PSEG Nuclear LLC
P.O. Box 236, Hancocks Bridge, New Jersey 08038-0236

PSEG Nuclear LLC

AUG 3 1 2007
HCH 2007-084

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
ARTICLE NUMBER: 7004 2510 0005 2136 5573

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Gentlemen:

NJPDES PERMIT NO. NJ0025411
HOPE CREEK GENERATING STATION
FACILITY OPERATING LICENSE DPR-70/75
DOCKET NO. 50 - 354

In accordance with section 3.2 of the Hope Creek Environmental Protection Plan, we are providing you with a copy of the Application for Renewal of the New Jersey Pollutant Discharge Elimination System Permit (NJPDES) Permit for Hope Creek Generating Station. The Application has been submitted to the New Jersey Department of Environmental Protection.

Should you have any questions, please contact Mr. Richard Labott at (856) 339-1094.

Sincerely,

George P. Barnes

George P. Barnes
Site Vice President – Hope Creek

Attachment

C001

NRR

C Mr. Samuel J Collins, Administrator - Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. Stewart Bailey, Licensing Project Manager - HC
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 8B1
Rockville, MD 20852

USNRC Senior Resident Inspector - Hope Creek
Mail Code (X24)

Mr. Paul Baldauf, Assistant Director
Bureau of Nuclear Engineering
P.O. Box 415
Trenton, NJ 08625

PSEG Nuclear, LLC

Hope Creek Generating Station

New Jersey Pollutant Discharge Elimination System Permit No. NJ0025411

Renewal Application

September 2007

PSEG Nuclear LLC
P.O. Box 236, Hancocks Bridge, New Jersey 08038-0236

PSEG Nuclear LLC

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Bureau of Nuclear Engineering
P.O. Box 415
Trenton, NJ 08625

PSEG Nuclear LLC
P.O. Box 236, Hancocks Bridge, New Jersey 08038-0236

PSEG Nuclear LLC

AUG 3 1 2007

HCH-2007-083

CERTIFIED MAIL
RETURN RECIEPT REQUESTED
ARTICLE NUMBER: 7004 2510 0005 2136 5566

Mr. Narinder Ahuja, Director
Division of Water Quality
New Jersey Department of Environmental Protection
401 East State Street, CN-029
Trenton, NJ 08625

HOPE CREEK GENERATING STATION
NJPDES PERMIT NJ0025411
APPLICATION FOR RENEWAL

Dear Mr. Ahuja:

In accordance with the requirements of N.J.A.C 7:14A-1 *et seq.*, PSEG Nuclear LLC submits herewith two (2) copies of the renewal application for NJPDES Permit NJ0025411 for the Hope Creek Generating Station. The certification required pursuant to N.J.A.C 7:14A-4.9 is provided by Mr. George P. Barnes, Site Vice President, at Form NJPDES-1.

If you have any questions or require further information concerning this submission, please contact Mr. Richard Labott at 856-339-1094 or Mr. Edward Keating at 856-339-7902. We would be happy to meet with you or your staff at your convenience.

Very truly yours,

George P. Barnes

George P. Barnes
Site Vice President – Hope Creek

Enclosure

State of New Jersey
Department of Environmental Protection
Division of Water Quality

New Jersey Pollutant Discharge Elimination System Permit Application

Refer to Instructions on Page 6 and the Appropriate Completeness Checklist and Provide All Applicable Information. Please Print or Type. (Attach additional sheets if necessary)

1. Applicant(s)/Operating Entity(ies)*

Name: PSEG Nuclear LLC

Mailing Address: PO Box 236 / H15 / End of Alloway Creek Road

City or Town: Hancocks Bridge State: NJ Zip Code: 08038

Federal Tax I.D.#: 221-212-800 Telephone (856) 339-1094

Fax (856) 339-3546 E-Mail: Richard.Labott@PSEG.Com

Parent Corporation & Place of Incorporation: Public Service Enerprise Group, New Jersey

2. Property/Land Owner(s)

Name: PSEG Nuclear LLC

Mailing Address: PO Box 236 / H15 / End of Alloway Creek Road

City or Town: Hancocks Bridge State: NJ Zip Code: 08038

Federal Tax I.D.#: 221-212-800 Telephone (856) 339-1094

3. Location of Facility/Site

Name of Facility/Site: Hope Creek Generating Station

Street Address/Location: PO Box 236 / H15 / End of Alloway Creek Road

City or Town: Hancocks Bridge State: NJ Zip Code: 08038

Municipality: Lower Alloways Creek Twp. County: Salem EPA I.D. #: NJD077070811

4. Facility Contact (Person Familiar with the Facility/Site and this Application)

Name: Richard B. Labott Telephone (856) 339-1094

Affiliation: PSEG Nuclear LLC

City or Town: Hancocks Bridge State: NJ Zip Code: 08038

Fax (856) 339-3546 E-Mail: Richard.Labott@PSEG.Com

*Monitoring Report Forms (MRFs) and Billing notices are sent to the address listed here. Please provide the attached form at the end of this application, if you wish to receive MRFs and/or Billing notices at a different address.

5. PROJECT and DISCHARGE DESCRIPTION (Under This Application)

Steam Electric Generating Station, utilizing nuclear power; discharges include cooling tower blowdown, industrial wastewater, treated sanitary wastewater, and stormwater; residuals generated are disposed off-site. Please see attached for additional information.

6. REQUESTED NJPDES PERMIT ACTION AND OTHER NJPDES PERMITS

Under Table A, for each requested permit action under this application, list each discharge activity associated with this facility/site in the left column using the Discharge Activity Category Sheet (i.e., A, A8, CSO, etc.) and check the requested permit action (new, renewal, etc.). Under Table B, list currently held permits and/or pending applications for this facility/site. For existing permits, list permit number(s) and expiration date.

TABLE A: REQUESTED PERMIT ACTION UNDER THIS APPLICATION

DISCHARGE ACTIVITY (CATEGORY) CODES	PERMIT NUMBER	EXPIR. DATE	NEW	RENEW.	MOD.	REVOC.	REVOC. & REISSUE
B	NJ0025411	2/29/08		✓			

TABLE B: OTHER NJPDES PERMITS ASSOCIATED WITH THIS FACILITY

DISCHARGE ACTIVITY (CATEGORY) CODES	PERMIT NO.	EXP. DATE	PENDING

SUPPLEMENT TO NJPDES 1 - ITEM 5 -
PROJECT AND DISCHARGE DESCRIPTION
HOPE CREEK GENERATING STATION
NJPDES PERMIT NJ0025411

I. DESCRIPTION OF THE STATION

I.A. The Site and Its Surroundings

The Hope Creek Generating Station (Hope Creek, HCGS or the Station) is located in Lower Alloways Creek Township, Salem County, New Jersey, at River Mile 51 on the Delaware River Estuary (Estuary), 17 miles south of the Delaware Memorial Bridge. The Station is located on a projection of land known as Artificial Island on the eastern shore of the Delaware Estuary. It is bordered by Salem Generating Station to the south, the Estuary to the west, and by extensive marshes and uplands. Depictions of five-mile and 50-mile radius maps are attached.

The Estuary in the area of the Station is approximately 2.5 miles wide. The tidal flow of the Estuary past the Station is approximately 400,000 cubic feet per second (cfs) or 259,000 million gallons per day (MGD). The salinity of the Estuary in this area varies with both the tides and season from almost freshwater to almost saltwater. The Estuary in the vicinity of the Station has high turbidity and swift current velocities.

Prominent features in the area (and their approximate distances) are the Chesapeake and Delaware Canal (2 miles to the northwest), Hope Creek Jetty (2 miles to the southeast), and Augustine Beach, Delaware (about 3 miles due west). The entire area is within the Delaware River's estuarine zone, as defined by the Delaware River Basin Commission (Zone 5).

The United States Army Corps of Engineers (USACOE) created the island in the first half of the last century while dredging the shipping channel. Depositing the dredged spoil between two small sandbars, the USACOE first built the island, and later it was connected to the shoreline.

As one might expect from its history, Artificial Island's surface soil is generally hydraulic fill composed of clay, silt, sand, gravel, and some organic material. The surface layer is 7.6 to 9.2 m (25 to 30 ft) thick and overlies a 1.5- to 3-m (5- to 10-ft) base of coarse sand and gravel that was the original river bottom.

The peninsula extends about one-third of the way across the Delaware Estuary. It is quite flat, with an average elevation of about 2.7 m (9 ft) above mean sea level. During the construction of Artificial Island, the USACOE built a protective levee along most of the western shore.

The site was selected taking account of several criteria, including adequate acreage and distance from population centers, drawn from the requirements of the United States Atomic Energy Commission (USAEC) (now the United States Nuclear Regulatory Commission [USNRC]). Other considerations were the availability of cooling water, transmission facilities, and ready access for heavy equipment. The Station is adjacent to another generating facility operated by PSEG Nuclear LLC (PSEG Nuclear), Salem Station. Together, the site for the two facilities encompasses 740 acres of land, including 220 acres for Salem Generating Station, 153 acres for Hope Creek Generating Station, and 367 acres of uncommitted land.

The remaining land adjacent to the Hope Creek Station is zoned for industrial and residential or agricultural use but falls under wetlands acts that restrict development. The lands immediately north of the Hope Creek facility are dredge spoil areas utilized by PSEG Nuclear and the USACOE. Although the Station and most of Artificial Island is located in New Jersey, the northern tip of Artificial Island lies in Delaware.

1.B The Station

Hope Creek is a single unit nuclear power steam electric generating facility. In addition to the generating station, the Hope Creek site contains associated buildings and structures, a sewage treatment plant, an electrical switchyard, parking areas, roads, and equipment laydown areas. Riprap and bulkheads protect the shore from erosion.

I.C. Electrical Generation

Nuclear reactor systems built for commercial power production have been principally either boiling-water reactor (BWR) or pressurized-water reactor (PWR) systems. Hope Creek Unit 1 is a General Electric BWR 4 design and the containment structure is type Mark I. The BWR has two major cooling systems, the reactor system and the cooling water system. Hope Creek operates with a non-contact, closed cycle cooling water system.

Hope Creek is licensed by the USNRC, Docket No. 50-354. The license currently expires on December 20, 2026. Hope Creek is designed to operate continuously at the licensed thermal power rating as a base-loaded electrical generating unit. HCGS is licensed for a thermal power of 3339 Megawatts Thermal (MWt). The electrical output is approximately 1049 Megawatts Electric net Maximum Dependable Capacity (MDC). PSEG Nuclear has an application pending with the USNRC to allow operation of Hope Creek Generating Station at a thermal power level up to 3840 MWt. The environmental assessment submitted in conjunction with the license power increase application evaluated the potential effects on the Station discharges and determined there would be no changes required in the current effluent limitations and conditions based on this increase in licensed power level. PSEG Nuclear believes this increase in licensed power level will be approved by the USNRC in late 2007.

The nuclear reaction process produces heat which is transferred to the reactor water, cooling the reactor, and creating steam in the reactor vessel. The steam enters the high-pressure turbine then the three low-pressure turbines, causing them to rotate. This rotation is transferred to the generator which generates electricity. The exhausted steam leaves the turbines and enters the main condenser, where it is condensed by cooling from the circulating water system that is contained inside the condenser tubes. As this is a non-contact cooling water system, the steam and circulating water are isolated from each other. The condensed steam is purified and returned to the reactor for reuse in the generation of steam.

1.D. Circulating Water System

The circulating water system (CWS) transports excess heat from the condensers to the cooling tower for dissipation. The CWS is a closed cycle cooling water system; the circulating water is recirculated within the CWS. The CWS is also a non-contact cooling water system, the circulating water does not come in contact with the steam being cooled, it is contained inside the tubes within the condenser. There are four circulating water pumps (CWP), each rated at 138,000 gallons per minute, for a total circulating water system flow of about 552,000 gallons per minute. The cooling tower is a natural draft, counterflow, evaporative type which is 432 feet in diameter at the base and 512 feet high. The cooling tower basin contains approximately 9 million gallons of water, and with the volume of the circulating water system provides an operating volume of 11 million gallons for the circulating water system. In the circulating water system, the CWPs draw water from the cooling tower basin, pump the water through the main condensers where it picks up excess heat from the steam, and returns the circulating water to the cooling tower above the fill through a distribution system. As the circulating water falls back to the cooling tower basin over the fill, heat is transferred from the circulating water to the air that is naturally drafted counter to the circulating water flow. This transfer of heat allows the circulating water to be reused. Since there is some evaporative loss, solids from the Delaware Estuary

concentrate in the cooling tower basin and continuous blowdown is used to control this concentration. Makeup water to replace the evaporative losses and the continuous blowdown back to the Delaware Estuary is provided by the service water system. Further information regarding the cooling tower blowdown and system chemical usage is contained at Form C, Tab DSN 461A.

The function of the cooling tower is to reduce the temperature of the circulating water entering the cooling tower to a lower temperature, so that it can be recycled for further use. Natural draft cooling towers are essentially static devices which rely on the design of the tower and operation of the laws of thermodynamics to accomplish the cooling of the circulating water. The cooling tower is least efficient for removing heat when the wet bulb temperature is high and the relative humidity is low. The cooling tower utilizes cool ambient air in such a way that heat is transferred from the hot water to the cool air through both latent heat transfer and, to a lesser extent, sensible heat transfer. Latent heat transfer occurs when heated water is evaporated by being exposed to cooler air. Approximately 931 British Thermal Units (BTU) of heat per pound of water evaporated is consumed; the heat is taken from the water remaining after evaporation by lowering its temperature. This transfer of latent heat accounts for approximately seventy-five (75%) percent of the heat transfer that occurs. The balance of the heat transfer involves sensible heat exchange. When two masses having different temperatures come into contact, heat is exchanged so that their temperatures approach an equilibrium. When warm water contacts cool air in the tower, the air is warmed because it receives sensible heat from the water; the water, in turn, loses sensible heat and is cooled. As the air is warmed, it also becomes lighter. The difference in specific weight between the air inside and outside the cooling tower causes the natural draft effect through the tower. The actual transfer of heat from the water to the air is accomplished primarily in the fill, where warm water is passed downward in very thin films through a stream of air moving upward as a result of the natural draft. The fill is designed to maximize the surface area of the water exposed to air, thereby maximizing the amount of

evaporation that occurs. The warmed, moist air is then drawn upward through the drift eliminators which contain wave-shaped passages designed to reduce the amount of water leaving the tower as droplets with the warmed air. By causing the air to change direction, the drift eliminators collect many of the water droplets carried by the air. The warm air is then discharged into the atmosphere and the cooled water falls to the cooling tower basin to be recycled in this closed-loop cooling system.

1.E. Service Water System

The service water system (SWS) provides Estuary water to cool the Safety Auxiliary Cooling System (SACS) and the Reactor Auxiliary Cooling System (RACS) heat exchangers. SACS is a nuclear safety-related cooling system designed to provide cooling water to the engineered safety features equipment during normal and emergency plant conditions. The RACS provides cooling water to reactor subsystems during normal plant operations. After cooling SACS and RACS, the service water is directed to the cooling tower basin for makeup water. If the cooling tower is not in service, the service water can bypass the cooling tower and discharge directly to the cooling tower blowdown line. There are four service water pumps serving two independent service water cooling loops. Normally, two or three service water pumps are in operation to provide the requisite service water flow.

The service water intake structure is located on the shoreline, approximately 800 feet due west of the reactor building. Figure NJPDES-1-Item 5-A shows a cut-away view of the service water intake. The intake occupies approximately 112 feet of shoreline, extends 75 feet inland, and rises 35 feet above grade (excluding the gantry crane). The west face of the intake is parallel to and flush with the shoreline. The intake structure is constructed of reinforced concrete and seismically designed for nuclear safety purposes. The front of the intake contains a continuous line of trash racks and associated trash rakes and a skimmer wall. The intake is divided into eight (8) bays, each with its own traveling screen, service

water pump, service water strainer, and associated equipment. Four of the bays are used to support Hope Creek, the other four bays were designed for the cancelled Hope Creek Unit 2 and are idle.

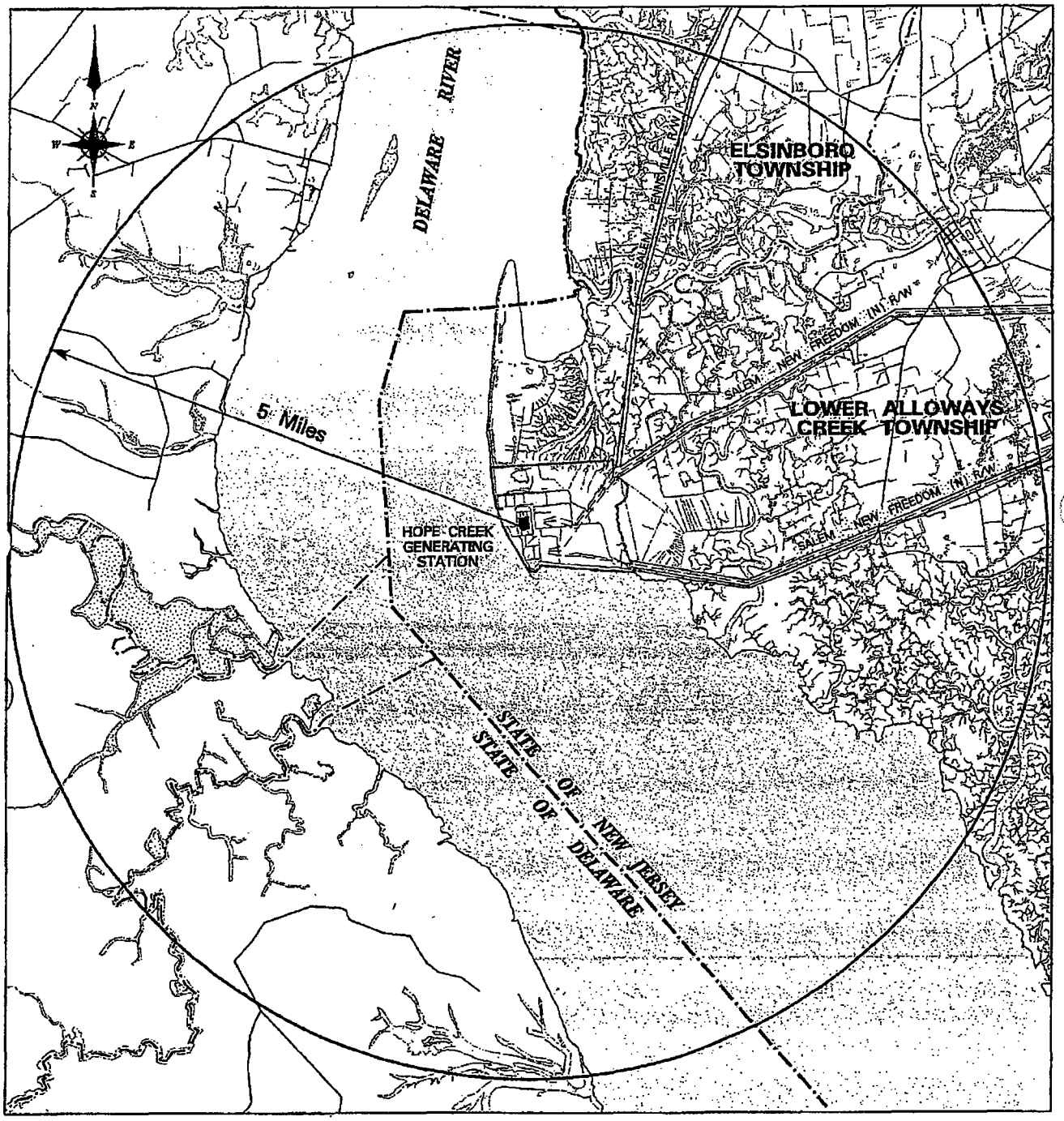
- The trash racks are located in front of the intake structure to prevent heavy debris from entering the intake and damaging the traveling screens. They are constructed of coated carbon steel, three inches deep and 0.75 inch wide and are set on three inch centers. Mechanical rakes remove collected debris which is aggregated in trash containers for off-site disposal. The bottom of the trash racks are at elevation 70 ft (PSD). Velocity through the trash racks is approximately 0.1 foot per second. The skimmer wall is designed to prevent the entrance of an oil slick or ice, velocity under the skimmer wall is approximately 0.35 foot per second.
- After passing through the trash racks, intake water flows through vertical traveling screens of a modified Ristroph design at approximately 0.39 ft/sec. Each traveling screen is a continuous linkage of framed baskets. Each basket is approximately 2.5 feet high and 8.33 feet wide and the screening material is No. 14 W&M gage monel wire mesh with 0.375 inch square openings. Each basket has a trough (fish bucket) on the lower lip designed to prevent re-impingement of fish and provide the mechanism to return fish to the Delaware Estuary. The fish buckets allow organisms to remain in the water while being lifted to the fish return trough. As the traveling screen panel travels over the head sprocket of the traveling screen, low pressure sprays (less then 20 psi) wash the organisms into the fish return trough. As the traveling screen panel traverses further, high pressure sprays (approximately 90 psi) remove the remaining debris into the debris trough. The spray wash water normally comes from the Service Water Pump discharge, but fresh water may be used infrequently. The fish and debris troughs are combined and returned to the

Delaware Estuary at a distance from the intake to reduce the potential for re-impingement on the screens.

