be construed as a complete list of factors that could effect forward-looking statements.

In addition to any assumptions and other factors referred to specifically in connection with such forward-looking statements discussed above, factors that could cause actual results to differ materially from those contemplated in any forward-looking statements include, among others, the following:

PSEG, PSE&G, Power and Energy Holdings

- credit, commodity, interest rate, counterparty and other financial market risks;
- liquidity and the ability to access capital and credit markets and maintain adequate credit ratings;
- adverse or unanticipated weather conditions that significantly impact costs and/or operations, including generation;
- changes in the electric industry, including changes to power pools;
- changes in the number of market participants and the risk profiles of such participants;
- changes in technology that may make power generation, transmission and/or distribution assets less competitive;
- availability of power transmission facilities that impact the ability to deliver output to customers;
- growth in costs and expenses;
- environmental regulations that significantly impact operations;
- changes in rates of return on overall debt and equity markets that could adversely impact the value of pension assets and liabilities and the Nuclear Decommissioning Trust Funds;
- ability to maintain satisfactory regulatory results;
- changes in political conditions, recession, acts of war or terrorism;
- continued availability of insurance coverage at commercially reasonable rates;
- involvement in lawsuits, including liability claims and commercial disputes;

- inability to attract and retain management and other key employees;
- acquisitions, divestitures, mergers, restructurings or strategic initiatives that change PSEG's, PSE&G's, Power's and Energy Holdings' structure;
- business combinations among competitors and major customers;
- general economic conditions, including inflation or deflation;
- regulatory issues that significantly impact operations;
- changes to accounting standards or accounting principles generally accepted in the U.S., which may require adjustments to financial statements;
- changes in tax laws and regulations;
- ability to service debt as a result of any of the aforementioned events;

PSE&G and Energy Holdings

- ability to obtain adequate and timely rate relief;

Power and Energy Holdings

- energy transmission constraints or lack thereof;
- adverse changes in the market for energy, capacity, natural gas, emissions credits, congestion credits and other commodity prices, especially during significant price movements for natural gas and power;
- surplus of energy capacity and excess supply;
- generation operating performance below projected levels;
- substantial competition in the worldwide energy markets;
- inability to effectively manage portfolios of electric generation assets, gas supply contracts and electric and gas supply obligations;
- margin posting requirements, especially during significant price movements for natural gas and power;
- availability of fuel and timely transportation at reasonable prices;
- effects on competitive position of actions involving competitors or major customers;
- changes in product or sourcing mix;
- delays, cost escalations or unsuccessful acquisitions, construction and development;

Power

- changes in regulation and safety and security measures at nuclear facilities;

Energy Holdings

- changes in political regimes in foreign countries;
- international developments negatively impacting business;
- changes in foreign currency exchange rates;
- substandard operating performance or cash flow from investments falling below projected levels, adversely impacting the ability to service project debt;
- deterioration in the credit of lessees and their ability to adequately service lease rentals; and
- ability to realize tax benefits.

Consequently, all of the forward-looking statements made in this report are qualified by these cautionary statements and PSEG, PSE&G, Power and Energy Holdings cannot assure you that the results or developments anticipated by management will be realized, or even if realized, will have the expected consequences to, or effects on, PSEG, PSE&G, Power and Energy Holdings or their respective business prospects, financial condition or results of operations. Undue reliance should not be placed on these forward-looking statements in making any investment decision. Each of PSEG, PSE&G, Power and Energy Holdings expressly disclaims any obligation or undertaking to release publicly any updates or revisions to these forward-looking statements to reflect events or circumstances that occur or arise or are anticipated to occur or arise after the date hereof. In making any investment decision regarding PSEG's, PSE&G's, Power's and Energy Holdings' securities, PSEG, PSE&G, Power and Energy Holdings are not making, and you should not infer, any representation about the likely existence of any particular future set of facts or circumstances. The forward-looking statements contained in this report are intended to qualify for the safe harbor provisions of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended.

WHERE TO FIND MORE INFORMATION

Public Service Enterprise Group Incorporated (PSEG), Public Service Electric and Gas Company (PSE&G), PSEG Power LLC (Power) and PSEG Energy Holdings LLC (Energy Holdings) file annual, quarterly and special reports, proxy statements and other information with the Securities and Exchange Commission (SEC). You may read and copy any document that PSEG, PSE&G, Power and Energy Holdings file at the Public Reference Room of the SEC at 450 Fifth Street, N.W., Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. You may also obtain PSEG's, PSE&G's, Power's and Energy Holdings' filings on the Internet at the SEC's website at www.sec.gov or at PSEG's website, www.pseg.com. PSEG's Common Stock is listed on the New York Stock Exchange under the ticker symbol "PEG." You can obtain information about PSEG, PSE&G, Power and Energy Holdings at the offices of the New York Stock Exchange, 20 Broad Street, New York, New York 10005.

PART I

This combined Annual Report on Form 10-K is separately filed by PSEG, PSE&G, Power and Energy Holdings. Information contained herein relating to any individual company is filed by such company on its own behalf. PSE&G, Power and Energy Holdings each makes representations only as to itself and its subsidiaries and makes no other representations whatsoever as to any other company.

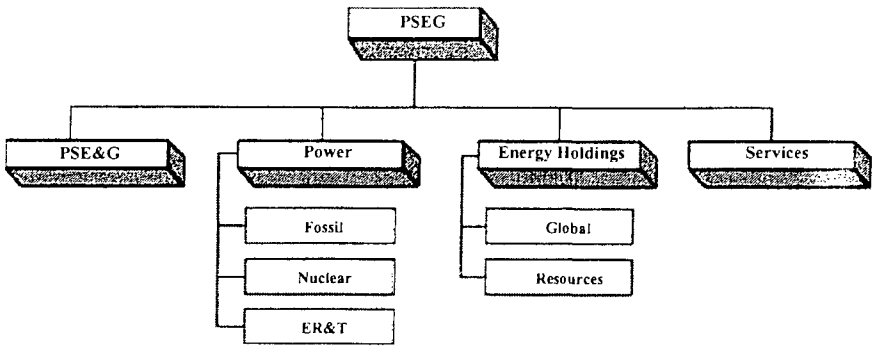
ITEM 1. BUSINESS

GENERAL

PSEG, PSE&G, Power and Energy Holdings

PSEG was incorporated under the laws of the State of New Jersey in 1985 and has its principal executive offices located at 80 Park Plaza, Newark, New Jersey 07102. PSEG is an exempt public utility holding company under the Public Utility Holding Company Act of 1935 (PUHCA).

PSEG has four principal direct wholly-owned subsidiaries: PSE&G, Power, Energy Holdings and PSEG Services Corporation (Services). The following organization chart shows PSEG and its principal subsidiaries, as well as the principal operating subsidiaries of Power: PSEG Fossil LLC (Fossil), PSEG Nuclear LLC (Nuclear) and PSEG Energy Resources & Trade LLC (ER&T); and of Energy Holdings: PSEG Global LLC (Global) and PSEG Resources LLC (Resources):



The regulatory structure that has historically governed the electric and gas utility industries in the United States (U.S.) has changed dramatically in recent years. Deregulation is complete in New Jersey and is complete or underway in certain other states in the Northeast and across the U.S. Actions by state regulators and the Federal Energy Regulatory Commission (FERC) and the implementation of the National Energy Policy Act of 1992 (Energy Policy Act) have afforded power marketers, merchant generators, Exempt Wholesale Generators (EWGs) and utilities the opportunity to compete actively in wholesale energy markets and have allowed consumers the right to choose their energy suppliers. The deregulation and restructuring of the nation's energy markets, the unbundling of energy and related services, the diverse strategies within the industry related to holding, building, buying or selling generation capacity and consolidation within the

industry have had, and are likely to continue to have, a significant effect on PSEG and its subsidiaries, providing them with new opportunities and exposing them to new risks.

As energy markets have changed dramatically in recent years, PSEG and its subsidiaries have transitioned from a vertically integrated utility to an energy company with a diversified business mix. PSEG has realigned its organizational structure to address the competitive environment brought about by the deregulation of the electric generation industry and has evolved from primarily being a state regulated New Jersey utility to operating as a competitive energy company with operations primarily in the Northeastern U.S. and in other select markets. As the competitive portion of PSEG's business has grown, the resulting financial risks and rewards have become greater, causing financial requirements to change and increasing the volatility of earnings and cash flows.

PSEG seeks to reduce future volatility of earnings and cash flows principally by entering into longer-term contracts for material portions of its anticipated energy output. PSEG may also reduce exposure to its international businesses by seeking to opportunistically monetize investments of Energy Holdings that may no longer have a strategic fit. PSEG also expects a gradual decline in earnings from Resources' leveraged leasing business due to the maturation of its investment portfolio. The proceeds from Energy Holdings' asset sales will be used, over time, to reduce debt and equity and to maintain credit requirements. For additional information, see Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A)—Overview of 2004 and Future Outlook.

Recent Developments—Merger Agreement

On December 20, 2004, PSEG entered into an agreement and plan of merger (Merger Agreement) with Exelon Corporation (Exelon), a public utility holding company registered under PUHCA which is headquartered in Chicago, Illinois, whereby PSEG will be merged with and into Exelon (Merger). Under the Merger Agreement, each share of PSEG Common Stock will be converted into 1.225 shares of Exelon Common Stock.

The Merger Agreement has been unanimously approved by both companies' boards of directors. Before the Merger may be completed, various approvals or consents must be obtained from shareholders, FERC, the SEC, the Nuclear Regulatory Commission (NRC) and various utility regulatory, antitrust and other authorities in the U.S. and in foreign jurisdictions. PSEG and Exelon have made some of the regulatory filings to obtain necessary regulatory approvals. It is anticipated that this approval process will be completed and the Merger will close within 12 months to 15 months after the announcement of the Merger Agreement in December 2004.

PSEG is committed to this proposed business combination, however, pending receipt of the various required approvals, which cannot be assured, PSEG intends to remain positioned with a viable stand-alone strategy. For additional information related to the Merger, see Item 3. Legal Proceedings, Item 7. MD&A—Overview of 2004 and Future Outlook—Merger Agreement and Note 25. Merger Agreement of the Notes to the Consolidated Financial Statements (Notes).

PSE&G

PSE&G is a New Jersey corporation, incorporated in 1924, and has principal executive offices at 80 Park Plaza, Newark, New Jersey 07102. PSE&G is an operating public utility company engaged principally in the transmission and distribution of electric energy and gas service in New Jersey. PSE&G, pursuant to an order of the New Jersey Board of Public Utilities (BPU) issued under the provisions of the New Jersey Electric Discount and Energy Competition Act (EDECA), transferred all

of its electric generation facilities, plant, equipment and wholesale power trading contracts to Power and its subsidiaries in August 2000 for approximately $2.8 billion. Also, pursuant to a BPU order, PSE&G transferred its gas supply business, including its inventories and supply contracts, to Power in May 2002 for $183 million. PSE&G continues to own and operate its electric and gas transmission and distribution business. In addition, PSE&G Transition Funding LLC (Transition Funding), a bankruptcy-remote subsidiary of PSE&G, was formed in 1999 for the sole purpose of issuing $2.525 billion principal amount of transition bonds in connection with the securitization of $2.4 billion of PSE&G's stranded costs approved for recovery by the BPU under EDECA.

PSE&G provides electric and gas service in areas of New Jersey in which approximately 5.5 million people, about 70% of the state's population, reside. PSE&G's electric and gas service area is a corridor of approximately 2,600 square miles running diagonally across New Jersey from Bergen County in the northeast to an area below the city of Camden in the southwest. The greater portion of this area is served with both

electricity and gas, but some parts are served with electricity only and other parts with gas only. This heavily populated, commercialized and industrialized territory encompasses most of New Jersey's largest municipalities, including its six largest cities—Newark, Jersey City, Paterson, Elizabeth, Trenton and Camden—in addition to approximately 300 suburban and rural communities. This service territory contains a diversified mix of commerce and industry, including major facilities of many nationally prominent corporations. PSE&G's load requirements are split among residential, commercial and industrial customers, detailed below under customers. PSE&G believes that it has all the franchise rights (including consents) necessary for its electric and gas distribution operations in the territory it serves. Such franchise rights are not exclusive.

PSE&G distributes electric energy and gas to end-use customers within its designated service territory. All electric and gas customers in New Jersey have the ability to choose an electric energy and/or gas supplier. Pursuant to BPU requirements, PSE&G serves as the supplier of last resort for electric and gas customers within its service territory. PSE&G earns no margin on the commodity portion of its electric and gas sales. PSE&G earns margins through the transmission and distribution of electricity and gas. PSE&G's revenues for these services are based upon tariffs approved by the BPU and FERC. The demand for electric energy and gas by PSE&G's customers is affected by customer conservation, economic conditions, weather and other factors not within PSE&G's control.

New Jersey's Electric Distribution Companies (EDCs), including PSE&G, provide two types of Basic Generation Service (BGS). BGS is the default electric supply service for customers who do not choose a third party to source their electric supply requirements. BGS-Fixed Price (FP) provides supply for smaller commercial and residential customers at seasonally-adjusted fixed prices. BGS-FP rates change annually on June 1 and are based on the average BGS price obtained at auction in the current year and two prior years. BGS-Commercial and Industrial Energy Price (CIEP) provides supply for larger customers at hourly PJM Interconnection, L.L.C. (PJM) real-time market prices for a term of 12 months. BGS-FP and BGS-CIEP represent approximately 84% and 16%, respectively, of PSE&G's load.

New Jersey's EDCs jointly procure the supply to meet their BGS obligations through two concurrent auctions authorized by the BPU for New Jersey's total BGS requirement each February. The results of this auction determine which energy suppliers are authorized to supply BGS to New Jersey's EDCs. As a condition of qualification to participate in this auction, energy suppliers are required to agree to execute the BGS Master Service Agreement and provide required security within three days of BPU certification of auction results, in addition to satisfying creditworthiness requirements.

PSE&G's total BGS-FP load is approximately 8,600 megawatts (MW). Approximately one-third of this total load is expected to be auctioned off each year for a three-year term. The current pricing is as follows:

	Term Ending			
	May 2005(a)	**May 2006(b)**	**May 2007(a)**	**May 2008(c)**
Term	**12 months**	**34 months**	**36 months**	**36 months**
Load (MW)	2,840	2,900	2,840	2,840
$ per Kilowatt-hour (kWh)	$ 0.05479	$ 0.05560	$ 0.05515	$ 0.06541

(a) Prices set in the February 2004 BGS auction.

(b) Prices set in the February 2003 BGS auction.

(c) Prices set in the February 2005 BGS auction which become effective on June 1, 2005 when the agreements for the 12-month (May 2005) BGS-FP supply agreements expire.

PSE&G has entered into a full requirements contract through 2007 with Power to meet the supply requirements of PSE&G's gas customers. Power charges PSE&G for gas commodity costs which PSE&G recovers from its customers. Any difference between rates charged by Power under the Basic Gas Supply Service (BGSS) contract and rates charged to its customers are deferred and collected or refunded through adjustments in future rates.

On October 5, 2004, the BPU approved a 3% increase in PSE&G's residential gas commodity charge to cover the higher cost of natural gas. The cost of energy supply, for both gas and electricity, is passed through from PSE&G to its customers.

Competitive Environment

The electric and gas transmission and distribution business has minimal risks from competitors. PSE&G's transmission and distribution business is minimally impacted when customers choose alternate electric or gas suppliers since PSE&G earns its return by providing transmission and distribution service, not by supplying the commodity.

Customers

As of December 31, 2004, PSE&G provided service to approximately 2.1 million electric customers and approximately 1.7 million gas customers, detailed below. In addition to its transmission and distribution business, PSE&G also offers appliance services and repairs to customers throughout its service territory.

	% of Sales	
Customer Type	Electric	Gas
Commercial	30%	60%
Residential	55%	36%
Industrial	15%	4%
Total	100%	100%

Employee Relations

As of December 31, 2004, PSE&G had 6,327 employees. PSE&G has three-year collective bargaining agreements in place with four unions, representing 4,996 employees, which expire on April 30, 2005. New six-year collective bargaining agreements with the four unions were ratified in February 2005. PSE&G believes that it maintains satisfactory relationships with its employees. For additional information related to the Merger, see Item 7. MD&A—Overview of 2004 and Future Outlook—Merger Agreement and Note 25. Merger Agreement of the Notes.

Power

Power is a Delaware limited liability company, formed in 1999, and has its principal executive offices at 80 Park Plaza, Newark, New Jersey 07102. Power is a multi-regional, independent wholesale energy supply company that integrates its generating asset operations with its wholesale energy, fuel supply, energy trading and marketing and risk management functions through three principal direct wholly-owned subsidiaries: Nuclear, Fossil and ER&T.

As of December 31, 2004, Power's generation portfolio consisted of approximately 14,607 MW of installed capacity which is diversified by fuel source and market segment. For additional information, see Item 2. Properties.

Through its operating subsidiaries, Power competes as an independent wholesale electric generating company, primarily in the Northeast U.S. Most of Power's generating assets are strategically located within PJM, one of the nation's largest and most developed energy markets.

In the PJM market, the pricing of energy is based upon the locational marginal price (LMP) set through power providers' bids. Due to transmission constraints, the LMP may be higher in congested areas during peak demand periods reflecting the bid prices of the higher cost units that are dispatched to supply demand. This typically occurs in the eastern portion of the grid, where many of Power's plants are located. These bids are currently capped at $1,000 per megawatt-hour (MWh). In the event that available generation within PJM is insufficient to satisfy demand, PJM may institute emergency purchases from adjoining regions for which there is no price cap.

To reduce volatility in earnings and cash flow, Power's objective is to enter into load serving contracts, firm sales and trading positions sufficient to hedge at least 75% of its anticipated output over an 18-month to 24-month horizon. Power has achieved this objective through a combination of contracts related to the New Jersey BGS auctions, contracts in Pennsylvania and Connecticut and other firm sales and trading positions. Prospectively, Power intends to take advantage of the BGS auctions in New Jersey and other opportunities elsewhere in the market region to continue to meet this objective.

In February 2005, the BPU approved the results of the BGS-FP and CIEP auctions for New Jersey customers. Each bidder was limited to a third of each EDC's total load. Power will continue to be a direct supplier of New Jersey EDCs under both the BGS-FP and CIEP auctions, entering into additional contracts that will begin on June 1, 2005. Power believes that its obligations under these contracts are reasonably balanced by its available supply.

In addition to the electric generation business described above, Power's revenues include gas supply sales under the BGSS contract with PSE&G. Power also generates revenue from the sales of various commodity-based instruments, such as capacity, ancillary services, emission credits and congestion credits, such as firm transmission rights (FTRs).

Fossil

Fossil has an ownership interest in 12 generating stations in New Jersey, one in New York, two in Connecticut, two in Pennsylvania, one in Ohio and one in Indiana. Fossil also has an ownership interest in one hydroelectric-pumped storage facility in New Jersey. For additional information, see Item 2. Properties—Power.

Fossil began operating in New England Power Pool (NEPOOL) with the acquisition of two fossil fuel generating stations in Connecticut in late 2002: the Bridgeport Harbor facility, a 513 MW coal/oil fuel facility and the New Haven Harbor facility, a 448 MW oil/gas facility. Fossil completed construction of the Waterford, Ohio plant, an 821 MW natural gas-fired, combined cycle plant, which began commercial operation in August 2003. In addition, Fossil completed construction of a 1,096 MW natural gas-fired, combined cycle plant in Lawrenceburg, Indiana, which began commercial operation in June 2004. Additionally, the Albany, New York generating station is currently being replaced with a 763 MW combined cycle plant, the Bethlehem Energy Center, which is expected to be operational in the second quarter of 2005. The Linden, New Jersey generating station is currently being replaced with a 1,220 MW natural gas-fired, combined cycle plant, which is expected to be operational in 2006.

Fossil uses coal, natural gas and oil for electric generation. These fuels are purchased through various contracts and in the spot market and represent a significant portion of Power's working capital requirements. Changes in the prices of these fuel sources impact Power's costs and working capital requirements. The majority of Power's fossil generating stations obtain their fuel supply from within the U.S. In order to minimize emissions levels, the Connecticut generating facilities use a specific type of coal, which is obtained from Indonesia through a fixed-price supply contract through 2008 and transportation contracts covering 100% of supply through 2006, 66% in 2007 and 33% in 2008. Fossil believes it can obtain adequate coal, natural gas and oil supplies for its facilities over the next several years. However, issues could arise, such as transportation constraints, which could adversely affect the operation of Fossil's plants. In addition, if the supply of coal from Indonesia or equivalent coal from other sources was not available for the Connecticut facilities, additional material capital expenditures could be required to modify the existing plants to enable their continued operation. For additional information, see Item 2. Properties—Power.

Nuclear

Nuclear has an ownership interest in five nuclear generating units: the Salem Nuclear Generating Station, Units 1 and 2 (Salem 1 and 2), each owned 57.41% by Nuclear and 42.59% by Exelon Generation Company LLC (Exelon Generation); the Hope Creek Nuclear Generating Station (Hope Creek), which is owned 100% by Nuclear; and, the Peach Bottom Atomic Power Station Units 2 and 3 (Peach Bottom 2 and 3), each of which is operated by Exelon Generation and owned 50% by Nuclear. For additional information, see Item 2. Properties—Power.

For a discussion of recent operational issues, see Regulatory Issues—NRC.

Nuclear unit capacity and availability factors for 2004 were as follows:

Unit	Capacity Factor*	Availability Factor
Salem Unit 1	74.9%	77.0%
Salem Unit 2	89.8%	90.5%
Hope Creek	65.6%	69.7%
Peach Bottom Unit 2	91.0%	91.9%
Peach Bottom Unit 3	102.3%	100.0%
Combined Nuclear's Share	81.8%	83.2%

* Maximum Dependable Capacity (MDC) net.
The 2004 capacity factor was adversely affected by extended outages at Salem and Hope Creek during the year. For additional information, see Regulatory Issues—NRC and Item 7. MD&A—Overview of 2004 and Future Outlook—Power. The combined capacity factor for Nuclear in 2003 was approximately 87.7%.

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Nuclear has several long-term purchase contracts with uranium suppliers, converters, enrichers and fabricators to meet the currently projected fuel requirements for the Salem and Hope Creek nuclear power plants. Nuclear has been advised by Exelon Generation that it has similar purchase contracts to satisfy the annual fuel requirements for Peach Bottom. See Note 14. Commitments and Contingent Liabilities of the Notes.

Concurrent with the Merger Agreement, Nuclear entered into an Operating Services Contract (OSC) with Exelon Generation, which commenced on January 17, 2005, relating to the operation of the Salem and Hope Creek nuclear generating stations. The OSC provides that Exelon Generation will provide a chief nuclear officer and other key personnel to oversee daily plant operations at the Hope Creek and Salem nuclear generating stations and to implement the Exelon operating model, which defines practices that Exelon has used to manage its own nuclear performance improvement program. Nuclear will continue as the license holder with exclusive legal authority to operate and maintain the plants, will retain responsibility for management oversight and will have full authority with respect to the marketing of its share of the output from the facilities. Exelon Generation will be entitled to receive reimbursement of its costs in discharging its obligations, an annual operating services fee and incentive fees of up to $12 million annually based on attainment of goals relating to safety, capacity factors of the plants and operation and maintenance expenses. The OSC has a term of two years, subject to earlier termination in certain events upon prior notice, including any termination of the Merger Agreement. In the event of such termination, Exelon Generation will continue to provide services under the OSC for a transition period of at least 180 days and up to two years at the election of Nuclear. This period may be further extended by Nuclear for up to an additional 12 months if Nuclear determines that additional time is necessary to complete required activities during the transition period.

ER&T

ER&T purchases the capacity and energy produced by each of the generation subsidiaries of Power. In conjunction with these purchases, ER&T uses commodity and financial instruments designed to cover estimated commitments for BGS and other bilateral contract agreements. ER&T also markets electricity, capacity, ancillary services and natural gas products on a wholesale basis. ER&T is a fully integrated wholesale energy marketing and trading organization that is active in the long-term and spot wholesale energy markets.

Electric Supply

Power's generation capacity is sourced from a diverse mix of fuels comprised of approximately 45% gas, 24% nuclear, 16% coal, 14% oil and 1% pumped storage. Power's fuel diversity serves to mitigate risks associated with fuel price volatility and market demand cycles. The following table indicates the MWh output of Power's generating stations by fuel type in 2004 and its estimated MWh output by fuel type for 2005.

Generation by Fuel Type	Actual 2004	Estimated 2004(A)
Nuclear:		
New Jersey facilities	34%	38%
Pennsylvania facilities	21%	18%
Fossil:		
Coal:		
New Jersey facilities	12%	14%
Pennsylvania facilities	13%	13%

Connecticut facilities	6%	5%
Oil and Natural Gas:		
New Jersey facilities	13%	7%
New York facilities	—	2%
Connecticut facilities	1%	2%
Midwest facilities	—	1%
Pumped Storage:	—	—
Total	100%	100%

(A) No assurances can be given that actual 2005 output by source will match estimates.

Approximately 86% of Power's generation was from nuclear and coal facilities in 2004, which are typically the most cost-effective fuel types on an operating cost basis. On a per-MWh basis, nuclear power is the most cost-effective and, as a result, Power's profitability is largely affected by the utilization and efficiency of its nuclear facilities. The nuclear facilities are considered "base load" and run continuously when not in shutdown. Older oil and gas-fired facilities are typically the least cost-effective of the fossil fuel burners. Accordingly, these plants are not usually run outside of peak periods of demand when the cost of operation can be justified by the market price. The costs of operating coal and oil burning facilities and new combined cycle gas facilities range between those of the two aforementioned facility types. These plants can be base load plants and/or load following plants.

Gas Supply

As described above, Power sells gas to PSE&G under the BGSS contract. Additionally, based upon availability, Power sells gas to others. About 42% of PSE&G's peak daily gas requirements are provided through firm transportation, which is available every day of the year. The remainder comes from field storage, liquefied natural gas, seasonal purchases, contract peaking supply, propane and refinery and landfill gas. Power purchases gas for its gas operations directly from natural gas producers and marketers. These supplies are transported to New Jersey by four interstate pipeline suppliers.

Power has approximately 1.17 billion cubic-feet-per-day of firm transportation capacity under contract to meet the primary needs of the gas consumers of PSE&G and the needs of its generation fleet. In addition, Power supplements that supply with a total storage capacity of 82 billion cubic feet that provides a maximum of 0.94 billion cubic feet-per-day of gas during the winter season.

Power expects to be able to meet the energy-related demands of its firm natural gas customers. However, the ability to maintain an adequate supply could be affected by several factors not within Power's control, including curtailments of natural gas by its suppliers, the severe weather and the availability of feedstocks for the production of supplements to its natural gas supply. In addition, supply of all types of gas is affected by the nationwide availability of all sources of fuel for energy production.

Competitive Environment

Power's competitors include merchant generators with or without trading capabilities, utilities that have generating capability or have formed generation and/or trading affiliates, aggregators, wholesale power marketers and combinations thereof. These participants compete with Power and one another buying and selling in wholesale power pools, entering into bilateral contracts and/or selling to aggregated retail customers. Power believes that its asset size and location, regional market knowledge and integrated functions allow it to compete effectively in its selected markets.