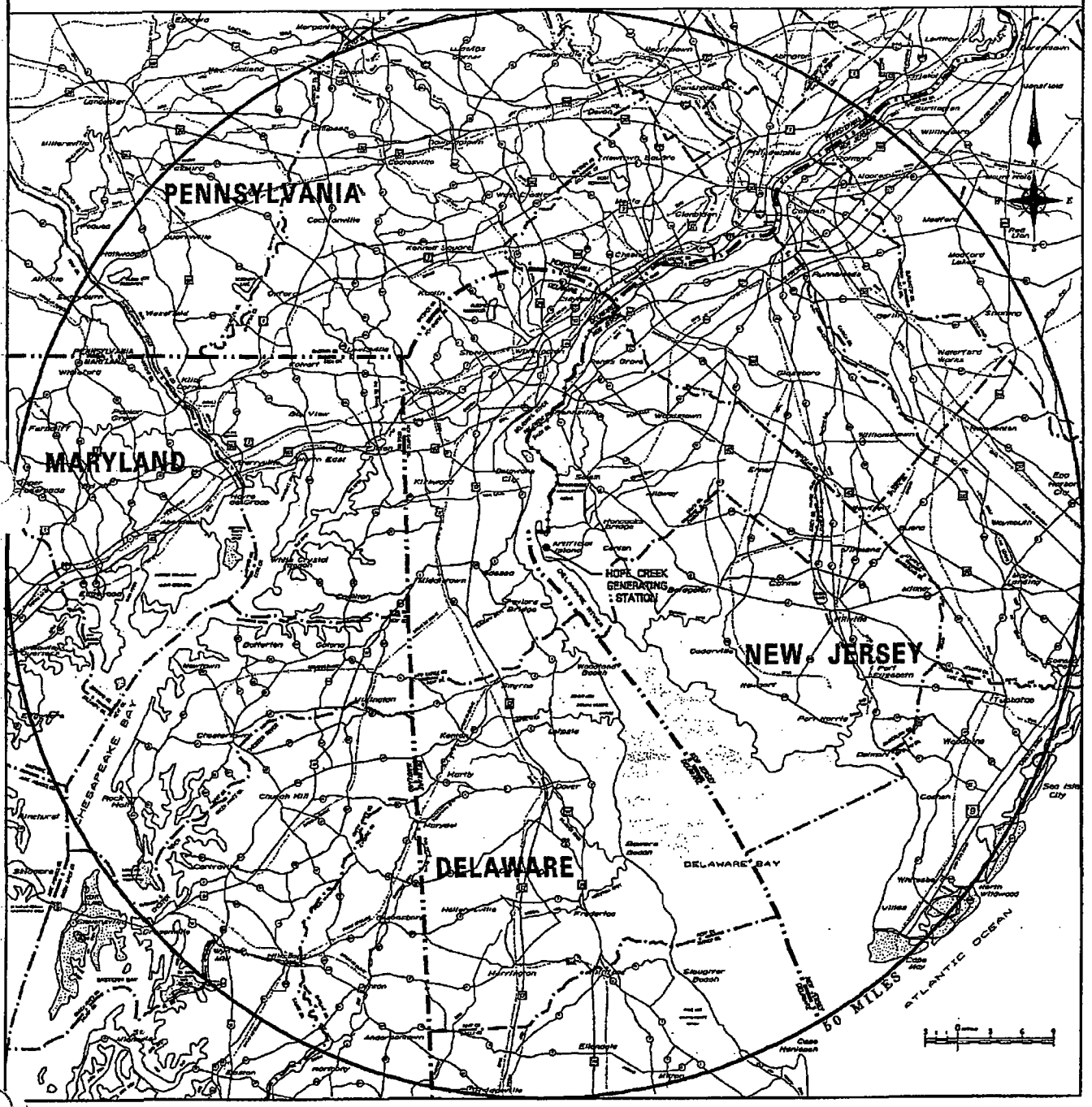
- After passing through the traveling screen, the intake water enters the respective service water pump. Each service water pump is a vertical, wet-pit, turbine type, centrifugal pump rated at 16,500 gallons per minute and 150 feet total discharge head. Each pump is powered by an 800 horsepower electric motor. Sodium hypochlorite is continuously added at the suction of the service water pumps as a biocide to prevent fouling.
- Service water next passes through the service water strainers where smaller particles and debris are removed. The service water strainers are full-flow, self-cleaning, strainers with nominally 250 - 380 micron elements. The strainers continuously backwash when the associated service water pump is operating and the backwash water is discharged in the debris trough. Strainer backwash water, traveling screen spray wash, and service water pump bearing lubrication water are drawn from the system after the service water strainers.
- Any leakage or drains within the building housing the service water pumps, screens, strainers, and associated equipment is directed to the building sumps which discharge to the Delaware Estuary along with the traveling screen and strainer backwash waters. Since sodium hypochlorite is added to the suction side of the service water pumps, residual chlorine may be present in the service water used to wash the screens and strainers or the sumps. This discharge is shown on the Schematic of Water Flow, Form C, Item 3B, Item A.

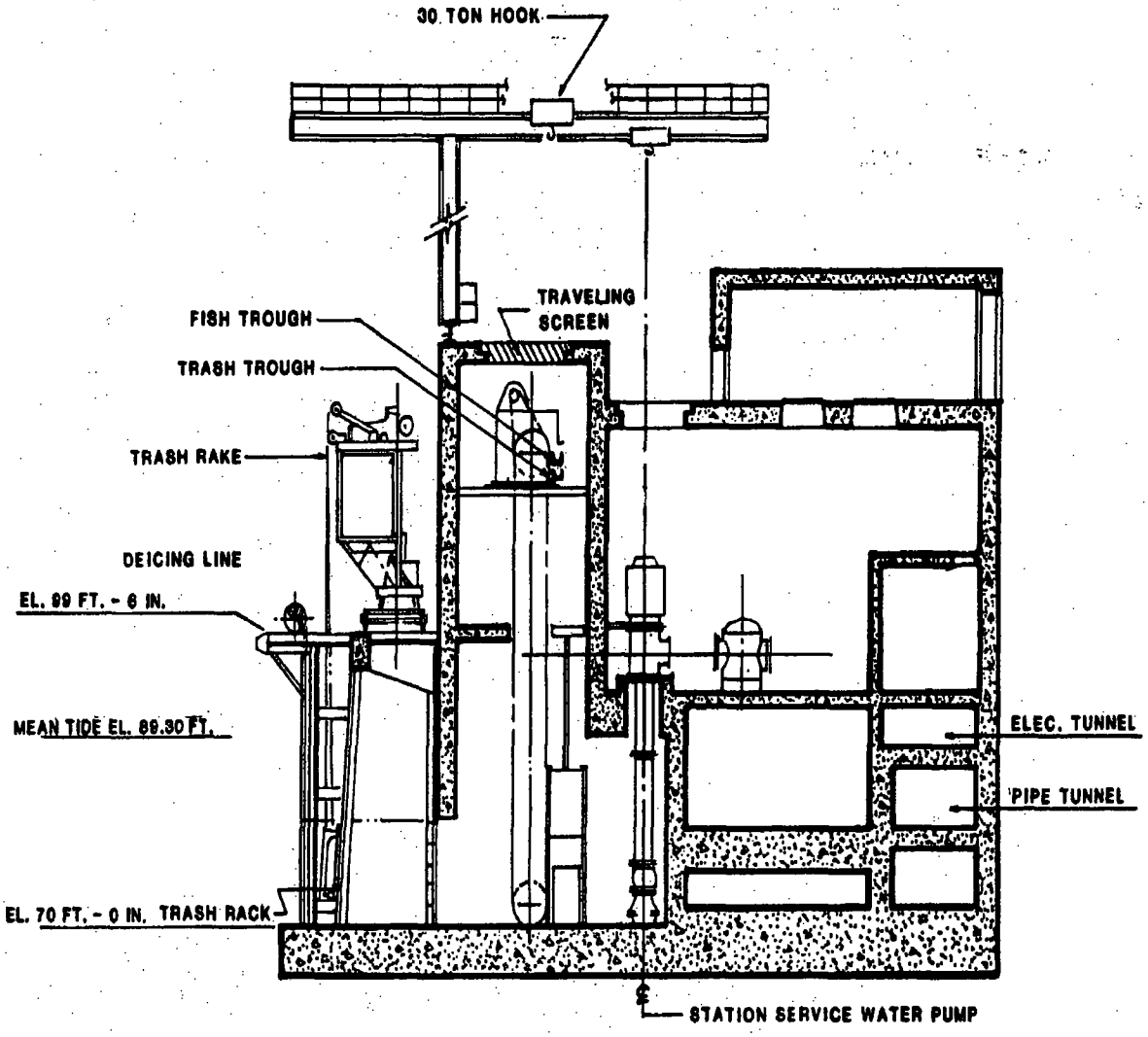
Additional information regarding the service water system and circulating water system effluent is contained at Form C, Tab 461A. Information regarding other treatment systems and effluents are also contained at Form C Tabs 461A, 461C (Low Volume and Oily Waste System), 462B (Sewage Treatment System), and Yard Drains (DSNs 465A, 463A, and 464).

HOPE CREEK GENERATING STATION
NJPDES PERMIT NO. NJ0025411
5 MILE RADIUS MAP
SEPTEMBER, 2001



HOPE CREEK GENERATING STATION
NJPDES PERMIT NO. NJ0025411
50 MILE RADIUS MAP
SEPTEMBER, 2001





HOPE CREEK GENERATING STATION
SERVICE WATER INTAKE
NJPDES PERMIT NO. NJ0025411
SEPTEMBER 2007
FIGURE NJPDES-1-ITEM5-A

7. OTHER PERMITS

If any of the following applications have been submitted for this facility/site, complete the applicable information.

Permit Type	Application No. (if assigned)	Application Status: Approved Date	Denied Date	Pending ✓
• Treatment Works Approval (Municipal - Industrial)	Please see attached list			
• Exemption From Sewer Ban				
• Water Quality Management Plan Amendment				
• Potable Water Supply Well	Please see attached list			
• Hazardous Waste Management Program	Please see attached list			
• Prevention of Significant Deterioration (PSD)				
• Nonattainment Program, Clean Air Act				
• National Emission Standards - Hazardous Pollutants				
• Ocean Dumping Permits (Marine Protection Act)				
• Dredge/Fill Permits - Federal Act Section 404	Please see attached list			
• Relevant Environmental Permits - Including Federal, State, & Local Approvals - Specify:				

8. STANDARD INDUSTRIAL CLASSIFICATION CODE(S):

SIC Code #	(✓) if assigned by NJ Dept. of Labor	Products or Service Provided by Facility/Site
4911		Generation of electricity for sale

9. WATER SUPPLY/DISCHARGE INFORMATION

RAW WATER SOURCES: Please check ☑ all that apply.

_____ Public Water Supply: Name of the water utility _____

✓ Private Wells

✓ Surface Water: Name of the surface waters Delaware River Estuary

A) Is this facility/site connected to a sanitary or combined sewer? ___ Yes ✓ No

If yes, list name, address, and phone number of receiving wastewater treatment plant:
Hope Creek Generating Station sanitary sewer and treatment plant

B) Does this facility discharge to a storm drainage system? ✓ Yes ___ No

If yes, please check ☑: ___ Public ✓ Private

C) Does this facility discharge to surface water? ✓ Yes ___ No

D) Does this facility discharge to ground water? ___ Yes ✓ No

10. LICENSED OPERATOR(S) (IF APPLICABLE)

Name Richard Stowman / Christopher White N.J. License No. 0028438,0028491 / 0008859

Affiliation PSEG Nuclear LLC

Mailing Address PO Box 236 / H15

City or Town Hancocks Bridge State NJ Zip Code 08038

Telephone (856) 339-3301 Fax (856) 339-3546

E-Mail Christopher.White@PSEG.Com

11. APPLICANT'S AGENT (Optional)

The person listed below is authorized to act as agent/representative in all matters pertaining to this application.

Name N/A Position _____

Company _____

Mailing Address _____

City or Town _____ State _____ Zip Code _____

Telephone ( ) _____ Fax ( ) _____

E-Mail _____

_____ _____ _____ _____

Signature of Agent Date Signature for Applicant Date

SUPPLEMENT TO NJPDES 1 – ITEM 7 – OTHER PERMITS
HOPE CREEK GENERATING STATION

ENVIRONMENTAL PERMITS

PERMIT/PURPOSE	NUMBER	EXPIRES
Air Pollution Control Permits (Program Interest ID 65500)		
Title V Operating Permit	BOP05003	02/01/2010
Potable Water Supply		
Public Water Supply No.	1704306	NA
Groundwater Diversion Permit - Production Wells	2216P	01/31/2010
DRBC Ground Water Withdrawal	D-90-71	11/15/2010
Treatment Works Approvals		
Cooling Tower TWA	Waiver	NA
Liquid Radwaste Treatment System TWA	Waiver	NA
Low Volume and Oily Waste System TWA	Waiver	NA
Sewage Treatment Plant TWA	Waiver	NA
Hazardous Waste Management Program		
Hazardous Waste Generator	NJD077070811	NA
Medical Waste Generator	34571	NA

Relevant Environmental Permits		
CAFRA	74-014	NA
Riparian License	74-46	NA
Riparian License (Access Road)	68-12	NA
Type "B" Wetlands Permit	W74-042	NA
Waterfront Development (Dredging & Desilting)	OP-R-199501755-45	12/31/2007
Waterfront Development (Maintenance Dredging)	1704-90-0001.8	02/22/2007 (Renewal Pending)
DRBC Docket Decision (STP Allocation)	D-85-60CP	NA
DRBC Docket Decision (STP)	D-87-70	NA
DRBC HC Construction	D-73-193CP	NA
Laboratory Certificate	17451	06/30/2012
Air Navigation Determination	82-AEA-0822-OE	NA
USNRC Facility Operating License	NPF-57	04/11/2026
USNRC Facility Operating License (EPP)	50-354	04/11/2026
Centralized Warehouse	91-5585-4	NA
DPCC/DCR	170400041000	01/31/08
Surface Water Discharge Permit (NJPDES)	NJ0025411	02/29/2008

12. PROPERTY OWNER'S CERTIFICATION (FOR DGW PERMITS ONLY)

I hereby certify that N/A
(Property Owner's Name)
owns the property identified in (d.) below. The owner grants permission for the activity to be permitted under this application and authorizes the Department to conduct on-site inspections, if necessary.

In addition, I certify: (check "yes" or "no")	**YES**	**NO**
A) The activity will take place in an easement?	_____	_____
B) Part of the entire project (e.g. pipeline, disposal area, wells, etc.) is or will be located within property owned by the State of New Jersey?	_____	_____
C) Part of the entire project (e.g. pipeline, disposal area, wells, etc.) is or will be located within property owned by a municipality or county? (If "yes", contact the Green Acres Program at (609) 588-3461 for an applicability determination.)	_____	_____

D) LOT _____

BLOCK _____

_____ _____
Signature for Owner Date

_____
Print or Type: Name

_____
Print or Type: Position

Note: If "yes" to statements a, b, or c, the applicant must provide evidence of obtaining permission from the other property owners (include copy with this application).

13. CERTIFICATION BY APPLICANT

"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 purposely, knowingly, recklessly, or negligently submitting false information."

George P. Barnes 8/30/07 George P. Barnes
Signature for Applicant Date Print or Type: Name

Vice President - Hope Creek
Print or Type: Position

INSTRUCTIONS FOR COMPLETING FORM NJPDES - 1

This form shall accompany all NJPDES permit applications and Requests for Authorizations (RFA) - (excluding RFA's for Stormwater General Permits which use different forms).

1. **Applicant(s)/Operating Entities** - Provide the name, as it is legally referred to, of the operating entity(ies) that is the applicant(s) in your application for the NJPDES permit. An "operating entity" is any firm, public agency, individual, or other entity which, alone or along with other operating entities, has primary management and operational decision-making authority over any part of a facility/site.

   It is the duty of the operating entity(ies) to obtain a NJPDES permit. When a facility/site or activity is owned by one or more entities, but is currently operated by another entity(ies), it is the duty of the operating entity(ies) to obtain a NJPDES permit. If the facility/site named in Item 3 has an operating entity(ies) which is not an applicant submitting your application, attach an additional sheet that contains a statement to that effect and as much Item 1 information as you have about that operating entity(ies).

   Provide the mailing address of the applicant(s). If the mailing address is outside the United States, provide the correct foreign mailing address. Provide the 9-digit Federal Tax Identification Number (also called Federal Identification Number) assigned to the applicant(s) by the IRS for tax reporting purposes. Provide the telephone number (and, if they exist, the fax number and e-mail address) of the applicant(s). If the applicant(s) has a parent corporation(s), provide that parent corporation's name and place of incorporation.
2. **Property/Land Owner(s)** - Provide the legal name of the owner(s) of the property/land upon which the discharge is controlled and/or taking place. A "Property" includes all contiguous lots and blocks, including vacant land, owned or otherwise under the control of the owner or operating entity of the regulated facility. NOTE: For all DGW applications, the property owner where the discharge takes place must also sign item 12.
3. **Location of Facility/Site** - Provide the location of the facility/site. Street number and name must be used (PO Box #'s will not be acceptable). Use the municipality and county where the facility/site is physically located. Do not use local or neighborhood names.
4. **Facility Contact** - Identify a person the Department can contact for facility/site related information. This person should be familiar with the content of the application.
5. **Project and Discharge Description (Under This Application)** - Provide a brief description of the project relating to this application (e.g., municipal sewage treatment plant, factory, shopping center, school, housing development, restaurant, etc.). For each discharge which is the subject of this application, provide the general type of waste discharged (e.g., sanitary, industrial, sludge, etc.) including non-contact cooling water. If requesting a modification to your permit, state the reason for such.
6. **Requested NJPDES Permitting Action and Other NJPDES Permits** - Under Table A, for each requested permit action under this application, list each discharge activity associated with this facility/site in the left column using the discharge activity category codes provided below (i.e., A, A8, CSO, etc.) and check the requested permit action (new, renewal, etc.). Under Table B, list currently held permits and/or pending applications for this facility/site. For existing permits, list permit number(s) and expiration date.
7. **Other Permits** - This section provides the Department with a facility's permitting status and history. Next to each permit type, list the application number and the date of the approval or denial in the appropriate column. If the application is still pending, place a check in the far right hand column.
8. **Standard Industrial Classification Code** - List, in descending order of priority, up to four 4-digit Standard Industrial Classification (SIC) codes which best reflect the principal products or services provided by the facility/site. These codes are available in the Standard Industrial Classification Manual (1987) issued by the Federal Office of Management and Budget (OMB). (Do not use the codes in the North American Industrial Classification System (NAICS) for the United States adopted by OMB in 1997.) For each SIC code, list the products or services provided. If the NJ Dept. of Labor (NJDOL) has assigned the applicant an SIC code(s), the list of SIC codes shall include, but not necessarily be limited to, the SIC "Industry Code" located in the upper left hand corner of NJDOL's Quarterly Contributions Report (with a check mark next to that code).
9. **Water Supply/Discharge Information** - Provide the overall facility/site water management practices water usage, and disposal for the entire facility/site provided by the facility/site. Do not limit yourself to Item 8, Table A.

10. **Licensed Operator (If Applicable) -** Provide information pertaining to all licensed operator(s) of the treatment work(s).
11. **Applicant's Agent (Optional)** - Identify the person who is authorized to act as agent/representative in all matters pertaining to this application. Both the agent and the authorized official of the applicant must sign.
12. **Property Owner's Certification (For DGW Permits Only)** - Provide this certification for the property where the discharge takes place.
13. **Certification by Applicant** - The certification must be made by the applicant(s) for the NJPDES permit. The applicant(s) is the operating entity(ies) for the facility/site (see item 1 instructions). All signatures in items 11, 12 and 13 must be original signatures.

WHO MUST SIGN?

FOR A CORPORATION: a "responsible corporate officer" or duly authorized representative. A "responsible corporate officer" is (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

FOR A PARTNERSHIP OR SOLE PROPRIETORSHIP: a general partner or the proprietor, respectively, or duly authorized representative.

FOR A MUNICIPALITY, STATE, FEDERAL OR OTHER PUBLIC AGENCY: either a principal executive officer or ranking elected official, or duly authorized representative.

A "responsible corporate officer," general partner, proprietor, principal executive officer of a public agency, or ranking elected official may assign his or her signatory authority for this Certification to a duly authorized representative, which is a named individual or generic position (e.g., plant manager, operator of a well or a well field, superintendent) having overall responsibility for facility/site operation or the company's or public agency's environmental matters, by submitting a letter to the Bureau of Permit Management stating said authority and naming the individual or position.

Should you need assistance in completing the application, please call the appropriate phone number listed below:

- **Discharges to Surface Water (Industrial)**
  (609) 292-4860 or (609) 633-3869
- **Discharges to Surface Water (Municipal)**
  (609) 292-4860 or (609) 633-3869
- **Discharges to Surface Water (Stormwater)**
  (609) 633-7021
- **Sludge and Residuals Issues**
  (609) 633-3823
- **Indirect Discharges (SIU)**
  (609) 633-3823
- **Discharges to Ground Water**
  (609) 292-0407

Revision 08/04

Discharge Activity Category Sheet

For completing the left columns in the NJPDES 1 Form, item 6, tables A and B

Discharge to Surface Water (DSW)
• **A** Domestic Surface Water Discharge
• **CSO** Combined Sewer Overflow
• **B** Industrial/Commercial/Thermal DSW
• **B4B** GW Petroleum Products Cleanup GP
• **CG** Non-Contact Cooling Water GP
Discharge to Ground Water (DGW)
• **GW** Discharge to Ground Water
• **T1** GP Sanitary Subsurface Disposal
• **LSI** Lined Surface Impoundment
• **I1** GP Stormwater Basins/Sanitary Landfill
• **I2** GP Potable Water Treatment Plant Basins/Drying Beds
Residuals and SIU Discharges
• **L** Discharge to POTW (SIU)
• **D** Land Application of Biosolids - Class B
• **V** Land Application of Biosolids - Class A
• **E** Land Application of Industrial Residuals
• **Z** Residuals Transfer Facilities
• **04** Residuals Phragmites Reed Beds
• **EG** Land Application Food Processing Residual GP
• **ZG** Residuals Transfer Facilities GP
• **4G** Residuals Phragmites Reed Beds GP
Stormwater Discharges
• **RF** Stormwater
Use the following for Table B only
• **CPM** Concrete Products Management GP
• **SM** Scrap Metal Processing/Auto Recycling GP
• **5G2** Stormwater Basic GP
• **5G3** Construction Activity Stormwater GP
• **R4** Hot Mix Asphalt Producers GP
• **R5** Newark Airport Complex GP
• **R8** Concentrated Animal Feeding Operations (CAFO) GP
• **R9** Tier A Municipal Stormwater GP
• **R10** Tier B Municipal Stormwater GP
• **R11** Public Complex Stormwater GP
• **R12** Highway Agency Stormwater GP

FACILITY NAME: **HOPE CREEK GENERATING STATION** NJPDES PERMIT NO.: **NJ0025411** FORM R - 1
(new applicants leave blank) Rev. 08/28/07

FORM R **NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION**
DIVISION OF WATER QUALITY

R

Refer to Appropriate Completeness Checklist and Instructions. Provide All Applicable Information. Please Print or Type. (Attach additional sheets if necessary)

SUPPLEMENTAL APPLICATION FORM TO NJPDES-1 FOR NJPDES RESIDUAL PERMITS

PART A: GENERAL INFORMATION

APPLICATION OVERVIEW: Form R is divided into nine parts (A-I). All applicants for a NJPDES permit must complete Part A. The applicability of Parts B, C, D, E, F, G, H and I can be determined by reviewing section A4 of this form.

A1. Screening Information

1. Does/will the facility: (1) generate a residual or a hazardous waste as a by-product of wastewater treatment for which a NJPDES application is being made, (2) generate a residual from the treatment of water for public consumption, or (3) derive a material from residual?