Actions by developers, including Power, to build new generating stations have led to an overbuild situation in certain markets, including PJM, causing downward pressure on energy and capacity prices. Capacity prices in PJM have recently averaged well below $10 per kW-year as compared to historical levels of more than $25 per kW-year. This overcapacity has decreased capacity revenues and has decreased margins from some of Power's units. Power believes that recent events in PJM, including preliminary discussions with regard to changes in the design of the capacity market, as well as advancement toward reliability-based payments to generators, may lead to changes that could enhance the value of Power's generation fleet in PJM. In addition, Power anticipates that capacity prices in PJM will return to historical levels in the next several years.

The New England market is also overbuilt and is also undergoing changes. The existence of

reliability-based payments, coupled with the anticipated start of locational capacity markets in 2006, could also enhance the value of Power's generation assets in Connecticut.

The Midwest is also expected to have excess capacity over the next several years due to recent additions, which will continue to negatively impact the expected returns of Power's Lawrenceburg and Waterford facilities. The drivers to reduce the excess capacity will be load growth, the retirement of certain plants, particularly older plants of competitors due to the weakened wholesale energy and capacity market, and increased costs associated with higher levels of environmental compliance.

PJM continues to expand. On May 1, 2004, Commonwealth Edison Company joined PJM. On June 17, 2004, FERC issued two orders to allow the operating affiliates of American Electric Power (AEP) Service Corporation to transfer transmission facilities in Virginia to PJM's control and to allow AEP's Kentucky operating company to join PJM. AEP joined PJM effective October 1, 2004. On January 1, 2005, Duquesne Light Company joined PJM. In addition, FERC has conditionally approved Virginia Electric and Power Company's, a unit of Dominion Resources Inc., application to join PJM. These changes bring both opportunities and risks to Power.

Power's businesses are also under competitive pressure due to technological advances in the power industry and increased efficiency in certain energy markets. It is possible that advances in technology, such as distributed generation, will reduce the cost of alternative methods of producing electricity to a level that is competitive with that of most central station electric production.

Additional legislation in the states where Power operates or into which Power sells energy has been introduced within the last few years to further encourage competition at the retail level (often referred to as customer choice or retail access). However, there is a risk if states should decide to turn away from competition and allow regulated utilities to continue to own or reacquire and operate generating stations in a regulated and potentially uneconomical manner. This has already occurred in certain states in which Power does business. The lack of consistent rules in markets outside of PJM can negatively impact the competitiveness of Power's plants. Also, regional inconsistencies in environmental regulations, particularly those related to emissions, have put some of Power's plants which are located in the Northeast, where rules are more stringent, at an economic disadvantage compared to its competitors in certain Midwest states.

Customers

As EWGs, Power's subsidiaries do not directly serve retail customers. Power uses its generation facilities primarily for the production of electricity for sale at the wholesale level. Power's customers consist mainly of wholesale buyers, primarily within PJM, but also in New York, Connecticut and the Midwest. Power is a direct supplier of New Jersey's EDCs. In addition, Power extended into the New England Power Market by securing a three-year, full requirements contract with a Connecticut utility with an expected peak load of 1,150 MW expiring December 31, 2006. In addition, Power has entered into four-year contracts totaling 500 MW with two Pennsylvania utilities, expiring in 2008 and is considering pursuing similar opportunities in other states.

Employee Relations

As of December 31, 2004, Power had 2,935 employees. Power has collective bargaining agreements with three union groups, which expire on April 30, 2005, October 31, 2005 and May 15, 2006, respectively. New six-year collective bargaining agreements were ratified with the three union groups in February 2005. These agreements cover 1,449 employees (701 employees, or approximately 65% of the workforce for Fossil and 748 employees, or approximately 45% of the workforce for Nuclear). Power believes that it maintains satisfactory relationships with its employees. For additional information, see Item 7. MD&A—Overview of 2004 and Future Outlook—Merger Agreement and Note 25. Merger Agreement of the Notes.

Energy Holdings

Energy Holdings is a New Jersey limited liability company and is the successor to PSEG Energy Holdings Inc., which was originally incorporated in 1989. Energy Holdings' principal executive offices are located at 80 Park Plaza, Newark, New Jersey 07102. Energy Holdings has two principal direct wholly-owned subsidiaries, which are also its segments: Global and Resources.

Energy Holdings has pursued investment opportunities in the global energy markets, with Global focusing on the operating segments of the electric industries and Resources primarily making financial investments in these industries. Global and Resources have more than 70 financial and operating investments.

Energy Holdings' portfolio is diversified by number, type and geographic location of investments. As of December 31, 2004, its assets were comprised of the following types:

	As of December 31, 2004
Leveraged Leases (mainly energy-related)	40%
International Electric Distribution Facilities	22%
International Electric Generation Plants	15%
Domestic Electric Generation Plants	12%
Other(1)	8%
Other Passive Financial Investments	3%
Total	100%

(1) Assets not allocated to a special project, including corporate receivables.

The characteristics of each of these investment types are described in more detail below.

Global

Global is a power producer and distributor that owns and operates electric generation and distribution facilities in selected domestic and international markets.

As of December 31, 2004, Global's assets, which include consolidated projects and those accounted for under the equity method, share of project MW and number of customers by region are as follows:

	As of December 31, 2004		
	Assets	MW	Number of Customers
	(Millions)		
Generation:			
North America	$ 841	2,411	N/A
South America	335	397	N/A
Europe	446	662	N/A
India and the Middle East	309	260	40,000
Distribution:			
South America	1,616	N/A	2,900,000
Other:			
Other(1)	597	N/A	N/A
Total	$ 4,144	3,730	2,940,000

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(1) Assets not allocated to a specific project, including corporate receivables and deferred tax assets.

Global realized substantial growth prior to 2002, but has been faced with significant challenges as the international electricity privatization model has become stressed. These challenges include the losses incurred on the abandonment of Global's Argentine investments in 2002, the devaluation of the Brazilian Real and the corresponding decrease in earnings and cash flow from Global's investment in Rio Grande Energia S.A. (RGE), the impact of other foreign currency fluctuations and the failure of certain counterparties to honor contracts with certain of Global's investments. In 2003, Global began to review its portfolio and to seek to opportunistically monetize investments that no longer had a strategic fit. As part of this strategy, in May 2004, Global completed the sale of its majority interest in Carthage Power Company (CPC) in Rades, Tunisia. In December 2004, Global completed the sale of its 50% equity interest in Meiya Power Company Limited (MPC) to BTU Power Company. For additional information relating to these dispositions, see Note 4. Discontinued Operations, Dispositions and Acquisitions of the Notes.

Global has placed its near-term emphasis on maintaining adequate liquidity and improving profitability of currently held investments. While Global still expects certain of its investments in South America to

contribute significantly to its earnings in the future, adverse political and economic risks associated with this region could have a material adverse impact on such investments.

Global has sought to minimize risk in the development and operation of its generation projects by selecting partners with complementary skills, structuring long-term power purchase contracts, arranging financing prior to the commencement of construction and contracting for adequate fuel supply. Historically, Global's operating affiliates have entered into long-term power purchase contracts, thereby selling the electricity produced for the majority of the project life. However, two plants in Texas, Guadalupe (1,000 MW) and Odessa (1,000 MW), and one plant in Poland, Skawina CHP Plant (Skawina) (439 MW), operate as merchant plants without long-term power purchase agreements (PPAs).

Global, to the extent practical, attempts to limit its financial exposure associated with each project and to mitigate development risk, foreign currency exposure, interest rate risk and operating risk, including exposure to fuel costs, through contracts. For additional information related to these risks, see Item 7A. Qualitative and Quantitative Disclosures About Market Risk. In addition, project loan agreements are generally structured on a non-recourse basis. Further, Global generally structures project financings so that a default under one project's loan agreement will have no effect on the loan agreements of other projects or Energy Holdings' debt.

Fuel supply arrangements are designed to balance long-term supply needs with price considerations. Global's project affiliates generally utilize a combination of long-term contracts and spot-market purchases. Global believes that there are adequate fuel supplies for the anticipated needs of its generating projects. Global also believes that transmission access and capacity are sufficient at this time for its generation projects.

See Item 2. Properties—Energy Holdings for discussion of individual investments.

Resources

Resources invests in energy-related financial transactions and manages a diversified portfolio of assets, including leveraged leases, operating leases, leveraged buyout funds, limited partnerships and marketable securities. Established in 1985, Resources has a portfolio of more than 50 separate investments. Based on current market conditions and Energy Holdings' intent to limit capital expenditures, it is unlikely that Resources will make significant additional investments in the near term.

Also, the Demand Side Management (DSM) business, previously managed by PSEG Energy Technologies Inc. (Energy Technologies) was transferred to Resources as of December 31, 2002. DSM revenues are earned principally from monthly payments received from utilities, which represent shared electricity savings from the installation of the energy efficient equipment.

The major components of Resources' investment portfolio as a percent of its total assets as of December 31, 2004 were:

	As of December 31, 2004	
	Amount	% of Resources' Total Assets
	(Millions)	
Leveraged Leases		
Energy-Related		
Foreign	$ 1,341	45%
Domestic	1,177	39%
Real Estate—Domestic	188	6%
Commuter Railcars—Foreign	88	3%
Aircraft—Domestic	57	2%
Total Leveraged Leases	2,851	95%
Limited Partnerships		
Leveraged Buyout Funds	27	1%
Other	14	—
Total Limited Partnerships	41	1%
Marketable Securities	3	—
Other Investments	15	1%
Owned Property	72	2%
Current and Other Assets	17	1%
Total Resources' Assets	$ 2,999	100%

As of December 31, 2004, no single investment represented more than 9% of Resources' total assets.

Leveraged Lease Investments

Resources maintains a portfolio that is designed to provide a fixed rate of return. Income on leveraged leases is recognized by a method which produces a constant rate of return on the outstanding net investment in the lease, net of the related deferred tax liability, in the years in which the net investment is positive. Any gains or losses incurred as a result of a lease termination are recorded as Operating Revenues as these events occur in the ordinary course of business of managing the investment portfolio.

In a leveraged lease, the lessor acquires an asset by obtaining equity representing approximately 15% to 20% of the cost and incurring non-recourse lease debt for the balance. The lessor acquires economic and tax ownership of the asset and then leases it to the lessee for a period of time no greater than 80% of its remaining useful life. As the owner, the lessor is entitled to depreciate the asset under applicable federal and state tax guidelines. In addition, the lessor receives income from lease payments made by the lessee during the term of the lease and from tax receipts associated with interest and

depreciation deductions with respect to the leased property. The ability of Resources to realize these tax benefits is dependent on operating gains generated by its affiliates and allocated pursuant to PSEG's consolidated tax sharing agreement. Lease rental payments are unconditional obligations of the lessee and are set at levels at least sufficient to service the non-recourse lease debt. The lessor is also entitled to any residual value associated with the leased asset at the end of the lease term. An evaluation of the after-tax cash flows to the lessor determines the return on the investment. Under accounting principles generally accepted in the U.S. (GAAP), the lease investment is recorded on a net basis and income is recognized as a constant return on the net unrecovered investment.

Resources has evaluated the lease investments it has made against specific risk factors. The assumed residual-value risk, if any, was analyzed and verified by third parties at the time the investment was made. Credit risk was assessed and, if necessary, mitigated or eliminated through various structuring techniques, such as defeasance mechanisms and letters of credit. Resources has not taken currency risk in its cross-border lease investments. Transactions have been structured with rental payments denominated and payable in U.S. Dollars. Resources, as a passive lessor or investor, has not taken operating risk with respect to the assets it owns, so leveraged leases have been structured with the lessee having an absolute obligation to make rental payments whether or not the related assets operate. The assets subject to lease are an integral element in Resources' overall security and collateral position. If such assets were to be impaired, the rate of return on a

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particular transaction could be affected. The operating characteristics and the business environment in which the assets operate are, therefore, important and must be understood and periodically evaluated. For this reason, Resources retains experts to conduct appraisals on the assets it owns and leases, as necessary.

Resources' ten largest lease investments as of December 31, 2004 were as follows:

Investment	Description	Recorded Investment Balances as of December 31, 2004	% of Resources' Total Assets
		(Millions)	
Reliant Energy MidAtlantic Power LLC	Three generating stations (Keystone, Conemaugh and Shawville)	$ 255	9%
Dynegy Holdings Inc	Two electric generating stations (Danskammer and Roseton)	207	7%
Seminole Electric Cooperative	Seminole Generation Station Unit #2	197	7%
Midwest Generation (Guaranteed by Edison Mission Energy)	Two electric generating stations (Powerton and Joliet)	191	6%
ENECO	Gas distribution network (Netherlands)	155	5%
Merrill Creek	Merrill Creek Reservoir Project	136	5%
Grand Gulf	Nuclear generating station (U.S.)	130	4%
ESG	Electric distribution system (Austria)	126	4%
EZH	Electric generating station (Netherlands)	122	4%
NUON	Gas distribution network (Netherlands)	98	3%
		$ 1,617	54%

For additional information on leases, including credit, tax and accounting risk related to certain lessees, see Item 7. MD&A—Results of Operations—Energy Holdings and Item 7A. Qualitative and Quantitative Disclosures About Market Risk—Credit Risk—Energy Holdings.

Other Subsidiaries

Enterprise Group Development Corporation (EGDC), a commercial real estate property management business, is conducting a controlled exit from the real estate business. Total assets of EGDC as of December 31, 2004 and 2003 were $72 million and $86 million, respectively, and include development land in New Jersey, Maryland and Virginia and an 80% partnership interest in buildings and land in New Jersey.

Competitive Environment

Energy Holdings and its subsidiaries continue to experience substantial competition, both in the U.S. and in international markets. In the U.S., an overbuild in generation facilities has led to a large capacity surplus in several regions, including Texas. This has resulted in reduced operating margins for both

independent power producers and utility generators where the marketplace has been evolving from a rate-regulated structure to a competitive environment. Global anticipates that these matters in Texas may improve in the long term, leading to higher capacity prices and increased utilization of its facilities.

In addition, the Polish government is seeking to renegotiate existing PPAs that it believes to be uncompetitive in the local energy market. With respect to Global's distribution businesses in Chile, Peru and Brazil, these investments are rate-regulated and are exposed to minimal risks from competitors. See Regulatory Issues—International Regulation for additional information.

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Customers

Global has ownership interests in four distribution companies in South America which serve approximately 2.9 million customers and has developed or acquired interests in electric generation facilities which sell energy, capacity and ancillary services to numerous customers through PPAs, as well as into the wholesale market. For additional information, see Item 2. Properties—Energy Holdings.

Employee Relations

As of December 31, 2004, Energy Holdings had 68 employees. Energy Holdings believes that it maintains satisfactory relationships with its employees. For additional information, see Item 7. MD&A—Overview of 2004 and Future Outlook—Merger Agreement and Note 25. Merger Agreement of the Notes.

Services

Services is a New Jersey corporation with its principal executive offices at 80 Park Plaza, Newark, New Jersey 07102. Services provides management and administrative services to PSEG and its subsidiaries. These include accounting, legal, communications, human resources, information technology, treasury and financial, investor relations, stockholder services, real estate, insurance, risk management, tax, library and information services, security, corporate secretarial and certain planning, budgeting and forecasting services. Services charges PSEG and its subsidiaries for the cost of work performed and services provided pursuant to the terms and conditions of intercompany service agreements. As of December 31, 2004, Services had 1,183 employees, including 114 unionized employees. A new six-year collective bargaining agreement with the union group was ratified in February 2005. Services believes that it maintains satisfactory relationships with its employees. For additional information, see Item 7. MD&A—Overview of 2004 and Future Outlook—Merger Agreement and Note 25. Merger Agreement of the Notes.

REGULATORY ISSUES

Federal Regulation

PSEG, PSE&G, Power and Energy Holdings

PUHCA

PSEG has claimed an exemption from regulation by the SEC as a registered holding company under PUHCA, except for Section 9(a)(2) thereof, which relates to the acquisition of 5% or more of the voting securities of an electric or gas utility company. Fossil, Nuclear, certain subsidiaries of Fossil and certain subsidiaries of Energy Holdings with domestic operations are EWGs. In addition, several of Energy Holdings' investments include foreign utility companies (FUCOs) under PUHCA and Qualifying Facilities (QFs) under the Public Utility Regulatory Policies Act of 1978 (PURPA). If PSEG were no longer exempt under PUHCA, or if the subsidiaries' investments failed to maintain their status as EWGs, FUCOs or QFs, PSEG and its subsidiaries may be subject to additional regulation by the SEC with respect to their financing and investing activities, including the amount and type of non-utility investments they would be permitted to make. PSEG does not believe, however, that this would have a material adverse effect on it and its subsidiaries.

Environmental

PSEG and its subsidiaries are also subject to the rules and regulations relating to environmental issues promulgated by the U.S. Environmental Protection Agency (EPA), the U.S. Department of Energy (DOE) and other regulators. For information on environmental regulation, see Environmental Matters.

FERC

FERC is an independent federal agency that regulates the transmission of electric energy and sale of electric energy at wholesale prices in interstate commerce pursuant to the Federal Power Act. FERC also regulates the interstate transportation of, as well as certain wholesale sales of, natural gas pursuant to the Natural Gas Act. Several PSEG subsidiaries including PSE&G, Fossil, Nuclear, ER&T and certain subsidiaries of Fossil and certain subsidiaries of Energy Holdings with domestic operations are public utilities subject to regulation by FERC. FERC's regulation of public utilities is comprehensive and governs such

matters as rates, services, mergers, financings, affiliate transactions, market behaviors and reporting. FERC is also responsible under PURPA for administering PURPA's requirements for QFs.

Power

Reliability Must-Run (RMR) Status in PJM and New England

In September 2004, Power filed notice with PJM that it was considering the retirement of seven generating units in New Jersey, effective December 7, 2004, due to concerns about whether the units were economically viable under the current market structure. The units being considered for retirement are Sewaren 1, 2, 3 and 4, Kearny 7 and 8 and Hudson 1. The sites where the units are located have other electric generating units that would remain in operation. The units that were the subject of the notice have a combined installed capacity of 1,132 MW and a combined book value of $22 million. In response to Power's filed notice, PJM identified certain system reliability concerns associated with the retirements and said it would initiate meetings with Power on these and other issues designed to address these concerns including the compensation necessary to retain the generating units, discussed below.

Although applicable tariff provisions differ from region to region, RMR tariff provisions provide compensation to a generation owner when a unit proposed for retirement must continue operating for reliability purposes. On November 2, 2004, PJM filed with FERC to amend its Tariff and Operating Agreement. This filing sets forth a RMR compensation mechanism for those generation units in PJM that are scheduled to be retired or mothballed but would remain necessary for reliability. Under the proposal, RMR compensation would be in the form of cost-of-service recovery or recovery of going-forward costs plus a fixed cost adder. By order dated January 25, 2005, FERC approved the RMR compensation mechanism set forth in the November 2, 2004 filing. It is anticipated that the Sewaren 1, 2, 3 and 4 and Hudson 1 units will qualify for RMR treatment under these procedures at least through the summer of 2006. In February 2005, Power requested that FERC approve cost-of-service recovery rates for the Sewaren and Hudson units. If approved the rates would provide approximately $23 million and $17 million of annual revenue for the Sewaren and Hudson units, respectively. The Kearny 7 and 8 units, however, require significant repairs before they can be returned to operational status and it is not anticipated that this work can be performed in time for the units to be available for the summer of 2005, which is the only period for which PJM has identified a reliability need for them. As a result, it does not appear that these units will be eligible for RMR treatment under the PJM procedures.

In the New England electricity market, many owners of generation facilities have filed with FERC for RMR treatment under the NEPOOL Open Access Transmission Tariff. If FERC grants RMR status for a generation facility, the owner is entitled to receive cost-of-service treatment for its facility for the duration of an RMR contract that it enters into with ISO New England Inc. On November 17, 2004, PSEG Power Connecticut LLC (Power Connecticut), a Power subsidiary, filed a request for RMR treatment for the New Haven Harbor generation station and Unit 2 at the Bridgeport Harbor generation station. Numerous parties, including the Connecticut Department of Public Utility Control, the Connecticut Attorney General and various consumer groups, opposed this filing. On January 14, 2005, FERC issued an order that accepted the filing, suspended its effectiveness for a nominal period of 60 days, and set certain issues for hearing and settlement procedures. Beginning on January 14, 2005, subject to refund and hearing, Power Connecticut began collecting a monthly fixed payment amount of approximately $1.6 million for reliability services provided by the Bridgeport Harbor Station, Unit 2 and approximately $3.9 million for reliability services performed by the New Haven Harbor Station. By their terms, the RMR contracts expire when a locational installed capacity mechanism becomes effective in New England, which, according to FERC's directives, is expected to occur on January 1, 2006. The first RMR settlement conference was held on February 8, 2005. It is anticipated that settlement discussions will continue for a 60-day period, at a minimum. Power Connecticut believes that it has meritorious

positions with respect to the issues set for hearing and settlement; however, a final outcome of this process cannot be determined at this time. In addition, it is anticipated that certain parties opposing the filing will seek rehearing of the January 14, 2005 order and, following the exhaustion of remedies at FERC, could seek judicial review. Settlement of challenges to the order would result in dismissal by the settling parties. While Power Connecticut does not believe such challenges are likely to be successful, Power Connecticut cannot predict a final outcome at this time.

PSEG, PSE&G and Power

Regional through and out rates (RTOR)

RTOR are separate transmission rates for transactions where electricity originated in one transmission control area was transmitted to a point outside that control area. Both the Midwest Independent Transmission System Operator, Inc. (MISO) and PJM charged RTORs through December 1, 2004. Under an order dated November 18, 2004, FERC approved a new regional rate design which became effective December 1, 2004 for the entire PJM/MISO region. FERC's order also approved the continuation of license plate or concentrated rates with a transitional Seams Elimination Charge/Cost Adjustment/Assignment (SECA) methodology effective from December 1, 2004 through March 2006.

PSEG and its subsidiaries, along with other stakeholders, jointly (1) filed for rehearing of the November 18, 2004 order as it relates to the imposition of a SECA charge, (2) protested the SECA compliance filings and (3) protested and moved to reject the filing of AEP, Commonwealth Edison Company and Dayton Power & Light Company (New PJM Companies) to collect certain lost revenues resulting from the elimination of RTORs between PJM transmission owners. This request for rehearing is currently pending. On November 30, 2004, FERC issued an order that allowed the New PJM Companies to make a filing with FERC to collect their lost revenues. On December 1, 2004, PSE&G began charging its BGS-FP customers for the increase in transmission charges. Consistent with the terms of the BGS-FP contracts, ER&T (and other BGS-FP suppliers) will not receive any revenue associated with a BGS-FP pass-through of the SECA charge until the FERC's November 18, 2004 order is final and non-appealable. In the case of BGS-CIEP, it is anticipated that pass-through of the SECA charge will commence at the time when PJM begins billing of the SECA. Pursuant to a reciprocity provision in its tariff, PJM will not bill for the SECA until MISO commences billing of the SECA, which is estimated to be during March or April 2005. This delay in billing may allow sufficient time for FERC to rule on the protests before the Regional Transmission Organizations (RTOs) begin SECA billing, subject to refund. On February 10, 2005, FERC issued an order that accepted various SECA filings, established December 2004 as the effective date for the SECA rates, made them subject to refund and surcharge, and established hearing procedures to resolve the outstanding factual issues raised in the filings and the responsive pleadings. Depending on the outcome of this proceeding, which cannot be predicted at this time, PSEG, PSE&G and/or Power's results of operations could be negatively affected.

PJM Expansion

For information on PJM expansion, see Item 1. Business—Power—Competitive Environment.

PSEG, PSE&G, Power and Energy Holdings

Market Power

Under FERC regulations, public utilities may sell power at cost-based rates or apply to FERC for authority to sell at market-based rates (MBR). PSE&G, Fossil, Nuclear, ER&T and certain subsidiaries of Fossil, have applied for and received MBR authority from FERC.

On April 14, 2004, FERC issued a final order revising its generation market power screen, which it uses to determine whether power sellers may have the ability to exercise market power. Upon application by a power seller, if FERC determines that a seller is not able to exercise market power

under the screen, and the seller passes other tests, FERC's rules permit the seller to sell power at MBR. Failing FERC's revised screen will not conclusively determine whether an entity has market power, and applicants failing the test will have the ability to demonstrate that they do not possess market power despite the screen failure. The screen includes two separate analyses: (1) an uncommitted pivotal supplier analysis and (2) a market share analysis that is to be prepared on a seasonal basis. FERC eliminated an exemption that previously existed for generators in RTOs and Independent System Operators (ISOs), such as PJM and New York ISO (NYISO), and will require all entities that wish to sell at MBR to comply with the revised market power screen.

Also on April 14, 2004, FERC issued a notice that it will commence a pre-rulemaking to analyze the adequacy of its overall process used to consider whether an applicant is entitled to MBR authority. On July 8, 2004, FERC clarified that MBR applicants may net their supply against load-following or provider of last resort contracts, such as obligations to supply BGS in New Jersey, within the screen.

PSEG Lawrenceburg Energy Company LLC (Lawrenceburg) and PSEG Waterford Energy LLC (Waterford), indirect wholly-owned subsidiaries of Power, filed their respective triennial market power

reviews in August 2004, and received a notice from FERC on November 16, 2004 requesting further information as to whether Lawrenceburg and Waterford comply with FERC's revised market power screen in combination with other generation assets that their affiliates own in PJM. FERC required this new information by February 7, 2005, and Lawrenceburg and Waterford provided the required information by that date. Power is scheduled for its next triennial market power review in 2006. Despite the request for further information, Power continues to believe that the new market power rules as adopted by FERC will not have a material adverse effect on Power's ability to sell at MBR, although no assurances can be given.

On October 6, 2004, FERC issued a Notice of Proposed Rulemaking (NOPR) regarding reporting requirements for changes in status for entities with MBR authority. On February 10, 2005, FERC issued a final rule in this proceeding that requires entities with MBR to report to FERC within 90 days any changes in circumstances that FERC relied upon in granting MBR authority, and requires FERC to reevaluate MBR status following such an update. The final rule may require updates to FERC upon an acquisition, merger, generation retirement, contract execution or any other event that could affect the facts upon which FERC ruled in granting MBR to an entity. PSEG, PSE&G, Power and Energy Holdings cannot predict the impact, if any, that this rule will have on their operations.

Standards of Conduct

Since 1996, FERC has maintained standards of conduct governing the relationship between transmission providers and their domestic wholesale generation affiliates. These rules prevent domestic wholesale generation affiliates of a transmission provider from gaining an anticompetitive advantage over entities that are not affiliated with a transmission provider by obtaining non-public transmission information or preferential treatment from the affiliated transmission provider. In late 2003, FERC extended the applicability of its standards of conduct to gas and electric transmission providers and their energy affiliates. On April 16, 2004, FERC issued an order on rehearing that further revised and clarified its standards of conduct for transmission providers and their energy affiliates. The revised rules apply to the relationship between PSE&G, as an electric transmission provider, and (1) wholesale sales or marketing employees of PSE&G and (2) employees of Power and certain domestic subsidiaries of Energy Holdings. As of December 31, 2004, PSE&G and the applicable subsidiaries of PSEG believe that they are in compliance with FERC's revised standards of conduct, and posted written procedures on FERC's Open Access Same-Time Information System (OASIS) for compliance with FERC's standards of conduct.

RTO Accounting Treatment

On September 16, 2004, FERC issued a NOPR for the purpose of considering standard accounting and financial reporting rules for RTOs, ISOs and transmission owners within RTOs or ISOs. The proposed rule generally focuses on ensuring consistency in the reporting of costs by RTOs, ISOs and transmission owners within RTOs and ISOs. PSE&G, Power and Energy Holdings cannot predict the impact, if any, that these proceedings will have on their respective businesses.

PSE&G

Neptune Complaint Proceeding

On December 21, 2004, Neptune Regional Transmission System, LLC (Neptune) filed a complaint with FERC against PJM. Neptune is a 660 MW merchant transmission project running from central New Jersey to Long Island, with an expected in-service date of June 2007. Neptune is directly

interconnected to the transmission system of FirstEnergy Corporation (FirstEnergy), but upgrades to the PSE&G transmission system will also be required to move power across the grid. In its complaint, Neptune alleges that PJM impermissibly conducted an interconnection re-study triggered by generator retirements in PJM, which had the effect of increasing Neptune's cost exposure for network upgrades from approximately $4 million to approximately $26 million. Neptune is thus seeking to cap its cost exposure for upgrades. On February 10, 2005, FERC granted Neptune's complaint against PJM. In this order, FERC directed PJM to provide an Interconnection Agreement to Neptune within 10 days of the date of the order, which agreement will limit Neptune's cost responsibility for network upgrades to $4.4 million. FERC expressly declined to determine which entity(ies) would be responsible for paying the cost difference between $4.4 million and $26 million, noting that these issues would be addressed once transmission service is requested on the Neptune line. All affected parties in this proceeding are expected to seek rehearing of the FERC order, and may seek judicial

review as well. It is difficult to determine at this time whether PSE&G will be required to bear any portion of the upgrade costs related to the provision of transmission service on the Neptune line.

Lower Delaware Valley (LDV) Complaint Proceeding

On December 30, 2004, Jersey Central Power & Light Company (JCP&L) filed a complaint at the FERC against the other four signatories to the LDV Transmission System Agreement (LDV Agreement), including PSE&G. The LDV Agreement, which governs the construction of, and investment in, certain 500 kilovolt (kV) transmission facilities, was entered into by the parties in 1977 and remains in effect until 2027. JCP&L seeks to terminate its construction obligations under the LDV Agreement and to terminate its payment obligations to the other contract signatories under related agreements. PSE&G receives from JCP&L approximately $2.7 million annually under the LDV Agreement and its related agreements. PSE&G, along with the other LDV Agreement signatories, will file a response opposing the JCP&L complaint. At this time, PSE&G cannot predict the outcome of this proceeding.

NRC

PSEG and Power

Nuclear's operation of nuclear generating facilities is subject to continuous regulation by the NRC, a federal agency established to regulate nuclear activities to ensure protection of public health and safety, as well as the security and protection of the environment. Such regulation involves testing, evaluation and modification of all aspects of plant operation in light of NRC safety and environmental requirements. Continuous demonstrations to the NRC that plant operations meet requirements are also necessary. The NRC has the ultimate authority to determine whether any nuclear generating unit may operate. The current operating licenses of Power's nuclear facilities expire in the years shown below:

Facility	Year
Salem 1	2016
Salem 2	2020
Hope Creek	2026
Peach Bottom 2	2033
Peach Bottom 3	2034

The NRC has issued orders to all nuclear power plants to implement compensatory security measures. Some of the requirements formalize a series of security measures that licensees had taken in response to advisories issued by the NRC in the aftermath of the September 11, 2001 terrorist attacks. Nuclear has evaluated these orders for the Salem, Peach Bottom and Hope Creek facilities and does not expect the cost of implementation of the additional NRC measures to be material. Security measures required to be in place by October 2004 have been completed at Salem, Hope Creek and Peach Bottom.

Reactor Vessel Heads

In 2002, the NRC issued a bulletin requiring that all operators of pressurized water reactor (PWR) nuclear units submit certain information related to potential degradation of reactor vessel heads. In 2003, the NRC issued an order to all operators of PWR units concerning reactor vessel head inspections. The order confirms the previous bulletin's requirements and adds more intrusive and frequent future inspections, which apply to Salem 1 and 2. In September 2002, Nuclear provided the requested

information for Salem to the NRC, and performed inspections in accordance with the NRC order for Salem 1 and 2 during 2004 and 2003, respectively. The reactor heads were determined to be satisfactory for continued safe operation. Nuclear plans to replace Salem 1 and 2 reactor heads in 2005 as a preventive measure, during scheduled refueling outages.

Also in 2003, the NRC issued a bulletin requiring that all operators of PWR nuclear units also perform inspections of the reactor vessel lower head, due to leakage observed at another nuclear unit not owned by Power. Bare metal visual examinations were completed during Salem 2's October 2003 outage and Salem 1's April 2004 outage, and no degradation was observed. Nuclear's Hope Creek nuclear unit and Peach Bottom 2 and 3 are unaffected by either of these bulletins as they are boiling water reactor nuclear units. Power cannot predict what other actions the NRC may take on this issue.

Nuclear Safety Issues

On January 28, 2004, the NRC issued a letter requesting Power to conduct a review of its Salem and Hope Creek nuclear generation facilities to assess the workplace environment for raising and addressing safety issues. Power responded to the letter on February 28, 2004 and had independent assessments of the work environment at both facilities performed. The results of these assessments were provided to the NRC in May 2004. The assessments concluded that Salem and Hope Creek were safe for continued operations, but also identified issues that needed to be addressed.

At an NRC public meeting on June 16, 2004, PSEG outlined its action plan to address these issues, which focused on a safety-conscious work environment, the corrective action program and work management. A letter documenting these plans and commitments was sent to the NRC on June 25, 2004. On July 30, 2004, the NRC provided a letter to PSEG indicating that it had completed its review. The letter indicated that the NRC had not identified any safety violations and that it appeared that the PSEG action plan would address the key findings of both the NRC and PSEG assessments. On August 30, 2004, the NRC provided Power with its mid-cycle performance reviews of Salem and Hope Creek, which detailed the NRC's plan for enhanced oversight related to the work environment. The letter indicated the NRC plans to continue with this heightened oversight until Power has concluded that substantial, sustainable progress has been made, and the NRC has completed a review that confirms Power's conclusions. Under the NRC oversight program, among other things, Power provided the NRC with a report of its progress at a public meeting in December 2004 and began publishing quarterly metrics to demonstrate performance in the fourth quarter of 2004. The next public meeting is scheduled for Spring 2005.

Steam Pipe Failure

On October 24, 2004, Power's Hope Creek nuclear generation facility transitioned to a planned refueling outage following the unit's shutdown on October 10, 2004 due to a steam pipe failure. Power's preliminary investigation revealed equipment and personnel performance issues associated with the shutdown. The NRC also investigated the event and held a public meeting on January 12, 2005. In the meeting, the NRC reviewed its findings, concurring with the root causes and corrective actions that Power had identified. In a letter to the NRC dated January 9, 2005, Power committed to install vibration-monitoring equipment on the "B" Reactor Recirculation Pump prior to the unit's return to service to address pump vibration concerns and replace the pump's shaft during the next refueling outage or any sooner outage of sufficient duration. This commitment was the subject of a January 11, 2005 Confirmatory Action Letter from the NRC. Hope Creek completed its refueling outage and returned to service on January 26, 2005.

For additional information, see Note 14. Commitments and Contingent Liabilities of the Notes.

Other Regulatory Matters

PSEG, PSE&G, Power and Energy Holdings

American Jobs Creation Act of 2004 (Jobs Act)

On October 22, 2004, President Bush signed into law the Jobs Act which provides a phased-in special deduction associated with pre-tax income from certain of PSEG's businesses, including Power's and Global's pre-tax income from domestic generation projects. This special deduction is equal to 3% of qualifying income for years 2005 and 2006, 6% in years 2007 through 2009 and 9% thereafter. This law

is also expected to provide energy tax credits for certain renewable energy projects, including two projects at Global. Additionally, this law provides a one-year window to repatriate earnings from foreign investments and claim a special 85% dividends received tax deduction on such distributions. For additional information see Item 7. MD&A—Critical Accounting Estimates and Note 2. Recent Accounting Standards and Note 17. Income Taxes of the Notes.

PSE&G

Investment Tax Credits (ITC)

For a discussion of an Internal Revenue Service (IRS) proposal that could have a material impact on PSE&G's treatment of ITCs, see Note 14. Commitments and Contingent Liabilities of the Notes.

State Regulation

PSEG, PSE&G, Power and Energy Holdings

The BPU is the regulatory authority that oversees electric and natural gas distribution companies in New Jersey. PSE&G is subject to comprehensive regulation by the BPU including, among other matters, regulation of retail electric and gas distribution rates and service and the issuance and sale of securities. Power's partial ownership of nuclear generating facilities in Pennsylvania, as well as PSE&G's ownership of certain transmission facilities in Pennsylvania, are subject to regulation by the Pennsylvania Public Utility Commission (PPUC), which oversees the electric and natural gas industries in Pennsylvania. PSE&G and Power are also subject to rules and regulations of the New Jersey Department of Environmental Protection (NJDEP) and the New Jersey Department of Transportation (NJDOT).

PSEG is not subject to direct regulation by the BPU, except potentially with respect to certain transfers of control and reporting requirements. Certain subsidiaries of PSEG and Power with operations in New Jersey may be subject to some regulation by the BPU, with respect to energy supply (BGS and BGSS), certain asset sales, transfers of control, reporting requirements and affiliate standards.

Various Power subsidiaries and Energy Holdings' subsidiaries are subject to some state regulation in other individual states where they operate facilities, including New York, Connecticut, Indiana, Ohio, Texas, California, Hawaii and New Hampshire.

PSE&G and Power

BGSS Filing

On April 9, 2004, PSE&G received the Administrative Law Judge's (ALJ) Initial Decision on the two remaining issues from the 2003/2004 BGSS Commodity Charge Proceeding, filed on May 30, 2003. Under the ALJ's Initial Decision, the partial settlement executed and submitted by the parties was approved. Moreover, under the Initial Decision, the New Jersey Rate Payer Advocate's (RPA) proposal to return pipeline refunds previously received by Power in September and November 2002 and the deferred cost balance as of May 1, 2002 retained by Power to commercial and industrial customers was rejected. On August 18, 2004, the BPU approved a stipulation authorizing a refund of approximately $6 million from Power to commercial and industrial customers in September 2004 and gave final approval to the partial settlement.

On May 28, 2004, PSE&G filed its 2004/2005 BGSS commodity charge filing, requesting an increase in its BGSS commodity charges to its residential gas customers of approximately $47 million in annual revenues effective October 1, 2004 or approximately 3% for the class average residential heating customer. A provisional settlement was approved by the BPU on October 5, 2004. Under this settlement, PSE&G's filed BGSS rates became effective on October 5, 2004 on a provisional basis, subject to refund with interest. The BPU also ordered that PSE&G's filing be transferred to the Office of Administrative Law (OAL) for a full review and an Initial Decision. On January 4, 2005, the parties entered into a final settlement, which was approved by the ALJ on January 6, 2005. Under the final settlement, the provisional rates became final and all other issues raised during the proceeding were resolved. The BPU approved the ALJ Decision and Settlement with no changes on February 1, 2005.

PSE&G

Remediation Adjustment Clause (RAC) Filing

PSE&G is currently implementing a program to address potential environmental concerns regarding its former Manufactured Gas Plant (MGP) properties in cooperation with and under the NJDEP. On March 5, 2004, the BPU approved PSE&G's RAC-10 petition, filed in June 2003, for the recovery of approximately $35 million of certain environmental remediation program expenditures for the period August 1, 2001 through July 31, 2002. The Final Decision and Order approved the Stipulation of Settlement from December 16, 2003, without exception.

On April 22, 2004, PSE&G filed its RAC-11 filing with the BPU to recover approximately $36 million of remediation program expenditures for the period from August 1, 2002 through July 31, 2003. Public hearings were held in July 2004. On September 10, 2004, the ALJ issued an Initial Decision recommending approval of the settlement reached between all parties, allowing PSE&G to recover all requested costs. This will result in PSE&G recovering an additional $0.4 million annually in remediation program expenditures. On October 5,

2004, the BPU issued a Final Decision and Order approving, in its entirety, the ALJ's Initial Decision recommending acceptance of the settlement.

Cost Recovery Mechanism

EDECA required that the BPU provide electric and natural gas customers with the opportunity to choose a supplier for some or all electric or natural gas customer account services (CAS). On July 1, 2004, PSE&G filed a petition with the BPU to implement the CAS Cost Recovery Mechanism for both the electric and gas operations. The request petitions the BPU for the approval to recover $4 million of CAS costs and accumulated interest resulting from implementing PSE&G's dual billing for its delivery costs and for the third-party suppliers' commodity charges as a result of customer migration from PSE&G. On September 21, 2004, the case was transferred to the OAL as a contested case.

Deferral Audit

The BPU Energy and Audit Division conducts audits of deferred balances. A draft Deferral Audit—Phase II report relating to the 12-month period ended December 31, 2003 was released by the consultant to the BPU in February 2005. The draft report addressed the Societal Benefits Clause (SBC), Market Transition Charge (MTC) and Non-Utility Generation (NUG) deferred balances.

While the consultant to the BPU found that the deferral balances complied in all material respects with the BPU Orders regarding such deferrals, the consultant noted that the BPU Staff had raised certain questions with respect to the reconciliation method PSE&G employed in calculating the overrecovery of its MTC and other charges during the four-year transition period. PSE&G and the BPU Staff are continuing discussions to resolve these questions and, if a resolution cannot be achieved, a BPU proceeding may be instituted to consider the issues raised.

While PSE&G believes the MTC methodology it used was fully litigated and resolved, without exception, by the BPU and other intervening parties in its previous electric base rate case, deferral audit and deferral proceeding that were approved by the BPU in its order of April 22, 2004, and that such order is non-appealable, PSE&G cannot predict the impact of the outcome of any such proceeding, which could be material.

Levelized Gas Adjustment Clause (LGAC)/BGSS Audit

The BPU's Division of Audit reviews gas costs of utilities in New Jersey on a regular basis. As part of its regular review in November 2004, the BPU commenced an audit of the gas supply costs incurred during the period October 1, 1999 through September 30, 2004. The outcome of the audit cannot be determined at this time.

New Jersey Clean Energy Program

The BPU has approved a new funding requirement for each New Jersey utility applicable to Renewable Energy and Energy Efficiency programs for the years 2005 to 2008. The sum of PSE&G's electric and gas funding requirement for 2005 is $82 million and grows to $137 million in 2008 for a four-year total of $406 million, a liability that has been recorded at discounted present value with an offsetting regulatory asset. The BPU is seeking new program managers for the Energy Efficiency program, currently being administered by the utilities. The transition from the utilities to the program managers is expected to take place in mid-2005.

International Regulation

Energy Holdings

Global

Global's electric distribution facilities in South America and Oman are rate-regulated enterprises. Rates charged to customers are established by government authorities and are viewed by Global as currently sufficient to cover all operating costs and provide a return. Global can give no assurances that future rates will be established at levels sufficient to cover such costs, provide a return on its investments or generate

adequate cash flow to pay principal and interest on its debt or to enable it to comply with the terms of its debt agreements.

Brazil

RGE is regulated by Agencia Nacional de Energia Eletrica (ANEEL), the national regulatory authority. ANEEL's functions include granting and supervising electric utility concessions, approving electricity tariffs, issuing regulations and auditing distribution systems' performance. The rate setting process for Brazilian distribution companies has two components: an annual adjustment for which RGE applies every April which is embedded in the concession contract and a rate case revision, which was last conducted in 2003 and will be repeated again every fifth year.

In 2004, RGE received a 15% tariff increase adjustment based on 2003 annual inflation. In April 2005, RGE will apply for the annual rate case adjustment. Based on 2004 annual inflation and other postponed increases, Global expects that RGE should be granted a 15% tariff increase, although no assurances can be given.

Chile

Distribution companies in Chile, including Chilquinta Energia S.A. (Chilquinta), Sociedad Austral de Electricidad S.A. (SAESA) and other members of the SAESA Group, are subject to rate regulation by the Comision Nacional de Energia (CNE), a national governmental regulatory authority. The Chilean regulatory framework has been in existence since 1982, with rates set every four years based on a model company for each typical concession area. The tariff which distribution companies charge to regulated customers consists of two components: the actual cost of energy purchased plus an additional amount to compensate for the value added in distribution (DVA tariff). The DVA tariff considers allowed losses incurred in the distribution of electricity, administrative costs of providing service to customers, costs of maintaining and operating the distribution systems and an annual return on investment of 6% to 14% over inflation based on the replacement cost of distribution assets. Changes in electricity distribution companies' cost of energy are passed through to customers, with no impact on the distributors' margins (equal to the DVA tariff). Therefore, distributors, including members of the SAESA Group and Chilquinta, should not be affected by changes in the generation sector which affect prices. The most recent tariff adjustments for members of the SAESA Group and Chilquinta occurred in 2004 and have been reviewed and approved by CNE.

Peru

Distribution companies in Peru, including Luz del Sur (LDS), are subject to tariff regulation by the Organismo Supervisor de la Inversión en Energí a, a national governmental regulatory authority. The Peruvian regulatory framework has been in existence since 1992, with tariffs set every four years based on a model company. The tariff which distribution companies charge to regulated customers consists of two components: the actual cost of energy purchased plus an additional amount to compensate for the value added in distribution (DVA tariff). The DVA tariff considers allowed losses incurred in the distribution of electricity, administrative costs of providing service to customers, costs of maintaining and operating the distribution systems and an annual return on investment of 8% to 16%, based on the replacement cost of distribution assets. Changes in electricity distribution companies' cost of energy are passed through to customers, with no impact on the distributors' margins (equal to the DVA tariff). Therefore, distributors, including LDS, should not be affected by changes in the generation sector which affect prices. The most recent tariff adjustments for LDS occurred in 2001 and the 2005 tariff setting process is currently in progress. New tariffs will be applicable as of November 1, 2005

SEGMENT INFORMATION

Financial information with respect to the business segments of PSEG, PSE&G, Power and Energy Holdings is set forth in Note 20. Financial Information by Business Segments of the Notes.

ENVIRONMENTAL MATTERS

PSEG, PSE&G, Power and Energy Holdings

Federal, regional, state and local authorities regulate the environmental impacts of PSEG's operations within the U.S. Laws and regulations particular to the region, country or locality where PSEG's operations are located govern the environmental impacts associated with its foreign operations. For both domestic and foreign operations, areas of regulation may include air quality, water quality, site remediation, land use, waste disposal, aesthetics, impact on global climate and other matters.

To the extent that environmental requirements are more stringent and compliance more costly in certain states where PSEG operates compared to other states that are part of the same market, such rules may impact its ability to compete within that market. Due to evolving environmental regulations, it is difficult to project expected costs of compliance and its impact on competition. For additional information related to environmental matters, see Item 3. Legal Proceedings.

PSEG, Power and Energy Holdings

Air Pollution Control

The Federal Clean Air Act (CAA) and its implementing regulations require controls of emissions from sources of air pollution and also impose record keeping, reporting and permit requirements. Facilities in the U.S. that Power and Energy Holdings operate or in which they have an ownership interest are subject to these Federal requirements, as well as requirements established under state and local air pollution laws applicable where those facilities are located. Except as noted below, capital costs of complying with air pollution control requirements through 2009 are included in Power's estimate of construction expenditures in Item 7. MD&A—Capital Requirements.

Prevention of Significant Deterioration (PSD)/New Source Review (NSR)

For a discussion of PSD/NSR, see Note 14. Commitments and Contingent Liabilities of the Notes.

Sulfur Dioxide (SO_2)/Nitrogen Oxide (NO_x)

To reduce emissions of SO_2, the CAA sets a cap on total SO_2 emissions from affected units and allocates SO_2 allowances (each allowance authorizes the emission of one ton of SO_2) to those units. Generation units with emissions greater than their allocations can obtain allowances from sources that have excess allowances. At this time, Power does not expect to incur material expenditures to continue complying with the SO_2 emissions program.

The EPA has issued regulations (commonly known as the NO_x State Implementation Plan (SIP) Call) requiring the 19 states in the eastern half of the U.S. and the District of Colombia to reduce and cap NO_x emissions from power plant and industrial sources. The NO_x reduction requirements are consistent with requirements already in place in New Jersey, New York, Connecticut and Pennsylvania, and therefore have not had an additional impact on the capacity available from Power's facilities in those states. Power has been implementing measures to reduce NO_x emissions at several of its units (including the installation of selective catalytic reduction systems at the Mercer Generating Station), which should reduce the impact of any further increases to the costs of allowances. New facilities that Power developed in Ohio and Indiana became subject to rules that those states have promulgated to comply

with the NO_x SIP Call. Because the rules in Ohio and Indiana both set aside allowances for allocation to new sources, Power did not experience any material adverse effects from complying with this program in these states.

In 1997, the EPA adopted a new air quality standard for fine particulate matter and a revised air quality standard for ozone. In 2004, the EPA identified and designated areas of the U.S. that fail to meet the revised federal health standard for ozone or the new federal health standard for fine particulates. States are expected to develop regulatory measures necessary to achieve and maintain the health standards, which may require reductions in NO_x and SO_2 emissions. Additional NO_x and SO_2 reductions also may be required to satisfy requirements of an EPA rule protecting visibility in many of the nation's Class 1 (pristine) environmental areas, including most areas near Power's facilities. Power cannot at this time determine whether any costs it may incur to comply with these standards would be material.

In December 2003, the EPA announced its intent to propose an Interstate Air Quality Rule (IAQR) (which was renamed as the Clean Air Interstate Rule (CAIR)) that would identify 29 states and the District of Columbia as contributing significantly to the levels of fine particulates and/or eight-hour ozone in downwind states. New Jersey, New York, Pennsylvania and Connecticut are among the states the EPA lists in the proposed CAIR. Based on state obligations to address interstate transport of pollutants under the CAA, the EPA is proposing a two-phased emission reduction program for SO_2 and NO_x, with Phase 1 beginning in 2010 and Phase 2 beginning in 2015. The EPA is recommending that the program be implemented through a cap-and-trade program, although states are not required to proceed in this manner. States would have to submit plans to the EPA for complying with the rule within 18 months of publication of the notice of final rulemaking. The rule is anticipated to be finalized or re-proposed in 2005. Alternatively, Congress has also expressed interest in providing legislation to further improve air quality. Power cannot at this time determine whether any costs it may incur to comply with these standards would be material.

Carbon Dioxide (CO_2) Emissions

Countries participating in the Kyoto Protocol will be required to achieve material reductions of CO_2 and certain other greenhouse gases between 2008 and 2012. Although the U.S. has not ratified the treaty, Global's assets in Europe will be affected by implementation of the Kyoto Protocol, as adopted through regulations by the European Union (EU). At this time, these regulations are not anticipated to have a material effect on operations at Global's European assets in Poland and Italy.

In 2002, Power announced a voluntary agreement that calls for a December 31, 2005 goal of reducing the annual average CO_2 emission rate of its New Jersey fossil fuel-fired electric generating units by 15% below the 1990 average annual CO_2 emission rate. Fossil also made a $1.5 million payment to the NJDEP to assist in the development of landfill gas projects and has agreed to make an additional payment equal to $1 per ton of CO_2 emitted greater than the 15% goal, up to $1.5 million, if that reduction is not achieved.

PSEG joined the EPA Climate Leaders Program in February 2002. On January 13, 2004, PSEG established a goal of reducing its CO_2 emissions intensity by 18% per MWh generated (nuclear excluded) from 2000 levels by December 31, 2008. The goal would in part be met by re-powering the Bergen, Linden and Albany plants. PSEG has developed an emission inventory and is currently working with the EPA Climate Leaders Program to obtain approval of the inventory management plan.

There continues to be a debate within the U.S. over the direction of change in domestic climate policy. Several states, primarily in the Northeastern U.S., are developing state-specific or regional legislative initiatives to stimulate CO_2 emission reductions in the electric power industry. For example, New York initiated the Regional Greenhouse Gas Initiative (RGGI) in April 2003 and the NJDEP in 2004 proposed amendments to its regulations governing air pollution control that would designate CO_2 as an air contaminant subject to regulation. Currently, in the RGGI, nine Northeastern states are participating in discussions intended to lead to a regional program to cap CO_2 emissions from the electric power sector in the region. The outcome of this initiative cannot be determined at this time; however, adoption of stringent CO_2 emission reduction requirements in the Northeast could materially impact Power's operations.

Other Air Pollutants

The CAA directed the EPA to study potential public health impacts of mercury and nickel hazardous air pollutants (HAP) emitted from electric utility steam generating units. In December 2000, the EPA announced its intent to regulate HAP emissions from coal-fired and oil-fired steam units by requiring Maximum Achievable Control Technology (MACT) standards for these units. The EPA proposed the MACT standards in December 2003 and expects to promulgate a final rule by March 2005, with compliance expected by December 2007. PSEG is evaluating the potential impact of these proposed standards.

The EPA announced in December 2003 its intent to propose alternative rules for addressing emissions of mercury from electric generating sources. The first alternative proposes to regulate mercury through the establishment of a MACT standard applicable on a unit-by-unit basis or through a cap-and-trade program. The MACT standard would establish mercury emission limits for all new and existing units and reduce nationwide mercury emissions by approximately 29% by December 2007. The second option requires the EPA to rescind its December 2000 announcement to regulate mercury as a HAP through a MACT standard and to regulate mercury through a cap-and-trade program to be implemented by changes to the states' individual SIPs that establish decreasing emission caps in 2010 and 2018. As part of the December 15, 2003

proposal, the EPA is also proposing to set nickel MACT emission limits for oil-fired electric steam generating units.

New Jersey and Connecticut have already adopted standards for the reduction of emissions of mercury from coal-fired electric generating units. The Connecticut legislation requires coal-fired power plants in Connecticut to achieve either an emissions limit or a 90% mercury removal efficiency through technology installed to control mercury emissions effective in July 2008. The regulations in New Jersey require coal-fired electric generating units in New Jersey to meet certain emission limits or reduce emissions by 90% by December 15, 2007. Companies that are parties to multi-pollutant reduction agreements are permitted to postpone such reductions on half of their coal-fired electric generating capacity until December 15, 2012. Power has a multi-pollutant reduction agreement with the NJDEP as a result of a consent decree that resolved issues arising out of the PSD and NSR air pollution control programs at the Hudson, Mercer and Bergen facilities. Substantial uncertainty exists regarding the feasibility of achieving the reductions in mercury emissions required by the New Jersey regulations and Connecticut statute; however, the costs of technology believed to be capable of meeting these emissions limits at Power's coal-fired unit in Connecticut by July 2008 and at its Mercer Station by December 15, 2007 are included in Power's capital expenditure forecast.