   __X__ Yes _____ No

   If you answered "yes", go to question 2. If you answered "no", this application does not need to be completed; however, submit this page as documentation that no residual is produced.

2. If you answered "yes" to question 1 above, is the by-product produced a hazardous waste or is the residual manifested as if it were a hazardous waste?

   __X__ Yes _____ No **Please see attached**

   If yes, complete only Part A. If no, you must complete, at a minimum, Parts A, B and I.

A2. Facility Information.

a. Name of facility: Hope Creek Generating Station

b. Facility contact. Name: Richard Labott

Title: Manager-Chemistry, Rad Waste, Env Phone: (856) 339-1094

c. Facility location:

Street or Route #: End of Alloway Creek Neck Road, P.O. Box 236/H15

County: Salem

City or town: Hancocks Bridge State: New Jersey Zip: 08038

Lower Alloway Creek Township

d. Facility mailing address:

Street or Route #: End of Alloway Creek Neck Road, P.O. Box 236/H15

City or town: Hancocks Bridge State: New Jersey Zip: 08038

ITEM A1 - Screening Information

1. The facility may generate a residual or a hazardous waste as a by-product of wastewater treatment for which a NJPDES application is being made. The facility does not: (a) generate a residual from the treatment of water for public consumption, nor (b) derive a material from residual.

2. There are three primary sources from which a residual is generated requiring transport for which a manifest may be appropriate: (1) the Radioactive Liquid Waste (RLW) system; (2) the Low Volume and Oily Waste System (LVOW); and, the Sewage Treatment System (STP).

(1) RLW residuals are radioactive waste and are therefore managed in accordance with US Nuclear Regulatory Commission (USNRC) requirements and transported to USNRC or USNRC Agreement State licensed facilities.

(2) The residuals from the LVOW system are normally collected in the adjacent Sludge Holding Tank until an adequate volume is collected for disposal but may be removed directly from the Oil Water Separator (OWS). In recent history, the wastes have generally been classified as radioactive (due to low levels of radioactivity which enter the system and concentrate in the residual), requiring disposal in an USNRC-approved facility. Prior to the disposal of residuals, the residuals are analyzed to determine the proper classification for handling and disposal. If the residuals are radioactive, they require disposal in an USNRC-approved facility. If the residuals are not radioactive, they are evaluated to determine if they are hazardous, requiring disposal in accordance with the NJDEP hazardous waste regulations; and/or, a solid waste, requiring handling in accordance with those NJDEP regulations.

(3) The residuals from the STP system are normally collected in the adjacent sludge tank or the standby extended aeration package sewage treatment plants until an adequate volume is collected for disposal. Residuals may also be removed directly from the STP if required. In recent history, the wastes have generally been classified as radioactive (due to low levels of radioactivity which enter the system and concentrate in the residual), requiring disposal in an USNRC-approved facility. Prior to the disposal of residuals, the residuals are analyzed to determine the proper classification for handling and disposal. If the residuals are radioactive, they require disposal in an USNRC-approved facility. If the residuals are not radioactive, they are evaluated to determine if they are hazardous, requiring disposal in accordance with the NJDEP hazardous

ITEM A1 - Screening Information

waste regulations; and/or, a solid waste, requiring handling in accordance with those NJDEP regulations.

3. The sediment collected in the cooling tower basin is desilted and removed to the dredge spoil disposal area north of the cooling tower in accordance with USACOE Permit CENAP-OP-R-199501755-45.

A3. Use and Disposal Sites.

a. **Amount of residual or hazardous waste**: Provide the total dry metric tons per latest 365-day period (calendar year) of residual or hazardous waste handled by the process/discharge for which the NJPDES application is being made.

Total amount generated on-site at the facility: 26.2 (Sewage Sludge)

Total amount received from off-site: _____ 0 _____

b. Provide the following information for each site on which the residual or hazardous waste indicated above from this facility is treated, transferred, used or disposed (attach additional sheets as necessary):

Name of facility: GTS Duratek

Facility contact: Name General Manager

Title GM Phone (865) 481-8279

Facility mailing address:

Street or P.O. Box 15460 Bear Creek Road

City or town Oak Ridge State TN Zip 37831

A4. Additional Information.

Review the following outline to determine if Parts B through I of this form must be completed.

1. **PART B: GENERATION OR PREPARATION**
   Part B must be completed by applicants who either: 1) Generate a residual which is not being manifested as if it were a hazardous waste (for example, sewage sludge, water treatment residual, food processing residual); or 2) Derive a material from residual.

2. **PART C: ENVIRONMENTAL ASSESSMENT**
   Part C provides guidance for preparing and submitting an Environmental Assessment as required under N.J.A.C. 7:14A-20.6. An Environmental Assessment is required for: (1) the locations where residuals are prepared for land application, (2) the location where residuals are or were placed on a surface disposal site, or (3) the location for residual transfer stations, or as otherwise determined by the Department under N.J.A.C. 7:14A-20.5. An Environmental Assessment is not required for each individual residual land application site. This requirement may also be waived by the Department if no additional infrastructure is proposed. (For example, if a domestic treatment works already has approval to operate anaerobic digesters and is applying for a permit to land apply the residual already generated from the digesters, an environmental assessment is not required.) Contact the Bureau of Pretreatment and Residuals at (609) 633-3823 for specific guidance on whether an environmental assessment is required.

3. **PART D: LAND APPLICATION OF RESIDUAL**
   Part D must be completed by applicants who either: 1) Apply residual to the land; or 2) Prepare residual that is applied to the land by others. Applicants who meet either or both of the above criteria are exempted from this part if **all** of the residual generated is sent to another facility to be prepared for land application.

4. **PART E: SURFACE DISPOSAL**
   Part E must be completed by applicants who own or operate a residual surface disposal site.

5. **PART F: OUT-OF-STATE GENERATORS**
   Part F must be completed by out-of-state generators preparing residual for land application in the State of New Jersey.

6. **PART G: RESIDUAL TRANSFER STATION**
   Part G must be completed by applicants who own or operate a residual transfer station.

7. **PART H: REED BEDS**
   Part H must be completed by applicants who own or operate a residual reed bed management system.

8. **PART I: CERTIFICATION**
   Part I must be completed by all applicants required to complete information under Parts B through H above.

For copies of Parts B through I, contact the Bureau of Permits Management at (609) 984-4428. If you have specific questions or need assistance in completing application Form R, contact the Bureau of Pretreatment and Residuals at (609) 633-3823.

PART B. GENERATION OF RESIDUAL OR PREPARATION OF A MATERIAL DERIVED FROM RESIDUAL N/A

Part B must be completed by applicants who generate a residual by a process and/or discharge for which the NJPDES application is being made (including, but not limited to, sewage sludge, water treatment plant residual, and food processing residual), or derive a material from residual.

B1. Facility Information.

a. Is this facility a Class 1 Sludge Management Facility? (Note: a domestic treatment works required to have an approved industrial pretreatment program is a Class 1 Sludge Management Facility. Other treatment works may be designated as Class 1 by the Department on a case-by-case basis.)

_____Yes _____No

b. Facility design influent flow (wastewater) rate, if applicable: _____mgd

c. Total population served, if applicable: _____

d. For residual management operations (e.g. incinerator, stabilization operation, etc.):

Maximum Daily Capacity: _____ (Dry Metric Tons/day)

Average Daily Capacity: _____ (Dry Metric Tons/day)

e. Indicate the type(s) of facility:

_____Publicly owned treatment works

_____Privately owned treatment works

_____Federally owned treatment works

_____Residual blending or treatment operation

_____Surface disposal site

_____Industrial treatment works

_____Other. If other, explain:_____

B2. Line Drawing.

a. Provide a line drawing of residual flow through the facility, and/or a narrative description that identifies all residual practices that will be employed during the term of the permit, including all processes used for collecting, dewatering, storing, or treating residual, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction (attach additional sheets as necessary).

_____

_____

_____

b. Provide a description of residual use and disposal practices:

_____

_____

_____

B3. Plot Plan.

Where the following information is applicable, attach a Municipal Tax Map (clear copy or original) or equivalent plot plan as may be accepted by the Department drawn to scale depicting the following information:

1. The location of all sites at which residual is stored at the facility for which the NJPDES application is being made; and

2. The location of any sites where the applicant transfers or plans to transfer residuals for treatment and/or disposal.

B4. Contractor Information.

Are any operational or maintenance aspects of this facility related to residual generation, treatment, use or disposal the responsibility of a contractor?

_____ Yes _____ No

If yes, provide the following for each contractor (attach additional pages if necessary).

Name: _____

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

Phone Number: (_____) _____

Responsibilities of contractor:

_____

_____

B5. Residual Quality Information

Provide a summary of all data submitted under the Sludge Quality Assurance Regulations (N.J.A.C. 7:14-4) for the previous 12-month period. If no data is available, a sample must be taken, analyzed and reported where required pursuant to the Sludge Quality Assurance Regulations (SQAR). For new facilities, a sample must be be taken and analyzed within 90 days of the start of operation as required by SQAR.

B6. Residual Amount Generated On Site.

a. Is domestic sewage included in the process where residual is generated?

_____ Yes _____ No (If yes, percent of total influent flow: _____%)

b. Volume and types of residual generated on-site:

Water treatment plant residual (dry metric tons per 365-day period): _____

Food processing residual (dry metric tons per 365-day period): _____

Sewage sludge (dry metric tons per 365-day period): _____

Other: (describe:_____) (dry metric tons per 365-day period): _____

B7. Amount Received from Off Site.

If your facility receives, or will receive, residual from another facility for treatment, use, or disposal, provide the following information for each facility from which residual is received. If you receive residual from more than one facility, attach additional pages as necessary.

a. Facility Name: _____

b. Contact Person: _____

Phone number: _____

c. Mailing address: _____

_____

_____

d. Facility address: _____

_____

_____

e. Total dry metric tons per 365-day period received from this facility: _____

f. Describe any treatment processes known to occur at the off-site facility, including dewatering, blending and treatment to reduce pathogens or vector attraction characteristics:

_____

_____

_____

B8. Treatment Provided at Your Facility.

a. What type of pathogen reduction is provided for residual at your facility?

_____Class A _____Class B _____ None or unknown

b. Describe any treatment processes used at your facility to reduce pathogens in residual:

_____

_____

_____

_____

c. Is vector attraction reduction provided for residual at your facility?

_____ Yes _____ No

B8. Treatment Provided at Your Facility (continued).

d. If yes, which vector attraction option is met for the residual at your facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)

_____ Option 2 (Anaerobic process, with bench-scale demonstration)

_____ Option 3 (Aerobic process, with bench-scale demonstration)

_____ Option 4 (Specific oxygen uptake rate for aerobically digested residual)

_____ Option 5 (Aerobic processes plus raised temperature)

_____ Option 6 (Raise pH to 12 and retain at 11.5)

_____ Option 7 (75 percent solids with no unstabilized solids)

_____ Option 8 (90 percent solids with unstabilized solids)

_____ None or unknown

e. Describe any treatment processes used at your facility to reduce vector attraction properties of residual:

_____

_____

_____

f. Describe any other residual treatment or blending activities not identified above (including dewatering):

_____

_____

_____

_____

B9. Preparation of Exceptional Quality Residual.

Complete Part B9 if residual from <u>your</u> facility meets the ceiling concentrations in Table 1 of 40 CFR 503.13, the pollutant concentrations in Table 3 of 40 CFR 503.13, the Class A pathogen reduction requirements in 40 CFR 503.32(a), and one of the vector attraction reduction requirements in 40 CFR 503.33(b)(1)-(8) and is land applied. Skip this part if residual from your facility does not meet all of these criteria.

a. Total dry metric tons per 365-day period of residual subject to this part that is applied to the land:

_____

b. Is residual subject to this part placed in bags or other containers for sale or give-away for application to land?

_____ Yes _____ No

B10. Sale or Give-Away in a Bag or Other Container for Application to the Land.

Complete Part B10 if you place residual in a bag or other container for sale or give-away for land application.

a. Total dry metric tons per 365-day period of residual placed in a bag or other container at your facility for sale or give-away for application to the land: _____

B11. Shipment Off-Site for Treatment or Blending.

Complete Part B11 if residual from your facility is provided to another facility that provides treatment or blending. Skip this part if the residual is covered in Parts B9 or B10. If you provide residual to more than one facility, attach additional pages as necessary.

a. Name of receiving facility: _____

b. Facility Contact. Name: _____

Title: _____

Phone Number: (____) _____

c. Facility mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

d. Total dry metric tons per 365-day period provided to this facility: _____

e. Does the receiving facility provide additional treatment to reduce pathogens in residual from your facility? _____Yes _____No

Which class of pathogen reduction is achieved for the residual at the receiving facility?

_____ Class A _____ Class B _____ Pathogen-free or none

f. Describe any treatment processes used at the receiving facility to reduce pathogens in residual:

_____

_____

_____

_____

g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the residual? _____ Yes _____ No

B11. Shipment Off-Site for Treatment or Blending (continued).

h. Which vector attraction reduction option is met for the residual at the receiving facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)

_____ Option 2 (Anaerobic process, with bench-scale demonstration)

_____ Option 3 (Aerobic process, with bench-scale demonstration)

_____ Option 4 (Specific oxygen uptake rate for aerobically digested residual)

_____ Option 5 (Aerobic processes plus raised temperature)

_____ Option 6 (Raise pH to 12 and retain at 11.5)

_____ Option 7 (75 percent solids with no unstabilized solids)

_____ Option 8 (90 percent solids with unstabilized solids)

_____ None or unknown

i. Describe any treatment processes used at the receiving facility to reduce vector attraction properties of residual:

_____

_____

_____

j. Describe any other residual treatment or blending activities not identified above:

_____

_____

_____

k. If you answered yes to any of the above, what information do you provide the receiving facility with to comply with the "notice and necessary information" requirement of 40 CFR 503.12(g).

_____

_____

_____

l. Does the receiving facility place residual from your facility in a bag or other container for sale or give-away for application to the land?

_____ Yes _____ No

If yes, provide a copy of all labels or notices that accompany the product being sold or given away.

B12. Land Application of Bulk Residual.

Complete Part B12 if residual from your facility is applied to the land, unless the residual is covered in Parts B9, B10 or B11 above.

a. Total dry metric tons per 365-day period of residual applied to all land application sites: _____

b. Did you identify all land application sites in Part D of this application?

_____ Yes _____ No

If no, submit a copy of the notification plan with this application (see Part D).

c. Are any land application sites located in States other than New Jersey?

_____ Yes _____ No

If yes, describe how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

B13. Surface Disposal.

Complete Part B13 if residual from your facility is placed on a surface disposal site (monofill).

a. Total dry metric tons per 365-day period of residual placed on all surface disposal sites: _____

b. Do you own or operate all surface disposal sites to which you send residual?

_____ Yes _____ No

If no, answer the following for each surface disposal site that you do not own or operate (attach additional sheets as necessary).

c. Site Name: _____

d. Facility Contact. Name _____

Title: _____

Phone Number: (_____) _____

e. Facility mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

f. Total dry metric tons per 365-day period of residual from your facility placed on this surface disposal site: _____

B14. Incineration.

Complete Part B14 if residual from your facility is fired in an incinerator.

a. Total dry metric tons per 365-day period of residual fired in an incinerator: _____

b. Do you own or operate all incinerators to which you send residual?

_____ Yes _____ No

If no, answer the following for each incinerator that you do not own or operate (attach additional sheets as necessary).

c. Site Name: _____

b. Facility Contact. Name: _____

Title: _____

Phone Number: (_____) _____

c. Facility mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

d. Total dry metric tons per 365-day period of residual from your facility fired at this incinerator: _____

B15. Disposal in a Municipal Solid Waste Landfill.

Complete Part B15 if residual from your facility is placed in a municipal solid waste landfill.

a. Total dry metric tons per 365-day period of residual placed in a municipal solid waste landfill: _____

b. Do you own or operate all municipal solid waste landfills to which you send residual?

_____ Yes _____ No

If no, answer the following for each municipal solid waste landfill that you do not own or operate (attach additional sheets as necessary).

c. Site Name: _____

d. Facility Contact. Name: _____

Title: _____

Phone Number: (_____) _____

e. Facility mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

f. Total dry metric tons per 365-day period of residual from your facility placed in this municipal solid waste landfill: _____

g. Submit, with this application, information necessary to determine whether the residual meets applicable requirements for disposal of residual in a municipal solid waste landfill (for example, results of paint filter liquid test and TCLP test).

PART C: ENVIRONMENTAL ASSESSMENT N/A

All applicants for a permit for residual use or disposal must submit an environmental assessment for the location where residual will be prepared to be applied to the land, the location where residual was placed on a surface disposal site, or the location of any other residual-only facility required to obtain a permit pursuant to N.J.A.C. 7:14A-20. The environmental assessment shall, at a minimum, address the following requirements:

C1. Facility Operations.

a. Provide a written description of facility operations, including methods of residual handling, facility layout (attach facility map), and use or disposal of any end products.

_____

_____

_____

_____

b. Volume and types of residual to be handled:

Sewage Sludge (dry metric tons per 365-day period): _____

Food processing residual (dry metric tons per 365-day period): _____

Water treatment residual (dry metric tons per 365-day period):_____

Other: (describe:_____)(dry metric tons per 365-day period): _____

C2. Environmental Impact and Local Land Use Evaluation.

1. Provide an analysis of the impact that the proposed treatment works treating domestic sewage or residual only facility will have on local transportation patterns, drainage and soil characteristics, surface and ground water quality, endangered or threatened wildlife and vegetation, storm water and wastewater collection/treatment capability, water supply capability, ambient acoustical conditions and air quality. Refer to Section 2 of the Bureau of Pretreatment and Residual's Technical Manual for Residual Permits for guidance on completion of the Environmental Assessment.

2. Attach a description on how the proposed operation will conform or conflict with the objectives of any applicable Federal, State, or local land use and/or environmental requirements for areas within two miles of the perimeter of a proposed large facility (residual production equal to or greater than 15,000 metric tons per 365 day period), or within one mile of the perimeter of a proposed small facility (residual production less than 15,000 metric tons per 365 day period). Refer to Section 2 of the Bureau of Pretreatment and Residual's Technical Manual for Residuals Permits for guidance on completion of the Environmental Assessment.

PART D: LAND APPLICATION N/A

All applicants for a NJPDES permit to prepare residual for land application shall submit the following, unless the text clearly indicates otherwise.

D1. Residual Information.

Information on the characteristics of each residual proposed to be applied, to the extent known at the time that the permit application is submitted, including:

a. Is all residual to be prepared for land application generated on-site?

_____ Yes _____ No

If no, describe here the method for transporting the residual from the site of generation to the site of treatment. In addition, attach a map of transportation routes to be used in transporting residuals:

_____

_____

_____

b. List here the origin and quantity (in dry metric tons per 365 day period) of each residual to be processed. For each residual to be processed from off-site sources estimate the approximate number of round trips made per day:

ORIGIN	NJPDES #	QUANTITY	ROUND TRIPS

c. A dated analysis of each residual on a mg/kg dry weight basis (or other unit as specified), at a minimum, for the following constituents:

Total Solids (% by weight)	pH (standard units)
Total Kjeldahl Nitrogen (TKN)	Ammonia-Nitrogen (NH_4-N)
Nitrate-Nitrogen (NO_3-N)	Calcium (Ca)
Potassium (K)	Phosphorus (P)
Arsenic	Cadmium
Copper	Lead
Mercury	Molybdenum
Nickel	Selenium
Zinc	

d. A summary of all data submitted under the Sludge Quality Assurance Regulations (SQAR), N.J.A.C. 7:14-4, for the previous 12-month period;

e. Additional quality analyses (including characteristics pursuant to N.J.A.C. 7:26G) may be required by the Department after evaluation of past SQAR reports or other relevant information, such as information on industrial discharges which might contribute constituents not normally evaluated under the SQAR program or which may exceed levels identified in USEPA's Technical Support Document for Land Application of Sewage Sludge, EPA 822/R-93-001a and 001b, November 1992.

D1. Residual Information (continued).

f. For residuals generated at industrial treatment works, describe below all industrial processes which generate residual intended to be land applied, including a listing of all raw materials undergoing processing, and all physical and/or chemical additives introduced:

_____

_____

_____

_____

D2. Evaluation for non-domestic residual.

For the land application of residuals other than sewage sludge, water treatment plant residual, or food processing residual, the applicant must submit a detailed report which demonstrates the following:

a. That the land application of the residual will benefit soil physical properties, soil fertility and/or cover vegetation;

b. An understanding of the impacts of the residual on soil fertility, soil physical properties and plant growth; and

c. That the land application of a particular residual has a scientific basis and has been successfully tested or demonstrated in a field application or pilot program.

D3. Topographic Map.

Provide a topographic map that shows the following items of information. Map(s) must include the area one mile beyond all property boundaries of the facility.

a. Location of all residual treatment, storage, or disposal facilities, including land application sites and locations where residual is generated, treated or disposed in the map area;

b. Location of all surface water bodies in the map area;

c. Location of all wells used for drinking water listed in public records or otherwise known to the applicant in the map area.

D4. Land Application Program and Process Information.

Refer to Appendices A through C in the Bureau of Pretreatment and Residual's Technical Manual to determine the quality requirement, pathogen reduction requirement, and vector attraction reduction requirement applicable to your facility. Circle each of the applicable requirements in the table below. The program where all three requirements are circled is the one applicable for your facility. See the program description in the BPR's technical manual for further information.

PROGRAM	Quality Requirements Appendix A	Pathogen Reduction Requirements Appendix B	VAR Requirements Appendix C
Program 1	Column 2	Class A	(1)-(8)
Program 2	Column 2	Class A	(9) or (10)
Program 3	Column 2	Class B	Any
Program 4	Column 1	Class A	(1)-(8)
Program 5	Column 1	Class A	(9) or (10)
Program 6	Column 1	Class B	Any

a. Which pathogen reduction alternative is intended to be met for the residual at your facility?

_____ Class A/Alternative 1 (Thermally treated residual, specify 1A, 1B, 1C, or 1D from 40 CFR 503)

_____ Class A/Alternative 2 (Residuals treated in a High pH – High temperature process)

_____ Class A/Alternative 3 (Residuals treated in other known processes)

_____ Class A/Alternative 4 (Residuals treated in unknown processes)

_____ Class A/Alternative 5 (Residuals treated in a PFRP)

_____ Class A/Alternative 6 (Residuals treated in a process equivalent to a PFRP)

_____ Class B/Alternative 1 (Monitoring of indicator organisms)

_____ Class B/Alternative 2 (Residuals treated in PSRP)

_____ Class B/Alternative 3 (Residuals treated in a process equivalent to a PSRP)

_____ Pathogen-free, none or unknown

b. Describe, in detail, the treatment processes used at your facility to reduce pathogens in residual (attach additional sheets as necessary):

_____

_____

_____

D4. Land Application Program and Process Information (continued).

c. Describe how information to demonstrate compliance with pathogen reduction requirements will be obtained, where samples to demonstrate compliance will be taken, and how records will be kept (attach additional sheets as necessary):

_____

_____

_____

d. Are any vector attraction reduction requirements met when residual is applied to the land application site?

_____ Yes _____ No

If yes, indicate which vector attraction reduction option is met:

_____ Option 9 (injection below land surface)

_____ Option 10 (incorporation into soil within 6 hours)

e. Describe, in detail, the treatment processes used at your facility for vector attraction reduction (attach additional sheets as necessary):

_____

_____

_____

f. Describe how information to demonstrate compliance with vector attraction reduction requirements will be obtained, where samples to demonstrate compliance will be taken, and how records will be kept (attach additional sheets as necessary):

_____

_____

_____

g. Describe the mode of transporting the product to distribution sites:

_____

_____

_____

h. How long will the final product be stored on-site prior to ultimate management?

Average operation: _____ days

Peak operation: _____ days

For each new structure used to store marketable residual product at the processing facility, submit an "Engineer's Certification of Proper Design for Residual Storage Installations" (See the Bureau of Pretreatment and Residuals Technical Manual for Residuals Management - Appendix I). Note: storage installations used to store residual which has not been processed, or which is not a marketable residual product are required to receive a Treatment Works Approval pursuant to N.J.A.C. 7:14A-22 and –23.

D4. Land Application Program and Process Information (continued).

i. Describe all process additives, including quantity required, source, trade names, and chemical analysis where available (for example, wood chips, oil, alkaline source etc.):

_____

_____

_____

_____

j. Attach a descriptive statement of the process used and operation of the proposed facility. Within this format, provide a description and detailed specifications of all process steps (including but not limited to residual delivery, storage, mixing, stabilization method, curing, screening) and the related equipment, pollution control systems, instrumentation and monitoring mechanisms. Within the context of the system description, identify the mix ratio of additives to residual.

k. Provide a comprehensive materials balance for the proposed system/operation. The materials balance shall account for every handling and processing step starting from residual delivery to the facility and ending with final product removal from the site.

D5. Identification of Land Application Sites.

For bulk residual which does not satisfy the pollutant concentrations in 40 CFR 503.13(b)(3), the Class A pathogen requirements in 40 CFR 503.32(a), or one of the vector attraction reduction options in 40 CFR 503.33(b)(1) through (b)(8) (that is, a program 2 through 6 residual identified above), for each residual land application site identified at the time of permit application, the applicant shall, supply information necessary to determine if the site is appropriate for land application and a description of how the site is or will be managed. Identify each residual land application site known at the time of permit application below. In addition LLAMA application forms 1 through 4 must be submitted for each residual land application site.

a. Site name or number: _____

b. Site location:

Street or Route Number: _____

County: _____ Lot: _____ Block: _____

City or Town: _____ State: _____ Zip: _____

c. Are any groundwater monitoring data available for this land application site?

_____ Yes _____ No

If yes, submit a summary of the ground water monitoring data with this permit application. Also provide a written description of the well locations, approximate depth to groundwater, and the groundwater monitoring procedures used to obtain the data.

_____

_____

_____

D6. Notification Plan.

For bulk residual which does not satisfy the pollutant concentrations in 40 CFR 503.13(b)(3), the Class A pathogen requirements in 40 CFR 503.32(a), or one of the vector attraction reduction options in 40 CFR 503.33(b)(1) through (b)(8) (that is, a program 2 through 6 residual identified above), where proposed residual land application sites are not identified at the time of permit application, the applicant shall submit a notification plan for the Department's approval which at a minimum:

a. Describe the geographical area covered by the plan:

_____

_____

b. Describe the form of advance public notice which, at a minimum, will be supplied to all landowners and occupants adjacent to or abutting a proposed residual land application site. This requirement may be satisfied through public notice in a newspaper of local circulation. Notice shall include, at a minimum, the name and address of the permittee, the name and address of the proposed residual land application site, a description of the activities that are proposed to occur at the residual land application site, and the name and address of the Bureau within the Department to which the permittee must submit an application for a Letter of Land Application Management Approval (See LLAMA Application Forms):

_____

_____

_____

D7. Exceptional Quality or Residual Sold or Given Away In a Bag or Other Container.

For bulk residual which meets the ceiling concentrations in Table 1 of 40 CFR 503.13, the pollutant concentrations in Table 3 of 40 CFR 503.13, the Class A pathogen requirements in 40 CFR 503.32(a), and one of the vector attraction reduction options in 40 CFR 503.33(b)(1) through (b)(8), or for any residual which is sold or given away in a bag or other container, the applicant shall:

a. Provide documentation that the residual product has been, or will be, licensed by the New Jersey Department of Agriculture pursuant to the New Jersey Commercial Fertilizer and Soil Conditioner Act, N.J.S.A. 4:9-15.1 et seq., or the New Jersey Agricultural Liming Materials Act, N.J.S.A. 4:9-21.1 et seq.

b. Provide a copy of the label or instructional literature that will be used to conform to the labeling requirements established by the New Jersey Department of Agriculture pursuant to the New Jersey Commercial Fertilizer and Soil Conditioner Act, N.J.S.A. 4:9-15.1 et seq., the New Jersey Agricultural Liming Materials Act, N.J.S.A. 4:9-21.1 et seq., and/or the Bureau of Pretreatment and Residuals Technical Manual for Residuals Management (see Section 5).

c. Provide below, or attach additional sheets as necessary, information to demonstrate optimal marketable residual product characteristics, including temperature, total solids and odor characteristics. Include a listing of existing operational facilities of the type proposed:

_____

_____

_____

_____

PART E. SURFACE DISPOSAL N/A

Complete this part only if you own or operate a residual surface disposal site.

E1. Information on Residual Units

a. Unit name or number: _____

b. Unit location: _____

_____

c. Total dry metric tons of residual placed on the active residual unit per 365-day period:

_____

d. Total dry metric tons of residual placed on the active unit over the life of the unit:

_____

e. Does the active residual unit have a liner with a maximum hydraulic conductivity of 1 X 10^{-7} cm/sec?

_____ Yes _____ No

f. If yes, describe the liner (or attach a description):

_____

_____

_____

g. Does the active residual unit have a leachate collection system?

_____ Yes _____ No

If yes, describe the leachate collection system. Also describe the method used for leachate disposal:

_____

_____

_____

h. If you answered no to either E.1.e or E.1.g., answer the following question:

Is the boundary of the residual unit less than 150 meters from the property line of the surface disposal site? _____ Yes _____ No

If yes, provide the actual distance in meters: _____

i. Remaining capacity of active residual unit in dry metric tons: _____

j. Anticipated or actual closure date for the residual unit: _____

k. Provide a copy of any closure plan that has been developed for this active residual unit. A surface disposal site closure plan shall include the information in E5 below.

E2. Topographic Map.

Provide a topographic map that shows the following items of information. Map(s) must include the area one mile beyond all property boundaries of the facility.

a. Location of all residual treatment, storage, or disposal facilities, including land application sites and locations where residual is generated, treated or disposed in the map area;

b. Location of all surface water bodies in the map area;

c. Location of all wells used for drinking water listed in public records or otherwise known to the applicant in the map area.

E3. Residual from other facilities

a. Is residual sent to this active residual unit from any other facilities other than your facility?

_____ Yes _____ No

If yes, provide the following information for each facility. If residual is sent to this active residual unit from more than one such facility, attach additional pages as necessary.

Facility Name: _____

Contact Person: _____ Phone number: (_____) _____

Mailing address: _____

_____

_____

b. Which class of pathogen reduction is achieved before residual leaves the other facility?

_____ Class A _____ Class B _____ Pathogen-free or none

c. Describe any treatment processes used at the other facility to reduce pathogens in residual:

_____

_____

_____

d. Which vector attraction option is achieved before residual leaves the other facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)

_____ Option 2 (Anaerobic process, with bench-scale demonstration)

_____ Option 3 (Aerobic process, with bench-scale demonstration)

_____ Option 4 (Specific oxygen uptake rate for aerobically digested residual)

_____ Option 5 (Aerobic processes plus raised temperature)

_____ Option 6 (Raise pH to 12 and retain at 11.5)

_____ Option 7 (75 percent solids with no unstabilized solids)

_____ Option 8 (90 percent solids with unstabilized solids)

_____ None or unknown

E3. Residual from other facilities (continued).

e. Describe any treatment processes used at the other facility to reduce vector attraction properties of residual:

f. Describe any other residual treatment activities performed by the other facility not identified above:

E4. Vector Attraction Reduction.

a. Other than the vector attraction reduction options listed in Part B, which vector attraction reduction option below, if any, is met when residual is placed on the active residual unit?

_____ Option 9 (Injection below land surface)

_____ Option 10 (Incorporation into soil within 6 hours)

_____ Option 11 (Covering active residual unit daily)

b. Describe, on this form or another sheet of paper, any treatment processes used at the active residual unit to reduce vector attraction properties of residual:

E5. Surface disposal site closure plan.

a. Approximate date discharge to the surface disposal site ceased: _____

b. A description of the surface disposal site including:

approximate acreage: _____

lateral and vertical extent: _____

The origin and volume of the residual remaining in the surface disposal site: _____

E5. Surface disposal site closure plan (continued).

c. Dated quality analyses of the residual on a mg/kg dry weight basis including analyses of all constituents required to be analyzed in accordance with the Sludge Quality Assurance Regulations (SQAR), N.J.A.C. 7:14-4. The number of samples required to be analyzed shall be based on a statistical method as described in the Department's Field Sampling Procedures Manual, or as otherwise approved by the Department.

Additional quality analyses may be required if deemed necessary by the Department through evaluation of past SQAR reports or other relevant information, such as information on industrial discharges which might contribute constituents not normally evaluated under the SQAR program.

d. Explain how pathogen requirements or vector attraction reduction requirements were achieved:

e. Describe the proposed method of closure, including plans for the removal and/or in-situ closure of the residual remaining at the surface disposal site, and an implementation schedule for each component of the closure plan:

For in-situ closure proposals, the following information:

a. Is the closed surface disposal site located in a floodplain, or can the closed surface disposal site restrict the flow of a base flood? If yes, describe:

b. Is the closed surface disposal site located in an unstable area? If yes, describe:

c. Does the surface disposal site have a liner and/or leachate collection system?

_____ Liner only _____ Leachate collection only _____ Both _____ None

If the surface disposal site has a liner and/or leachate collection system, describe how the leachate collection system will be operated and maintained for a minimum of five years and/or describe the liner:

E5. Surface disposal site closure plan (continued).

d. If a cover is to be placed over the closed surface disposal site, provide a description of the system used to monitor for methane gas in the air in any structures within the surface disposal site and in the air at the property line of the surface disposal site for a minimum of five years:

e. Describe how public access to the surface disposal site will be restricted for a minimum of five years:

f. Provide a calculation of the surface run-off across the surface disposal site using a 24-hour, 25-year storm event with estimates of the effect of such run-off on treatment capacity, storage capacity, erosion, flooding, impacts on surface water quality and related details:

g. Attach a copy of the detailed description of the surface disposal site recorded, along with the deed, with the appropriate county recording office.

h. Attach a Soil Erosion and Sediment Control Plan certified or approved in accordance with the Soil Erosion and Sediment Control Act (N.J.S.A. 4:24-39 et seq.), unless such planning is determined inapplicable by an agency with concurrent jurisdiction.

E6. Ground Water Monitoring.

a. Is ground water monitoring currently conducted at the active or closed residual unit?

_____ Yes _____ No

If yes, submit a summary of ground water monitoring data with this permit application. Also, submit information on well construction, a written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

b. Has a ground water monitoring program been prepared for the active or closed residual unit?

_____ Yes _____ No

If yes, submit a copy of the ground water monitoring program with this permit application.

PART F: OUT-OF-STATE GENERATORS N/A

Please be advised that distribution or land application of an out-of-state Marketable Residual Product in New Jersey requires issuance of a NJDEP approval, which may include issuance of a NJPDES permit, in accordance with N.J.A.C. 7:14A-20.7(l). Out-of-state generators which transport residual into the State of New Jersey to be applied to the land shall, at a minimum, submit the following.

F1. Additional Information.

Out-of-state generators which transport residual into the State of New Jersey to be applied to the land shall, at a minimum, submit the following additional notice requirements:

a. Information as required to be submitted pursuant to Parts A, B and D above, and Part I below, as applicable.

b. Copies of those permits and approvals issued by the permitting authority for the state in which the residual is prepared.

c. Permitting authority information for the state in which the residual is prepared:

Name: _____

Title: _____

Phone: ( ) _____

d. List any brand names under which the marketable residual product will be distributed:

_____

e. The approximate time period during which bulk residual will be applied to each residual land application site identified in Part D above: _____

PART G: RESIDUAL TRANSFER STATIONS N/A

Complete this part only if you own or operate a residual transfer station.

G1. Residual Information.

Information on the characteristics of each residual received, to the extent known at the time that the permit application is submitted, including:

a. Describe here the method for transporting the residual from the site of generation to the residual transfer station. In addition, attach a map of transportation routes to be used in transporting residuals:

_____

_____

_____

b. List here the origin and quantity (in dry metric tons per 365 day period) of each residual to be processed. For each residual to be processed estimate the approximate number of round trips made per day:

ORIGIN	NJPDES #	QUANTITY	ROUND TRIPS

c. A summary of all data submitted under the Sludge Quality Assurance Regulations (SQAR), N.J.A.C. 7:14-4, for the previous twelve month period;

d. Additional quality analyses (including characteristics pursuant to N.J.A.C. 7:26G) may be required by the Department after evaluation of past SQAR reports or other relevant information, such as information on industrial discharges which might contribute constituents not normally evaluated under the SQAR program or which may exceed levels identified in USEPA's Technical Support Document for the ultimate management alternative used by the transfer station.

e. Describe the mode of transporting residual from the transfer station to the ultimate management site:

_____

_____

_____

f. How long will residual be stored on-site prior to ultimate management?

Average operation: _____ days

Peak operation: _____ days

Note: storage installations used to store residual are required to obtain a Treatment Works Approval pursuant to N.J.A.C. 7:14A-22 and –23.

G1. Residual Information (continued).

g. Describe all process additives, including quantity required, source, trade names, and chemical analysis where available:

h. Attach a descriptive statement of the process used and operation of the proposed facility. Within this format, provide a description and detailed specifications of all process steps (including but not limited to residual delivery, storage, mixing, dewatering, and any stabilization method) and the related equipment, pollution control systems, instrumentation and monitoring mechanisms.

i. Provide a comprehensive materials balance for the proposed system/operation. The materials balance shall account for every handling and processing step starting from residual delivery to the facility and ending with final removal of residual from the site.

G2. Topographic Map.

Provide a topographic map that shows the following items of information. Map(s) must include the area one mile beyond all property boundaries of the facility.

a. Location of all residual treatment, storage, or disposal facilities, including land application sites and locations where residual is generated, treated or disposed in the map area;

b. Location of all surface water bodies in the map area;

c. Location of all wells used for drinking water listed in public records or otherwise known to the applicant in the map area.

PART H. REED BEDS N/A

Complete this part only if you own or operate a reed bed.

H1. Information on Active Residual Units

a. Number of residual units or drying beds: _____

b. Unit name or number:

Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet
Bed # __ _____ size: _____ square feet

c. Total gallons of residual placed on the active residual units per 365-day period: _____

d. Average total solids of residual: _____%

e. Loading (divide item c by total square feet in item b): _____ gallons per sq. ft. per year

f. Type of residual(s) to be loaded: Aerobic _____ Anaerobic _____
Alum _____ Primary _____
Other _____ (describe: _____)

g. Does the active residual unit have a liner with a maximum hydraulic conductivity of 1 X 10^{-7} cm/sec?
_____ Yes _____ No
If yes, describe the liner (or attach a description):

_____
_____
_____

h. Does the active residual unit have a leachate collection system?
_____ Yes _____ No
If yes, describe the leachate collection system. Also describe the method used for leachate disposal:

_____
_____
_____

H1. Information on Active Residual Units (continued)

i. If you answered no to either H.1.f or H.1.g., answer the following question:

Is the boundary of the residual unit less than 150 meters from the property line of the surface disposal site? _____ Yes _____ No

If yes, provide the actual distance in meters: _____

j. Anticipated next evacuation or closure date for active residual unit, if known: _____

k. Provide a copy of any evacuation or closure plan that has been developed for this active residual unit.

H2. Topographic Map.

Provide a topographic map that shows the following items of information. Map(s) must include the area one mile beyond all property boundaries of the facility.

a. Location of all residual treatment, storage, or disposal facilities, including land application sites and locations where residual is generated, treated or disposed in the map area;

b. Location of all surface water bodies in the map area.

FACILITY NAME: **HOPE CREEK GENERATING STATION** NJPDES PERMIT NO.: **NJ0025411** FORM R - 28
(new applicants leave blank) Rev. 08/23/07

PART I: CERTIFICATION

Read and submit the following certification statement with this application.

Indicate which parts of Form R you have completed and are submitting:

X Part A (General Information)

G Part B (Generation of residual or preparation of a material derived from residual)

G Part C (Environmental Assessment)

G Part D (Land Application)

G Part E (Surface Disposal)

G Part F (Out-of-state Generators)

G Part G (Residual Transfer Stations)

G Part H (Reed Beds)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with the 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 purposely, knowingly, recklessly, or negligently submitting false information.

Signature of Officer: George P. Barnes

Name of Officer: George P. Barnes
(type or print)

Official Title: Site Vice President – Hope Creek

Telephone Number: (856) 339-1952

Date Signed: 8/30/07

FORM C 3/2/98	NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF WATER QUALITY	C

Refer to Appropriate Completeness Checklist and Instructions. Provide All Applicable Information. Please Print or Type. (Attach additional sheets if necessary)

SUPPLEMENTAL APPLICATION FORM TO NJPDES-1 FOR INDUSTRIAL NJPDES/DSW PERMITS

1. FACILITY NAME: Hope Creek Generating Station	2. NJPDES NO. (NEW APPLICANTS LEAVE BLANK) NJ0025411
3. THE PERMIT APPLICATION SHALL INCLUDE:	A. FACILITY DIAGRAM B. LINE DRAWING C. USGS MAP

4. OUTFALL LOCATION

For each outfall, list the latitude, longitude and the name of the receiving water.

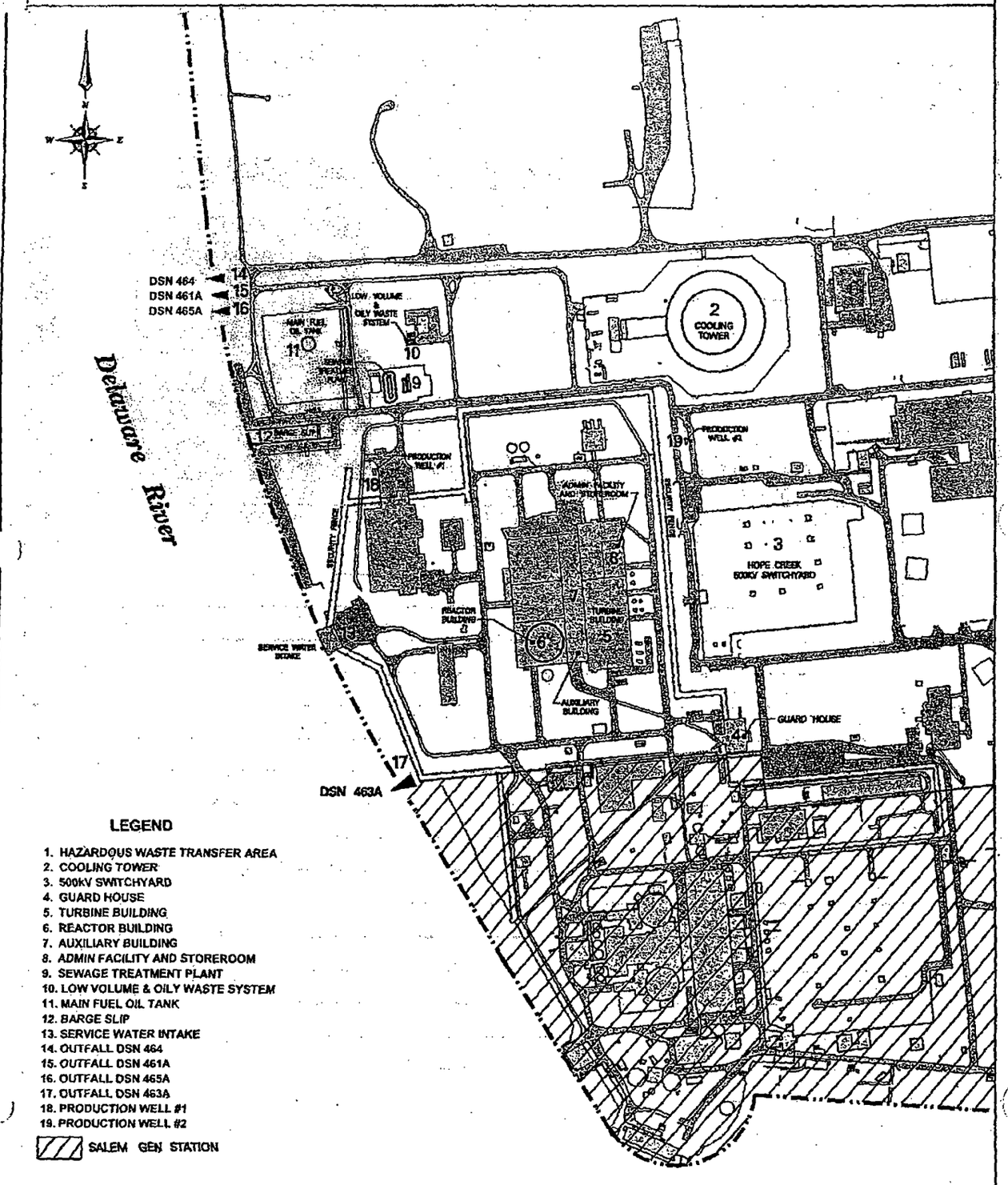
OUTFALL NUMBER	LATITUDE (deg, min, sec)	LONGITUDE (deg, min, sec)	RECEIVING WATER (name)	USEPA REACH No.	WATERSHED MANAGEMENT AREA
			Please See Attached		