Water Pollution Control

The Federal Water Pollution Control Act (FWPCA) prohibits the discharge of pollutants to waters of the U.S. from point sources, except pursuant to a National Pollutant Discharge Elimination System (NPDES) permit issued by the EPA or by a state under a federally authorized state program. The FWPCA authorizes the imposition of technology-based and water quality-based effluent limits to regulate the discharge of pollutants into surface waters and ground waters. The EPA has delegated authority to a number of state agencies, including the NJDEP, to administer the NPDES program through state acts. The New Jersey Water Pollution Control Act (NJWPCA) authorizes the NJDEP to implement regulations and to administer the NPDES program with EPA oversight, and to issue and enforce New Jersey Pollutant Discharge Elimination System (NJPDES) permits. Power and Energy Holdings also have ownership interests in domestic facilities in other jurisdictions that have their own laws and implement regulations to control discharges to their surface waters and ground waters that directly govern Power's or Energy Holdings' facilities in these jurisdictions.

The EPA is conducting a rulemaking under FWPCA Section 316(b), which requires that cooling water intake structures reflect the best technology available (BTA) for minimizing "adverse environmental impact." Phase I of the rule covering new facilities became effective on January 17, 2002. None of the projects that Power currently has under construction or in development is subject to the Phase I rule. The Phase II rule covering large existing power plants became effective on September 7, 2004. The regulations provide the following five alternative methods by which a facility can demonstrate that it complies with the requirement for BTA for minimizing adverse environmental impacts associated with cooling water intake structures: (1) reduce flow commensurate with a closed-cycle system or reduce intake velocity; (2) meet applicable performance standards for reduction of entrainment and impingement mortality through the use of the existing design, construction, operational or restoration measures; (3) meet applicable performance standards through a combination of existing and proposed design, construction, operational or restoration measures; (4) installation of a design and construction technology specified by the regulation or pre-approved by the agency; and (5) a site-specific determination that the cost to the facility to meet the performance standards is "significantly greater" than either (a) the costs that the EPA estimated for that type of facility or (b) the environmental benefits of complying with the performance standards. Although the rule applies to all of Power's electric generating units that use surface waters for once-through cooling purposes, the impact of the rule to Power and the rule's ability to withstand legal challenges cannot be determined at this time. If

application of the Phase II rules by the states requires the retrofitting of cooling water intake structures at Power's existing facilities, additional material capital expenditures could be required to modify the existing plants to enable their continued operations. Several environmental groups, the Attorneys General of six Northeastern states, the Utility Water Act Group and several of its members, including Power, are parties to litigation challenging the Phase II rule. The case will be heard in the U.S. Court of Appeals for the Second Circuit. The states and environmental groups have indicated that they intend to challenge the use of restoration and other measures to satisfy performance standards as well as a state's ability to make site-specific determinations based on cost tests. A decision issued in February 2004 by the Second Circuit in litigation challenging the Phase I rule (new facilities) struck down that rule's provision allowing for the use of

restoration measures to satisfy the specified performance standards. An unfavorable decision in the Phase II litigation could have a material impact on Power's ability to renew its NJPDES permits at its larger once-through cooled plants without significant upgrades to their existing intake structures and cooling systems.

PSE&G and Power

Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and New Jersey Spill Compensation and Control Act (Spill Act)

CERCLA and the Spill Act authorize Federal and state trustees for natural resources to assess damages against persons who have discharged a hazardous substance, causing an injury to natural resources. Pursuant to the Spill Act, the NJDEP requires persons conducting remediation to characterize injuries to natural resources and to address those injuries through restoration or damages. The NJDEP adopted regulations concerning site investigation and remediation that require an ecological evaluation of potential damages to natural resources in connection with an environmental investigation of contaminated sites. In 2003, the NJDEP issued a policy directive memorializing its efforts to recover natural resource damages and its intent to continue to pursue the recovery of natural resource damages. The NJDEP also issued guidance to assist parties in calculating their natural resource damage liability for settlement purposes, but has stated that those calculations are applicable only for those parties that volunteer to settle a claim for natural resource damages before a claim is asserted by the NJDEP. PSE&G and Power cannot assess the magnitude of the potential financial impact of this regulatory change. See Note 14. Commitments and Contingent Liabilities of the Notes for additional information.

Because of the nature of PSE&G's and Power's respective businesses, including the production and delivery of electricity, the distribution of gas and, formerly, the manufacture of gas, various by-products and substances are or were produced or handled that contain constituents classified by Federal and state authorities as hazardous. For discussions of these hazardous substance issues and a discussion of potential liability for remedial action regarding the Passaic River, see Note 14. Commitments and Contingent Liabilities of the Notes. For a discussion of remediation/clean-up actions involving PSE&G and Power, see Item 3. Legal Proceedings.

Uranium Enrichment Decontamination and Decommissioning Fund

In accordance with the Energy Policy Act, domestic entities that own nuclear generating stations are required to pay into a decontamination and decommissioning fund, based on their past purchases of U.S. government enrichment services. Since these amounts are being collected from PSE&G's customers over a period of 15 years, this obligation remained with PSE&G following the generation asset transfer to Power in 2000. PSE&G's obligation for the nuclear generating stations in which it had an interest was $75 million (adjusted for inflation). As of December 31, 2004, PSE&G had paid $64 million, resulting in a balance due of $11 million. As of December 31, 2004, Power also had a balance due of approximately $2 million, which related to interests in certain nuclear units it purchased. These amounts are payable to the DOE in annual installments through October 2006.

PSE&G and Power

Permit Renewals

In June 2001, the NJDEP issued a renewed NJPDES permit for Salem, expiring in July 2006, allowing for the continued operation of Salem with its existing cooling water system. A renewal

application prepared in accordance with the new Phase II 316(b) rule will be filed by February 1, 2006. Recently published regulations pursuant to Section 316(b) of the FWPCA require existing facilities, including Salem, to demonstrate that their cooling water intake structures reflect the BTA for minimizing adverse environmental impact through one of several options including the reduction of cooling water intake commensurate with closed cycle cooling. For additional information, see Environmental Matters—Water Pollution Control. The NJDEP, in anticipation of the company's application to renew the permit for Salem, has advised PSEG that it strongly recommends that cooling water intake flow at the Salem facility be reduced commensurate with closed cycle cooling. The installation of structures at the Salem facility to reduce cooling water intake flow commensurate with closed cycle cooling would result in material costs of compliance for Power. Power is

evaluating its ability to demonstrate compliance with the new Phase II 316(b) rule through all applicable options available under the new rule.

The consultant hired by the NJDEP to review the NJPDES permit renewal application and studies filed in the 1980s for the Hudson generating station recommended that the Hudson generating station be retrofitted to operate with closed cycle cooling to address alleged adverse impacts associated with the thermal discharge and intake structure. Power proposed certain modifications to the intake structure in filings with the NJDEP in 1998. In the fourth quarter of 2004, Power received a modified NJPDES permit for its Hudson generating station that required the modification to the intake structures that Power had proposed consistent with the timing of upgrades of air pollution control technology pursuant to the consent decree that resolved issues related to NSR and PSD for Hudson Unit 2, but did not require Power to retrofit the station to operate with closed cycle cooling.

The NJDEP has advised Power that it is reviewing a NJPDES permit renewal application and recent studies for the Mercer station and, in connection with these filings, will be re-examining the effects of the Mercer station's cooling water system pursuant to FWPCA. Power cannot predict the timing and/or outcome of NJDEP's review. An unfavorable outcome could require significant modifications to the Mercer station's cooling water system at material cost.

Title V Operating Permits

Title V of the CAA and Sub-Chapter 22 of the New Jersey Administrative Code require that certain air emissions sources obtain Operating Permits issued by NJDEP. All Power generating facilities are required to be included in Title V Operating Permits. The costs of compliance associated with any new requirements imposed by these permits are not known at this time, but may be material.

Nuclear Fuel Disposal

For a discussion of nuclear fuel disposal, see Note 14. Commitments and Contingent Liabilities of the Notes.

Low Level Radioactive Waste (LLRW)

As a by-product of their operations, nuclear generation units produce LLRW. Such wastes include paper, plastics, protective clothing, water purification materials and other materials. LLRW materials are accumulated on site and disposed of at licensed permanent disposal facilities. New Jersey, Connecticut and South Carolina have formed the Atlantic Compact, which gives New Jersey nuclear generators, including Power, continued access to the Barnwell LLRW disposal facility which is owned by South Carolina. Power believes that the Atlantic Compact will provide for adequate LLRW disposal for Salem and Hope Creek through the end of their current licenses, although no assurances can be given. Both Power and Exelon have on-site LLRW storage facilities for Salem, Hope Creek and Peach Bottom, which have the capacity for at least five years of temporary storage for each facility.

PSE&G

MGP Remediation Program

For information regarding PSE&G's MGP Remediation Program, see Note 14. Commitments and Contingent Liabilities of the Notes.

ITEM 2. PROPERTIES

PSEG and Services

PSEG does not own any property. All property is owned by PSEG's subsidiaries.

Services leases substantially all of a 25-story office tower for PSEG's corporate headquarters at 80 Park Plaza, Newark, New Jersey, together with an adjoining three-story building. In addition, the Maplewood Test Services in Maplewood, New Jersey was transferred to Services from Power in January 2004.

PSE&G

PSE&G's First and Refunding Mortgage (Mortgage), securing the bonds issued thereunder, constitutes a direct first mortgage lien on substantially all of PSE&G's property.

PSE&G's electric lines and gas mains are located over or under public highways, streets, alleys or lands, except where they are located over or under property owned by PSE&G or occupied by it under easements or other rights. These easements and other rights are deemed by PSE&G to be adequate for the purposes for which they are being used.

PSE&G believes that it maintains adequate insurance coverage against loss or damage to its principal properties, subject to certain exceptions, to the extent such property is usually insured and insurance is available at a reasonable cost.

Electric Transmission and Distribution Properties

As of December 31, 2004, PSE&G's transmission and distribution system included approximately 21,735 circuit miles, of which approximately 7,754 circuit miles were underground, and approximately 757,646 poles, of which approximately 525,872 poles were jointly-owned. Approximately 99% of this property is located in New Jersey.

In addition, as of December 31, 2004, PSE&G owned five electric distribution headquarters and four subheadquarters in four operating divisions, all located in New Jersey.

Gas Distribution Properties

As of December 31, 2004, the daily gas capacity of PSE&G's 100%-owned peaking facilities (the maximum daily gas delivery available during the three peak winter months) consisted of liquid petroleum air gas (LPG) and liquefied natural gas (LNG) and aggregated 2,973,000 therms (approximately 2,886,000 cubic feet on an equivalent basis of 1,030 Btu/cubic foot) as shown in the following table:

Plant	Location	Daily Capacity (Therms)
Burlington LNG	Burlington, NJ	773,000
Camden LPG	Camden, NJ	280,000
Central LPG	Edison Twp., NJ	960,000
Harrison LPG	Harrison, NJ	960,000

Total	2,973,000

As of December 31, 2004, PSE&G owned and operated approximately 17,064 miles of gas mains, owned 12 gas distribution headquarters and two subheadquarters, all in two operating regions located in New Jersey and owned one meter shop in New Jersey serving all such areas. In addition, PSE&G operated 61 natural gas metering or regulating stations, all located in New Jersey, of which 28 were located on land owned by customers or natural gas pipeline suppliers and were operated under lease, easement or other similar arrangement. In some instances, the pipeline companies owned portions of the metering and regulating facilities.

Office Buildings and Facilities

PSE&G rents office space from Services as its headquarters in Newark, New Jersey. PSE&G also leases office space at various locations throughout New Jersey for district offices and offices for various corporate

groups and services. PSE&G also owns various other sites for training, testing, parking, records storage, research, repair and maintenance, warehouse facilities and for other purposes related to its business.

In addition to the facilities discussed above, as of December 31, 2004, PSE&G owned 41 switching stations in New Jersey with an aggregate installed capacity of 21,203 megavolt-amperes and 242 substations with an aggregate installed capacity of 7,652 megavolt-amperes. In addition, four substations in New Jersey having an aggregate installed capacity of 109 megavolt-amperes were operated on leased property.

Power

Power rents office space from Services as its headquarters in Newark, New Jersey. Other leased properties include office, warehouse, classroom and storage space, primarily located in New Jersey. Power also owns the Central Maintenance Shop at Sewaren, New Jersey.

Power has a 57.41% ownership interest in approximately 13,000 acres in the Delaware River Estuary region to satisfy the condition of the NJPDES permit issued for Salem. Power also owns several other facilities, including the on site Nuclear Administration and Processing Center buildings.

Power has a 13.91% ownership interest in the 650-acre Merrill Creek Reservoir in Warren County, New Jersey and approximately 2,158 acres of land surrounding the reservoir. The reservoir was constructed to store water for release to the Delaware River during periods of low flow. Merrill Creek is jointly-owned by seven companies that have generation facilities along the Delaware River or its tributaries and use the river water in their operations.

Power believes that it maintains adequate insurance coverage against loss or damage to its plants and properties, subject to certain exceptions, to the extent such property is usually insured and insurance is available at a reasonable cost. For a discussion of nuclear insurance, see Note 14. Commitments and Contingent Liabilities of the Notes.

As of December 31, 2004, Power's share of installed generating capacity was 14,607 MW, as shown in the following table:

OPERATING POWER PLANTS

Name	Location	Total Capacity (MW)	% Owned	Owned Capacity (MW)	Principal Fuels Used	Mission
Steam:						
Hudson	NJ	991	100%	991	Coal/Gas	Load Following
Mercer	NJ	648	100%	648	Coal/Gas	Load Following
Sewaren	NJ	453	100%	453	Gas/Oil	Load Following
Linden(F)	NJ	430	100%	430	Oil	Load Following
Keystone(A)(B)	PA	1,700	23%	388	Coal	Base Load
Conemaugh(A)(B)	PA	1,700	23%	382	Coal	Base Load
Kearny	NJ	300	100%	300	Oil	Load Following
Albany(F)	NY	376	100%	376	Gas/Oil	Load Following
Bridgeport Harbor	CT	503	100%	503	Coal/Oil	Base Load
New Haven Harbor	CT	448	100%	448	Oil/Gas	Load Following
Total Steam		7,549		4,919		
Nuclear:						
Hope Creek(G)	NJ	1,049	100%	1,049	Nuclear	Base Load
Salem 1 & 2(A)(G)	NJ	2,304	57%	1,323	Nuclear	Base Load
Peach Bottom 2 & 3(A)(C)	PA	2,224	50%	1,112	Nuclear	Base Load
Total Nuclear		5,577		3,484		
Combined Cycle:						
Bergen	NJ	1,221	100%	1,221	Gas/Oil	Load Following
Lawrenceburg	IN	1,096	100%	1,096	Gas	Load Following
Waterford	OH	821	100%	821	Gas	Load Following
Total Combined Cycle		3,138		3,138		
Combustion Turbine:						
Essex	NJ	617	100%	617	Gas/Oil	Peaking
Edison	NJ	504	100%	504	Gas/Oil	Peaking
Kearny	NJ	443	100%	443	Gas/Oil	Peaking
Burlington	NJ	557	100%	557	Gas/Oil	Peaking
Linden	NJ	324	100%	324	Gas/Oil	Peaking
Mercer	NJ	129	100%	129	Oil	Peaking
Sewaren	NJ	129	100%	129	Oil	Peaking

Bayonne	NJ	42	100%	42	Oil	Peaking
Bergen	NJ	21	100%	21	Gas	Peaking
National Park	NJ	21	100%	21	Oil	Peaking
Kearny	NJ	21	100%	21	Gas	Peaking
Linden(F)	NJ	21	100%	21	Gas/Oil	Peaking
Salem(A)	NJ	38	57%	22	Oil	Peaking
Bridgeport Harbor	CT	10	100%	10	Oil	Peaking
Total Combustion Turbine		2,877		2,861		
Internal Combustion:						
Conemaugh(A)(B)	PA	11	23%	2	Oil	Peaking
Keystone(A)(B)	PA	11	23%	3	Oil	Peaking
Total Internal Combustion		22		5		
Pumped Storage:						
Yards Creek(A)(D)(E)	NJ	400	50%	200		Peaking
Total Operating Generation Plants		19,563		14,607		

(A)Power's share of jointly-owned facility.
(B)Operated by Reliant Energy.
(C)Operated by Exelon Generation.
(D)Operated by JCP&L.
(E) Excludes energy for pumping and synchronous condensers.
(F) These assets are scheduled for retirement within the next five years, partially dependent upon new generation going into service discussed below.
(G)Pursuant to the Nuclear OSC, operations of these facilities were transferred from Power to Exelon Generation on January 17, 2005. See Item 1. Business—Power—Nuclear.

As of December 31, 2004, Power had generating capacity in construction or advanced development, as shown in the following table:

POWER PLANTS IN CONSTRUCTION OR ADVANCED DEVELOPMENT

Name	Location	Total Capacity (MW)	% Owned	Owned Capacity (MW)	Principal Fuels Used	Scheduled In Service Date
Combined Cycle:						
Bethlehem	NY	763	100%	763	Gas	2005
Linden	NJ	1,220	100%	1,220	Gas	2006
Total Construction		1,983		1,983		
Nuclear Uprates	NJ/PA	185	Various	162	Nuclear	2005-2008
Total Advanced Development		185		162		

Projected Capacity	Total Owned Capacity (MW)
Total Owned Operating Generation Plants	14,607
Under Construction	1,983
Advanced Development	162
Less: Planned Retirements	(827)
Projected Capacity	15,925

Energy Holdings

Energy Holdings rents office space from Services as its headquarters in Newark, New Jersey.

Energy Holdings believes that it maintains adequate insurance coverage for properties in which its subsidiaries have an equity interest, subject to certain exceptions, to the extent such property is usually insured and insurance is available at a reasonable cost.

Global has invested in the following generation facilities that were in operation as of December 31, 2004:

OPERATING POWER PLANTS

Name	Location	Total Capacity (MW)	% Owned	Owned Capacity (MW)	Principal Fuels Used
United States					
Texas Independent Energy, L.P. (TIE)					
Guadalupe Power Partners, L.P. (Guadalupe)	TX	1,000	100%	1,000	Natural gas
Odessa-Ector Power Partners, L.P. (Odessa)	TX	1,000	100%	1,000	Natural gas
Total TIE		2,000		2,000	
Kalaeloa Partners L.P. (Kalaeloa)	HI	209	50%	105	Oil
GWF Power Systems, L.P. (GWF)					
Bay Area I	CA	21	50%	10	Petroleum coke
Bay Area II	CA	21	50%	10	Petroleum coke
Bay Area III	CA	21	50%	10	Petroleum coke
Bay Area IV	CA	21	50%	10	Petroleum coke
Bay Area V	CA	21	50%	10	Petroleum coke
Total GWF		105		50	
Hanford L.P. (Hanford)	CA	27	50%	14	Petroleum coke
Thermal Energy Development Partnership L.P. (Tracy)	CA	21	35%	7	Biomass
GWF Energy LLC (GWF Energy)					
Hanford—Peaker Plant	CA	95	60%	57	Natural gas
Henrietta—Peaker Plant	CA	97	60%	58	Natural gas
Tracy—Peaker Plant	CA	171	60%	103	Natural gas
Total GWF Energy		363		218	
SEGS III	CA	30	9%	3	Solar
Bridgewater	NH	16	40%	6	Biomass
Conemaugh	PA	15	50%	8	Hydro
Total United States		2,786		2,411	
International					
PPN Power Generating Company Limited (PPN)	India	330	20%	66	Naphtha/Natural gas
Prisma					
Crotone	Italy	20	25%	5	Biomass
Bando D'Argenta I	Italy	20	50%	10	Biomass
Strongoli	Italy	40	25%	10	Biomass
Total Prisma		80		25	
Electroandes S.A. (Electroandes)	Peru	183	100%	183	Hydro
Skawina CHP Plant (Skawina)	Poland	590	75%	439	Coal
Elektrocieplownia Chorzow Sp. Z o.o. (ELCHO)	Poland	220	90%	198	Coal
Turboven					

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Maracay	Venezuela	60	50%	30	Natural gas
Cagua	Venezuela	60	50%	30	Natural gas
Total Turboven		120		60	
Turbogeneradores de Maracay (TGM)	Venezuela	40	9%	4	Natural gas
Dhofar Power Company S.A.O.C. (Dhofar Power)	Oman	240	81%	194	Natural gas
SAESA Group	Chile	72	100%	72	Oil/Hydro/Wind
Total International		1,875		1,241	
Total Operating Power Plants		4,661		3,652	

As of December 31, 2004, Global had invested in the following generation facilities that were in construction or advanced development:

POWER PLANTS IN CONSTRUCTION

Name	Location	Total Capacity (MW)	% Owned	Owned Capacity (MW)	Principal Fuels Used	Scheduled In Service Date
Construction						
SAESA Group	Chile	43	100%	43	Natural Gas/Diesel	2005
Advanced Development						
Electroandes	Peru	35	100%	35	Hydro	2007
Total Projected Capacity		4,739		3,730		

Domestic Generation In Operation

TIE

Global had a 50% interest in TIE through its joint venture with TECO Energy Inc. (TECO). In June 2004, Global signed an agreement to acquire all of TECO's equity interest in TIE for less than $1 million. With this purchase, Global owns 100% of TIE and consolidated this investment effective July 1, 2004. TIE owns and operates two electric generation facilities, one in Guadalupe County in south central Texas (Guadalupe) and one in Odessa in western Texas (Odessa).

In 2003, TIE entered into an asset management agreement that provides greater access to the energy and gas marketplace. Approximately 55% and 57% of the total peak capacity for the Guadalupe and Odessa plants, respectively, for 2005 have been sold via bilateral PPAs. Any remaining uncommitted output is sold in the Texas spot market. Guadalupe and Odessa continue to enter into forward contracts on an ongoing basis.

Kalaeloa

Global's 50% partner in Kalaeloa is a power fund managed by Harbert Power Corporation (Harbert). All of the electricity generated by the Kalaeloa power plant is sold to the Hawaiian Electric Company, Inc. (HECO) under a PPA expiring in May 2016. Under a steam purchase and sale agreement expiring in May 2016, the Kalaeloa power plant supplies steam to the adjacent Tesoro refinery. The primary fuel, low sulfur fuel oil, is provided from the adjacent Tesoro refinery under a long-term all requirements contract. The refinery is interconnected to the power plant by a pipeline and preconditions the fuel oil prior to delivery. Back-up fuel supply is provided by HECO.

The two combustion turbines of Kalaeloa were upgraded in 2004 resulting in both an increase in the net plant output by approximately 20 MW and an improvement in the efficiency of consuming fuel. As a result of the upgrades, Kalaeloa and HECO entered into two amendments to the PPA. The amendments

will be effective upon final approval from the Public Utility Commission of the State of Hawaii. If approved, the amendments could increase Kalaeloa firm capacity and associated energy sales to HECO from 180 MW to 209 MW, or a lesser amount as actually demonstrated.

GWF and Hanford

Global and Harbert each own 50% of GWF. PPAs for the five GWF Bay Area plants' net output are in place with Pacific Gas and Electric Company (PG&E) ending in 2020 and 2021. GWF acquires the petroleum coke used to fuel its plants through contracts with two local oil refineries with price and minimum volumes being negotiated annually. Three of the five GWF plants have been modified to burn a wider variety of petroleum coke products to mitigate fuel supply and pricing risk.

Global and Harbert each own 50% of Hanford. A PPA for the plant's net output is in place with PG&E ending in August 2011. Hanford acquires its petroleum coke from a refinery whose previously scheduled October 2004 closing has been extended to March 2005 to enable the current owner to find a buyer for the refinery. The sale of the refinery is now expected to close in the first quarter of 2005 subject to all required

regulatory approvals. During 2004, Hanford tested the quality and firing characteristics of alternate sourced delayed petroleum coke and applied for permit modifications, which are under review, to be in position to transition to a new fuel supply, if necessary.

Hanford, Henrietta and Tracy Peaker Plants

GWF Energy, which is 60% owned by Global and 40% owned by Harbinger GWF LLC (Harbinger), an affiliate of Harbert, owns and operates three peaker plants in California. Global had owned approximately 75% of GWF Energy, but was required under an arbitration panel's finding to sell a 14.9% interest to Harbinger for approximately $14 million (approximate book value) in February 2004. The output of these plants is sold under a PPA with the California Department of Water Resources (DWR) with maturities in 2011 and 2012. DWR has the right to schedule energy and/or reserve capacity from each unit of the three plants for a maximum of 2,000 hours each year. Energy and capacity not scheduled by the DWR is available for sale by GWF Energy. GWF Energy obtains the natural gas used to fuel its plants from the spot market on a non-firm basis, with DWR taking the price and availability risk.

International Generation in Operation

India

PPN

Global owns a 20% interest in PPN located in Tamil Nadu, India. Global's partners include Marubeni Corporation, with a 26% interest, El Paso Energy Corporation, with a 26% interest, and the Apollo Infrastructure Company Ltd., with a 28% interest. PPN has entered into a PPA for the sale of 100% of its output to the State Electricity Board of Tamil Nadu (TNEB) for 30 years, with an agreement to take-or-pay equal to a plant load factor of at least 68.5%. TNEB has not made full payment to PPN for the purchase of energy under the contract. For a discussion of the TNEB's failure to meet its obligations under this PPA, see Item 3. Legal Proceedings.

Oman

Dhofar Power

In March 2001, Global, through Dhofar Power, signed a 20-year concession with the Government of Oman to privatize the electric system of the city of Salalah. A consortium led by Global (81% ownership) and several major Omani investment groups own Dhofar Power. Dhofar Power achieved commercial operation in May 2003. As required under the concession agreement, 35% of Dhofar Power's shares will be made available through a public offering on the Oman stock exchange in 2005. See Note 14. Commitments and Contingent Liabilities of the Notes for additional discussions regarding contractual disputes between Dhofar Power and the Government of Oman.

Peru

Electroandes

Electroandes' main assets include four hydroelectric facilities with a combined installed capacity of 183 MW and 437 miles of transmission lines located in the central Andean region east of Lima. In addition, Electroandes is in the process of developing a 35 MW expansion to an existing station. In

2004, 98% of Electroandes' revenues were obtained through various PPAs expiring between 2005 and 2008.

Venezuela

Turboven

The facilities in Cagua and Maracay are owned and operated by Turboven, an entity which is jointly-owned by Global and Corporacion Industrial de Energia (CIE). PPAs expiring between 2006 and 2011 have been entered into for the sale of approximately 40% of the output of Maracay and Cagua to various industrial customers. The PPAs are structured to provide energy only with minimum take provisions. Fuel

costs are passed through directly to customers and the energy tariffs are calculated in U.S. Dollars and paid in local currency.

TGM

Global has a 9% indirect interest in TGM through a partnership with CIE. TGM sells all of the energy produced under a PPA with Manufacturas del Papel (MANPA), a paper manufacturing concern located in Maracay. MANPA and CIE have common controlling shareholders.

Poland

ELCHO

Global has 90% ownership in ELCHO, a company that has developed a combined thermal energy and power generation plant located in the city of Chorzow, Poland that began operation in the fourth quarter of 2003. ELCHO also owns an older, smaller combined heat and power plant that was retired in 2004. ELCHO has a 20-year PPA with Polskie Sieci Elektroenergetyczne SA (PSE), the Polish government power grid company. In addition to the PPA, ELCHO has contracts with local distribution companies to provide hot water. Approximately 80% of ELCHO's revenues are derived from the PPA and 20% from the thermal business. A portion of the PPA is indexed to U.S. Dollars to support the portion of ELCHO's non-recourse project financing that is in U.S. Dollars. The remainder of the PPA is in Polish Zlotys. For additional information related to ELCHO, see Item 3. Legal Proceedings.

Skawina

During 2002, Global acquired a 50% interest in Skawina, a combined thermal energy and power generation plant in Poland. In accordance with the purchase agreement, Global purchased additional shares from Skawina's employees to increase its equity interest in Skawina to approximately 63% in August 2003 and 75% in September 2004. Skawina supplies electricity to several electric distribution companies and heat mainly to the city of Krakow under one-year contracts consistent with current practice in Poland.

Electric Distribution Facilities

Global has invested in the following major distribution facilities:

Name	Location	Number of Customers	Global's Ownership Interest
RGE	Brazil	1,070,000	32%
Chilquinta	Chile	509,000	50%
SAESA Group	Chile	571,000	100%
LDS	Peru	750,000	38%
Total		2,900,000	

As part of Dhofar Power's concession, Global also operates a small distribution facility serving approximately 40,000 customers.

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Brazil

RGE

Global owns a 32% equity interest in RGE. Global is the named operator for the system. A shareholders' agreement establishes corporate governance, voting rights and key financial provisions. Global has veto rights over certain actions, including approval of the annual budget and financing plan, appointment of executive officers, significant investments or acquisitions, sale or encumbrance of assets, establishment of guarantees, amendment of the by-laws of the company and dividend policies. Day-to-day operations are the responsibility of RGE's management, subject to shareholder oversight. During 2001, VBC Energia and Previ transferred their shares to Companhia Paulista de Forcae Luz (CPFL), an electric distribution company in which VBC Energia and Previ collectively own a majority interest.

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RGE operates under a territorial concession agreement ending in 2027. Under a new regulation passed in 2004, the concession is exclusive and only large consumers have the right to choose another provider of energy or to self-generate. Global does not believe this represents a material threat to the profitability of the distribution system in Brazil since the tariff structure provides the distribution system the opportunity to recover all costs associated with distribution service plus a return. In 2002, RGE secured its energy supply through a 12-year contract signed with Tractebel, a European generation company, which covers all its actual capacity not covered by other existing contracts. Of RGE's existing contracts, only one is denominated in U.S. Dollars. This contract represents 20% of RGE's current needs.

For additional information related to RGE, see Item 1. Business—Regulatory Issues and Item 3. Legal Proceedings.

Chile and Peru

Chilquinta and LDS

Global together with its partner, Sempra Energy (Sempra), own 99.99% of the shares of Chilquinta, an energy distribution company with numerous energy holdings, based in Valparaiso, Chile. Global's interest is 50% of this aggregate. Following the sale in 2004 of 12% of shares of LDS to the public, Global and Sempra own 75.9% of LDS, an electric distribution company located in Lima, Peru. As part of the Chilquinta and LDS investments, Global and Sempra also own Tecnored and Tecsur, located in Chile and Peru, respectively. These companies provide procurement and contracting services to Chilquinta, LDS and others.

As equal partners, Global and Sempra share in the management of Chilquinta and LDS. However, Sempra has assumed lead operational responsibilities at Chilquinta, while Global has assumed lead operational responsibilities at LDS. The shareholders' agreement provides for important veto rights over major partnership decisions including dividend policy, budget approvals, management appointments and indebtedness.

Chilquinta operates under a non-exclusive perpetual franchise within Chile's Region V which is located just north and west of Santiago. Global believes that direct competition for distribution customers would be uneconomical for potential competitors. LDS operates under an exclusive, perpetual franchise in the southern portion of the city of Lima and in an area just south of the city along the coast serving a population of approximately 3.2 million. Both Chilquinta and LDS purchase energy for distribution from generators in their respective markets on a contract basis. For additional information related to Chilquinta and LDS, see Item 1. Business—Regulatory Issues.

SAESA Group

Global owns a 99.98% equity interest in SAESA, 98.36% of Empresa Electrica de la Frontera S.A. (Frontel) and 100% of PSEG Generacion y Energia Chile Limitada (Generacion), collectively known together with subsidiaries of SAESA as the SAESA Group. The SAESA Group consists of four distribution companies and one transmission company that provide electric service to 390 cities and towns over 900 miles in southern Chile and a generating company. The SAESA Group has 72 MW of installed generating capacity in operation (52 MW oil-fired, 18 MW hydro and 2 MW wind) and an additional 43 MW of natural gas-fired peaker capacity under construction. The transmission company, Sistema de Transmision del Sur S.A. (STS), provides transmission services to electric generation facilities that have PPAs with distributors in Regions VIII, IX and X and has installed transformation

capacity of 816 megavolt-amperes.

SAESA also owns a 50% interest in an Argentine distribution company, Empresa de Energia Rio Negro S.A. (EDERSA), which provides generation, transmission and distribution services to approximately 147,000 customers in the Province of Rio Negro.

The Chilean members of the SAESA Group are organized and administered according to a centralized administrative structure designed to maximize operational synergies. In Argentina, EDERSA has its own independent administrative structure. For additional information related to the SAESA Group, see Item 1. Business—Regulatory Issues.

ITEM 3. LEGAL PROCEEDINGS

PSE&G

On November 15, 2001, Consolidated Edison Company of New York, Inc. (Con Edison) filed a complaint against PSE&G with the FERC asserting that PSE&G had breached agreements covering 1,000 MW of transmission. PSE&G denied the allegations set forth in the complaint. An Initial Decision issued by an ALJ in April 2002 upheld PSE&G's claim that the contracts do not require the provision of "firm" transmission service to Con Edison but also accepted Con Edison's contentions that PSE&G was obligated to provide service to Con Edison utilizing all the facilities comprising its electrical system including generation facilities and that PSE&G was financially responsible for "out-of-merit," i.e., above-market, generation costs needed to effectuate the desired power flows. On December 9, 2002, FERC issued an order modifying the Initial Decision by finding that only 600 MW of the total 1,000 MW power transfers is required to be supported by out-of-merit generation. FERC also made a number of other findings, on a preliminary basis, including favorable findings to PSE&G that power transfers should be measured on a "net" basis that considers the impacts of third-party transactions and that PSE&G's obligations should be reduced to the extent that Con Edison has impaired PSE&G's ability to perform under the contracts. FERC remanded a number of issues to the ALJ for additional hearings, mainly related to the development of protocols to implement the findings of the December 9, 2002 order. In addition, issues related to Phase II of the complaint involving the past administration of the contracts and a claim that PSE&G improperly benefited from the purchase of hedging contracts in New York, were also referred to the ALJ. The ALJ issued an Initial Decision on the Phase II issues on June 11, 2003 and on August 2, 2004 FERC issued its decision on Phase II issues. Those decisions were largely favorable to PSE&G; however, PSE&G did seek rehearing as to certain issues as did Con Edison. Those rehearing applications are currently pending. The August 2, 2004 order required that PJM, NYISO, Con Edison and PSE&G meet for the purpose of developing operational protocols to implement FERC's directives. Several meetings have occurred, including meetings before the ALJ, in an attempt to agree upon protocols. On February 18, 2005, NYISO, PJM and PSE&G submitted a joint compliance filing pursuant to the FERC's August 2, 2004 decision. Comments on the filing are due March 11, 2005.

Power

Hudson and Mercer Generation Stations

During 1997 and 1998, approximately 150,000 tons of fly ash generated by the Hudson and Mercer generating stations was taken by an ash marketer, with whom Power then worked, and sold to the owner and operator of a clay mine. The operator of the clay mine used the fly ash as fill material to return the mine site to grade, without obtaining the necessary approvals from the NJDEP. Upon discovery of this use, Power terminated the services of this ash marketer and initiated discussions with the NJDEP for the appropriate regulatory approvals to allow this material to remain at the site. The NJDEP has approved a closure plan for the site that features a clay cap and other engineering controls to ensure that the ash is isolated from the environment. The cost of resolving this matter will depend upon the results of negotiations with the property owner and the ash marketer. Although the precise extent of liability is not currently estimable, it is not expected to be material.

Kearny Generation Station

A preliminary review of possible mercury contamination at the Kearny station concluded that additional studies and investigations are required. A Remedial Investigation (RI) was conducted and a

report was submitted to the NJDEP in 1997. This report is currently under technical review. The RI report found that the mercury at the site is stable and immobile and should be addressed at the time the Kearny station is retired.

Energy Holdings

Texas

The Public Utility Commission of Texas (PUCT) instituted an investigation regarding certain price spikes in the Electric Reliability Council of Texas (ERCOT) Balancing Energy Service (BES) market and ancillary services market that occurred during extreme weather conditions on February 24-26, 2003, to determine whether any market manipulation occurred and whether any existing protocols need to be revised. On those days, during several trading periods, prices in the ERCOT balancing energy market cleared near the $1,000 per MWh ERCOT price cap. As part of the PUCT investigation, TIE and its two operating subsidiaries, Guadalupe and Odessa, along with the other market participants, were requested to provide certain information to the PUCT relating to their bids during this period. TIE, Guadalupe and Odessa supplied all the requested information and believe such information demonstrates that Guadalupe's and Odessa's bidding activities were consistent with ERCOT protocols.

The PUCT issued an order in May 2003 directing ERCOT to implement certain changes to the BES market to mitigate the affects of potential future price spikes. These changes have been implemented. Global believes that the new protocols will have minimal financial impact on Guadalupe and Odessa.

On July 7, 2003, Texas Commercial Energy LLC (TCE) filed suit against the three major electric utilities in Texas, certain wholesale power generators, their related affiliated retail electric providers and certain qualified scheduling entities, as well as ERCOT, in its function as the ISO for the Texas energy market. The action filed in the U.S. District Court for the Southern District of Texas, Civil Action No. C-03-249, alleges price-fixing, predatory pricing and certain common law claims. Automated Power Exchange, Inc. (APX), a named defendant, acted as agent and submitted bids on behalf of Guadalupe and Odessa, as well as several other generators in the ERCOT balancing energy market. APX has submitted a demand for indemnification from Guadalupe and Odessa. On February 3, 2004, TCE amended its complaint and named TIE, Guadalupe and Odessa and others as additional defendants. On May 20, 2004, the U.S. District Court granted the defendants' motion to dismiss the state and federal antitrust claims. All collateral claims were to be held in abatement pending an appeal of the ruling to the Fifth Circuit Court of Appeals. On July 19, 2004, TCE filed a Notice of Appeal, and the parties subsequently filed briefs and reply briefs. Global continues to believe there are valid defenses to TCE's claims which will be vigorously asserted.

On February 18, 2005, Utility Choice L.P., and Cirro Group Inc. filed suit against many of the same defendants in the TCE suit, including TIE based on facts similar to those alleged in the TCE litigation. The new action, filed in the U.S. District Court for the Southern Division of Texas also alleges price-fixing, predatory pricing and various other claims. Global believes there are valid defenses to these claims which will be vigorously asserted.

Poland

ELCHO

Global has an approximate 90% ownership interest in ELCHO, which owns a combined power generation and thermal energy plant in Poland. ELCHO has a contract with a local distribution company for the delivery of heat to Chorzow and three other towns, which represents approximately 20% of ELCHO's business. The local heat distribution company is under bankruptcy protection as of June 30, 2004. The bankruptcy of this customer caused a default under ELCHO's bank agreements, which are non-recourse to Global and Energy Holdings. A waiver has been obtained from ELCHO's lenders which

Global will seek to extend, as appropriate. ELCHO's net receivable from the local distribution company is approximately $7 million. Payments are currently being made and the receivable has not increased. Although Global believes that the receivable will be recoverable and that there will not be a material adverse impact on its financial position, results of operations or cash flows as a result of this matter, no assurances can be given.

In a separate matter, ELCHO has a 20-year PPA with the Polish government's power grid company. The Polish government has embarked on a process with the intention of terminating all of the more than 30 long-term PPAs it has with energy suppliers. The Polish government has expressed its intention to compensate each entity whose contract is terminated with monies raised by the government by securitizing a charge that will be passed on to ratepayers. In 2003, the Polish government informally proposed compensation that Global did not believe to be adequate. Global has been holding discussions with the Polish government with the objective of ensuring that any settlement is financially neutral to ELCHO. There have been recent fundamental changes to the proposed policy to terminate long-term contracts. Such changes may include making it optional for PPA owners to participate in the termination scheme. The risks and benefits to opting in or out of such a program cannot be fully analyzed with information available at this time. Inadequate compensation could lead to lower future revenues and earnings and could have a material adverse impact on Global's financial position, results of operations or cash flows.

India

Global has a 20% ownership interest in PPN, which sells its output under a long-term PPA with the TNEB. TNEB has not made full payment to PPN for the purchase of energy under the PPA and the total receivable as of December 31, 2004 was approximately $110 million. The project ran on a limited basis during the fourth quarter of 2004, primarily due to the high cost of naphtha fuel and resulting low ranking on the merit order dispatch list. The past due receivable as of December 31, 2004 was approximately $27 million, net of a $66 million reserve. If TNEB continues to fail to make required payments under the PPA, PPN may have liquidity problems. On March 26, 2004, Global and one of its partners in PPN, El Paso Energy Corporation, filed a notice of arbitration on behalf of PPN against TNEB under the arbitration clause of the PPA, asserting that they have the right as minority shareholders to protect the contractual rights of PPN where PPN has failed to exercise those rights itself. In response, PPN filed a petition for an anti-suit injunction against the arbitration. Global successfully defended against the petition in two lower courts. PPN has filed its final appeal in the Supreme Court of India (SLP Civil No. 23169). Hearings began on January 24, 2005.

Global expects that a final determination will be made by the Central Electricity Authority and TNEB in 2005 regarding the capital cost of the project that may affect the tariff that PPN charges TNEB. An adverse outcome to the continuing negotiations or arbitration with TNEB could potentially result in an impairment of this investment, which could be material to PSEG's and Energy Holdings' respective results of operations. As of December 31, 2004, Global's total investment in PPN was approximately $38 million.

RGE

ANEEL—RGE Merger Matter

On June 29, 1998, RGE's parent, DOC3 Participacoes, S.A. (DOC3), was merged into RGE. In connection with the merger, the shareholders of DOC3 became direct shareholders in RGE (Downstream Merger). Upon the merger, RGE assumed all of DOC3's liabilities including loans payable to existing shareholders and issued preferred shares which bore a fixed interest rate of 13% per annum. The Brazilian electricity sector regulator, ANEEL, took the position that the Downstream Merger of DOC3 into RGE was inappropriate because it was a related-party transaction and was not expressly approved by ANEEL. Although RGE believed that ANEEL's prior approval of the transaction was not required because it did not involve a change in the control of RGE, it entered into negotiations with ANEEL in order to resolve the dispute. During the fourth quarter of 2004, RGE and ANEEL settled the dispute. ANEEL approved the Downstream Merger of DOC3 into RGE and fined RGE $3 million (Resolution 166, dated July 13, 2004 under Docket No. 48500.003518/03-52). In addition, RGE's shareholders agreed to modify the preferred shares by eliminating the 13% fixed interest rate per annum and capitalizing all accrued and unpaid dividends through the date of the settlement. RGE's preferred shares will only be paid dividends in the future on the same basis as RGE's common shares without a preferential fixed rate of return. Global believes that this outcome is satisfactory because it ends a long lasting dispute and will normalize the relation with ANEEL.

PSEG, PSE&G, Power and Energy Holdings

In addition to matters discussed above, see information on the following proceedings at the pages indicated for PSEG and each of PSE&G, Power and Energy Holdings as noted:

(1) Page 16. (Power) PJM Interconnection L.L.C. filing with FERC on November 2, 2004, Docket No. EL03-236-003 to amend Tariff and Operating Agreement to request Reliability Must-Run (RMR) compensation.
(2) Page 16. (Power) PSEG Power Connecticut's filing with FERC on November 17, 2004, Docket No. ER05-231-000, to request RMR compensation.
(3) Page 17. (Power) PSEG Lawrenceburg Energy Company and PSEG Waterford Energy respective filings of triennial market power reviews, Docket Nos. ER01-2460-002 and ER01-2482-002, August 2004.
(4) Page 17. (PSE&G) FERC proceeding related to MISO and PJM. Joint Filing of New PJM Companies and PJM Interconnection, L.L.C. to expand PJM, The New PJM Companies, et al., Docket No. ER03-262-000, December 11, 2002.
(5) Page 17. (PSEG, PSE&G, Power and Energy Holdings) FERC proceeding related to PJM Restructuring, FERC Order dated June 26, 2003 seeking comments on proposed revisions to market-based rate tariffs and authorizations, Investigation of Terms and Conditions of Public Utility Market-Based Rate Authorizations, 103 FERC § 61,349.

(6) Page 18. (PSE&G) Neptune Regional Transmission System, LLC v. PJM Interconnection, L.L.C. complaint filed with FERC on December 21, 2004, Docket No. EL05-48-000, alleging PJM impermissibly conducted an interconnection re-study triggered by generator retirements in PJM, which had the effect of increasing Neptune's cost exposure for network upgrades from approximately $4 million to $26 million.

(7) Page 19. (PSE&G) JCP&L v. ACE, et al. complaint filed with FERC on December 30, 2004, Docket No. EL05-50-000, seeking to terminate its construction obligations under the LDV Agreement.

(8) Page 21. (PSE&G) PSE&G's BGSS Commodity filing with the BPU on May 28, 2004, Docket No. GR04050390.

(9) Page 21. (PSE&G) Remediation Adjustment Clause filing with the BPU filed in June 2003, Docket No. GR03060436.

(10) Page 21. (PSE&G) Remediation Adjustment Clause filing with the BPU on April 22, 2004, Docket No. GR04040291.

(11) Page 21. (PSE&G) PSE&G's BGSS Commodity filing with the BPU on May 30, 2003, Docket No. EO03050394.

(12) Page 22. (PSE&G) Cost Recovery filing with the BPU on July 1, 2004, Docket No. EE04070718.

(13) Page 22. (PSE&G) Deferral Proceeding filed with the BPU on August 28, 2002, Docket No. EX02060363, and Deferral Audit beginning on October 2, 2002 at the BPU, Docket No. EA02060366.

(14) Page 22. (PSE&G) BPU's audit of gas supply costs.

(15) Page 22. (PSE&G) BPU Order dated December 23, 2003, Docket No. EO02120955 relating to the New Jersey Interim Clean Energy Program.

(16) Page 26. (Power) Power's Petition for Review filed in the United States Court of Appeals for the District of Columbia Circuit on July 30, 2004 challenging the final rule of the United States Environmental Protection Agency entitled "National Pollutant Discharge Elimination System—Final Regulations to Establish Requirements for Cooling Water Intake Structures at Phase II Existing Facilities," now transferred to and venued in the United States Court of Appeals for the Second Circuit with Docket No. 04-6696-ag.

(17) Page 150. (PSE&G) Investigation Directive of NJDEP dated September 19, 2003 and additional investigation Notice dated September 15, 2003 by the EPA regarding the Passaic River site. Docket No. EX93060255.

(18) Page 151. (PSE&G) PSE&G's MGP Remediation Program instituted by NJDEP's Coal Gasification Facility Sites letter dated March 25, 1988.

(19) Page 155. (Power) Filing of Complaint by Nuclear against the DOE on September 26, 2001 in the U.S. Court of Federal Claims, Docket No. 01-551C seeking damages caused by the DOE's failure to take possession of spent nuclear fuel. The complaint was amended to include PSE&G as a prior owner in interest.

(20) Page 157. (Energy Holdings) Peru's Internal Revenue Agency's (SUNAT) claim for past due taxes at LDS, Resolution No. 0150150000030, dated July 10, 2003.

(21) Page 158. (Holdings) Dhofar Power Company SAOC v. Ministry of Housing, Electricity and Water (Sultanate of Oman), ICC Reference EXP/233.

PSE&G and Power

In addition, see the following environmental related matters involving governmental authorities. Based on current information, PSE&G and Power do not expect expenditures for any such site, individually or for all such current sites in the aggregate, to have a material effect on their respective financial condition, results of operations and net cash flows.

(1) Claim made in 1985 by the U.S. Department of the Interior under CERCLA with respect to the Pennsylvania Avenue and Fountain Avenue municipal landfills in Brooklyn, New York, for damages to natural resources. The U.S. Government alleges damages of approximately $200 million. To PSE&G's knowledge there has been no action on this matter since 1988.

(2) Duane Marine Salvage Corporation Superfund Site is in Perth Amboy, Middlesex County, New Jersey. The EPA had named PSE&G as one of several potentially responsible parties (PRPs) through a series of administrative orders between December 1984 and March 1985. Following work performed by the PRPs, the EPA declared on May 20, 1987 that all of its administrative orders had been satisfied. The NJDEP,

however, named PSE&G as a PRP and issued its own directive dated October 21, 1987. Remediation is currently ongoing.

(3) Various Spill Act directives were issued by NJDEP to PRPs, including PSE&G with respect to the PJP Landfill in Jersey City, Hudson County, New Jersey, ordering payment of costs associated with operation and maintenance, interim remedial measures and a Remedial Investigation and Feasibility Study (RI/FS) in excess of $25 million. The directives also sought reimbursement of NJDEP's past and future oversight costs and the costs of any future remedial action.

(4) Claim by the EPA, Region III, under CERCLA with respect to a Cottman Avenue Superfund Site, a former non-ferrous scrap reclamation facility located in Philadelphia, Pennsylvania, owned and formerly operated by Metal Bank of America, Inc. PSE&G, other utilities and other companies are alleged to be liable for contamination at the site and PSE&G has been named as a PRP. A Final Remedial Design Report was submitted to the EPA in September of 2002. This document presents the design details that will implement the EPA's selected remediation remedy. The costs of remedy implementation are estimated to range from $14 million to $24 million. PSE&G's share of the remedy implementation costs are estimated between $4 million and $8 million. The remedy itself and responsibility for the costs of its implementation are the subject of litigation currently in the U.S. District Court for the Eastern District of Pennsylvania entitled United States of America, et. al., v. Union Corporation, et. al., Civil Action No. 80-1589.

(5) The Klockner Road site is located in Hamilton Township, Mercer County, New Jersey, and occupies approximately two acres on PSE&G's Trenton Switching Station property. PSE&G entered into a memorandum of agreement with the NJDEP for the Klockner Road site pursuant to which PSE&G conducted an RI/FS and remedial action at the site to address the presence of soil and groundwater contamination at the site.

(6) The NJDEP assumed control of a former petroleum products blending and mixing operation and waste oil recycling facility in Elizabeth, Union County, New Jersey (Borne Chemical Co. site) and issued various directives to a number of entities including PSE&G requiring performance of various remedial actions. PSE&G's nexus to the site is based upon the shipment of certain waste oils to the site for recycling. PSE&G and certain of the other entities named in NJDEP directives are members of a PRP group that have been working together to satisfy NJDEP requirements including: funding of the site security program; containerized waste removal; and a site remedial investigation program.

(7) The New York State Department of Environmental Conservation (NYSDEC) has named PSE&G as one of many PRPs for contamination existing at the former Quanta Resources Site in Long Island City, New York. Waste oil storage, processing, management and disposal activities were conducted at the site from approximately 1960 to 1981. It is believed that waste oil from PSE&G's facilities was taken to the Quanta Resources Site. NYSDEC has requested that the PRPs reimburse the state for the costs NYSDEC has expended at the site and to conduct an investigation and remediation of the site. Power, PSE&G and the other PRPs have executed an Order on Consent with NYSDEC for the investigation of the site and have entered an agreement among some of the PRPs for the sharing of the associated costs. The holders of a note securing a mortgage on property adjacent to the Quanta Resources Site have filed an action against some of the PRPs seeking to recover damages allegedly incurred as a result of contamination migrating from the Quanta Resources Site onto the adjacent parcels and to compel the cleanup of those parcels.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

PSEG—None.

PSE&G—None.

Power—None.

Energy Holdings—None.

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ITEM 6. SELECTED FINANCIAL DATA

PSEG

The information presented below should be read in conjunction with the Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) and the Consolidated Financial Statements and Notes to Consolidated Financial Statements (Notes).

	For the Years Ended December 31,				
	2004	2003	2002	2001	2000
	(Millions, where applicable)				
Operating Revenues	$10,996	$11,139	$ 8,220	$ 6,883	$ 6,521
Income from Continuing Operations	$ 721	$ 852	$ 405(A)	$ 766	$ 782
Net Income	$ 726	$ 1,160	$ 235	$ 764	$ 770
Earnings per Share:					
Income from Continuing Operations:					
Basic	$ 3.04	$ 3.73	$ 1.94(A)	$ 3.68	$ 3.64
Diluted	$ 3.03	$ 3.72	$ 1.94(A)	$ 3.68	$ 3.64
Net Income:					
Basic	$ 3.06	$ 5.08	$ 1.13	$ 3.67	$ 3.58
Diluted	$ 3.05	$ 5.07	$ 1.13	$ 3.67	$ 3.58
Dividends Declared per Share	$ 2.20	$ 2.16	$ 2.16	$ 2.16	$ 2.16
As of December 31:					
Total Assets	$29,207	$28,084	$26,147	$25,568	$21,531
Long-Term Obligations(B)	$12,975	$12,995	$12,291	$10,814	$ 5,869
Preferred Stock With Mandatory Redemption	$ —	$ —	$ —	$ —	$ 75

(A) 2002 results include after-tax charges of $368 million, or $1.76 per share, related to losses from Energy Holdings' Argentine investments. See Item 7. MD&A—Results of Operations and Note 6. Asset Impairments of the Notes for further discussion.

(B) Includes capital lease obligations. The increase in 2001 is related to a $2.5 billion securitization transaction. In addition, this includes debt supporting trust preferred securities in all years presented due to the implementation of Financial Accounting Standards Board (FASB) Interpretation No. 46 (FIN 46), "Consolidation of Variable Interest Entities (VIE)." See Note 2. Recent Accounting Standards of the Notes.

PSE&G

The information presented below should be read in conjunction with the MD&A, the Consolidated Financial Statements and the Notes.

	For the Years Ended December 31,				
	2004	2003	2002	2001	2000

			(Millions)		
Operating Revenues	$ 6,972	$ 6,740	$ 5,919	$ 6,091	$ 5,887
Income Before Extraordinary Item	$ 346	$ 247	$ 205	$ 235	$ 587
Net Income	$ 346	$ 229	$ 205	$ 235	$ 587
As of December 31:					
Total Assets	$13,586	$13,177	$12,867	$13,299	$15,626
Long-Term Obligations(A)	$ 4,877	$ 5,129	$ 5,050	$ 5,180	$ 4,163
Preferred Stock With Mandatory Redemption	$ —	$ —	$ —	$ —	$ 75

(A) Includes capital lease obligations. The increase in 2001 is related to a $2.5 billion securitization transaction. In addition, this includes debt supporting trust preferred securities in all years presented due to the implementation of FIN 46. For additional information, see Note 2. Recent Accounting Standards of the Notes.

Power

Omitted pursuant to conditions set forth in General Instruction I of Form 10-K.