PROPOSED DISCHARGE DATE: **For Department Use Only**

5. FLOWS, POLLUTANT SOURCES, AND TREATMENT TECHNOLOGIES

OUTFALL	OPERATION CONTRIBUTING FLOW		TREATMENT TECHNOLOGIES	
NUMBER (DSN)	NAME OF OPERATION OR PROCESS (LIST)	AVERAGE FLOW (INCLUDE UNITS)	DESCRIPTION	CODES FROM TABLE 1
	Please See Attached			

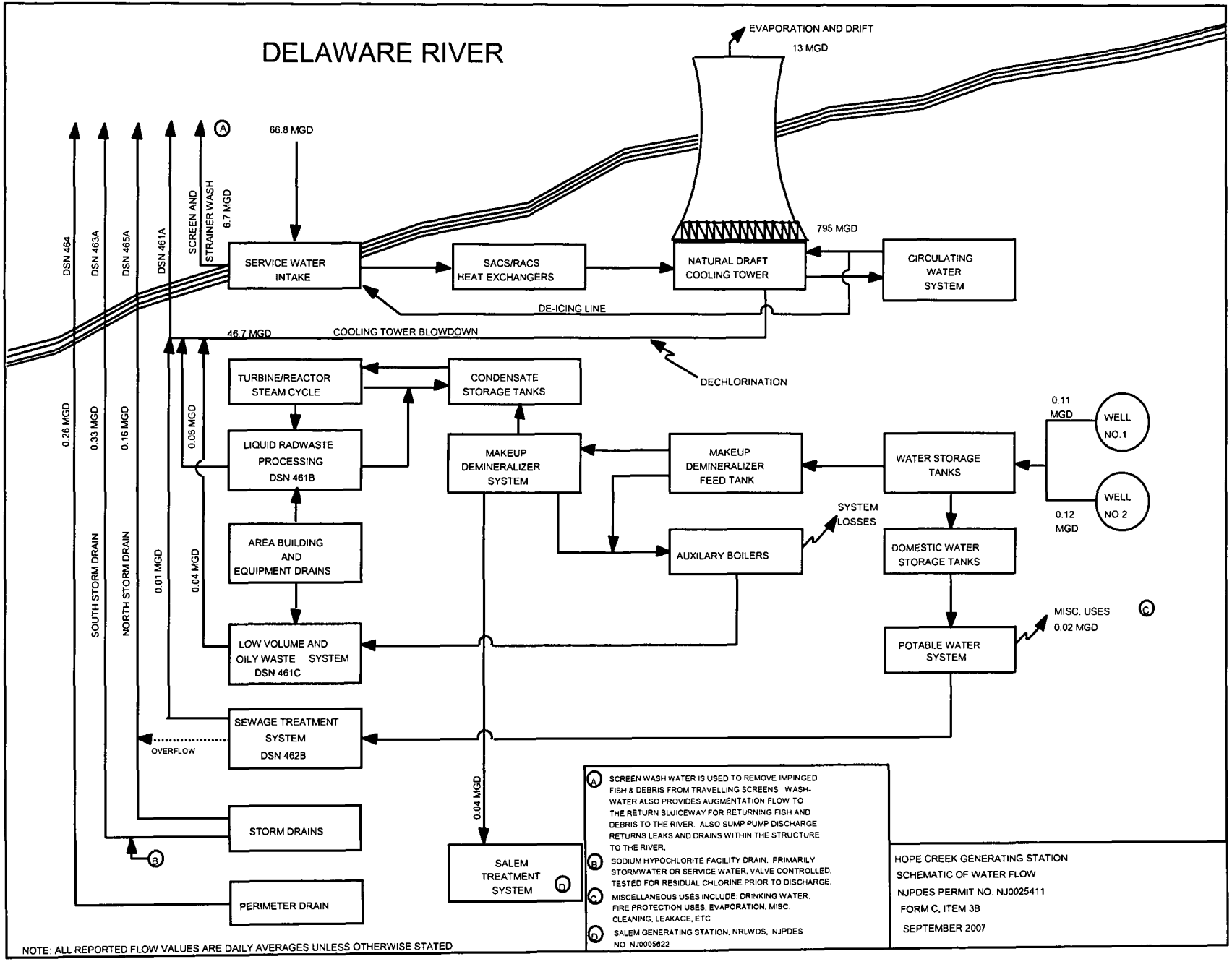
HOPE CREEK GENERATING STATION
NJPDES PERMIT NO. NJ0025411
GENERAL SITE MAP SHOWING INTAKE AND DISCHARGE POINTS
FORM C – ITEM 3A
SEPTEMBER, 2007



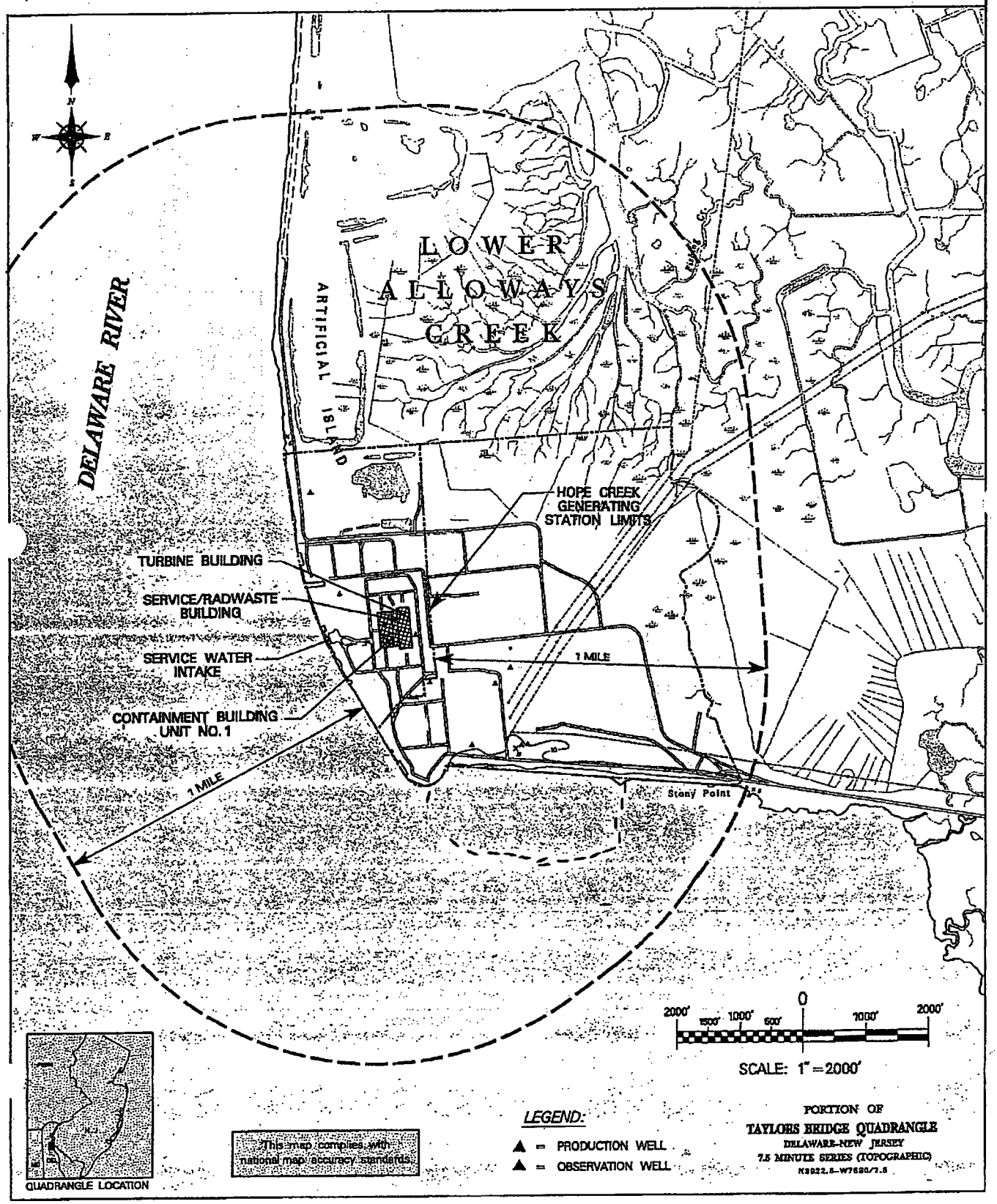
LEGEND

1. HAZARDOUS WASTE TRANSFER AREA
2. COOLING TOWER
3. 500kV SWITCHYARD
4. GUARD HOUSE
5. TURBINE BUILDING
6. REACTOR BUILDING
7. AUXILIARY BUILDING
8. ADMIN FACILITY AND STOREROOM
9. SEWAGE TREATMENT PLANT
10. LOW VOLUME & OILY WASTE SYSTEM
11. MAIN FUEL OIL TANK
12. BARGE SLIP
13. SERVICE WATER INTAKE
14. OUTFALL DSN 464
15. OUTFALL DSN 461A
16. OUTFALL DSN 465A
17. OUTFALL DSN 463A
18. PRODUCTION WELL #1
19. PRODUCTION WELL #2

SALEM GEN STATION


DELAWARE RIVER
EVAPORATION AND DRIFT
13 MGD
66.8 MGD
A
SCREEN AND STRAINER WASH
6.7 MGD
DSN 464
DSN 463A
DSN 465A
DSN 461A
SERVICE WATER INTAKE
SACS/RACS HEAT EXCHANGERS
NATURAL DRAFT COOLING TOWER
795 MGD
CIRCULATING WATER SYSTEM
DE-ICING LINE
46.7 MGD
COOLING TOWER BLOWDOWN
DECHLORINATION
TURBINE/REACTOR STEAM CYCLE
CONDENSATE STORAGE TANKS
0.26 MGD
0.33 MGD
0.16 MGD
0.06 MGD
LIQUID RADWASTE PROCESSING DSN 461B
MAKEUP DEMINERALIZER SYSTEM
MAKEUP DEMINERALIZER FEED TANK
WATER STORAGE TANKS
0.11 MGD
WELL NO.1
WELL NO 2
0.12 MGD
SYSTEM LOSSES
AREA BUILDING AND EQUIPMENT DRAINS
AUXILARY BOILERS
DOMESTIC WATER STORAGE TANKS
0.01 MGD
0.04 MGD
SOUTH STORM DRAIN
NORTH STORM DRAIN
LOW VOLUME AND OILY WASTE SYSTEM DSN 461C
MISC. USES 0.02 MGD
C
POTABLE WATER SYSTEM
SEWAGE TREATMENT SYSTEM DSN 462B
OVERFLOW
0.04 MGD
STORM DRAINS
B
SALEM TREATMENT SYSTEM
D
PERIMETER DRAIN
A SCREEN WASH WATER IS USED TO REMOVE IMPINGED FISH & DEBRIS FROM TRAVELLING SCREENS. WASH-WATER ALSO PROVIDES AUGMENTATION FLOW TO THE RETURN SLUICEWAY FOR RETURNING FISH AND DEBRIS TO THE RIVER. ALSO SUMP PUMP DISCHARGE RETURNS LEAKS AND DRAINS WITHIN THE STRUCTURE TO THE RIVER.
B SODIUM HYPOCHLORITE FACILITY DRAIN. PRIMARILY STORMWATER OR SERVICE WATER, VALVE CONTROLLED, TESTED FOR RESIDUAL CHLORINE PRIOR TO DISCHARGE.
C MISCELLANEOUS USES INCLUDE: DRINKING WATER, FIRE PROTECTION USES, EVAPORATION, MISC. CLEANING, LEAKAGE, ETC
D SALEM GENERATING STATION, NRLWDS, NJPDES NO NJ0005622
HOPE CREEK GENERATING STATION
SCHEMATIC OF WATER FLOW
NJPDES PERMIT NO. NJ0025411
FORM C, ITEM 3B
SEPTEMBER 2007
NOTE: ALL REPORTED FLOW VALUES ARE DAILY AVERAGES UNLESS OTHERWISE STATED

HOPE CREEK GENERATING STATION
NJPDES PERMIT NO. NJ0025411
FORM C – ITEM 3C
SEPTEMBER, 2007



HOPE CREEK GENERATING STATION
NJPDES PERMIT NJ0025411
ATTACHED INFORMATION FOR FORM C

ITEM 4 - OUTFALL LOCATION

For each outfall, list the latitude, longitude and the name of the receiving water.

OUTFALL NUMBER	LATITUDE (DEG,MIN,SEC) NAD-83	LONGITUDE (DEG,MIN,SEC) NAD-83	RECEIVING WATER (name)	USEPA REACH No.	WATERSHED MANAGEMENT AREA
461A	39° 28' 14"	75° 32' 34"	Delaware Estuary		
461B	39° 28' 15"	75° 32' 20"	Internal		
461C	39° 28' 13"	75° 32' 23"	Internal		
465A	39° 28' 14"	75° 32' 34"	Delaware Estuary		
462B	39° 28' 11"	75° 32' 25"	Internal		
463A	39° 27' 54"	75° 32' 23"	Delaware Estuary		
464	39° 28' 15"	75° 32' 34"	Delaware Estuary		

HOPE CREEK GENERATING STATION
NJPDES PERMIT NJ0025411
ATTACHED INFORMATION FOR FORM C

ITEM 5 - FLOWS, POLLUTANT SOURCES, AND TREATMENT TECHNOLOGIES

OUTFALL NUMBER (DSN)	OPERATION CONTRIBUTING FLOW		TREATMENT TECHNOLOGIES	
	NAME OF OPERATION OR PROCESS	AVERAGE FLOW (INCLUDE UNITS)	DESCRIPTION	CODES FROM TABLE 1
461A	Cooling Tower Blowdown See Tab 461A	46.7 MGD	Non-Contact Cooling Water See Tab 461A	2-E 2-F
461B	Liquid Rad Waste System See Tab 461A	0.06 MGD	Liquid Rad Waste See Tab 461A	2-J
461C	Low Volume and Oily Waste See Tab 461C	0.04 MGD	Oil Water Separator See Tab 461C	5-X 6-F
465A	North Yard Drain See Tab Stormwater	0.16 MGD	Yard Drain See Tab Stormwater	XX
462B	Sewage Treatment Plant See Tab 462B	0.01 MGD	Sewage Treatment System See Tab 462B	1-V 2-F 3-A 5-X
463A	South Yard Drain See Tab Stormwater	0.33 MGD	Yard Drain See Tab Stormwater	XX
464	Perimeter Drain See Tab Stormwater	0.26 MGD	Yard Drain See Tab Stormwater	XX
Item A	SWIS Backwash, Strainer, Sumps See Tab 461A	6.9 MGD	Screens, Sumps, Strainers See Tab 461A	XX
Item B	Chlorination Structure See Tab 461A	Intermittent	SW, Precip., and Fresh Water See Tab 461A	XX

FORM C 98		C

FACILITY NAME: Hope Creek Generating Station

6. INTERMITTENT OR SEASONAL DISCHARGES

Except for stormwater runoff, leaks, or spills, are any of the discharge(s) described in Item 5 intermittent or seasonal?

ç YES (complete the following table) ❑ NO (go to Item 7)

OUTFALL NUMBER (DSN)	FREQUENCY		FLOW				
	DAYS PER WEEK (SPECIFY AVERAGE)	MONTHS PER YEAR (SPECIFY AVERAGE)	FLOW RATE (in mgd) monthly average	FLOW RATE (in mgd) daily maximum	TOTAL VOLUME (specify units) monthly average	TOTAL VOLUME (specify units) daily maximum	DURATION IN DAYS
461B	2	12	0.06	0.26	63,916 gal.	262,080 gal.	N/A
461C	7	12	0.04	0.28	40,000 gal.	280,000 gal.	N/A

7. PRODUCTION BASED EFFLUENT STANDARDS

A. Does an effluent guideline promulgated by USEPA under the Clean Water Act apply to any discharge this application is made for?

ç YES (complete 7B) ❑ NO (go to Item 8)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?

❑ YES (complete 7C) ç NO (go to Item 8)

C. If you answered "yes" to Item 7B, list the quantities which represent an actual measurement or estimate of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

YEAR	QUANTITY PER DAY	UNITS OF MEASURES	OPERATION, PRODUCT, MATERIAL, ETC. (SPECIFY)	OUTFALL NUMBER

8. ENFORCEMENT/CORRECTIVE ACTIONS

Identify each AO, ACO, JCO, NOV, COMP (if known to the applicant), or other (OT) corrective or enforcement action(s) required by NJDEP, USEPA or any other governmental agency(ies), and provide a brief summary of the action.

DATE	ACTION	AGENCY	SUMMARY OF REQUIRED ACTION
None			

9. IMPROVEMENTS

Complete this table if you are required by federal, state or local authority to meet any implementation schedule for construction, upgrading or operation of the wastewater treatment equipment or practices, or any other environmental programs which may affect the discharges described in this application

(i.e., permit conditions, administrative orders, etc.).

IDENTIFICATION OF CONDITIONS, AGREEMENTS, ETC.	AFFECTED OUTFALLS DSN	AFFECTED OUTFALLS SOURCES	DESCRIPTION OF PROJECT	FINAL COMPLIANCE DATE REQUIRED	FINAL COMPLIANCE DATE PROJECTED
None					

HOPE CREEK GENERATING STATION
NJPDES PERMIT NJ0025411
FORM C

Pages 3 through 11

ITEM 10 A, B, & C

NJDEP Form C, pages 3 through 11, contain the following information by outfall:

10A. EFFLUENT DATA - PART A

10B. EFFLUENT DATA - PART B

10C. EFFLUENT DATA - PART C

This data is placed behind each respective DSN Tab.

FORM C /98		C

FACILITY NAME: Hope Creek Generating Station

10D. EFFLUENT DATA - PART D

Use the space below to list each of the pollutants listed in Table 3 of the instructions and each biocide, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your posession.

POLLUTANT	SOURCE
Please See Attached	

11. TOXIC POLLUTANTS USED OR MANUFACTURED

Identify below if any toxic pollutant listed in item 10C or Table 3 is a substance or a component which you currently use or manufacture as an intermediate or final product or byproduct.

Asbestos	

12. BIOLOGICAL TOXICITY TESTING DATA

Is this application for an individual NJPDES/DSW permit?

X YES (Complete Below) ☐ NO (Go to Item 13)

DATE OF TOXICITY TEST	TYPE OF TOXICITY TEST	RESULT OF TEST
07/24/07-07/28/07	Mysid 96-Hr Acute Toxicity	LC_{50}=>100%; Survival=100%
07/24/07-07/28/07	Mysid Chronic Toxicity - Growth	IC_{25}=>100%; NOEC=100%
07/24/07-07/28/07	Mysid Chronic Toxicity - Fecundity	IC_{25}=>100%; NOEC=100%

13. CERTIFIED LABORATORY

Complete the table below for all analyses reported in this application.

NAME OF CERTIFIED LAB.	TELEPHONE #	CERTIFICATION NUMBER	POLLUTANT(S)/CATEGORIES ANALYZED
Please See Attached			

14. CERTIFICATION BY THE APPLICANT

For **Hope Creek Generating Station**
NAME OF APPLICANT/OPERATING ENTITY (Type or Print)

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 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 purposely, knowingly, recklessly, or negligently submitting false information.

NAME (TYPE OR PRINT)	TITLE (TYPE OR PRINT)	
George P. Barnes	Site Vice President - Hope Creek	
SIGNATURE: George P. Barnes	DATE: 8/30/07	PHONE: 856-339-1952

HOPE CREEK GENERATING STATION
NJPDES PERMIT NJ0025411
ATTACHED INFORMATION FOR FORM C

ITEM 10D - EFFLUENT DATA PART D

1. Believed Present

Sodium Hypochlorite is added to the Service Water System and the cooling tower as a biocide. Service water is provided as makeup to the cooling tower and the discharge is through outfall DSN 461A where the effluent is dechlorinated using ammonium bisulfite and the residual chlorine concentrations are monitored. The residual chlorine concentrations are summarized at the DSN 461A summary tables and Form C-10B for the outfall.

2. Table 3 Pollutants

The products identified on Table 10D-1 contain one or more pollutants listed in Table 3 of the instructions. These products are typical of those utilized at the facility in areas which could discharge to an outfall in the event of a spill, leak, or inadvertent drain. Although these pollutants are not intended for normal discharge, unless identified at the DSN specific Tab, there remains the potential for inadvertent discharge. These pollutants are not expected to be detected in the outfall.

3. Area Maintenance Products

Licensed applicators periodically apply herbicides, pesticides and fertilizer to areas of the Station for surface maintenance purposes. The Station currently employs J. C. Ehrlich to apply these materials. The materials currently being applied, as the season warrants, are identified on Table 10D-2. These materials are typical of the area maintenance products normally used at the Station. Although these pollutants are not intended for normal discharge, unless identified at the DSN specific Tab, there remains the potential for inadvertent discharge. These pollutants are not expected to be detected in the outfall.

4. Additional Pollutants

The products identified on Table 10D-3 are typical of the products and constituents utilized at the facility in areas which could discharge in the event of a leak, spill, or inadvertent drain. Although these pollutants are not intended for normal discharge, unless identified at the DSN specific Tab, there remains the potential for inadvertent discharge. These pollutants are not expected to be detected in the outfall.

The current permit provide, at Part IV.E.7.b, that "(T)he permittee is licensed by the U.S. Nuclear Regulatory Commission and responsible to that agency for compliance with radiological effluent limitations, monitoring requirements, and other licensing conditions." PSEG concurs with this provision and requests this provision be retained. Although the Liquid Radioactive Waste (LRW) system is the system designed to handle radioactive liquid wastes, the USNRC requires the Station to conduct low level monitoring of other environmental discharges to ensure radioactivity levels are not being discharged above those authorized. For example, the cooling tower blowdown effluent has an installed radioactivity monitor which triggers an alarm if radioactivity is being discharged above the setpoint. Very low levels of radioactivity can enter non-radiological treatment systems. Low levels of radioactivity have been identified in residuals prior to removal from the treatment systems and have required handling and disposal in accordance with USNRC regulations. Although very low levels of radioactivity may be present in any treatment system or effluent, they are at levels which do not pose any threat to the public or the environment and are well within the limitations imposed by the USNRC.

Any waters, derived from groundwater without the addition of any chemicals, and no matter how internally named, can be discharged through any outfall. This practice is consistent with the application and practice in all prior permit applications but has been more clearly explained in this application. See Tab Yard Drains, Note 5 for further explanation.

HOPE CREEK GENERATING STATION
NJPDES PERMIT NJ0025411
ATTACHED INFORMATION FOR FORM C

ITEM 10D - EFFLUENT DATA PART D, TABLE 3 HAZARDOUS SUBSTANCES
TABLE 10D-1

The products identified contain one or more pollutants listed in Table 3 of the instructions. These products are utilized at the facility in areas which could discharge to an outfall in the event of a spill, leak, or inadvertent drain. This listing is representative and typical of chemical used. Although these pollutants are not intended for normal discharge, unless identified at the DSN specific Tab, there remains the potential for inadvertent discharge. These pollutants are not expected to be detected in the outfall.