Energy Holdings

Omitted pursuant to conditions set forth in General Instruction I of Form 10-K.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (MD&A)

This combined MD&A is separately filed by Public Service Enterprise Group Incorporated (PSEG), Public Service Electric and Gas Company (PSE&G), PSEG Power LLC (Power) and PSEG Energy Holdings LLC (Energy Holdings). Information contained herein relating to any individual company is filed by such company on its own behalf. PSE&G, Power and Energy Holdings each make representations only as to itself and make no other representations whatsoever as to any other company.

OVERVIEW OF 2004 AND FUTURE OUTLOOK

PSEG, PSE&G, Power and Energy Holdings

Merger Agreement

On December 20, 2004, PSEG entered into an agreement and plan of merger (Merger Agreement) with Exelon Corporation (Exelon), a public utility holding company registered under the Public Utility Holding Company Act of 1935 (PUHCA) which is headquartered in Chicago, Illinois, whereby PSEG will be merged with and into Exelon (Merger). Under the Merger Agreement, each share of PSEG Common Stock will be converted into 1.225 shares of Exelon Common Stock.

PSEG and Exelon entered into the Merger Agreement with the expectation that the Merger would result in various benefits, including, among other things, cost savings and operating efficiencies. The Merger Agreement also addresses the key issues of leadership succession at PSEG with John Rowe, Exelon's Chief Executive Officer to become Chief Executive Officer of the combined company. Achieving the anticipated benefits of the Merger is subject to a number of uncertainties, including whether the businesses of Exelon and PSEG are integrated in an efficient and effective manner, as well as general competitive factors in the market place. Failure to achieve these anticipated benefits could result in increased costs, decreases in the amount of expected revenues generated by the combined company and diversion of management's time and energy and could have an adverse effect on the combined company's business, financial condition, operating results and prospects.

The Merger Agreement has been unanimously approved by both companies' boards of directors. Before the Merger may be completed, various approvals or consents must be obtained from shareholders, the Federal Energy Regulatory Commission (FERC), the Securities and Exchange Commission (SEC), the Nuclear Regulatory Commission (NRC) and various utility regulatory, antitrust and other authorities in the United States (U.S.) and in foreign jurisdictions. The governmental authorities from which these approvals are required may impose conditions on completion of the merger or require changes to the terms of the Merger. These conditions or changes could have the effect of delaying completion of the Merger or imposing additional costs on or limiting the revenues of the combined company and/or the individual registrants following the Merger, any of which might have a material adverse effect on the combined company or the individual registrants following completion of

the Merger. PSEG is committed to this proposed business combination, however, pending receipt of the various required approvals, which cannot be assured, PSEG intends to remain positioned with a viable stand-alone strategy.

On February 4, 2005, PSEG and Exelon filed for approval of the Merger with the FERC, the New Jersey Board of Public Utilities (BPU) and the Pennsylvania Public Utility Commission (PPUC). Exelon also filed a notice of the Merger with the Illinois Commerce Commission.

Although PSEG and Exelon intend to take steps to reduce any adverse effects, uncertainties relating to the Merger may impair PSEG's and Exelon's ability to attract, retain and motivate key personnel until the Merger is consummated and for a period of time thereafter due to uncertainty about roles with the future combined company, and could cause customers, suppliers and others that deal with PSEG and Exelon to seek to change existing business relationships. Inability to retain key employees or maintain satisfactory

relationships with employees, customers or suppliers could have a material adverse impact on the operations of PSEG, Exelon and the combined company following the Merger.

It is anticipated that the regulatory approval process will be completed and the Merger will close within 12 months to 15 months after the announcement of the Merger Agreement in December 2004, subject to shareholder and regulatory approvals which cannot be assured. The Merger would create a combined company serving approximately seven million electric customers and approximately two million gas customers in Illinois, New Jersey and Pennsylvania.

PSEG and Exelon expect to incur costs associated with consummating the Merger and integrating the operations of the two companies, as well as approximately $29 million and $41 million in transaction fees for PSEG and Exelon, respectively. Preliminary estimated integration costs associated with the Merger are approximately $700 million over a period of 4 years, with approximately $400 million being incurred in the first year after completion of the Merger and approximately $150 million being incurred in the second year after completion of the Merger.

Following the Merger, approximately 50% of the combined company's earnings and cash flow is expected to be produced by the three regulated utilities, PSE&G, Commonwealth Edison Company in northern Illinois and PECO Energy Company in southeastern Pennsylvania, and 50% by the unregulated businesses, primarily from the combined generation of Power and Exelon Generation Company LLC (Exelon Generation). After the Merger, the combined company expects to maintain its proportion of business in regulated operations while reducing the proportion in international operations. The expected strategy of the combined company would be to divest, in an orderly fashion, PSEG Global LLC's (Global) investments that do not meet the strategic objectives of the combined company.

The Merger Agreement contains certain termination rights for both Exelon and PSEG, and further provides that, upon termination of the Merger Agreement under specified circumstances, (1) Exelon may be required to pay PSEG a termination fee of $400 million plus PSEG's transaction expenses up to $40 million and (2) PSEG may be required to pay Exelon a termination fee of $400 million plus Exelon's transaction expenses up to $40 million.

Among the factors considered by the board of directors of PSEG in connection with its approvals of the Merger Agreement were the benefits as well as the risks that could result from the Merger. PSEG cannot give any assurance that these benefits will be realized within the time periods contemplated or even that they will be realized at all.

Concurrent with the Merger Agreement, PSEG Nuclear LLC (Nuclear) entered into an Operating Services Contract (OSC) with Exelon Generation, which commenced on January 17, 2005, relating to the operation of the Salem and Hope Creek nuclear generating stations. The OSC provides that Exelon Generation will provide a chief nuclear officer and other key personnel to oversee daily plant operations at the Hope Creek and Salem nuclear generating stations and to implement the Exelon operating model, which defines practices that Exelon has used to manage its own nuclear performance program. Nuclear will continue as the license holder with exclusive legal authority to operate and maintain the plants, will retain responsibility for management oversight and will have full authority with respect to the marketing of its share of the output from the facilities. Exelon Generation will be entitled to receive reimbursement of its costs in discharging its obligations, an annual operating services fee and incentive fees of up to $12 million annually based on attainment of goals relating to safety, capacity factors of the plants and operation and maintenance expenses. The OSC has a term of two years, subject to earlier termination in certain events upon prior notice, including any termination of the Merger Agreement. In the event of termination, Exelon Generation will continue to provide services under the OSC for a transition period of at least 180 days and up to two years at the election of Nuclear. This period may be further extended

by Nuclear for up to an additional 12 months if Nuclear determines that additional time is necessary to complete required activities during the transition period.

Prior to the Merger, PSEG and Exelon, and their respective subsidiaries, will continue to operate as separate entities. The discussion contained in the combined MD&A that follows relates solely to the current businesses of PSEG, PSE&G, Power and Energy Holdings and their respective expectations for future financial position, results of operations and cash flows, exclusive of any potential impacts from the Merger.

RESULTS OF OPERATIONS

PSEG, PSE&G, Power and Energy Holdings

Net Income for the year ended December 31, 2004 was $726 million or $3.05 per share of common stock, diluted, based on approximately 238 million average shares outstanding. Net Income for the year ended December 31, 2003 was approximately $1.2 billion or $5.07 per share of common stock, diluted, based on approximately 229 million average shares outstanding. Included in 2003's Net Income was a $370 million after-tax Cumulative Effect of a Change in Accounting Principle related to the adoption in 2003 of Statement of Financial Accounting Standards (SFAS) No. 143, "Accounting for Asset Retirement Obligations" (SFAS 143). See Note 3. Asset Retirement Obligations of the Notes. For the year ended December 31, 2002, Net Income was $235 million or $1.13 per share of common stock, diluted, including certain after-tax charges of $538 million or $2.57 per share. The charges related to the abandoned Argentine investments and losses from operations of those assets, discontinued operations of PSEG Energy Technologies Inc. (Energy Technologies) and Tanir Bavi Power Company Private Ltd. (Tanir Bavi), a generating facility in India, and goodwill impairment charges.

	Earnings (Losses)		
	Years Ended December 31,		
	2004	2003	2002
		(Millions)	
PSE&G	$346	$ 247	$ 205
Power	308	474	468
Energy Holdings:			
Global(A)	78	121	(297)
Resources	68	72	84
Other(B)	(10)	(4)	(7)
Total Energy Holdings(A)	136	189	(220)
Other(C)(D)	(69)	(58)	(48)
PSEG Income from Continuing Operations	721	852	405
Income (Loss) from Discontinued Operations, including Gain (Loss) on Disposal(E)	5	(44)	(49)
Extraordinary Item(F)	—	(18)	—
Cumulative Effect of a Change in Accounting Principle(G)	—	370	(121)
PSEG Net Income(A)	$726	$1,160	$ 235

	Contribution to Earnings Per Share (Diluted)		
	Years Ended December 31,		
	2004	2003	2002
PSE&G	$ 1.45	$ 1.08	$ 0.98
Power	1.29	2.07	2.24
Energy Holdings:			

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Global(A)	0.35	0.53	(1.42)
Resources	0.29	0.31	0.40
Other(B)	(0.04)	(0.02)	(0.04)
Total Energy Holdings(A)	0.60	0.82	(1.06)
Other(C)(D)	(0.31)	(0.25)	(0.22)
PSEG Income from Continuing Operations	3.03	3.72	1.94
Income (Loss) from Discontinued Operations, including Gain (Loss) on Disposal(E)	0.02	(0.19)	(0.23)
Extraordinary Item(F)	—	(0.08)	—
Cumulative Effect of a Change in Accounting Principle(G)	—	1.62	(0.58)
PSEG Net Income(A)	$ 3.05	$ 5.07	$ 1.13

(footnotes on next page)

(footnotes from previous page)

(A) Includes after-tax write-down and losses related to Argentine investments of $368 million or $1.76 per share for the year ended December 31, 2002.

(B) Other activities include amounts of Energy Holdings (parent company), Energy Technologies, Enterprise Group Development Corporation (EGDC) and intercompany eliminations. Specific amounts include interest on certain financing transactions and certain other administrative and general expenses at Energy Holdings.

(C) Includes pre-tax costs related to the Merger of approximately $8 million for the year ended December 31, 2004, including investment banking fees, accounting and legal fees, consulting fees for market analyses and communications costs.

(D) Other activities include amounts of PSEG (parent company) and intercompany eliminations. Specific amounts include preferred securities dividends requirements for PSE&G and Energy Holdings, interest on certain financing transactions and certain other administrative and general expenses at PSEG (parent company).

(E) Includes Discontinued Operations of Energy Technologies in 2003 and 2002, CPC in 2004, 2003 and 2002, and Tanir Bavi in 2002. See Note 4. Discontinued Operations, Dispositions and Acquisitions of the Notes.

(F) Relates to a charge recorded in the second quarter of 2003 from PSE&G's Electric Base Rate Case. See Note 5. Extraordinary Item of the Notes.

(G) Relates to the adoption of SFAS 143 in 2003 and the adoption of SFAS No. 142, "Goodwill and Other Intangible Assets" (SFAS 142) in 2002. See Note 2. Recent Accounting Standards and Note 3. Asset Retirement Obligations of the Notes.

The $131 million, or $0.69 per share, decrease in Income from Continuing Operations for the year ended December 31, 2004, as compared to the same period in 2003, was primarily due to lower earnings at Power due to decreased load being served under the fixed-price BGS contracts, higher Operation and Maintenance costs primarily incurred for work performed during a longer-than-planned refueling outage at the Hope Creek nuclear unit, the loss of MTC revenues, which ceased effective August 1, 2003 at the end of the transition period and higher replacement power and congestion costs in 2004. Also contributing to the decrease were currency fluctuations at Global and lower earnings at Resources, primarily resulting from the termination of the Collins lease. These decreases were partially offset by improved earnings at PSE&G primarily relating to increased electric base rates.

Also contributing to the change in Net Income was Energy Holdings' Income from Discontinued Operations of $5 million for the year ended December 31, 2004, as compared to its Loss from Discontinued Operations of $44 million, after-tax, for the same period in 2003.

The $447 million increase in Income from Continuing Operations for the year ended December 31, 2003, as compared to the same period in 2002, was primarily due to higher earnings from Energy Holdings due to the absence of the $368 million after-tax losses at Energy Holdings' Argentine

investments recorded in 2002. In addition, PSE&G improved earnings due to increased electric base rates, seasonality differences in pricing that are a component of those rates, favorable weather effects and lower interest costs. In addition, Power had slightly higher earnings primarily related to the benefits resulting from the operation of the two generating facilities in Connecticut that were acquired in December 2002, higher margins driven by an increase in volume as a result of the BGS contracts that went into effect in August 2002 and realized gains in its NDT portfolio, partially offset by the effects of storm-related weather and higher Operation and Maintenance expense. Also contributing to Energy Holdings' increase in earnings were improved results from Global. The growth in Income from Continuing Operations did not result in higher per share amounts due to dilution caused mainly by the PSEG Common Stock issuance in the fourth quarter of 2003.

Included in PSEG's 2003 Net Income was an after-tax benefit of $370 million related to the adoption of SFAS 143 during the first quarter of 2003. This benefit was due mainly to the required remeasurement of Power's nuclear decommissioning obligations. Conversely, in 2002, PSEG adopted SFAS 142 and incurred an after-tax charge of $121 million related to goodwill impairments at certain of Energy Holdings' investments. Also contributing to the changes in Net Income was a decrease in Energy Holdings' Loss from Discontinued Operations, including Loss on Disposal of $5 million, after-tax, for the year ended December 31, 2003, as

compared to the same period in 2002, and an $18 million, after-tax, extraordinary charge recorded at PSE&G in the second quarter of 2003 related to the outcome of its electric base rate case, discussed above in PSE&G's Overview of 2004 and Future Outlook.

PSEG

	For the Years Ended December 31,			2004 vs 2003		2003 vs 2002	
	2004	2003	2002	Increase (Decrease)	%	Increase (Decrease)	%
	(Millions)					(Millions)	
Operating Revenues	$10,996	$11,139	$8,220	$ (143)	(1)	$ 2,919	36
Energy Costs	$ 6,057	$ 6,391	$3,710	$ (334)	(5)	$ 2,681	72
Operation and Maintenance	$ 2,260	$ 2,120	$1,899	$ 140	7	$ 221	12
Depreciation and Amortization	$ 719	$ 527	$ 565	$ 192	36	$ (38)	(7)
Income from Equity Method Investments	$ 126	$ 114	$ 119	$ 12	11	$ (5)	(4)
Other Income	$ 176	$ 178	$ 39	$ (2)	(1)	$ 139	356
Other Deductions	$ (93)	$ (101)	$ (80)	$ (8)	(8)	$ 21	26
Interest Expense	$ (859)	$ (836)	$ (819)	$ 23	3	$ 17	2
Income Tax Expense	$ (446)	$ (464)	$ (254)	$ (18)	(4)	$ 210	83

PSEG's results of operations are primarily comprised of the results of operations of its operating subsidiaries, PSE&G, Power and Energy Holdings, excluding changes related to intercompany transactions, which are eliminated in consolidation and certain financing costs at the parent company. For additional information on intercompany transactions, see Note 23. Related-Party Transactions of the Notes. For a discussion of the causes for the variances at PSEG in the table above, see the discussions for PSE&G, Power and Energy Holdings that follow.

PSE&G

	For the Years Ended December 31,			2004 vs 2003		2003 vs 2002	
	2004	2003	2002	Increase (Decrease)	%	Increase (Decrease)	%
	(Millions)					(Millions)	
Operating Revenues	$6,972	$6,740	$5,919	$ 232	3	$ 821	14
Energy Costs	$4,284	$4,421	$3,684	$ (137)	(3)	$ 737	20
Operation and Maintenance	$1,083	$1,050	$ 982	$ 33	3	$ 68	7
Depreciation and Amortization	$ 523	$ 372	$ 409	$ 151	41	$ (37)	(9)
Other Income	$ 12	$ 6	$ 15	$ 6	100	$ (9)	(60)
Other Deductions	$ (1)	$ (1)	$ (2)	$ —	—	$ (1)	(50)
Interest Expense	$ (362)	$ (390)	$ (406)	$ (28)	(7)	$ (16)	(4)
Income Tax Expense	$ (246)	$ (129)	$ (115)	$ 117	91	$ 14	12

Operating Revenues

PSE&G has three sources of revenue: commodity revenues from the sales of energy to customers and in the PJM spot market; delivery revenues from the transmission and distribution of energy through its system; and other operating revenues from the provision of various services.

Commodity

PSE&G makes no margin on commodity sales as the costs are passed through to customers. The difference between costs and the amount provided by customers in revenues is deferred and collected from or returned to customers in future periods. Total commodity volumes and revenues are subject to market forces. Gas commodity prices fluctuate monthly for commercial and industrial customers and annually through the BGSS tariff for residential customers. In addition, for residential gas customers, PSE&G has the ability to adjust rates upward two additional times and downward at any time, if warranted, between annual Basic Gas Supply Service (BGSS) proceedings.

Gas commodity revenues decreased $3 million for the year ended December 31, 2004, as compared to the same period in 2003, due primarily to lower sales volumes of 20%, offset by higher BGSS prices. Approximately 80% of the volume decline was due to lower sales to cogenerators and the balance was weather-related. Electric commodity prices are set at the annual BGS auction. Electric commodity revenues increased $16 million for the year ended December 31, 2004, as compared to the same period in 2003, primarily due to $249 million in increased prices offset by $233 million in lower volumes of 12% caused by migration of large customers to third-party suppliers.

Gas commodity revenues increased $660 million for the year ended December 31, 2003, as compared to the same period in 2002, due primarily to higher sales volumes of 9% and higher BGSS prices. Electric commodity revenues increased $80 million for the year ended December 31, 2003, as compared to the same period in 2002, primarily due to $217 million in increased prices offset by $137 million in lower volumes of 7% caused by migration of large customers to third-party suppliers.

Delivery

Electric delivery revenues increased $222 million for the year ended December 31, 2004, as compared to the same period in 2003. The net effect of full-year base rate increases in August 2003, combined with other annual rate adjustments in January 2004, increased revenues by $180 million. The balance of the increase was driven by higher sales volumes of 3%. Less than one percent of the sales increase was weather-related.

Gas delivery revenues decreased $24 million for the year ended December 31, 2004, as compared to the same period in 2003, primarily due to a 4% decline in residential sales due to weather. Heating degree days were 5% lower in 2004.

Gas delivery revenues increased $97 million for the year ended December 31, 2003, as compared to the same period in 2002, due to higher sales volumes of 14%, primarily due to weather. Heating degree-days were 21% higher in 2003.

Operating Expenses

Energy Costs

The $137 million decrease for the year ended December 31, 2004, as compared to the same period in 2003, was comprised of decreases of $96 million in electric costs and $41 million in gas costs. The electric decrease was caused by $262 million in lower BGS volumes due to customer migration to third-party suppliers offset by $166 million in higher prices for BGS and Non-Utility Generation (NUG) purchases. The gas decrease was caused by a $388 million or 20% decrease in sales volumes due primarily to lower sales to cogenerators offset by a $347 million or 26% increase in gas prices.

The $737 million increase for the year ended December 31, 2003, as compared to the same period in 2002, was comprised of increases of $658 million in gas costs and $79 million in electric costs. The gas increase was caused by a $527 million or 26% increase in gas prices and $131 million or 9% increase in sales volumes. The electric increase was caused by $249 million in higher prices for BGS and NUG purchases, partially offset by $170 million in lower costs due to lower BGS volumes as the result of customer migration and lower NUG volumes.

Operation and Maintenance

The $33 million increase for 2004, as compared to the same period in 2003, was due primarily to increased Demand Side Management (DSM) amortization of $20 million, increased consumer education expenses of $24 million, an $18 million reduction in real estate tax expense in 2003 and $10 million related to a regulatory asset reserve reversal in 2003. DSM costs are deferred when incurred and amortized to expense when recovered in revenues. Offsetting the increases were decreased labor and fringe benefits of $7 million, due to lower pension costs as a result of improved fund performance, a $22 million reduction in Societal Benefits Charges (SBC) expenses and $10 million in lower shared services costs due to reduced technology spending.

The $68 million increase for the year ended December 31, 2003, as compared to the same period in 2002, was due primarily to higher labor and fringe benefit costs of $48 million, due to higher wage and incentive program costs, higher pension costs and increased weather and storm-related expenses due to Hurricane

Isabel and the extreme winter weather. Also contributing to the increase were higher bad debt expense of $10 million due to high winter gas sales and higher DSM costs of approximately $38 million related to the increased sales, discussed above. Partially offsetting these increases were a reduction in real estate tax expense of $18 million and the reversal of a $10 million reserve against a regulatory asset that is now being recovered.

Depreciation and Amortization

The $151 million increase for the year ended December 31, 2004, as compared to the same period in 2003, was due primarily to a $132 million reduction in amortization of an excess electric distribution depreciation reserve regulatory liability, a $30 million increase in the amortization of various regulatory assets and a $10 million increase due to increased plant in service. These increases were offset by a $16 million decrease from the use of a lower book depreciation rate for electric distribution property, which took effect in August 2003 following the conclusion of the electric base rate case, and a $6 million decrease due to plant assets transferred to an affiliate in 2003.

The $37 million decrease for the year ended December 31, 2003, as compared to the same period in 2002, was due primarily to a $52 million increase in amortization of an excess electric distribution depreciation reserve regulatory liability and a $11 million decrease from the use of a lower book depreciation rate for electric distribution property starting in August 2003 due to the rate case referred to above. These decreases were offset by increases of $13 million due to increased plant in service and $9 million due to amortization of regulatory assets related to securitization.

Other Income

The $6 million increase for the year ended December 31, 2004, as compared to the same period in 2003, was due primarily to $11 million of equity return adjustments to regulatory assets in 2003, $4 million of interest income related to an affiliate loan and other Investment Income of $3 million offset by decreased gains on excess property sales of $12 million.

The $9 million decrease for the year ended December 31, 2003, as compared to the same period in 2002, was due primarily to equity return adjustments to regulatory assets of $11 million offset by $2 million in increased gains on the disposal of various electric transmission properties.

Interest Expense

The $28 million decrease for the year ended December 31, 2004, as compared to the same period in 2003, was due primarily to lower interest on long-term debt of $37 million as a result of lower interest rates and lower levels of long-term debt outstanding, partially offset by $11 million in increased interest on affiliated loans.

The $16 million decrease for the year ended December 31, 2003, as compared to the same period in 2002, was due primarily to lower interest on long-term debt of $23 million due to various maturities and redemptions of approximately $250 million. These decreases were partially offset by increased short-term interest expense of $2 million due to higher short-term debt balances outstanding due to increased working capital needs and $6 million in increased carrying charges related to certain regulatory assets.

Income Taxes

The $117 million increase for the year ended December 31, 2004, as compared to the same period in

2003, was primarily due to higher pre-tax income combined with lower tax benefits primarily attributable to the excess depreciation reserve adjustment in 2003.

The $14 million increase for the year ended December 31, 2003, as compared to the same period in 2002, was due to higher pre-tax income, offset by tax benefits recorded in 2003 attributable to the actual filing of the 2002 tax return.

Extraordinary Item

As discussed previously, included in the Electric Base Rate Case decision issued by the BPU was a refund related to revenues collected through the SBC for nuclear decommissioning. Because this amount

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reflects the final accounting for PSEG's generation-related business pursuant to the four-year transition plan mandated by the Final Order, the adjustment has been recorded as an $18 million, after-tax, Extraordinary Item as required under Accounting Principles Board (APB) Opinion No. 30, "Reporting the Results of Operations—Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions" (APB 30) and SFAS No. 101, "Regulated Enterprises—Accounting for the Discontinuation of Application of Financial Accounting Standards Board (FASB) Statement No. 71."

Power

	For the Year Ended December 31,			2004 vs 2003		2003 vs 2002	
	2004	2003	2002	Increase (Decrease)	%	Increase (Decrease)	%
	(Millions)					(Millions)	
Operating Revenues	$5,173	$5,613	$3,640	$ (440)	(8)	$ 1,973	54
Energy Costs	$3,558	$3,754	$1,856	$ (196)	(5)	$ 1,898	102
Operation and Maintenance	$ 967	$ 914	$ 773	$ 53	6	$ 141	18
Depreciation and Amortization	$ 121	$ 102	$ 108	$ 19	19	$ (6)	(6)
Other Income	$ 166	$ 149	$ 1	$ 17	11	$ 148	n/a
Other Deductions	$ (57)	$ (78)	$ (1)	$ (21)	(27)	$ 77	n/a
Interest Expense	$ (142)	$ (114)	$ (122)	$ 28	25	$ (8)	(7)
Income Tax Expense	$ (186)	$ (326)	$ (313)	$ (140)	(43)	$ 13	4

Operating Revenues

Operating Revenues decreased by $440 million for the year ended December 31, 2004, as compared to the same period in 2003, due to decreases of $485 million in generation revenues and $5 million in trading revenues offset by an increase of $50 million in gas supply revenues.

Operating Revenues increased by $2 billion for the year ended December 31, 2003, as compared to the same period in 2002, due to increases of $646 million in generation revenues, $1.3 billion in gas supply revenues and $12 million in trading revenues.

Generation

Generation revenues decreased by $485 million for the year ended December 31, 2004, as compared to the same period in 2003, primarily due to $1.1 billion in lower revenues due to decreased load being served under the fixed-priced BGS contracts, which was partially offset by $869 million of higher revenues from new contracts and higher sales into the various power pools. Additionally, the loss of MTC and NDT revenues, which amounted to $111 million and $17 million, respectively, comprised part of the decrease.

Also contributing to the decrease was the adoption of Emerging Issues Task Force (EITF) Issue No. 03-11, "Reporting Realized Gains and Losses on Derivative Instruments That Are Subject to FASB Statement No. 133, Accounting for Derivative Instruments and Hedging Activities," and Not "Held for Trading Purposes" as defined in EITF Issue No. 02-3, "Issues Involved in Accounting for Derivative Contracts Held for Trading Purposes and Contracts Involved in Energy Trading and Risk Management

Activities" (EITF 03-11), which requires gains and losses (realized and unrealized) on all derivative instruments within the scope of SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities" (SFAS 133) to be shown net when recognized in the Consolidated Statement of Operations, whether or not settled physically, if the derivative instruments are "held for trading purposes" as defined in EITF 02-3, which became effective on a prospective basis for transactions occurring after September 30, 2003. Since prior periods were not restated, the effect of adopting EITF 03-11 reduced Power's Operating Revenues by approximately $174 million, with an equal reduction in Energy Costs, as compared to the same period in 2003.

Generation revenues increased by $646 million for the year ended December 31, 2003, as compared to the same period in 2002, primarily due to increased BGS related revenues of $293 million from third-party wholesale electric suppliers which commenced on August 1, 2002 and $153 million in increased revenues from two generation facilities in Connecticut acquired in 2002 and the Waterford, Ohio plant, which became operational in August 2003. Also contributing to the increase were increased MTC revenues of $13 million,

increased capacity sales of $41 million and $167 million of higher revenues from new contracts and higher sales into the various power pools.

Gas Supply

Gas supply revenues increased by $50 million for the year ended December 31, 2004, as compared to the same period in 2003, primarily due to higher gas prices under the BGSS contract partially offset by decreased sales volumes mainly due to demand by PSE&G.