POLLUTANT	CASNO	SOURCE	COMMENT (1)
Aniline	101-77-9	Biscoseal TP-28	0200-0053
		Ceramic EC Barrier Solidifier	0200-0437
Butyl Acetate	123-86-4	Acrylic Enamel Paint	0200-0787
		Carbothane134	0200-1209
		Dykem Steel Blue	0300-0029
		Epoxy Primer	0200-0379
		E-Series Epoxy Enamel	0200-0378
		Acrylic Enamel Hardener	0200-0788
		J-Series Kolor-Poxy	0200-0928

ITEM 10D - EFFLUENT DATA PART D, TABLE 3 HAZARDOUS SUBSTANCES
TABLE 10D-1

Butyl Acetate (cont)	123-86-4	Kolor-Poxy Primer	0200-0596
		Clearcoat 8853	0200-1777
		Urethane Converter	0200-1209
		U-Series Kolorane Enamel	0200-1431
Carbaryl	63-25-2	Sevin SL	Tru-Green Chemlawn (2)
Cresol	1319-77-3	Copaltite	0200-0376
		Sealant #2X	0200-0299
Cyclohexane	110-82-7	Gasoline	0900-0768
Dimethyl amine	1643-20-5	High Expansion Foam	1000-0203
Diuran	330-54-1	Karmex DFHerbicide	J.C. Ehrlich (2)
Epichlorohydrin	25085-99-8	Sikador Himod Gel	0200-1623
		Biscoseal TP-28	0200-0053
		Centron 402	0200-1649

ITEM 10D - EFFLUENT DATA PART D, TABLE 3 HAZARDOUS SUBSTANCES
TABLE 10D-1

Epichlorohydrin	25085-99-8	Enecrete Duraquartz	0200-0985
		Flexiclad Duratough DL	0200-0969
Ethylene Diamine (Found as EDTA)	10378-23-1	Sodium Thiosulfate Solution	0900-0118
	21265-50-9	K-Lens-M Lens Cleaner	0500-0109
	60-00-4	Kodak Fixer Concentrate	0900-0704
	64-02-8	Lysol Disinfectant	0500-0012
Formaldehyde	9011-05-6	Lesco Granular Fertilizer	Tru-Green Chemlawn (2)
	50-00-0	Copaltite	0200-0376
	67-56-1	Formaldehyde 37%	0900-0368
	67953-80-4	Polymer Set 1100	0900-0355
Isoprene	104389-31-3	Stripcoat	0200-1563

ITEM 10D - EFFLUENT DATA PART D, TABLE 3 HAZARDOUS SUBSTANCES
TABLE 10D-1

Styrene	100-42-5	Cuz Body Filler	0200-1348
		Automotive Body Putty	0200-0775
		Derakane Vinyl Ester Resin	0200-0715
	9003-53-6	Developer Premix	0300-0028
		Monokote Type MK-6/CFB	0200-1084
Uranium		Nuclear Fuel	(3)
Vinyl Acetate	1332-58-7	All Purpose Joint Compound	0200-0222
	24937-78-8	Cadalag #336	0200-1459
	9003-22-9	PB Touchup Gray	0200-1820
Xylene	1330-20-7	ZRC Galvanizing Compound	0200-0465
		Zinc Galvanize #399	0200-0377
		Acrylic Enamel	0200-0787

ITEM 10D - EFFLUENT DATA PART D, TABLE 3 HAZARDOUS SUBSTANCES
TABLE 10D-1

Xylene (cont)	1330-20-7	Acrylic Enamel Reducer	0600-0102
		Air Dry Enamel	0200-0392
		ALBI Primer	0200-0458
		Amercoat 90 Cure	0200-0193
		Amercoat 90 Resin	0200-0195
		Acid Resistant Paint	0200-0089
		Bitumastic 300	0200-0280
		Buff Epoxy Paint	0200-0286
		Carbo Zinc No. 11 Base	0200-0033
		Carboline	0200-0115
		Carbomastic 15	0200-0215
		DC 1200 RTV Prime Coat	0200-0370

ITEM 10D - EFFLUENT DATA PART D, TABLE 3 HAZARDOUS SUBSTANCES
TABLE 10D-1

Xylene (cont)	1330-20-7	E-Series Enamel Paint	0200-0378
		Gavanox Type 1	0200-0170
		Glyptal	0200-1628
		Hardener 8871	0200-0788
		Industrial Wash Primer	0200-0878
		J-Series Kolor-Poxy Enamel	0200-0928
		KEM Hi-temp High Performance	0200-1842
		Kolor-Poxy Floor Coat	0200-1002
		Kromik Metal Primer	0200-0863
		Masterseal 330	0200-1678
		Penetrating Oil	0100-0530
		Phenoline Thinner	0600-0092

ITEM 10D - EFFLUENT DATA PART D, TABLE 3 HAZARDOUS SUBSTANCES
TABLE 10D-1

Xylene (cont)	1330-20-7	Carb and Choke Cleaner	0600-0154
		Reducer 54	0600-0280
		Rust Barrier White Primer	0200-0301
		Rust Barrier Red Primer	0200-0241
		Sterling Varnish	0200-0610
		Texaco Super Unleaded Gasoline	0900-0250
		Unleaded Gasoline	0900-0768
		Urethane Clearcoat	0200-1777
		Lysol Disinfectant	0500-0012

COMMENTS:
(1) The numbers in the Comment column are the Station Chemical Control System tracking numbers.
(2) Licensed applicator utilizes, no bulk material stored at the facility.
(3) Uranium is used in the electric generation process, no reasonable potential for discharge.

ITEM 10D - EFFLUENT DATA PART D
TABLE 10D-2
AREA MAINTENANCE PRODUCTS

Licensed applicators periodically apply herbicides, pesticides and fertilizer to areas of the Station for surface maintenance purposes. The Station currently employs J. C. Ehrlich to apply these materials. The materials currently being applied, as the season and surface warrants, are identified. These materials are typical of the area maintenance products normally used at the Station and other, similar type products, could be used by these or other licensed applicators. Although these pollutants are not intended for normal discharge, unless identified at the DSN specific Tab, there remains the potential for inadvertent discharge. These pollutants are not expected to be detected in the outfall.

PRODUCT	MANUFACTURER/ VENDOR	CURRENT APPLICATOR
ROUNDUP PRO Herbicide	Monsanto	J. C. Ehrlich
OUST Herbicide	DuPont Ag. Products	J. C. Ehrlich
KARMEX DF Herbicide	DuPont Ag. Products	J. C. Ehrlich
BIG SUR 90 Spray Adjuvant	Brewer International	J. C. Ehrlich
Glyphosate	DuPont Ag. Products	J. C. Ehrlich
POLY DRY	Brewer International	J. C. Ehrlich

TABLE 10D-3 - ADDITIONAL POLLUTANTS

The products identified are representative, but not all inclusive, of products and constituents utilized at the facility in areas which could discharge in the event of a leak, spill, or inadvertent drain. Although these pollutants are not intended for normal discharge, unless identified at the DSN specific Tab, there remains the potential for inadvertent discharge. These pollutants are not expected to be detected in the outfall.

PRODUCT	CICP	CAS No.	COMPONENT
#44 RESIN CORE SOLDER (GE 175A8867P002 AL	0100-0262	7440-69-9	BISMUTH
		7440-22-4	SILVER
		7440-31-5	TIN
02353 TEXACO ANTIFREEZE/COOLANT	1000-0172	7758-11-4	POTASSIUM PHOSPHATE, DIBASIC
1,1,1-TRICHLOROETHANE	0600-0318	123-91-1	1,4-DIOXANE
1000 GREEN CONCENTRATE OIL	0100-0038	518-47-8	GREEN DYE
		19381-50-1	GREEN DYE
1800 PSIG CYLINDER 2% HYDROGEN BALANCE NI	0900-0406	1333-74-0	HYDROGEN
		7727-37-9	NITROGEN (COMPRESSED OR LIQUEFIED)
1-AMINO-2-NAPHTHOL-4-SULFONIC ACID #259	0900-0431	116-63-2	1-NAPHTHALENE SULFONIC ACID, 4-AMINO-3-H
2,2,4 TRIMETHYLPENTANE (ISO-OCTANE)	0900-0763	540-84-1	ISOOCTANE
25 FULL IMPACT NO RINSE STRIPPER CONCENTR	0500-0546	100-51-6	BENZYL ALCOHOL
		29911-28-2	DIPROPYLENE GLYCOL N-BUTYL ETH
4 WAY PLUS PN#74107	0600-0030	127-18-4	TETRACHLOROETHYLENE
4-PHENYLAZODIPHENYLAMINE	0900-0230	101-75-7	4-(PHENYLAZO)DIPHENYLAMINE
5129 KOLOR-POXY PRIMER/SEALER A	0200-0596	68609-97-2	ALKYD GLYCIDYL ETHERS
609 RETAINING COMPOUND FAST CURING 60931	0200-0227	63393-89-5	COUMARONE-INDENE RESIN
		868-77-9	METHACRYLIC ACID, 2-HYDROXYETHYL ESTER
		9003-42-3	POLY(ETHYL METHACRYLATE)
624 SOLVENT	0600-0167	64741-53-3	NAPHTHENIC PETROLEUM OIL
ACETYLENE, ETHYNE, ETHINE	0900-0109	74-86-2	ACETYLENE
ACRYLIC CONFORMAL COATING MS-475N (FORMER	0200-0667	1717-00-6	1,1,-DICHLORO-1-FLUORETHANE
ACTION PLUS DEGREASER CLEANER (1020)	0500-0033	9016-45-9	ETHOXYLATED NONYL PHENOL
		1310-58-3	POTASSIUM HYDROXIDE
		7758-29-4	SODIUM PHOSPHATE, TRIBASIC
		13870-28-5	SODIUM SILICATE
		1300-72-7	SODIUM XYLENESULFONATE
ACTIVATED CARBON TYPE 828	0900-0410	280-57-9	TRIETHYLENE DIAMINE
AEROSHELL GREASE 16	0100-0089	103-24-2	AZELAIC ACID, BIS(2-ETHYLHEXYL)ESTER

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
AG 701 / AP 1602	0200-1772	25038-32-8	HYDROCARBON RESIN
		9010-85-9	ISOBUTYLENE-ISOPRENE POLYMER
		9003-29-6	POLYBUTENE POLYMER
		9003-07-0	POLYOLEFIN
AIR DRY ENAMEL 1201	0200-0392	1309-38-2	MAGNETITE
AIRCOMATIC GAS (MIXES ARGON / CO2)	0900-0328	7440-37-1	ARGON
AIROILENE OIL P-089507, P-089508, P-08873	0100-0120	64742-46-7	PETROLEUM DISTILLATES HYDROTREATED MIDDL
ALVANIA(R) EP LF GREASE RO (71123)	0100-0500	7620-77-1	LITHIUM 12 HYDROXYSTERATE
		12001-85-3	NAPHTHENIC ACID, ZINC SALT
		64742-52-5	PETROLEUM LUBRICATING OIL
AMERCOAT 90 RESIN	0200-0195	1308-38-9	CHROMIUM(III) OXIDE(2:3)
		8007-18-9	NICKEL ANTIMONY TITANATE
		68953-58-2	ORGANIC CLAY
		57018-52-7	PROPYLENE GLYCOL T-BUTYL ETHER
AMERCOAT THINNER #6	0600-0200	64742-94-5	AROMATIC HYDROCARBONS
		123-42-2	DIACETONE ALCOHOL
		91-20-3	NAPHTHALENE
AMINO ACID F DILUTION SOLVENT (23530)	0900-0664	124-68-5	AMINOMETHYLPROPANOL
AMINO ACID REAGENT FOR PHOSPHATE & SILICA	0900-0432	7681-57-4	SODIUM METABISULFITE
AMMONIA STABILIZER SOLN. A1500	0900-0338	6381-59-5	POTASSIUM SODIUM TARTRATE
AMMONIA TEST KITS R1501'S		7774-29-0	MERCURIC IODIDE
AMMONIUM CHLORIDE (A661500)	0900-0002	12125-02-9	AMMONIUM CHLORIDE
AMMONIUM MOLYBDATE REAGENT FOR SILICA 193	0900-0078	12027-67-7	MOLYBDIC ACID, HEXAAMMONIUM SALT
		7664-93-9	SULFURIC ACID
AMMONIUM SULFATE, GRANULAR	0900-0336	7783-20-2	AMMONIUM SULFATE
ANCHORFAST RESIN	0200-1637	- -	ACRYLATE MONOMER MG-1
		26142-30-3	DER 732 EPOXY RESIN
ANIONIC SURFACTANT SOLN.	0900-0636	36445-71-3	DECYL(SULFONPHENOXY)BENZENESULFONIC ACID
ANSTAC 2M	0900-0818	104-74-5	LAURYL PYRIDINIUM CHLORIDE
ANTI-FOG LENS PREP II (P/N 60158-00)	0500-0251	1330-78-5	TRICRESYLPHOSPHATE
ARMOR ALL PROTECTANT	0200-0680	- -	ARMOR ALL CONCENTRATE
			SILICONE EMULSION
		50-70-4	SORBITOL

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
AUTOMOTIVE BODY PUTTY #'S 6369 - 73, 6378	0200-0775	94-36-0	BENZOYL PEROXIDE
		85-68-7	BUTYL BENZYL PHTHALATE
		100-42-5	STYRENE MONOMER
BARBASOL REGULAR SHAVING CREAM	0500-0157	9002-92-0	LAURETH 23
		57-11-4	STEARIC ACID
BARIUM NITRATE	0900-0271	10022-31-8	BARIUM NITRATE
BATTERY P/N 12-609 NOW MAINTENANCE-FREE M	0900-0600	1317-36-8	LITHARGE
BATTERY WET ELECTRIC STORAGE (DEKA 908D)	0900-0450	7440-36-0	ANTIMONY
BD 7-77 PLUS (PENETRATING OIL PLUS TEFLON	0100-0365	92-52-4	BIPHENYL
BEL-RAY ANTI-WEAR LUB 5 5624	0100-0490	64742-44-5	MINERAL OIL
BELZONA 1111 (BELZONA SUPER METAL) BASE 1	0200-0244	28064-14-4	DGEBF-EPOXY RESIN
		92797-60-9	MODIFIED SILICA
BELZONA 2131 D&A FLUID ELASTOMER BASE	0200-0351	101-68-8	METHYLENE BISPHENYL ISOCYANATE
BELZONA 3121 (MR-7) SOLIDIFIER	0200-1191	6864-37-5	CYCLOHEXANAMINE, 4,4-METHYLENE (BIS 2-ME
BELZONA 5811 (IMMERSION GRADE) SOLIDIFIER	0200-0938	1761-71-3	4,4-METHYLENEBIS (CYCLOHEXANAMINE) POLYM
BELZONA 5811 IMMERSION GRADE BASE 305/016	0200-0938	71888-89-6	BENZENEDICARBOXYLIC ACID ESTER
BELZONA 9111 (CLEANER/DEGREASER)	0600-0336	70693-06-0	C9-C11 AROMATIC HYDROCARBON
BENZOIC ACID (PELLETS)	0900-0791	65-85-0	BENZOIC ACID
BISCOSEAL TP-28 PART A	0200-0053	17557-23-2	DIGLYCIDYL ETHER of NEOPENTYLGYLCOL
		25085-99-8	EPICHLOROHYDRIN BISPHENOL A
		028053-14-4	PHENOL-FORMALDEHYDE NOVOLAC
BITUMASTIC 300 M A 0165A5NL	0200-0280	68187-57-5	COAL TAR FIVER PITCH
		71011-27-3	ORGANOPHILIC CLAY
		90-72-2	TRI(DIMETHYLAMINOMETHYL)PHENOL,2,4,6
BITUMASTIC 300 M B 0165B5NL)	0200-0280	25068-38-6	EPOXY RESIN (DIGLYCIDYL ETHER OF BISPHEN
BITUMASTIC NO. 50	0200-1312	8001-58-9	COAL TAR CREOSOTE
		65996-79-4	COAL TAR DISTILLATE
		65996-93-2	COAL TAR PITCH
		95-13-6	INDENE
BLACK MAX(R) 380 BLACK TOUGH INSTANT ADHE	0200-0362	54545-50-5	ETHYLENE COPOLYMER RUBBER
BLEND-A-COLOR TONERS (A60N1 RAW UMBER)	0200-1841	9036-19-5	POLYETHYLENE GLYCOL OCTYLPHENYL ETHER
BLUE GAGE OIL	0100-0570	9002-83-9	CHLOROTRIFLUOROETHYLENE POLYMER
BLUE SKIES II DISINFECTANT CLEANER COMMAN	0500-0542	8001-54-5	ALKYL DIMETHYL BENZYL AMMONIUM

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
		7173-51-5	DIDECYL DIMETHYL AMMONIUM CHLORIDE
BRAND SE-FOAM SILICONE RTV FOAM B 3-6548	0200-0044	68037-59-2	DIMETHYL METHYLHYDROGEN SILOXANE
		68083-19-2	POLYDIMETHYLSILOXANE, DIMETHYLVINYL-TERM
BRANSON GENERAL PURPOSE CLEANER	0500-0334	6834-02-0	SODIUM SILICATE (SILICIC ACID,DISODIUM
BROMOPHENOL BLUE (B3925)	0900-0057	115-39-9	BROMOPHENOL BLUE
BTR HYDRAULIC FLUID FOR 400-D HAND GUN	0100-0583	90-30-2	1-NAPHTHYLAMINE, N-PHENYL-
BUFF EPOXY PAINT #74004	0200-0286	110-80-5	2-ETHOXYETHANOL
BUFFER SOLUTION PH 4	0900-0531	127-09-3	SODIUM ACETATE
CADALAG #336	0200-1459	63449-39-8	PARAFFIN WAXES AND HYDROCARBON WAXES, CH
CADMIUM (16411 2001 CX0012 CX0013 CX0015	0900-0753	7440-43-9	CADMIUM
CALCIUM CHLORIDE	0900-0011	10035-04-8	CALCIUM CHLORIDE, DIHYDRATE
CALCIUM CHLORIDE C79500	0900-0275	10043-52-4	CALCIUM CHLORIDE
CARBO ZINC NO. 11 BASE	0200-0033	1332-58-7	ALUMINUM SILICATE HYDROXIDE
		- -	COLOR PIGMENT
		78-10-4	ETHYL SILICATE
		681-84-5	METHYL SILICATE
		12001-25-2	MICA
CARBOLINE 890 PART B (0986B1NL)	0200-0115	- -	CYCLOALIPHATIC AMINE BLEND
		694-83-7	DIAMINOCYCLOHEXANE
		2855-13-2	ISOPHORONEDIAMINE
CARBOMASTIC 15 PART A	0200-0215	68609-96-1	C8 AND C10 ALKYL GLYCIDYL ETHERS
CARBON DIOXIDE, REFRIGERATED LIQUID	0900-0603	124-38-9	CARBON DIOXIDE
CARBON MONOXIDE 20 PPM	0900-0216	630-08-0	CARBON MONOXIDE
CAULK 149 COMP. A	0200-1629	68425-16-1	TERT-NONYL SULFIDES
CAULK 149 COMP. B	0200-1629	1313-13-9	MANGANESE DIOXIDE
		137-26-8	THIRAM
CAZAR 2 412030-04340	0100-0176	64755-01-7	FATTY ACIDS, TALLOW, CALCIUM SALTS
		- -	PROPRIETARY ADDITIVE MIXTURE
CELL - 11.3% SALT (LITHIUM CHLORIDE) HC-	0900-0539	7447-41-8	LITHIUM CHLORIDE

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
CERAMIC EC BARRIER BARRIER SOLIDIFER	0200-0437	101-77-9	4,4'-METHYLENE DIANILINE
		25620-58-0	TRIMETHYLHEXAMETHYLENEDIAMINE
		20-37-6	TRIS(ETHYLAMINOETHYL) PHENOL
CERAMIC EC BARRIER SOLIDIFIER - RED	0200-0437	80-05-7	4,4'-ISOPROPYLIDENEDIPHENOL
		68585-27-3	BISPHENOL A EPOXY MODIFIED ALIPHATIC AMI
		111-40-0	DIETHYLENE TRIAMINE
		68919-79-9	DIMER ACID, TALL OIL FATTY ACID, TRIETHY
		- -	POLYMERIC FATTY ACID AMINE
CHEMGUARD BC DRY CHEMICAL	0900-0715	63148-57-2	METHYL HYDROGEN POLYSILOXANE
CHICO A SEALING COMPOUND	0200-0238	1344-28-1	ALUMINUM OXIDE
		1305-78-8	CALCIUM OXIDE
		1345-25-1	FERROUS OXIDE
CHLORIDE CONSUMABLES KIT 151711	0900-0227	64-18-6	FORMIC ACID
CIMTECH 250 WITH MSL	0100-0113	11111-34-5	ALKOXYLATED AMINE
		26896-20-8	NEODECANOIC ACID
CITRIC ACID MONOHYDRATE	0900-0254	5949-29-1	CITRIC ACID MONOHYDRATE
CITRIKLEEN	0500-0007	112-34-5	DIETHYLENE GLYCOL-N-BUTYL ETHER
CITRIKLEEN NST	0500-0426	5989-27-5	LIMONENE,-D
		26836-07-7	MONOETHANOLAMMONIUM DODECYBENZ
		20324-33-8	TRIPROPYLENE GLYCOL METHYL ETH
CLEAN-GEAR TOWLETTE CT943	0500--0052	111-76-2	2-BUTOXY ETHANOL
COBALT (II) CHLORIDE (C371)	0900-0013	7791-13-1	COBALT CHLORIDE
COMMAND CENTER 32 HEPTAGON DISINFECTANT C	0500-0581	63449-41-2	N-ALKYL DIMETHYL BENZYL AMMONIUM CHLORID
		68356-79-6	N-ALKYL DIMETHYL EHTYL BENZYL AMMONIUM C
COMMAND CENTER BATH MATE ACID FREE WASHRO	0500-0559	68131-40-8	LINEAR ALCOHOL SURFACTANT
COMMAND CENTER HIGH GEAR MULTI-PURPOSE DE	0500-0562	5131-66-8	1-BUTOXY-2-PROPANOL
		- -	ALKOXYLATED LINEAR ALCOHOLS
		112-05-0	N-NONANOIC ACID
COMMAND CENTER PHENEX NS CLEANER,DISINFEC	0500-0563	90-43-7	2-PHENYL PHENOL
		120-32-1	POTASSIUM ORTHOBENZYL PARACHLOROPHENATE
		80-46-6	p-TERTIARY AMYLPHENOL
COMMAND CENTER SPEEDBALL 2000 POWER CLEAN	0500-0545	78-96-6	ISOPROPANOLAMINE
COMMAND CENTER SPEEDTRACK CONCENTRATE 24	0500-0545	68131-39-5	ETHOXYLATED ALCOHOL