Gas supply revenues increased by $1.3 billion for the year ended December 31, 2003, as compared to the same period in 2002, primarily due to 2003 being the first full year of the BGSS contract with PSE&G compared to a partial year in 2002 since the contract commenced in May 2002. Gas revenues for the first four months of 2003 totaled $1.1 billion. Also contributing to the increase in gas revenues were higher sales volumes and higher gas prices.

Operating Expenses

Energy Costs

Energy Costs represent the cost of generation, which includes fuel purchases for generation as well as purchased energy in the market, and gas purchases to meet Power's obligation under its BGSS contract with PSE&G.

Energy Costs decreased approximately $196 million for the year ended December 31, 2004, as compared to the same period in 2003, primarily due to a $216 million decrease in purchased power due to decreased load being served under the BGS contracts, which was offset by increased replacement power costs due to outages and higher purchased power for new contracts and a $12 million increase in gas supply costs due to higher gas prices. For additional information related to the outages at Power facilities, see the MD&A—Overview of 2004 and Future Outlook—Power. Also contributing to the decrease for the year was a reduction of approximately $174 million related to the adoption of EITF 03-11, as discussed above. Partially offsetting these decreases were higher fuel costs for generation of approximately $159 million, primarily related to higher gas prices and higher usage, including an increase of approximately $20 million related to the settlement for nuclear waste storage costs for Peach Bottom. For additional information regarding the settlement, see Note 14. Commitments and Contingent Liabilities—Nuclear Fuel Disposal of the Notes.

Energy Costs increased approximately $1.9 billion for the year ended December 31, 2003, as compared to the same period in 2002, primarily due to a $1.3 billion increase in gas costs due to the effect of a full year under the BGSS contract combined with higher gas sales volumes and prices and higher gas, oil and coal costs for generation. The increase in Energy Costs was also due to increased energy purchases on the spot market, as well as bilateral energy purchases, of approximately $413 million. Also, Power incurred an increase of approximately $116 million in network transmission expenses given that there were no payments for the first seven months in 2002. In addition, charges associated with fuel and energy purchases to satisfy wholesale power agreements related to its Connecticut generating facilities totaled approximately $80 million for the year ended December 31, 2003.

Operation and Maintenance

Operation and Maintenance expense increased $53 million for the year ended December 31, 2004, as

compared to the same period in 2003, due to increased costs of $85 million related to the outages at Hope Creek, Salem and Mercer. For additional information related to the outages at Power facilities, see the MD&A—Overview of 2004 and Future Outlook—Power. Also contributing to the increase was $10 million of higher operation and maintenance costs related to the Waterford and Lawrenceburg facilities offset by $12 million related to the settlement for nuclear waste storage costs for Peach Bottom, $10 million in lower real estate taxes and other items. Additional offsets include the absence of reorganization costs of $9 million and the lower write-down costs related to obsolete materials and supplies of $8 million. For additional information regarding the settlement, see Note 14. Commitments and Contingent Liabilities—Nuclear Fuel Disposal of the Notes.

Operation and Maintenance expense increased $141 million for the year ended December 31, 2003, as compared to the same period in 2002, due to costs of generating facilities in Connecticut acquired in December 2002 of $56 million, accretion expense of $24 million associated with the nuclear decommissioning

liabilities and higher nuclear refueling outage costs of $24 million. Also contributing to the increase was higher pension expense of $20 million, higher reorganization costs of $9 million and higher write-down costs related to obsolete materials and supplies of $8 million.

Depreciation and Amortization

Depreciation and Amortization expense increased $19 million for the year ended December 31, 2004, as compared to the same period in 2003, primarily due to the Waterford facility being placed into service in August 2003 and the Lawrenceburg facility being placed into service in June 2004.

Depreciation and Amortization expense decreased $6 million for the year ended December 31, 2003, as compared to the same period in 2002. The net decrease was comprised of lower depreciation costs of approximately $30 million due to the absence of decommissioning charges, which are no longer recorded as a result of the implementation of SFAS 143, partially offset by higher depreciation and amortization primarily related to generating facilities in Connecticut acquired in December 2002 and a higher asset base.

Other Income

Other Income increased $17 million for the year ended December 31, 2004, as compared to the same period in 2003, due primarily to increased realized gains and income related to the NDT Funds.

Other Income increased $148 million for the year ended December 31, 2003, as compared to the same period in 2002, due primarily to the recording of realized gains and income on the NDT Funds.

Other Deductions

Other Deductions decreased by $21 million for the year ended December 31, 2004, as compared to the same period in 2003, primarily due to $28 million in lower realized losses and expenses related to the NDT Funds partially offset by a $7 million write-off of unamortized issuance costs related to the extinguishment of project financing related to Power's Waterford and Lawrenceburg facilities.

Other Deductions increased by $77 million for the year ended December 31, 2003, as compared to the same period in 2002, due primarily to the recording of realized losses on the NDT Funds.

Interest Expense

Interest Expense increased by $28 million for the year ended December 31, 2004, as compared to the same period in 2003, including $17 million of increased interest primarily due to higher interest rates on new long-term debt financing that replaced project level non-recourse debt. Also contributing to the increase was interest of $7 million related to the early settlement of an interest rate swap related to the extinguishment of project financing related to the Waterford and Lawrenceburg facilities and higher interest of $4 million related to an affiliate loan.

Interest Expense decreased by $8 million for the year ended December 31, 2003, as compared to the same period in 2002. Capitalized interest relating to various construction projects reduced interest expense by approximately $13 million for the year ended December 31, 2003, as compared to the same period in 2002. Power incurred additional interest charges of $20 million due primarily to the new long-term financing of $600 million in June 2002, this increase was partially offset by lower interest expense on variable rate debt and other lower charges of approximately $15 million.

Income Taxes

Income taxes decreased by $140 million for the year ended December 31, 2004, as compared to the same period in 2003, due primarily to lower pre-tax income.

Income taxes increased by $13 million for the year ended December 31, 2003, as compared to the same period in 2002, due primarily to higher pre-tax income.

Cumulative Effect of a Change in Accounting Principle

For the year ended December 31, 2003, Power recorded an after-tax benefit in the amount of $370 million due to the required remeasurement of Power's nuclear and fossil decommissioning obligations under

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SFAS 143, which was adopted on January 1, 2003. See Note 3. Asset Retirement Obligations of the Notes for additional information.

Energy Holdings

	For the Years Ended December 31,			2004 vs 2003		2003 vs 2002	
	2004	2003	2002	Increase (Decrease)	%	Increase (Decrease)	%
	(Millions)					(Millions)	
Operating Revenues	$1,027	$ 725	$ 609	$ 302	42	$ 116	19
Energy Costs	$ 388	$ 155	$ 118	$ 233	150	$ 37	31
Operation and Maintenance	$ 239	$ 176	$ 168	$ 63	36	$ 8	5
Write-down of Project Investments	$ —	$ —	$ 511	$ —	—	$ (511)	(100)
Depreciation and Amortization	$ 57	$ 44	$ 28	$ 13	30	$ 16	57
Income from Equity Method Investments	$ 126	$ 114	$ 119	$ 12	11	$ (5)	(4)
Other Income	$ 4	$ 20	$ 26	$ (16)	(80)	$ (6)	(23)
Other Deductions	$ (33)	$ (5)	$ (77)	$ 28	560	$ (72)	(94)
Interest Expense	$ (255)	$(218)	$(217)	$ 37	17	$ 1	—
Income Tax (Expense) Benefit	$ (48)	$ (59)	$ 144	$ (11)	(19)	$ 203	141

The variances in Operating Revenues, Energy Costs, Operation and Maintenance expense, Depreciation and Amortization expense and Income from Equity Method Investments were primarily attributed to Global's acquisition of the remaining interests in TIE, thus consolidating the entity effective July 1, 2004, as compared to 2003 when Global's ownership was accounted for under the equity method of accounting. For additional information, see Note 4. Discontinued Operations, Dispositions and Acquisitions of the Notes. The increases were also due to ELCHO placing a new generation facility in Poland in service in November 2003, a generation facility in Oman owned by Dhofar Power Company S.A.O.C. (Dhofar Power) beginning commercial operation in May 2003 and increases in ownership of Electrowina Skawina S.A (Skawina) in Poland in 2003 and 2004. The variances are also related to favorable foreign currency exchange rates and higher energy sales volumes at Sociedad Austral de Electricidad S.A. (SAESA) and a change for GWF Energy LLC (GWF Energy), which owns three generation facilities in California, which was accounted for under the equity method of accounting in 2004, due to a change in ownership interest, as compared to the first nine months of 2003 and the fourth quarter of 2002 when GWF Energy was consolidated.

Operating Revenues

The increase of $302 million for the year ended December 31, 2004, as compared to the same period in 2003, was due to higher revenues at Global of $355 million, including a $247 million increase related to the consolidation of TIE, a $62 million increase from ELCHO, a $35 million increase from SAESA, a $25 million increase from Dhofar Power and a $35 million gain on the sale of MPC, partially offset by a decrease of $53 million related to GWF Energy, which was not consolidated in 2004. Offsetting the increases at Global were lower revenues at Resources of $51 million, primarily due to a loss of $31 million related to the recalculation of certain leverage leases, a loss of $11 million due to the termination of the lease investment in the Collins generating facility and normal amortization of existing leases of $10 million offset by a realized gain of $2 million related to investments in leases, partnerships and

securities. See Note 10. Long-Term Investments of the Notes for additional information.

The increase of $116 million for the year ended December 31, 2003, as compared to the same period in 2002, was due to higher revenues at Global of $124 million, including a $47 million increase from Skawina, a $38 million increase from Dhofar Power, a $28 million increase from GWF Energy, which was consolidated for nine months in 2003 compared to three months in 2002, and a $19 million increase from SAESA, offset by the absence of $19 million in revenue from Empresa Distribuidora de Electricidad de Entre Rios S.A. (EDEERSA), in Argentina, which was abandoned in 2003. Offsetting the increases at Global were lower revenues at Resources of $10 million, primarily related to a $45 million net decrease in leveraged lease income and a $6 million decrease in realized income due to the termination of two leveraged leases in December 2002. Partially offsetting these decreases was the absence of an other than temporary impairment of non-publicly traded equity securities held within the leveraged buyout funds of $42 million that was recorded in 2002.

Energy Costs

The increase of $233 million for the year ended December 31, 2004, as compared to the same period in 2003, was primarily due to a $192 million increase related to the consolidation of TIE and increases of $22 million, $12 million and $5 million from SAESA, ELCHO and Dhofar Power, respectively, offset by a decrease of $3 million from GWF Energy.

The increase of $37 million for the year ended December 31, 2003, as compared to the same period in 2002, was primarily due to an increase of $21 million, $14 million, and $13 million from Skawina, SAESA and Dhofar Power, respectively, offset by a decrease of $7 million and $5 million from EDEERSA and Electroandes S.A. (Electroandes), respectively.

Operation and Maintenance

The increase of $63 million for the year ended December 31, 2004, as compared to the same period in 2003, was primarily due to a $30 million increase related to the consolidation of TIE and increases of $12 million, $9 million, and $2 million from ELCHO, SAESA and Dhofar Power, respectively, offset by a decrease of $8 million from GWF Energy. The increase is also due to higher operating expenses of $9 million at PSEG Energy Technologies Asset Management Company L.L.C. primarily due to higher legal expenses and final asset sale settlements and $7 million at Global primarily due to the 2003 reversal of contingencies related to the Argentine write-down.

The increase of $8 million for the year ended December 31, 2003, as compared to the same period in 2002, was primarily due to increases of $19 million, $7 million, $6 million and $6 million from Skawina, Dhofar Power, GWF Energy and Electroandes, respectively, offset by decreased operation and maintenance expenses at Global of $28 million related to the abandonment of Global's Argentine investments combined with lower labor and administrative costs.

Write-down of Project Investments

The decrease of $511 million for the year ended December 31, 2003, as compared to the same period in 2002, was primarily due to Global's write-down of investments in 2002, primarily in Argentina. See Note 6. Asset Impairments of the Notes.

Depreciation and Amortization

The increase of $13 million for the year ended December 31, 2004, as compared to the same period in 2003, was primarily due to a $9 million increase related to the consolidation of TIE and increases of $7 million, $5 million and $2 million from ELCHO, Dhofar Power and SAESA, respectively, offset by a decrease of $11 million from GWF Energy.

The increase of $16 million for the year ended December 31, 2003, as compared to the same period in 2002, was primarily due to increases of $8 million from both Dhofar Power and GWF Energy.

Income from Equity Method Investments

The increase of $12 million for the year ended December 31, 2004, as compared to the same period in 2003, was primarily driven by an $8 million increase related to the sale of a portion of Global's investment in LDS, an $11 million increase related to MPC due to additional projects going into operation, and a $4 million increase related to GWF Energy, offset by an $11 million decrease related to

the consolidation of TIE commencing July 1, 2004.

The decrease of $5 million for the year ended December 31, 2003, as compared to the same period in 2002, was primarily due to lower equity method income in 2003 of $17 million at GWF Energy, which was recorded as a consolidated company for the first three quarters in 2003, as well as decreased earnings at Chilquinta Energia S.A. (Chilquinta) of $4 million. Partially offsetting this decrease were improved earnings at TIE of $14 million related to power purchase agreements (PPAs) entered into in early 2003 and improved market conditions in Texas.

Other Income

The decrease of $16 million for the year ended December 31, 2004, as compared to the same period in 2003, was primarily due to the absence in 2004 of foreign currency transaction gains of $16 million for RGE and SAESA that occurred in 2003.

The decrease of $6 million for the year ended December 31, 2003, as compared to the same period in 2002, was primarily due to the absence of favorable changes in fair value mainly relating to foreign exchange contracts held by Energy Holdings.

Other Deductions

The increase of $28 million for the year ended December 31, 2004, as compared to the same period in 2003, was primarily due to foreign currency transaction losses of $26 million and a loss on early extinguishment of debt of $3 million in 2004, offset by a $5 million favorable change in derivative fair value related to Global. The $26 million in foreign currency transaction losses was almost entirely due to the impact of the weakening U.S. Dollar relative to the Polish Zloty on Global's investment in ELCHO. At the inception of this investment, it was determined that ELCHO is a U.S. Dollar functional currency as a portion of the long-term PPA with the Polish government is indexed to the U.S. Dollar to support the portion of ELCHO's financing that is U.S. Dollar denominated. Since ELCHO has a U.S. Dollar functional currency, all monetary assets and liabilities that are not denominated in U.S. Dollars are marked at period-end exchange rates with changes in values recorded as gains or losses in earnings. ELCHO has significant monetary liabilities in local currency, namely Polish Zloty debt used to partially finance the construction of the plant. As a result of the strengthening of the Polish Zloty against the U.S. Dollar in 2004, there were material losses recorded on the Polish Zloty debt to reflect the greater amount of U.S. Dollars required to pay the local debt. However, the accounting model does not capture the increase in value of Polish Zlotys that will be received under the long-term PPA with the Polish government as the contract is not recorded on the balance sheet. As a result, the financial statements only reflect the losses on the Polish Zloty debt which, economically, have been more than offset by the increase in the value of the Polish Zlotys that will be received under the PPA.

The decrease of $72 million for the year ended December 31, 2003, as compared to the same period in 2002, was largely due to a $77 million foreign currency transaction loss during 2002, which primarily related to Global's Argentine investments.

Interest Expense

The increase of $37 million for the year ended December 31, 2004, as compared to the same period in 2003, was due to a $13 million increase related to the consolidation of TIE commencing on July 1, 2004, a $29 million increase related to ELCHO since interest was no longer capitalized as the plant became operational in the fourth quarter of 2003, and an increase in non-recourse debt at the project level with higher interest rates, offset in part by the repayment of lower interest rate debt at Energy Holdings during 2003 and 2004.

Income Taxes

The decrease of $11 million for the year ended December 31, 2004, as compared to the same period in 2003, was primarily due to lower pre-tax income and the impact of changes in certain lease forecast assumptions. In the fourth quarter of 2004, Resources revised several of its lease runs and recorded additional benefits of state tax losses generated by certain of its leases. These additional benefits resulted

from changes in Resources' forecast of state taxable income and tax liability over the relevant lease terms. This forecast was embedded in the lease reruns and led to an income tax benefit of $43 million in 2004 to reflect the cumulative benefit of this adjustment. This benefit was largely offset by the tax impact associated with a $31 million decrease in leveraged lease revenue. Future earnings will also increase by a modest amount as a result of this forecasted benefit. If Resources affiliates' taxable earnings decreased significantly, resulting in the inability of Resources to record the benefits related to its taxable losses, it could lead to an adverse material impact to Resources' results of operations, financial position and cash flows. See Note 17. Income Taxes of the Notes for additional information.

The increase of $203 million for the year ended December 31, 2003, as compared to the same period in 2002, was primarily attributed to increased pre-tax income for the year ended December 31, 2003, as

compared to pre-tax losses in the same period in 2002. The pre-tax losses in 2002 resulted from the write-off of $511 million, primarily related to investments in Argentina. See Note 6. Asset Impairments of the Notes.

Income (Loss) from Discontinued Operations, including Gain (Loss) on Disposal, net of tax

Carthage Power Company (CPC)

In May 2004, Global completed the sale of its interest in CPC for approximately $43 million in cash and recognized a gain on disposal of $5 million after-tax. Loss from Discontinued Operations for the year ended December 31, 2003 was $24 million including a $23 million estimated loss on disposal for the write-down of CPC to its fair value less cost to sell. The operating results of CPC for the year ended December 31, 2002 yielded after-tax income of approximately $1 million. See Note 4. Discontinued Operations, Dispositions and Acquisitions of the Notes for additional information.

Energy Technologies

In September 2003, Energy Holdings completed the sale of the remaining companies of Energy Technologies subsequent to recognizing a loss of $9 million, after-tax, in the first quarter of 2003. Loss from Discontinued Operations for years ended December 31, 2003 and 2002 were $11 million and $41 million, respectively, including the initial write-down in 2002. See Note 4. Discontinued Operations, Dispositions and Acquisitions of the Notes for additional information.

Tanir Bavi

In the fourth quarter of 2002, Global sold its 74% interest in Tanir Bavi, a 220 MW generating facility in India. Global reduced the carrying value of Tanir Bavi to the contracted sales price of $45 million and recorded a loss on disposal of $14 million after-tax for the year ended December 31, 2002. The operating results of Tanir Bavi for the year ended December 31, 2002 yielded after-tax income of $5 million. See Note 4. Discontinued Operations, Dispositions and Acquisitions of the Notes.

Cumulative Effect of Change in Accounting Principle

In 2002, Energy Holdings finalized the evaluation of the effect of adopting SFAS 142 on its recorded amount of goodwill. Under this standard, Energy Holdings was required to complete an impairment analysis of its recorded goodwill and record any resulting impairment. The total amount of goodwill impairments was $121 million, net of tax of $66 million and was comprised of $36 million (after-tax) at EDEERSA, $35 million (after-tax) at RGE, $32 million (after-tax) at Energy Technologies and $18 million (after-tax) at Tanir Bavi. All of the goodwill on these companies, other than RGE, was fully impaired. In accordance with SFAS 142, this impairment charge was recorded as of January 1, 2002 as a component of the Cumulative Effect of a Change in Accounting Principle and is reflected in the Consolidated Statement of Operations for the year ended December 31, 2002. See Note 9. Goodwill and Other Intangibles of the Notes.

Other

To supplement the Consolidated Financial Statements presented in accordance with accounting principles generally accepted in the U.S. (GAAP), PSEG and Energy Holdings use the non-GAAP measure of Earnings Before Interest and Taxes (EBIT).

PSEG's and Energy Holdings' Management each reviews EBIT internally to evaluate performance and manage operations and believes that the inclusion of this non-GAAP financial measure provides consistent and comparable measures to help shareholders understand current and future operating results. PSEG and Energy Holdings urge shareholders to carefully review the GAAP financial information included as part of this Annual Report.

Global

The following table summarizes Global's capital at risk, net contributions to EBIT and non-recourse interest in the following regions as of December 31, 2004 and 2003 and for the years ended December 31, 2004, 2003 and 2002.

	Total Capital at Risk(A)		EBIT(B)			Non-Recourse Interest(C)		
	As of December 31, 2004	As of December 31, 2003	2004	2003	2002	2004	2003	2002
			(Millions)					
Region:								
North America	$ 427	$ 423	$ 98	$ 117	$ 122	$13	$ 2	$—
South America	1,581	1,575	135	150	(441)	33	27	44
Asia Pacific(D)	6	180	54	8	7	—	—	—
Europe(E)	209	285	24	22	(8)	33	5	—
India and Oman	94	91	18	9	—	15	9	—
Global G&A—Unallocated	—	—	(31)	(30)	(38)	—	—	—
Total	$ 2,317	$ 2,554	$ 298	$ 276	$(358)	$94	$43	$44
Total Global EBIT			$ 298	$ 276	$(358)			
Interest Expense			(170)	(119)	(118)			
Income Taxes(D)			(49)	(23)	178			
Minority Interests			(1)	(13)	1			
Income from Continuing Operations			$ 78	$ 121	$(297)			

(A) Total Capital at Risk includes Global's gross investments and equity commitment guarantees less non-recourse debt at the project level.

(B) For investments accounted for under the equity method of accounting, includes Global's share of net earnings, including Interest Expense and Income Taxes.

(C) Non-recourse interest is Interest Expense on debt that is non-recourse to Global.

(D) The differences in EBIT and Capital at Risk for Asia Pacific and Income Taxes are primarily due to the sale of MPC which closed on December 31, 2004. The 2004 Capital at Risk does not include the $136 million promissory note received from the sale of MPC. See Note 4. Discontinued Operations, Dispositions and Acquisitions of the Notes.

$25 million contingent guarantee related to debt service obligations of Chilquinta in Chile expiring in 2011. Additional guarantees consist of a $35 million and $37 million leasing agreement guarantee for Prisma in Italy as of December 31, 2004 and 2003, respectively, $13 million and $24 million of performance and payment guarantees related to Energy Technologies as of December 31, 2004 and 2003, respectively, that are supported by letters of credit that expire in May 2005, and various other guarantees comprising the remaining $39 million and $45 million as of December 31, 2004 and 2003, respectively, expiring through 2010.

In September 2003, Energy Holdings completed the sale of Energy Technologies and nearly all of its assets. However, Energy Holdings retained certain outstanding construction and warranty obligations related to ongoing construction projects previously performed by Energy Technologies. These construction obligations have performance bonds issued by insurance companies for which exposure is adequately supported by the outstanding letters of credit described above. As of December 31, 2004, there were $30 million of such bonds outstanding, which are related to uncompleted construction projects. These performance bonds are not included in the $138 million of guaranteed obligations discussed above.

In addition to the amounts discussed above, certain subsidiaries of Energy Holdings also have contingent obligations related to their respective projects, which are non-recourse to Energy Holdings and Global.

Environmental Matters

PSEG, PSE&G and Power

Hazardous Substances

The New Jersey Department of Environmental Protection (NJDEP) adopted regulations concerning site investigation and remediation that require an ecological evaluation of potential damages to natural resources in connection with an environmental investigation of contaminated sites. These regulations may substantially increase the costs of environmental investigations and necessary remediation, particularly at sites situated on surface water bodies. PSE&G, Power and respective predecessor companies own or owned and/or operate or operated certain facilities situated on surface water bodies, certain of which are currently the subject of remedial activities. The financial impact of these regulations on these projects is not currently estimable. However, neither PSE&G nor Power anticipate that compliance with these regulations will have a material adverse effect on its respective financial position, results of operations or net cash flow.

The U.S. Environmental Protection Agency (EPA) has determined that a six mile stretch of the Passaic River in the area of Newark, New Jersey is a "facility" within the meaning of that term under the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). PSE&G and certain of its predecessors conducted industrial operations at properties adjacent to the Passaic River facility. The operations included one operating (Essex Site, one former generating station and four former MGPs. PSE&G's costs to clean up former MGPs are recoverable from utility customers through the SBC. PSE&G has sold the site of the former generating station and obtained releases and indemnities for liabilities arising out of the site in connection with the sale. The Essex Site was transferred to Power in August 2000. Power assumed any environmental liabilities of PSE&G associated with the electric generating stations that PSE&G transferred to it, including the Essex Site.

In 2003, the EPA notified 41 potentially responsible parties (PRPs), including PSE&G and Power, that it was expanding its assessment of the Passaic River Study Area to the entire 17-mile tidal reach of the lower Passaic River. The EPA further indicated, with respect to PSE&G, that it believed that hazardous substances were being released from the Essex Site and a former MGP located in Harrison, New Jersey (Harrison Site), which also includes facilities for PSE&G's ongoing gas operations. The EPA has estimated that its study would require five to eight years to complete and would cost approximately $20 million, of which it would seek to recover $10 million from the PRPs, including PSE&G and Power. Power is evaluating recoverability of any disbursed amounts from its insurance carriers.

Also, in 2003, PSEG, PSE&G and 56 other PRPs received a Directive and Notice to Insurers from the NJDEP that directed the PRPs to arrange for a natural resource damage assessment and interim compensatory restoration of natural resource injuries along the lower Passaic River and its tributaries pursuant to the New Jersey Spill Compensation and Control Act. The NJDEP alleged in the Directive that it had determined that hazardous substances had been discharged from the Essex Site and the Harrison Site.

The NJDEP announced that it had estimated the cost of interim natural resource injury restoration activities along the lower Passaic River to approximate $950 million.

PSE&G and Power have indicated to both the EPA and NJDEP that they are willing to work with the agencies in an effort to resolve their respective claims and, along with approximately 40 other PRPs, have executed an agreement with the EPA that provides for sharing the costs of the study between the government organizations and the PRPs. PSEG, PSE&G and Power cannot predict what further actions, if any, or the costs or the timing thereof, that may be required with respect to the Passaic River or natural resource damages. However, such costs could be material.

PSE&G

MGP Remediation Program

PSE&G is currently working with the NJDEP under a program to assess, investigate and remediate environmental conditions at PSE&G's former MGP sites (Remediation Program). To date, 38 sites have been identified as sites requiring some level of remedial action. The Remediation Program is periodically reviewed, and the estimated costs are revised by PSE&G based on regulatory requirements, experience with the program and available remediation technologies. Since the inception of the program in 1988 through December 31, 2004, PSE&G had expenditures of approximately $294 million.

During the fourth quarter of 2004, PSE&G refined the detailed site estimates, and determined that total Remediation Program costs could range between $650 million and $685 million. No amount within the range was considered to be most likely. Therefore, $356 million was accrued at December 31, 2004, which represents the difference between the low end of the total program cost estimate of $650 million and the total incurred costs through December 31, 2004 of $294 million. Of this amount, approximately $47 million was recorded in Other Current Liabilities and $309 million was reflected in Other Noncurrent Liabilities. The costs associated with the MGP Remediation Program have historically been recovered through the SBC charges to PSE&G ratepayers. As such, a $356 million Regulatory Asset was also recorded.

Costs for the MGP Remediation Program were approximately $34 million in 2004. PSE&G anticipates spending $47 million in 2005, $35 million in 2006, and an average of $26 million per year through 2016.