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
COOGAR 800 25% HELIUM/75% ARGON	0900-0739	7440-59-7	HELIUM
COPPER REF STD SOL 1000 PPM	1000-0093	7697-37-2	NITRIC ACID
CORMATIC PINK PEARL HAND SOAP GPM 12-30B	0500-0145		
CP200 POXYLUBE-DRY FILM LUBRICANT (AEROSO	0100-0016	67-64-1	ACETONE
		106-97-8	BUTANE
		76-13-1	FREON 113
		108-10-1	METHYL ISOBUTYL KETONE
		74-98-6	PROPANE
		110-54-3	n-HEXANE
CRP BLAZE OFF	0500-0571	68585-34-2	ALCOHOL ETHOXYSULFATE, SODIUM SALT
			DETERGENTS
CUPRIC SULFATE, 5-HYDRATE	0900-0188	7758-98-7	CUPRIC SULFATE
DBT SILICONE CATALYST	0200-0287	77-58-7	DIBUTYL TIN DILAURATE
DENATURED ALCOHOL SOLVENT	0600-0149	142-82-5	n-HEPTANE
DEODORANT BLOCKS	0500-0213	106-46-7	1,4-DICHLOROBENZENE
DEVELOPER CD-5 78-9020-1535-9	0300-0019	123-31-9	HYDROQUINONE
		7757-83-7	SODIUM SULFITE
DEVELOPER PREMIX - TYPE 252 78-6969-5974-	0600-0078	58353-09-6	STYRENE ACRYLIC RESIN
		25767-47-9	STYRENE BUTYLACRYLATE COPOLYMER
DEVELOPER PREMIX - TYPE 852 #78-6969-5173	0300-0028	7439-89-6	IRON
		1317-61-9	IRON OXIDE
		9003-53-6	STYRENE POLYMER
DIPHENYLCARBAZIDE	0900-0149	140-22-7	DIPHENYLCARBAZIDE
		538-62-5	DIPHENYLCARBAZONE
DISSOLVED OXYGEN REFILL & TEST KITS R-750	0900-0107	111-46-6	DIETHYLENE GLYCOL
DIVINYLBENZENE 55 21861 (INSERT - COLU	0900-0508	98-29-3	4-t-BUTYLCATECHOL
		25340-17-4	DIETHYLBENZENE
		1321-74-0	DIVINYLBENZENE
		28106-30-1	ETHYLVINYLBENZENE
D-MANNITOL OR MANNITOL	0900-0062	69-65-8	MANNITOL
DOUBLE BUBBLE RED/WHITE EPOWELD 8173 0400	0200-0232	106-89-8	EPICHLOROHYDRIN
		122-60-1	PHENYL GLYCIDYL ETHER
DOW CORNING (R) 4 COMPOUND	0100-0079	68037-74-1	DIMETHYL, METHYL SILICONE RESIN

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
DOW CORNING (R) 702 DIFFUSION PUMP FLUID	0200-1081	68037-71-8	DIMETHYL, PHENYL METHYL SILOXANE COPOLYM
		807-28-3	TETRAPHENYLDIMETHYLDISILOXANE
DOW CORNING (R) 790 BUILDING SEALANT - PR	0200-0922	50791-87-2	METHYL VINYL BIS(N-METHYL-ACETAMIDO)SILA
DOW CORNING (R) G-N METAL ASSEMBLY PASTE	0200-0309	7784-30-7	ALUMINUM PHOSPHATE
		110-30-5	ETHYLENE-BIS-STEARAMIDE
		64741-89-5	PETROLEUM DISTILLATE
		72623-86-0	SOLVENT REFINED PARAFFINIC OIL
		7446-26-6	ZINC PYROPHOSPHATE
DOW CORNING(R) 1200 RTV PRIME COAT - CLEA	0200-0370	2157-45-1	TETRA (2-METHOXYETHOXY) SILANE
		5593-70-4	TETRABUTYL TITANATE
		682-01-9	TETRAPROPYL ORTHOSILICATE
DOW CORNING(R) 3451 CHEMICAL RESISTANT BE	0100-0501		ETHYLENE, TETRAFLUORO-, POLYME
			TRIFLUOROPROPYLMETHYL SILOXANE
DOW CORNING(R) 41 EXT. HIGH TEMP. BEARING	0100-0081	63148-52-7	DIMETHYL, PHENYLMETHYLPOLYSILOXANE, TRIM
DOW CORNING(R) 790 BUILDING SEALANT-BLACK		68952-53-4	DIMETHYL METHYLDIETHYL-N-HYDROXYETHAMINE
DOW CORNING(R) 995 SILICONE STRUCTURAL AD	0200-1340	- -	CALCIUM CARBONATE TREATED WITH STEARIC A
		1185-55-3	METHYLTRIMETHOXY SILANE
DOW CORNING(R) Q4-2805 CHANNEL SEALANT	0200-1010	68952-02-3	METHYLVINYL, TRIFLUOROPROPYLETHYL SILOXA
		68909-20-6	SILANAMINE, 1,1,1-TRIMETHYL-N-(TRIMETHYL
		68607-77-2	SILANOL/STPD FLUOROSILICONE FLUID
		9052-95-3	STYRENE-DIVINYLBENZENE-ETHYLSTYRENE POLY
DPD TOTAL CHLORINE REAGENT 14064	0900-0521	- -	CARBOXYLATE SALT
		- -	SALT OF N,N-DIETHYL-P-PHENYLENEDIAMINE
		7558-79-4	SODIUM PHOSPHATE, DIBASIC
DPL-2 RUST INHIBITOR CD214	0600-0011	61789-85-3	PETROLEUM SULFONATE
DRIERITE - REGULAR	0900-0012	7778-18-9	CALCIUM SULFATE
DS-8000 SERIES ADHESIVE, HARDNER	0200-0371	6531-38-0	N,N'BIS (2-AMINOETHYL) PIPERAZINE
		24028-46-4	PIPERAZINYLETHYL-ETHYLENEDIAMINE
		4097-89-6	TRIS(2-AMINOETHYL)AMINE
DTM ACRYLIC COATING SEMI-GLOSS, ULTRA WHI	0200-1598	108419-35-8	OXO-TRIDECYL ACETATE
DURALBOND PART A	0200-1390	2461-15-6	PROPANE, 1,2-EPOXY-3-((2-ETHYL HEXYL)OXY)
DURALBOND PART B	0200-1390	123-30-8	AMINOPHENOL
ECODEX P201H,P202H,P202HL,P202HC,P205H,X2	1000-0068	70851-17-1	CELLULOSE FIBER

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
EN16 SPRAYON OMNI-PAK BLEND FOR ENAMELS	0200-0954	763-69-9	ETHYL 3-ETHOXYPROPIONATE
ENDUST DUSTING AND CLEANING SPRAY	0500-0566	71-55-6	1,1,1-TRICHLOROETHANE
			OIL, MINERAL
		64742-48-9	PETROLEUM NAPHTHA
			PROPELLANT BLEND A-46 (PROPANE &BUTANE)
ENECRETE DURAQUARTZ BASE	0200-0985	106-89-8	EPICHLOROHYDRIN
		25068-38-6	EPOXY RESIN (DIGLYCIDYL ETHER OF BISPHEN
		2210-79-9	PROPANE, 1,2-EPOXY-3-(O-TOLYOXY)-
ENGINE ENAMEL 88 (UNIVERSAL GREY 7883)	0200-0793	110-19-0	ISOBUTYL ACETATE
EPA 2000 WCI-140 CM HV	0500-0464	68551-16-6	ISO PARAFFINIC HYDROCARBONS
ETHYL ALCOHOL - 200 PROOF	0500-0076		
ETHYL ALCOHOL, DENATURED (A407)	0600-0044	75-07-0	ACETALDEHYDE
		141-78-6	ETHYL ACETATE
EXOSEN COUPLANT	0100-0316	9004-34-6	MICROCRYSTALLINE CELLULOSE
EZ WELD PRIMER (CLEAR 211)	0200-1262	108-94-1	CYCLOHEXANONE
		109-99-9	TETRAHYDROFURAN
FILLING SOL FOR REF ELECTRODE 100058 (150	0900-0236	7787-69-1	CESIUM BROMIDE
FIRE BARRIER CP-25 N/S NO-SAG CAULK	0200-0395	1305-62-0	CALCIUM HYDROXIDE
		68527-02-6	CHLORINATED OLEFINS (C12-C24)
FIRE BARRIER CP-25 WB+CAULK (REVISED)	0200-1794	1241-94-7	2-ETHYLHEXYL DIPHENYLPHOSPHATE
		- -	CHOPPED FIBERGLASS
		- -	FLAME RETARDAND
		- -	SYNTHETIC POLYMER LATEX
		1332-07-6	ZINC BORATE
FIVE STAR EPOXY GROUT HARDENER COMPONENT	0200-0448	100-37-8	DIETHYLAMINOETHANOL
FIVE STAR GROUT	0200-0400	65997-16-2	HYDRAULIC CALCIUM ALUMINATE CEMENT
FLORCO-X ABSORBENT	0500-0136	8031-18-3	FULLER'S EARTH
		14808-60-7	SILICA, QUARTZ
FLUORESCEIN GREEN CONCENTRATE	0900-0266	139-88-8	SODIUM TETRADECYL SULFATE
FLUX STRIPPER S 1644-16S, 24S	0500-0143	75-09-2	METHYLENE CHLORIDE
FOAMY Q & A CLEANER	0500-0211	79-14-1	HYDROXYACETIC ACID
		7664-38-2	PHOSPHORIC ACID
FOGPRUF	0500-0531	577-11-7	SUCCINIC ACID, SULFO-BIS(ETHYL HEXY)

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
FORANE (R) 502 CHLORODIFLUOROMETHANE (R22	0900-0643	76-15-3	MONOCHLOROPENTAFLUOROETHANE
FREON 114	0900-0147	76-14-2	DICHLOROTETRAFLUOROETHANE
FREON 116 REFRIGERANT	0900-0728	76-16-4	HEXAFLUOROETHANE
FREON 500, R-500, RACON 500	0900-0141	75-37-6	1,1-DIFLUOROETHANE
FREON TES SOLVENT MS-176/CO2	0500-0171	67-56-1	METHANOL
FREON T-P35 SOLVENT MS-160	0500-0172	75-71-8	DICHLORODIFLUOROMETHANE
FT/HI PURITY BLACK Q404	0300-0089	8005-2-5	C.I. SOLVENT BLACK 7
		65797-05-9	ROSIN(RESIN)
FUSOR 304-1	0200-0072	- -	PROPRIETARY FILLER
		2426-8-6	n-BUTYL GLYCIDYL ETHER
FUSOR 304-2	0200-0073	68410-23-1	FATTY ACIDS
FYRQUEL 150 R&O	0100-0574	- -	BUTYLATED TRIPHENYL PHOSPHATE
		115-86-6	TRIPHENYL PHOSPHATE
FYRQUEL EHC	0100-0574	25155-23-1	PHENOL, DIMETHYL-, PHOSPHATE 3:1
G300	0100-0100	68957-05-1	CHLOROPHENYLMETHYLSILOXYCOPOLYMER
		15590-62-2	LITHIUM, 2 ETHYLHEXOATE
G322L	0100-0099	68607-71-6	METHYL DECYL POLYSILOXANE
		13530-65-9	ZINC CHROMATE
GAGE BLOCK PRESERVATIVE, AEROSOL (458-060	0500-0220	64742-65-0	Heavy Paraffinic Petroleum Dis
		68476-85-7	LIQUEFIED PETROLEUM GAS
		64742-88-7	NAPHTHOL SPIRITS
GALVANOX TYPE 1 0490S1NL	0200-0170	56-23-5	CARBON TETRACHLORIDE
		- -	CHLORINATED RUBBER
GASKET ELIMINATOR(R) 504 SEALANT 50431	0200-0252	51796-19-1	CASTOR OIL DERIVATIVE
GASKET SEALANT #2 (FORM-A-GASKET(R)) 3051	0200-0334	68187-84-8	CASTOR OIL
		8050-9-7	ROSIN
		8002-43-5	SOYBEAN DERIVATIVE
GEM TYPE HCP STANDARD GREEN INK #815	0300-0137	1344-37-2	CHROME YELLOW
GEM TYPE HCP STANDARD ORANGE INK #813	0300-0136	12656-85-8	MOLYBDATE ORANGE
GENERATOR SOLN-PYRIDINE FREE 27-128-01	0900-0396	109-86-4	2-METHOXYETHANOL

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
GENTLE LOTION CLEANSER / SSS LOTION CLEAN	0500-0106	61789-40-0	COCAMIDOPROPYL BETAINE
		7647-14-5	SODIUM CHLORIDE
		9004-82-4	SODIUM LAURYL ETHER SULFATE
GLASS AND SURFACE CLEANER READY TO USE	0500-0492	69227-21-0	ALKOXYLATED FATTY ALCOHOL
GN METAL ASSEMBLY SPRAY - NEW	0100-0515	1317-33-5	MOLYBDENUM (IV) SULFIDE
GRAFOIL GTS THREAD SEALANT PASTE TG-061	0100-0392	8042-47-5	MINERAL OIL, SLAB OIL
			PETROLEUM JELLY
GREEN POINT HYDRAULIC FLUID TR 22 (WAS #)	0100-0588	3038-35-3	POLYALKYLENEGLYCOL
HARDENER 8871 (ACRYLIC ENAMEL SYSTEM)	0200-0788	28182-81-2	HEXAMETHYLENE DIISOCYANATE POLYMER
HD 5695	0500-0522	68439-46-3	ETHOXYLATED C9-10 ALCOHOL
		68127-33-3	NEUTRALIZED DICARBOXYLIC ACID
HI-GENIC NON-ACID BOWL AND BATHROOM CLEAN	0500-0214	139-08-2	N-ALKYL DIMETHYL BENZYL AMMONI
HIGH CAPACITY, DEIONIZATION, RESIN D0803	1000-0112	69011-20-7	COPOLYMER BEADS
HIGH EXPANSION FOAM 1 1/2%	1000-0203	67762-41-8	LAURYL ALCOHOL
		1643-20-5	LAURYL DIMETHYL AMINE OXIDE
HIGH PERFORMANCE HEAT RESISTANT COATING N	0200-1842	68187-11-1	COBALT CHROMITE BLUE-GREEN SPINEL
HIGH PERFORMANCE HEAT RESISTANT PRIMER NO	0200-1842	30962-78-1	SILOXANE MOD POLYESTER
HORNCURE SEAL 30C	0200-2091	68131-87-3	HYDROCARBON RESIN
HYDRAZINE DIFFUSION REAGENT 151811	0900-0476	7553-56-2	IODINE
HYDRAZINE DIHYDROCHLORIDE (H319500)	0900-0061	5341-61-7	HYDRAZINE, DIHYDROCHLORIDE
HYDRAZINE SULFATE	0900-0234	10034-93-2	HYDRAZINE SULFATE
HYDROGEN PEROXIDE KIT	0900-0104	1762-95-4	AMMONIUM THIOCYANATE
HYDROGEN PEROXIDE SOLNS 3% TO 30% H3254	0900-0649	7722-84-1	HYDROGEN PEROXIDE
HYDROSEP (ADDITIVE FOR EYEWASH STA)	0500-0182	18472-51-0	CHLORHEXIDINE GLUCONATE
		- -	DIGLUCONATE CHLOROHEXIDINE GLUCONATE
HYPERFLEX FR TM	0200-1157	32588-76-4	1H-ISOINDOLE-1,3(2H)-DIONE,2,2'(1,2 ETHA
		25213-02-9	POLYETHYLENE COPOLYMER
IC-PAK ANION COLUMN	0900-0507	12007-60-2	LITHIUM TETRABORATE
		527-07-1	SODIUM GLUCONATE
		- -	TRIMETHYLAMMONIUM FUNCTIONALIZED POLYMET
IMCAS-ESP II (RUBBER COATING)	0200-0308	6683-19-8	CYCLIC HINDERED PHENYLAMINE ANTIOXIDANT
INDIGO CARMINE	0900-0023	860-22-0	INDIGO CARMINE
INDUSTRIAL WATER BASE ACRYLIC ENAMEL (#25	0200-1097	115-10-6	DIMETHYL ETHER

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
IRON (III) OXALATE	1000-0200	19469-07-9	IRON (III) OXALATE
IRON GRIP 601	0200-0081	69430-35-9	BLOCK COPOLYMER
IRON III AMMONIUM SULFATE HEXAHYDRATE	0900-0150	7783-85-9	FERROUS AMMONIUM SULFATE, HEXAHYDRATE
J-SERIES KOLOR-POXY ENAMELS PARTS B ONLY	0200-0928	98-82-8	CUMENE
KEM HI-TEMP HIGH PERFORMANCE HEAT RESISTA	0200-1842	13255-26-0	BARIUM SILICATE
KLEEN-KOOL	0500-0068	68954-07-4	BORAMIDE
		10043-35-3	BORIC ACID
		9038-95-3	OXIRANE,
		61790-12-3	TALL OIL ACIDS
		102-71-6	TRIETHANOLAMINE
KODAK EKTACOLOR RA BLEACH FIX & REPLENISH	0900-0697	21265-50-9	AMMONIUM FERRATE
		7631-90-5	SODIUM BISULFITE
KODAK EKTACOLOR RA DEVELOPER REPLENISHER	0900-0695	3710-84-7	HYDROXYLAMINE, N,N-DIETHYL-
		70024-48-5	SUBSTITUTED STILBENE
KODAK FLEXICOLOR DEVELOPER PART B	0900-0694	10039-54-0	HYDROXYLAMINE SULFATE
KODAK FLEXICOLOR DEVELOPER PART C	0900-0694	25646-77-9	ETHANOL, 2-((4-AMINO-3-METHYPHENYL) ETHY
KODAK FLEXICOLOR FIXER AND REPLENISHER WO	0900-0692	7783-18-8	AMMONIUM THIOSULFATE
KODAK INDUSTREX DEVELOPER REPLENISHER PTS	0900-0619	111-30-8	GLUTARALDEHYDE
		7420-89-5	GLUTARALDEHYDE BIS(SODIUM BISULFITE)
KODAK INDUSTREX DEVELOPER REPLENISHER PTS	0900-0619	92-43-3	3-PYRAZOLIDONE 1-PHENYL
		68072-38-8	NONIONIC SURFACTANT
KODAK INDUSTREX FIXER & REPLENISHER PART	0900-0623	10043-01-3	ALUMINUM SULFATE
KODAK INDUSTREX FIXER & REPLENISHER PART	0900-0653	10192-30-0	AMMONIUM BISULFITE
		12179-04-3	SODIUM TETRABORATE, PENTAHYDRATE
KOLOR-POXY PRIMERS A & B 3200, 4279, NM16	0200-0596	68081-84-5	ALKYL GLYCIDYL ETHER
		- -	POLYAMIDE-AMINE RESIN
KRONAPLATE 100 K-100 GREASE (11-425)(BETT	0100-0149	15337-18-5	ZINC DIPENTYLDITHIOCARBAMATE
KRYTOX 240 SERIES FLOURINATED GREASE	0100-0096	60164-51-4	PERFLUOROALKYETHER
LEAD-ACID BATTERY (FLUID)	0900-0374	7440-38-2	ARSENIC
LEAD-ACID CELL (CALCIUM)	0900-0181	7439-92-1	LEAD
		1309-60-0	LEAD DIOXIDE
LECTRA CLEAN #2018; GAGE BLOCK CLEANER,AE	0500-0066	106-88-7	1,2-BUTYLENE OXIDE
		124-38-9	CARBON DIOXIDE

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
		79-01-6	TRICHLOROETHYLENE
LITHIUM HYDROXIDE MONOHYDRATE	1000-0077	1310-66-3	LITHIUM HYDROXIDE MONOHYDRATE
LITHIUM THIONYL CHLORIDE BATTERY	0900-0637	7439-93-2	LITHIUM
		7446-9-5	SULFUR DIOXIDE
		7719-9-7	THIONYL CHLORIDE
LKYD VOC-COMPLIANT FINISHES A40WZ5 A40WZ6	0200-1318	471-34-1	CALCIUM CARBONATE
LO VOC CHROMOX PR RED 37 V13R28 (WAS 37 1	0200-0828	1309-37-1	IRON OXIDE FUME
		78-83-1	ISOBUTYL ALCOHOL
		7779-90-0	ZINC PHOSPHATE
LOCTITE ADHESIVE SEALANT 220 - 22041	0200-0009	18268-70-7	HEXANOIC ACID, 2-ETHYL-, DIESTER with TE
LOCTITE LOCQUIC (R) PRIMER T (AEROSOL) 74	0200-0074	99-97-8	DIMETHYL-P-TOLUDINE
		149-30-4	MERCAPTOBENZOTHIAZOLE
		75-65-0	tert-BUTYL ALCOHOL
LOCTITE NUT LOCK GRADE-CV 8331	0200-0198	9004-36-8	CELLULOSE ACETATE BUTYRATE
		102-82-9	TRIBUTYLAMINE
LOCTITE(R) 569 THREAD SEALANT HIGH STRENG	0200-0255	9003-63-8	POLY(BUTYL METHACRYLATE)
LOW CHLORIDE METAL MARKER	0300-0084	6358-31-2	C.I. YELLOW 11741
		2786-76-7	PIG RED 170 CI 12475
		1317-80-2	TITANIUM DIOXIDE
LPS 2 GENERAL PURPOSE LUBRICANT	0100-0190	64742-96-7	HEAVY ALIPHATIC SOLVENT NAPHTHA
LPS CFC-FREE ELECTRO CONTACT CLEANER	0600-0282	107-83-5	ISOHEXANES
LUSTER PHOTO LACQUER	0200-1891	110-43-0	METHYL (N-AMYL) KETONE
		- -	MIXTURE PROP/ISOBUT/BUT 48/2 (AEROSOL PR
LYSOL BULK DISINFECTANT	0500-0012	8052-48-0	SOAP
		1300-71-6	XYLENOL
MA-427 CLEAR-SET FLOOR TILE ADHESIVE - TH	0200-1717	68955-36-2	POLYCYCLIC AROMATIC HYDROCARBONS
MAGMA QUARTZ BASE 3201/1348	0200-0242	26447-14-3	PROPANE, 1,2-EPOXY-3-(TOLYLOXY
MAGNAFLUX PENETRANT SKL-HF/S	0300-0017	68477-31-6	METHYL NAPHTHYLENE #5
MAGNESIUM CHLORIDE	0900-0026	7791-18-6	MAGNESIUM CHLORIDE HEXAHYDRATE
MAGNESIUM NITRATE	0900-0358	13446-18-9	MAGNESIUM(II) NITRATE (1:2), HEXAHYDRATE
MANGANOUS SULFATE, MONOHYDRATE 2550,2552	0900-0194	10034-96-5	MANGANOUS SULFATE MONOHYDRATE
MARSH SPRAY STENCIL INK YELLOW, GREEN & O	0300-0025	18454-12-1	LEAD CHROMATE VI OXIDE
MARVEL LUBRICATING OIL	0100-0244	64742-63-8	DISTILLATES (PETROLEUM), SOLVENT-DEWAXED