New Jersey Clean Energy Program

The BPU has approved a new funding requirement for each New Jersey utility applicable to Renewable Energy and Energy Efficiency programs for the years 2005 to 2008. The sum of PSE&G's electric and gas funding requirement for 2005 is $82 million and grows to $137 million in 2008 for a four-year total of $406 million. A liability for PSE&G's funding requirement has been recorded at discounted present value with an offsetting regulatory asset.

Power

Prevention of Significant Deterioration (PSD)/New Source Review (NSR)

The PSD/NSR regulations, promulgated under the Clean Air Act (CAA), require major sources of

certain air pollutants to obtain permits, install pollution control technology and obtain offsets, in some circumstances, when those sources undergo a "major modification," as defined in the regulations. The Federal government is seeking to order companies allegedly not in compliance with the PSD/NSR regulations to install the best available control technology at the affected plants and to pay monetary penalties of up to approximately $27,500 for each day of continued violation.

The EPA and the NJDEP issued a demand in March 2000 under the CAA requiring information to assess whether projects completed since 1978 at the Hudson and Mercer coal-burning units were implemented in accordance with applicable PSD/NSR regulations. Power completed its response to the requests for information and, in January 2002, reached an agreement with New Jersey and the Federal government to resolve allegations of noncompliance with PSD/NSR regulations. Under that agreement, over the course of 10 years, Power has agreed to install advanced air pollution controls that are designed to reduce emissions of NO_x, SO_2, particulate matter and mercury. The estimated cost of the program as of December

31, 2004 includes approximately $110 million for installation of selective catalytic reduction systems (SCRs) at Mercer, of which approximately $92 million has been spent, as well as approximately $300 million to $350 million at the Hudson unit and $150 million to $200 million for other pollution control equipment at Mercer to be installed by December 31, 2012. Power also paid a $1.4 million civil penalty and has agreed to spend up to $6 million on supplemental environmental projects. The agreement resolving the NSR allegations concerning the Hudson and Mercer coal-fired units also resolved a dispute over Bergen 2 regarding the applicability of PSD requirements and allowed construction of the unit to be completed and operations to commence.

Power has notified the EPA and the NJDEP that it is evaluating the continued operation of the Hudson coal unit in light of changes in the energy and capacity markets, increases in the cost of pollution control equipment and other necessary modifications to the unit. These and other factors impacting the power industry identified to the agencies continue to cast doubts on the appropriateness of making the necessary investments and Power's ability to complete the work at this time. A decision has not yet been made as to the Hudson unit's continued operation beyond the December 31, 2006 deadline for installation of pollution control equipment. The related costs associated with the pollution control modifications for the Hudson unit have not been included in Power's capital expenditure projections.

ISRA

Potential environmental liabilities related to subsurface contamination at certain generating stations have been identified. In the second quarter of 1999, in anticipation of the transfer of PSE&G's generation-related assets to Power, a study was conducted pursuant to ISRA, which applies to the sale of certain assets. PSEG had a $51 million liability as of December 31, 2004 related to these obligations, which is recorded on the Consolidated Balance Sheets.

New Generation and Development

Power

Completion of the projects discussed below, within the estimated time frames and cost estimates cannot be assured. Construction delays, cost increases and various other factors could result in changes in the operational dates or ultimate costs to complete.

Power is constructing the Bethlehem Energy Center, which will replace the Albany Station. Total costs for this project are expected to be approximately $551 million with expenditures to date of approximately $496 million (including IDC of $52 million). Construction began in 2002 with the expected completion date in mid-2005, at which time the existing station will be retired.

Power is constructing a natural gas-fired generation plant in Linden, New Jersey. Power is replacing the tubes in both steam turbine condensers due to corrosion that was detected. Power anticipates that construction will be completed in the second quarter of 2006. Including the replacement of the tubes, the total costs are currently estimated at approximately $1 billion with expenditures to date of approximately $880 million (including IDC of $135 million).

Power also has contracts with outside parties to purchase upgraded turbines for Salem Units 1 and 2 and to purchase upgraded turbines and complete a power uprate for Hope Creek to modestly increase its generating capacity. Salem Unit 2 completed Phase I of its turbine replacement during its Fall 2003

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

	Power	Guarantor Subsidiaries	Other Subsidiaries	Consolidating Adjustments	Total
			(Millions)		
For the Year Ended December 31, 2003:					
Net Cash Provided By (Used In) Operating Activities	$ 2,171	$ 262	$ (120)	$ (1,689)	$ 624
Net Cash Provided By (Used In) Investing Activities	$(1,985)	$ (548)	$ (255)	$ 1,956	$ (832)
Net Cash Provided By (Used In) Financing Activities	$ (186)	$ 587	$ 374	$ (566)	$ 209
For the Year Ended December 31, 2002:					
Revenues	$ 2	$ 4,503	$ 42	$ (907)	$ 3,640
Operating Expenses	—	3,603	41	(907)	2,737
Operating Income	2	900	1	—	903
Equity Earnings in Subsidiaries	574	(3)	—	(571)	—
Other Income	—	9	—	(8)	1
Other Deductions	—	—	—	(1)	(1)
Interest Expense	(180)	(69)	118	9	(122)
Income Taxes	72	(343)	(42)	—	(313)
Net Income (Loss)	$ 468	$ 494	$ 77	$ (571)	$ 468
For the Year Ended December 31, 2002:					
Net Cash Provided By (Used In) Operating Activities	$ (182)	$ 738	$ 298	$ (437)	$ 417
Net Cash Provided By (Used In) Investing Activities	$ (695)	$ (1,051)	$ (625)	$ 1,072	$(1,299)
Net Cash Provided By (Used In) Financing Activities	$ 877	$ 332	$ 328	$ (638)	$ 899

Note 25. Merger Agreement

On December 20, 2004, PSEG and Exelon Corporation (Exelon), a public utility holding company registered under PUHCA which is headquartered in Chicago, Illinois, entered into an agreement and plan of merger (the Merger Agreement) whereby PSEG will be merged with and into Exelon (the Merger). Under the Merger Agreement, each share of PSEG common stock will be converted into 1.225 shares of Exelon common stock.

The Merger Agreement contains certain termination rights for both PSEG and Exelon, and further provides that, upon termination of the Merger Agreement under specified circumstances, (1) Exelon may be required to pay PSEG a termination fee of $400 million plus PSEG's transaction expenses up to $40 million and (2) PSEG may be required to pay Exelon a termination fee of $400 million plus Exelon's transaction expenses up to $40 million.

The Merger Agreement has been unanimously approved by both companies' boards of directors but is contingent upon, among other things, the approval by shareholders of both companies, antitrust clearance and a number of regulatory approvals or reviews by federal and state energy authorities. The

parties have made some of the regulatory filings to obtain necessary regulatory approvals. It is anticipated that this approval process will be completed and the Merger will close within 12 months to 15 months after the announcement of the Merger Agreement in December 2004. Concurrent with the Merger Agreement, PSEG adopted the Key Executive Severance Plan of PSEG (Severance Plan) and adopted the Retention Program for Key Employees of PSEG (Retention Program).

Severance Plan

The Severance Plan provides change in control severance benefits to certain elected officers of PSEG whose employment is terminated without "cause" or who resign their employment for "good reason" within two years after a change in control, which would include the consummation of the Merger. Under the Severance Plan, the majority of the participants, if they are terminated without "cause" or resign his or her employment for "good reason" within two years after a change in control, will receive (1) a pro rata bonus based on the participant's target annual incentive compensation, (2) two times the sum of the participant's salary and target incentive bonus, (3) accelerated vesting of equity-based awards, (4) a lump sum payment equal to the actuarial equivalent of the participant's benefits under all of PSEG's retirement plans in which the participant participates calculated as though the participant remained employed for two years beyond the date his or her employment terminates less the actuarial equivalent of such benefits on the date his or her employment terminates, (5) two years continued welfare benefits (the first 18 months of which will be provided through PSEG-paid COBRA continuation coverage), (6) one year of PSEG-paid outplacement

services and (7) vesting of any compensation previously deferred. Under the Severance Plan, one participant will receive the same benefits as the other participants, except that the applicable multiplier for salary and target incentive bonus, retirement plan accruals and continuation of welfare benefits is three years instead of two.

Retention Program

The Retention Program, effective as of December 20, 2004, provides for payments to be made to certain key employees of PSEG who remain employed from the date of execution of the Merger Agreement through the date that is 90 days after the consummation of the Merger. The amount of a participant's retention payment may not be less than 40% or more than 150% of the participant's annual base salary. Retention payments under the Retention Program may not exceed $10 million in the aggregate.

PSEG will pay the first installment, equal to half of a participant's total retention payment, within 60 days after the first anniversary of the date of execution of the Merger Agreement. PSEG will pay the participant's remaining retention payment on the business day following the date that is 90 days after the consummation of the Merger. No participant whose employment terminates for any reason other than involuntary termination without "cause" will receive any subsequent installment of the retention payment. A participant whose employment is terminated without "cause" on or prior to the consummation of the Merger will be treated as if he or she remained employed through the date that is 90 days after the consummation of the Merger for all purposes under the Retention Program.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANTS

Executive Officers

The Executive Officers of each of PSEG, PSE&G, Power and Energy Holdings, respectively, are set forth below, as indicated for each individual.

Name	Age as of December 31, 2004	Office	Effective Date First Elected to Present Position
E. James Ferland (1)(2)(3)(4)	62	Chairman of the Board, President and Chief Executive Officer (PSEG)	July 1986 to present
		Chairman of the Board and Chief Executive Officer (PSE&G)	July 1986 to present
		Chairman of the Board and Chief Executive Officer (Energy Holdings)	June 1989 to present
		Chairman of the Board and Chief Executive Officer (Power)	June 1999 to present
		Chairman of the Board and Chief Executive Officer (Services)	November 1999 to present
Thomas M. O'Flynn(1)(3)(4)	44	Executive Vice President and Chief Financial Officer (PSEG)	July 2001 to present
		Executive Vice President—Finance (Services)	July 2001 to present
		Executive Vice President and Chief Financial Officer (Energy Holdings)	August 2002 to present
		Executive Vice President and Chief Financial Officer (Power)	February 2002 to present
		Managing Director—Global Power and Utility Investment Banking Division Group (Morgan Stanley)	December 1997 to May 2001
Robert J. Dougherty, Jr.(1)(4)	53	President and Chief Operating Officer (Energy Holdings)	January 1997 to present
		Vice President (PSEG)	March 1995 to present
		President (Global)	August 2003 to present
Ralph Izzo(1)(2)	47	President and Chief Operating Officer (PSE&G)	October 2003 to present
		Vice President—Utility Operations (PSE&G)	June 2002 to October 2003
		Vice President—Special Projects (Services)	September 2001 to June 2002
		Vice President—Appliance Service (PSE&G)	April 2000 to September 2001
		Vice President—Corporate Planning (PSEG)	March 1998 to

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			April 2000
R. Edwin Selover (1)(2)	59	Senior Vice President and General Counsel (PSEG)	April 2002 to present
		Vice President and General Counsel (PSEG)	April 1988 to April 2002
		Senior Vice President and General Counsel (PSE&G)	January 1988 to present
		Senior Vice President and General Counsel (Services)	November 1999 to present
Patricia A. Rado(1)(2)(3)(4)	62	Vice President and Controller (PSEG)	April 1993 to present
		Vice President and Controller (PSE&G)	April 1993 to present
		Vice President and Controller (Power)	June 1999 to present
		Vice President and Controller (Energy Holdings)	April 2004 to present
		Vice President and Controller (Services)	November 1999 to present
Robert E. Busch(1)(2)	58	President & Chief Operating Officer (Services)	April 2001 to present
		Senior Vice President-Finance and Chief Financial Officer (Services)	November 1999 to April 2001
		Senior Vice President and Chief Financial Officer (PSE&G)	June 1998 to present

Name	Age as of December 31, 2004	Office	Effective Date First Elected to Present Position
Harold W. Borden Jr.(3)	60	Vice President and General Counsel (Power)	June 1999 to present
		Vice President—Law (PSE&G)	April 1995 to July 1999
Morton A. Plawner (3)	57	Treasurer (PSEG)	April 1998 to present
		Vice President and Treasurer (PSE&G)	April 1998 to present
		Vice President and Treasurer (Power)	June 1999 to present
Frank Cassidy(1)(3)	58	President and Chief Operating Officer (Power)	June 1999 to present
		President (Energy Technologies)	November 1996 to June 1999
Steven R. Teitelman(3)	58	President (ER&T)	June 1999 to present
		Vice President—Energy Resources and Trading (PSE&G)	August 1997 to August 2002
Michael J. Thomson(3)	46	President (Fossil)	August 2003 to present
		President (Global)	January 1997 to July 2003
Eileen A. Moran(4)	50	President (Resources)	May 1990 to present
		President (EGDC)	January 1997 to present
Miriam E. Gilligan (4)	53	Vice President—Finance and Treasurer (Energy Holdings)	December 2001 to present
		Vice President (Services)	December 2001 to present
		Treasurer (Energy Holdings)	1997 to December 2001

(1) Executive Officer of PSEG

(2) Executive Officer of PSE&G

(3) Executive Officer of Power

(4) Executive Officer of Energy Holdings

Directors

PSEG

The information required by Item 10 of Form 10-K with respect to (i) present directors of PSEG who are nominees for election as directors at PSEG's 2005 Annual Meeting of Stockholders, and directors whose terms will continue beyond the meeting, and (ii) compliance with Section 16(a) of the Securities Exchange Act of 1934, as amended, is set forth under the headings "Election of Directors" and Section

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As filed with the Securities and Exchange Commission on February 10, 2005

Registration No. 333-

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form S-4

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Exelon Corporation

(Exact name of registrant as specified in its charter)

Pennsylvania	4931	23-2990190
(State or other jurisdiction of incorporation or organization)	*(Primary Standard Industrial Classification Code Number)*	*(I.R.S. Employer Identification Number)*

10 South Dearborn Street
37th Floor
Chicago, Illinois 60680-5379
(312) 394-7398
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Randall E. Mehrberg, Esq.
Exelon Corporation
10 South Dearborn Street
37th Floor
Chicago, Illinois 60680-5379
(312) 394-7398
(Name, address, including zip code, and telephone number, including area code, of agent for service)

BCA000130

Copies To:

Thomas A. Cole, Esq. Carol M. Lind, Esq. Sidley Austin Brown & Wood LLP Bank One Plaza 10 South Dearborn Street Chicago, Illinois 60603 (312) 853-7000	R. Edwin Selover, Esq. Public Service Enterprise Group Incorporated 80 Park Plaza P.O. Box 1171 Newark, New Jersey 07101-1171 (973) 430-7000	David P. Falck, Esq. Pillsbury Winthrop LLP 1540 Broadway New York, New York 10036 (212) 858-1000

Approximate date of commencement of proposed sale of the securities to the public: As soon as practicable after this registration statement becomes effective and after the conditions to the completion of the proposed transaction described in the joint proxy statement/prospectus have been satisfied or waived.

If the securities being registered on this form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box. ☐

The Information in this joint proxy statement/prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary joint proxy statement/prospectus is not an offer to sell and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY COPY—SUBJECT TO COMPLETION, DATED FEBRUARY 10, 2005

Exelon. PSEG

MERGER PROPOSAL—YOUR VOTE IS IMPORTANT

On behalf of the boards of directors and management of both Exelon Corporation and Public Service Enterprise Group Incorporated, we are pleased to deliver our joint proxy statement/prospectus for the merger involving Exelon and PSEG. We believe this merger will create a strong combined company that will deliver important benefits to our shareholders, to our customers and to the communities we serve.

If the merger is completed, PSEG shareholders will receive 1.225 shares of Exelon common stock for each share of PSEG common stock held. The exchange ratio is fixed and will not be adjusted to reflect stock price changes prior to the completion of the merger. Based on the closing price of Exelon common stock on the New York Stock Exchange on December 15, 2004, the last full trading day prior to a significant increase in trading volume from the average trading volume of Exelon and PSEG common stock and inquiries from *The Wall Street Journal* regarding whether Exelon and PSEG were in advanced merger discussions, the exchange ratio represented approximately $53.14 in value for each share of PSEG common stock. Based on the closing price of Exelon common stock on the New York Stock Exchange on December 16, 2004, the last full trading day prior to the publication of news articles reporting that Exelon and PSEG were in advanced merger discussions, the exchange ratio represented approximately $52.19 in value for each share of PSEG common stock. Based on the closing price of Exelon common stock on the New York Stock Exchange on December 17, 2004, the last full trading day prior to our public announcement of the merger, the exchange ratio represented approximately $51.28 in value for each share of PSEG common stock. Based on the closing price of Exelon common stock on the New York Stock Exchange on [•], 2005, of $[•], the exchange ratio represented approximately $[•] in value for each share of PSEG common stock. **The value of the consideration to be received by PSEG shareholders will fluctuate with changes in the price of Exelon common stock. We urge you to obtain current market quotations for Exelon and PSEG common stock.**

Exelon shareholders will continue to own their existing Exelon shares. We estimate that Exelon may issue up to approximately [•] million shares of Exelon common stock to PSEG shareholders as contemplated by the merger agreement, which includes approximately [•] million shares of Exelon common stock issuable pursuant to PSEG stock options to be assumed by Exelon and substituted with options to purchase Exelon common stock. Upon completion of the merger, Exelon's shareholders immediately prior to the merger will own approximately [•]% of Exelon's outstanding shares on a fully diluted basis and former PSEG shareholders will own approximately [•]% of Exelon's outstanding common stock on a fully diluted basis. Upon completion of the merger, Exelon will change its name from Exelon Corporation to Exelon Electric & Gas Corporation. Exelon common stock will continue to be listed on the New York Stock Exchange.

For a discussion of the United States federal income tax consequences of the merger, see "The Merger—Material United States Federal Income Tax Consequences of the Merger" beginning on page [•] of this joint proxy statement/prospectus.

We urge you to read this joint proxy statement/prospectus, which includes important information about the merger and our annual meetings. **In particular, see the section titled "Risk Factors" on pages [•] through [•] of this joint proxy statement/prospectus which contains a description of the risks that you should consider in evaluating the merger.**

Exelon asks that, in addition to the other matters to be considered at the Exelon annual meeting, Exelon shareholders approve the issuance of shares of Exelon common stock as contemplated by the merger agreement. Exelon's annual meeting will be held at the following time and place:

[•], 2005
[•] local time
[Location TBD]

Exelon's board of directors has reviewed and considered the terms of the merger and the merger agreement and has unanimously determined that the merger, including the issuance of shares of Exelon common stock as contemplated by the merger agreement, is advisable, fair to and in the best interests of Exelon and its shareholders and unanimously recommends that Exelon shareholders vote FOR the proposal to approve the issuance of shares of Exelon common stock as contemplated by the merger agreement.

PSEG asks that, in addition to the other matters to be considered at the PSEG annual meeting, PSEG shareholders approve the merger agreement and thereby approve the merger. PSEG's annual meeting will be held at the following time and place:

[•], 2005
[•] local time
[Location TBD]

PSEG's board of directors has reviewed and considered the terms of the merger and the merger agreement and has unanimously determined that the merger is advisable, fair to and in the best interests of PSEG and its shareholders and unanimously recommends that PSEG shareholders vote FOR the proposal to approve the merger agreement and thereby approve the merger.

We cannot complete the merger unless the Exelon shareholders approve the issuance of shares of Exelon common stock as contemplated by the merger agreement and the PSEG shareholders approve the merger agreement. Your vote is important.

John W. Rowe *Chairman of the Board,* *President and Chief Executive Officer* *Exelon Corporation*	E. James Ferland *Chairman of the Board,* *President and Chief Executive Officer* *Public Service Enterprise Group Incorporated*

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved the securities to be issued under this joint proxy statement/prospectus or determined if this joint proxy statement/prospectus is accurate or adequate. Any representation to the contrary is a criminal offense.

This joint proxy statement/prospectus is dated [•], 2005 and is first being mailed to Exelon and PSEG shareholders on or about [•], 2005.

IRS Private Letter Ruling Regarding Nuclear Decommissioning Trust Funds

United States Treasury regulations generally provide for the nonrecognition of gain or loss for United States federal income tax purposes with respect to the transfer of certain decommissioning trust funds maintained by nuclear power plant owners in connection with the transfer of an interest in a nuclear power plant. The precise application of these Treasury Regulations in the context of the merger, however, is not free from doubt. Therefore, Exelon and PSEG have agreed to seek a ruling from the IRS confirming that no gain or loss will be recognized for United States federal income tax purposes with respect to the transfer of PSEG's decommissioning trust funds as a result of the merger.

Corporate Restructuring

Subject to receipt of necessary regulatory approvals, Exelon and PSEG intend to pursue a restructuring of their corporate organizations after completion of the merger. In general, this restructuring will involve:

- PSE&G becoming a direct subsidiary of Exelon Energy Delivery, LLC; thereafter, PECO, ComEd and PSE&G will be separate indirect subsidiaries of Exelon and will continue to be regulated public utilities;
- Combining PSEG Power and Exelon Generation into one entity and combining certain of PSEG Power's subsidiaries with that combined entity; and
- PSEG Services selling its assets to Exelon Services, with Exelon Services providing central services to the combined company and its subsidiaries.

By virtue of the merger, PSEG Energy Holdings will become a direct subsidiary of the combined company.

The companies may modify these restructuring plans to adapt to changing regulatory and competitive conditions. Completion of the merger is not conditioned on the consummation of, or receipt of regulatory approval for, any portion of these corporate restructuring plans.

Appraisal Rights

Neither Exelon nor PSEG shareholders are entitled to appraisal rights in connection with the merger under the Pennsylvania Business Corporation Law or the New Jersey Business Corporation Act, respectively.

Federal Securities Laws Consequences; Stock Transfer Restriction Agreements

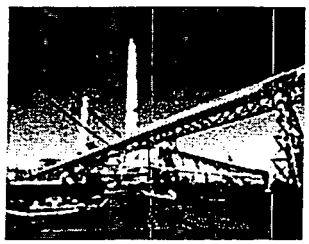
All shares of Exelon common stock received by PSEG shareholders pursuant to the merger will be freely transferable, except that shares of Exelon common stock received by persons who are deemed to be "affiliates" of PSEG under the Securities Act of 1933, as amended, at the time of the PSEG annual meeting may be resold by them only in transactions permitted by Rule 145 under the Securities Act of 1933 or as otherwise permitted under the Securities Act of 1933, as amended. Persons who may be deemed to be affiliates of PSEG for such purposes generally include individuals or entities that control, are controlled by or are under common control with, PSEG, as the case may be, and include directors and certain executive officers of PSEG. The merger agreement requires that PSEG use reasonable best efforts to cause each affiliate to execute a written agreement to the effect that such persons will not offer, sell or otherwise dispose of any of the shares of Exelon common stock issued to them pursuant to the merger in violation of the Securities Act of 1933, as amended, or the related SEC rules and regulations promulgated thereunder.

The registration statement of which this joint proxy statement/prospectus is a part does not cover any resales of the Exelon common stock to be received by the shareholders of PSEG upon completion

Our Family of Companies

email this page

The Hudson Generating Station



The Hudson Generating Station is a two unit 991 MW station located on a 250 acre site on the Hackensack River in Jersey City, NJ, three miles upstream from Newark Bay.

Unit 1 is a load following unit installed in 1964. It runs mainly on natural gas but can also run on oil. When it began operation, it was the largest unit in the PSEG system.

Unit 2 is a load following unit installed in 1968. It runs mainly on coal but can run on natural gas or oil. The unit burns only low sulfur coal to reduce the emissions of sulfur dioxide and utilizes an electrostatic precipitator to control particulate emissions.

The Hudson Generating Station was built on the site of the former Marion Generating Station, the first PSEG plant, which started operation in 1906. The Marion Station was the largest in the PSEG fleet until 1924. The bulk of the Marion station was retired in 1961, as construction on the Hudson Station began.

Key Facts:

Location:	Jersey City, NJ
MW:	991
Fuel:	Coal, Gas, Oil
Technology:	Steam
Commercial Operation:	1964, 1968
Market:	Load Following

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Our Family of Companies

PSEG Power Corporate Leaders

PSEG Corporate Leaders

- Michael J. Thomson
  President - PSEG Fossil LLC
- Harold W. Borden
  Vice President and General Counsel - PSEG Power LLC
- Mark G. Kahrer
  Vice President - Finance and Development

Michael J. Thomson

Michael J. Thomson was named president of PSEG Fossil LLC, a subsidiary of PSEG Power, effective August 1, 2003.

Before coming to PSEG Fossil, Mr. Thomson had been president of PSEG Global L.L.C. (Global) since January 1997. Prior to that he served as a senior vice president for Global since 1993, and was designated chief operating officer in February 1994. In that capacity he was responsible for managing the company's global strategic growth plan, project management and technical services, as well as operations and maintenance activities.

Before coming to Global, Mr. Thomson was employed by the parent holding company, PSEG Energy Holdings Incorporated (Holdings), for three years. As a senior member of the Holdings team, he served successively as business strategy manager for its energy-related businesses in independent power, oil and gas, director of business planning, and vice president of business development and planning.

Prior to joining PSEG in 1990, he worked at Corning for eight years, during which time he held various positions in manufacturing, finance, corporate planning and development.

Mr. Thomson received a bachelor's degree in operations management from Villanova University. He also holds an MBA degree and a master's of accounting degree from Syracuse University. He is also a certified management accountant.

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Harold W. Borden

Harold W. Borden serves as the vice president and general counsel of PSEG Power LLC, a subsidiary of Public Service Enterprise Group Incorporated (PSEG), that was established in June 1999. PSEG Power is the power generation subsidiary of PSEG, which operates approximately 14,600 mw of fossil and nuclear generation facilities and engages in energy trading activities in the northeast region of the United States. He also serves as the general counsel for PSEG Nuclear LLC and PSEG Fossil LLC, subsidiaries of PSEG Power.

Previously, Mr. Borden had been serving as vice president - law, of Public Service Electric and Gas Company (PSE&G) in Newark, New Jersey.

Mr. Borden holds a bachelor's degree from Lafayette College and a doctor of jurisprudence degree from Seton Hall University School of Law. He first joined PSE&G as an attorney in 1972, and has held numerous different positions since that time.

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Mr. Borden is active in several non-profit organizations, including the board of trustees for The Nature Conservancy (N.J. Chapter), The Pingry School, New Jersey SEEDS, the New Jersey Foundation for Public Broadcasting, and the Union Foundation.

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Mark G. Kahrer

Mark G. Kahrer was elected vice president - finance and development of PSEG Power LLC, in May 2005. He is responsible for financial analysis, reporting, and forecasting; as well as asset acquisition and development activities for Power.

Previously, Mr. Kahrer was assistant treasurer of Public Service Enterprise Group Incorporated (PSEG); responsible for directing the corporate finance department, capital market transactions, and daily oversight of the company's pensions, trusts, and insurance programs. He joined PSEG in 1983 as an accountant, and has held the positions of director - corporate accounting, director - financial risk management, manager - corporate strategic planning, and manager - federal affairs.

Mr. Kahrer is a certified public accountant, holds a Bachelor of Science degree in accounting from Saint Peter's College, and a Master of Business Administration degree in finance from Seton Hall University. He is treasurer of the ARC of Essex County Foundation Board, and a regent of Saint Peter's College. Mr. Kahrer is also a past president of the Saint Peter's College Alumni Association board of trustees.

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