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
MASONARY CONDITIONER (VOC) B46WZ1000	0200-0677	66070-71-4	TALL OIL ALKYD POLYMER
MASTERSEAL GP PART B (FORMERLY CONCRESIVE	0200-1677	1321-94-4	METHYLNAPHTHALENE
		8000-41-7	TERPINEOL
MEDIUM ALIPHATIC SOLVENT NAPHTHA	0600-0071	64742-95-6	NAPHTHA
		25551-13-7	TRIMETHYL BENZENE
MERCURY (13411)	0900-0309	7439-97-6	MERCURY
METALIST FLOOR FINISH ED-248	0200-0025	- -	ACRYLIC POLYMER EMULSION
		111-77-3	DIETHYLENE GLYCOL MONOMETHYL ETHER
		107-21-1	ETHYLENE GLYCOL
		- -	POLYETHYLENE EMULSION
		68442-80-8	ROSIN POLYESTER
METHANESULFONIC ACID	0900-0628	75-75-2	ALKANE SULFONIC ACID
METHYL SALICYLATE	1000-0017	119-36-8	METHYL SALICYLATE
MET-L-X DRY POWDER EXTINGUISHING AGENT	0900-0658	9010-76-8	SARAN
MICRO CONCENTRATED CLEANING SOLUTION			BENZENESULFONIC ACID DIMETHYL
			ETHYLENEDIAMINE TETRA-ACETIC A
			TRIETHANOLAMINE DODECYLBENZENE
MINERAL SPIRITS 66/3 11104	0600-0045	71-43-2	BENZENE
MINUTE WAX SILICONE CAR WAX T-15(C)	0600-0322	64741-44-2	GAS OIL
MOBIL SHC 824 LUBRICANT CIRC TURBINE OIL	0100-0189	68037-01-4	1-DECENE, HOMOPOLYMER, HYDROGENATED
		- -	ARYL AMINES
MOBIL SHC-525	0100-0387	16958-92-2	HEXANEDIOIC ACID, DITRIDECYL ESTER
MOBILFLUID 424	0100-0533	104-76-7	ETHYLHEXYL ALCOHOL
MOBILITH AW-2	0100-0493	38900-29-7	NONANEDIOIC ACID DILITHIUM SAL
		68649-42-3	ZINC DIALKYLDITHIOPHOSPHATE
MOLECULAR SIEVE TYPE 4A (HYDRO PURGE II)	0900-0698	1313-59-3	SODIUM OXIDE

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
MOLUB-ALLOY 936 SF HEAVY OPEN GEAR LUBRIC	0100-0489	8052-42-4	ASPHALT FUMES
		1333-86-4	CARBON BLACK
		7782-42-5	GRAPHITE
		72162-26-6	OLEFIN SULFIDE
		64742-16-1	RESIN
		72627-55-2	SUBSTITUTED 1,3,4-THIADIAZOLE
		14807-96-6	TALC
		64741-56-6	VACUUM RESIDUUM
MOLYBDATE 3 REAGENT FOR SILICA (1995)	0900-0203	7782-91-4	MOLYBDIC ACID
		10034-88-5	SODIUM BISULFATE MONOHYDRATE
MONOETHYLAMINE SOLUTION 151111/181153	0900-0073	75-04-7	ETHYLAMINE
MORNING MIST NEUTRAL DISINFECTANT CLEANER	0500-0580	68424-85-1	ALKYL DIMETHYL BENZYL AMMONIUM CHLORIDE
		68424-95-3	DIOCTYL DIMETHYL AMMONIUM CHLORIDE
N,N-DIMETHYL-P-PHENYLENEDIAMINE SULFATE	0900-0256	536-47-0	N,N-DIMETHYL-P-PHENYLENEDIAMINE SULFATE
NAPA ECHLIN FUEL INJECTOR SYSTEM CLEANER	0600-0152	64741-84-0	NAPTHA, SOLVENT REFINED, LIGHT
NATRASORB M (CLAY)	0700-0143	1318-93-0	MONTMORILLONITE CLAY
NDT WASH TEST SOLUTION	0900-0821	7761-88-8	SILVER NITRATE
NEBULA EP 2 436032-04571	0100-0062	68307-87-9	CALCIUM COMPLEX SOAP THICKENER
NEUTRACIT(R)-2 CAUSTIC NEUTRALIZER	0500-0431	34722-90-2	BROMOTHYMOL BLUE SODIUM SALT
		- -	FLOUR
NEW RAPID TAP	0100-0447	61788-76-9	CHLORINATED PARAFFINS
		64742-58-1	PARAFFINIC OIL
NICKELOUS SULFATE, 6 HYDRATE 2080	0900-0573	10101-97-0	NICKEL(II) SULFATE HEXAHYDRATE
NITRAVER NITRATE REAGENT 5 14035	0900-0132	7487-88-9	MAGNESIUM SULFATE
		121-57-3	SULFANILIC ACID
NOKORODE SOLDERING SALTS	0200-0360	7646-85-7	ZINC CHLORIDE
NORDSTROM 167 SEALANT (STICK GRADE)	0200-1633	8015-86-9	CARNAUBA WAX
OFF! AEROSOL	0700-0073	134-62-3	DIETHYL-META-TOLUAMIDE,N,N
OIL LEAK REPAIR KIT (CLEANER BLEND 300)	0200-1585	1589-47-5	2-METHOXY-1-PROPANOL
OMALA(R) OIL 100	0100-0469	64742-57-0	LUBRICATING OIL BASE STOCK

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
ORIGINAL RAPID TAP	0100-0013	- -	ALIPHATIC POLYOL
		- -	CINNAMON OIL PERFUME
		646-06-0	DIOXOLANE
		- -	NATURAL GLYCERIDE (A FATTY ANIMAL OIL)
OXALIC ACID REAGENT FOR SILICA 975	0900-0079	144-62-7	OXALIC ACID
P-400 UF HARDENER	0200-1391	140-31-8	N-AMINOETHYLPIPERAZINE
PACKAGED BLUE INDICATING SILICA GEL / DAV	0700-0146	7646-79-9	COBALTOUS CHLORIDE
PB TOUCHUP GRAY	0200-1820	68131-74-8	ASH
PB TOUCHUP RED	0200-1821	12238-31-2	BON RED PIGMENT
		6535-46-2	NAPHTOL AS-D
		9003-22-9	VINYL CHLORIDE-VINYL ACETATE COPOLYMER
P-DIMETHLYAMINOBENZALDEHYDE	0900-0223	100-10-7	DIMETHYLAMINOBENZALDEHYDE, P
PENA-13 PENETROX COMPOUND	0100-0402	8001-79-4	CASTOR OIL
		71011-24-0	ORGANIC PHILIC CLAY
		9003-13-8	POLY(OXY(METHYL-1,2-ETHANEDIYL)), alpha-
PENETRATING OIL 74101	0100-0530	8008-20-6	KEROSENE
PENETROX A, PEN 8A	0100-0194	637-12-7	STEARIC ACID, ALUMINUM SALT
PERMATEX(R) PRUSSIAN BLUE NON-DRYING 35V	0200-1885	14038-43-8	FERRIC FERROCYANIDE
PETROLEUM ETHER	0600-0359	8032-32-4	BENZINE
PHENOLINE 305 PRIMER PART B	0200-1657	25154-52-3	NONYLPHENOL
		109-76-2	PROPYLDIAMINE
		97-84-7	TETRAMETHYL BUTANEDIAMINE
PHENOLINE THINNER (0505S1NL)	0600-0092	110-12-3	METHYL ISOAMYL KETONE
PLASTIC PIPE CLEANER	0500-0183	78-93-3	METHYL ETHYL KETONE
PLASTISEAL F	0200-1712	- -	ALUMINA SILICA
		8029-43-4	CORN SYRUP
		128-31-9	QUINAL
		110-44-1	SORBIC ACID
POLYMER SET 1100 SERIES (ALL)	0900-0355	67953-80-4	2-PROPENAMIDE, POLYMER W/FORMALDEHYDE AN
		69418-26-4	ACRYLAMIDE COPOLYMER
POLYSILOXANE FLUID SF1147 (462HA500)	0100-0161	68440-89-1	METHYLDECYLPOLYSILOXANE ANTIOXIDANT
POR-15 RUST PREVENTIVE PAINT BLACK, SILVE	0200-0515	26447-40-5	DIPHENYLMETHANE 4,4'-DIISOCYANATE (MDI)
		68333-23-3	NAPTHA PETROLEUM

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
POWER CLEANER	0500-0088	111-42-2	DIETHANOLAMINE
PRECISION BLUE LAYOUT FLUID - BRUSH CAP	0300-0171	64-17-5	ETHYL ALCOHOL
		9004-70-0	NITROCELLULOSE
		123-86-4	n-BUTYL ACETATE
		71-36-3	n-BUTYL ALCOHOL
PREMIUM NICKEL ANTI-SEIZE 772	0100-0006	7429-90-5	ALUMINUM (DUST AND FUME)
		7440-02-0	NICKEL
PROPANE - LIQUEFIED PETROLEUM GAS	1000-0086	115-07-1	PROPYLENE
PRO-STRIP 114156001	0500-0267	1336-21-6	AMMONIUM HYDROXIDE
		141-43-5	ETHANOLAMINE
		39464-70-5	POLYOXYETHYLENE PHENYL ETHER P
PROTEK-SORB, SUPER PROTEK SORB, DRI-PAX P	0500-0094	7440-44-0	CARBON
P-SERIES POLY-SILICONE ENAMELS		7440-47-3	CHROMIUM
PST #580 LOW HALOGEN/LOW SULFUR PIPE SEAL	0200-0021	39382-25-7	BISPHENOL A FUMARATE RESIN
		80-15-9	CUMENE HYDROPEROXIDE
		613-48-9	N,N-DIALKYLTOLUIDINE
		25852-47-5	POLYETHYLENE GLYCOL DIMETHACRYLATE
		9004-81-3	POLYGLYCOL LAUREATES
		81-07-2	SACCHARIN
		112945-52-5	SILICA, AMORPHOUS FUMED
		13463-67-7	TITANIUM DIOXIDE
PULL OUT HEAVY DUTY SPOT REMOVER	0500-0553	- -	BLENDED ANIONIC SURFACTANT
		64741-41-9	MINERAL SPIRITS
PUTTY 87 (GLAZING PUTTY, LIGHT GRAY 6390	0200-0810	117-81-7	BIS (2-ETHYLHEXYL) PHTHALATE
		65997-13-9	ROSIN ACIDS
PVC CEMENT	0200-1182	9002-86-2	POLYVINYL CHLORIDE
PYROCRETE 241 0148S7NL	0200-0175	21645-51-2	ALUMINUM HYDROXIDE
		65997-15-1	SILICATE, PORTLAND CEMENT

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
QUAKER STATE DOT 3 450 F BRAKE FLUID	0100-0555	4792-15-8	3,6,9,12-TETRAOXATETRADECANE-1,14-DIOL
		112-98-1	DIBUTOXY TETRAGLYCOL
		- -	DIETHYLENE GLYCOL METHYL ETHERS
		4353-28-0	PENTAOXAHEPTADECANE-3,6,9,12,15
		143-24-8	PENTAOXAPENTADECANE-2,5,8,11,14
		25322-68-3	POLYETHYLENE GLYCOL
		112-60-7	TETRAETHYLENE GLYCOL
		112-27-6	TRIETHYLENE GLYCOL
QUICK DRY BACKGROUND ENAMEL BLACK (ENGRAV	0200-0726	7440-48-4	COBALT
		- -	RESIN SOLIDS
QUICK SET (TM) 404 INSTANT ADHESIVE	0200-1290	7085-85-0	ETHYL CYANOACRYLATE
		9011-14-7	POLYMETHYLMETHACRYLATE
RADCON HAND CLEANER (OH)	0500-0081		
RC RETAINING COMPOUND 640 HIGH TEMP		79-10-7	ACRYLIC ACID
			POLYURETHANE METHACRYLATE RESINS
		109-16-0	TRIETHYLENE GLYCOL DIMETHACRYLATE
RC(TM) 620 RETAINING CMPD HIGH TEMP 62040	0200-0064	24448-20-2	DIMETHACRYLATE ESTER, AROMATIC
		27813-02-1	HYDROXYALKYL METHACRYLATE
		3006-93-7	MALEIMIDE, N,N'-(m-PHENYLENE)DI-
READY SAFE 158735, 140311, 141349	0900-0586	68412-54-4	BRANCHED-NONYLPHENOL, ETHOXYLATE
		6196-95-8	PXE (PHENYLXYLYLETHANE)
RED GAGE OIL (SEE 100-571)	0100-0571	8012-95-1	ADEPSINE OIL
		- -	PETROLEUM HYDRAULIC OIL
REF ELECTRODE INTERNAL FILLING SOLN 18107	0900-0474	7647-17-8	CESIUM CHLORIDE
REF. ELECTRODE LOWER COMPARTMENT SOLUTION	0900-0095	3051-11-4	PIGMENT SUN YELLOW
RELY-ON LATEX CAULK	0200-1757	25265-77-4	TRIMETHYL PENTANEDIOL ISOBUTYRATE
REMOVABLE THREADLOCKER 242(R) 24221	0200-0018	9004-96-0	POLYGLYCOL OLEATE
RTV 60 SILICONE RUBBER	0200-0287	68855-54-9	DIATOMACEOUS EARTH
		26352-16-9	ETHYL SILICATE 40
RTV ADHESIVE SEALANT #96-081	0200-0047	70131-67-8	DIMETHYL POLYSILOXANE SILANOL/ST
		80801-30-5	PHENYL METHYL POLYSILOXANE
		4130-8-9	VINYLTRIACETOXYSILANE
RUST BARRIER 55 RED PRIMER	0200-0241	55799-16-1	ZINC HYDROXY PHOSPHITE

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
RUST-BAN 343 284051-04051	0200-0366	64741-97-5	DISTILLATES (PETROLEUM), REFINED LIGHT N
SAFETY SOLVENT CLEANER NR. 261 - BULK	*0600-0059*	*78-92-2*	*sec-BUTYL ALCOHOL*
SANI-FRESH ANTISEPTIC HAND S02	0500-0562	80-04-0	CHLOROXYLENOL
		111-60-4	GLYCOL STEARATE
		107-41-5	HEXYLENE GLYCOL
		68439-57-6	SODIUM ALPHA-OLEFIN SULFONATE
SANI-TUFF SUPER DUTY CLEANSER WITH GRIT	0500-0570	68647-53-0	COCOAMPHODIACETATE
		56863-02-6	LINOLEAMIDE DEA
SANURIL 115	1000-0084	7778-54-3	CALCIUM HYPOCHLORITE
SAYLOR PORTLAND CEMENTS TYPES I,IA,ID,IWP	0200-0341	13397-24-5	CALCIUM SULPHATE HYDROUS
		10034-77-2	DICALCIUM SILICATES
		12068-35-8	TETRACALCIUM ALUMINOFERRITE
		12042-78-3	TRICALCIUM ALUMINATE
		12168-85-3	TRICALCIUM SILICATES
SBS-30 WATERLESS SKIN CLEANSER	0500-0163	64741-65-7	ISOPARAFFINIC HYDROCARBON SOLVENT
		61790-67-8	TEA-TALLOWATE
SCAV-OX(R) 35% HYDRAZINE (DEOXY-SOL R)	1000-0008	302-01-2	HYDRAZINE
SCOTCH PHOTO MOUNT SPRAY ADHESIVE 6092 -	0200-0908	64742-49-0	HYDROTREATED LIGHT NAPHTHA
		- -	N.J. TRADE SECRET - 04499600-6166P
SCOTCH-GRIP 62 1300 ADHESIVES (WESTINGHOU	0200-0171	68611-24-5	MAGNESIUM RESINATE
		9010-98-4	POLYCHLOROPRENE
SCOTCH-GRIP(TM) 847 RUBBER AND GASKET ADH	0200-0156	9003-35-4	PHENOL, POLYMER WITH FORMALDEHYDE
		028053-14-4	PHENOL-FORMALDEHYDE NOVOLAC
		- -	PHENOLIC ANTI OXIDANT
SCOTCH-SEAL(R) SYNTHETIC PUTTY 1279	0200-0426	1332-21-4	ASBESTOS
		- -	MINERAL FILLER
SCOTT ANTISEPTIC CLEANER/SANI-FRESH ANTIS	0500-0560	85305-38-0	ACRYLATES/METHACRYLATE COPOLYMER
		88-04-0	PARACHLOROMETAXYLENOL
SEALANT #2X	0200-0299	1319-77-3	CRESOLS, mixed isomers
SEALANT #6, #6W AND #6XR*	0200-0319	17689-77-9	ETHYLTRIACETOXYSILANE
		4253-34-3	METHYLTRIACETOXY SILANE

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
SHEETROCK ALL PURPOSE JOINT COMPOUND READ	0200-1802	12269-78-2	PYROPHYLLITE
		108-05-4	VINYL ACETATE
		24937-78-8	VINYL ACETATE EMULSION
SHELL ALVANIA EP GREASE ROO (71039)	0100-0525	61790-14-5	LEAD NAPHTHENATE
SHELL DARINA(R) GREASE 2	0100-0525	1302-78-9	BENTONITE
		68910-93-0	FATTY ACIDS, TALL OIL
		- -	OTHER COMPONENTS
SHELL TURBO T OIL 150 (65608)		64742-70-7	PARAFFIN OILS (PETROLEUM)
SILICONE GREASE VERSILUBE G351	0100-0012	4485-12-5	LITHIUM STEARATE
		68083-14-7	METHYLPHENYLPOLYSILOXANE
SMOKE DETECTOR TESTER (GC-7)	0900-0155	68515-41-3	DI(C7-9 ALKYL) PHTHALATE
		68515-44-6	DI(C7-ALKYL) PHTHALATE
		68515-45-7	DI(C9-ALKYL) PHTHALATE
SMOKE TUBE, MSA PT. NO. 458480	0300-0141	64-19-7	ACETIC ACID
		107-15-3	ETHYLENEDIAMINE
		1332-09-8	PUMICE
		63231-67-4	SILICA AMORPHOUS
SNAPBACK SPRAY BUFF	0500-0028		ACRYLIC POLYMER
			WAX, LIQUID
SNAPBACK UHS RESTORER 14135-6-7 - 14139-6	0500-0271	34590-94-8	DIPROPYLENE GLYCOL METHYL ETHE
		26655-10-7	STYRENE/ACRYLIC POLYMER
		78-51-3	TRIS BUTOXYETHYL PHOSPHATE -2
SOFT SCRUB	0500-0313	1317-65-3	LIMESTONE
SOLDER 60/40 GE#175A8867P002	0200-0654	7440-74-6	INDIUM
SOLDER SEAL LIQUID WRENCH #1 (POUR)	0100-0454	64742-06-9	PETROLEUM MINERAL OIL
SP MX #1 & #2 (WAS MULTI-ELEMENT BLEND 10	0900-0522	7789-9-5	AMMONIUM DICHROMATE
		7440-50-8	COPPER
		7440-66-6	ZINC (DUST AND FUME)
SP-50 SOLDERING PASTE FLUX	0200-1666	68155-24-8	ETHOXYLATED AMIDES
		68439-49-6	NONIONIC SURFACTANTS
SPARCLING	0500-0036	7647-01-0	HYDROGEN CHLORIDE
SPIC AND SPAN	0500-0005	68-04-2	SODIUM CITRATE
		533-96-0	SODIUM SESQUICARBONATE

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
SPILL-X-A	0900-0164	1309-48-4	MAGNESIUM OXIDE
		- -	PETRO AGS
		1103-38-4	RED PIGMENT
SPILL-X-C	0900-0164	110-17-8	FUMARIC ACID
SPOTCHECK CLEANER/REMOVER SKC-S	0500-0060	64742-89-8	RUBBER HYDROCARBON SOLVENT
SPOTCHECK DEVELOPER SKD-S2	0300-0172	75-28-5	ISOBUTANE
		67-63-0	ISOPROPYL ALCOHOL
SPOTCHECK PENETRANT SKL-SP	0500-0363	84-74-2	DI-N-BUTYL PHTHALATE
STAINLESS STEEL CLEANER & POLISH (AEROSOL	0600-0305	68475-59-2	C3-C4 ALKANE BLEND
STARGLAZE 2011S CURE (201SB1NL)	0200-1037	108-03-2	1-NITROPROPANE
		68611-44-9	MODIFIED SILICON DIOXIDE
STARGLAZE 2202 PARTS A (2202A1NL)	0200-1667	108-83-8	2,6-DIMETHYLHEPTANONE
STARRETT M-1 ALL PURPOSE LUBRICANT	0100-0147	8030-30-6	COAL TAR NAPHTHA
STAY SILV BRAZING FLUXES(WHITE, BLACK, #9	0200-2066	1332-77-0	POTASSIUM BORATE
		7789-29-9	POTASSIUM HYDROGEN FLUORIDE
		11128-29-3	POTASSIUM PENTABORATE
STEEL-MASTER B56T304 PRECAUTION BLUE	0200-1331	108-67-8	1,3,5-TRIMETHYLBENZENE
STP OIL TREATMENT	0100-0085	- -	N-VINYL PYRROLIDONE GRAFTED ETHYLENE/PRO
		19210-06-1	ZINC DITHIOPHOSPHATE
STRAIT-LINE MARKING CHALK (BLUE)	0300-0130	57455-37-5	SODIUM ALUMINO SULPHOSILICATE
STRIPCOAT TLC FREE	0200-1563	104389-31-3	POLY(ISOPRENE)
		9003-27-4	POLYISOBUTYLENE
SUNNEN MB-30 HONING OIL	0100-0381	8016-28-2	LARD OIL
		61790-49-6	OIL, LARD, SULFURIZED
		8002-5-9	PETROLEUM DISTILLATES, n.o.s.
SUPER 3000 (R) MORTAR	0200-0327		CLAY
		1344-09-8	SODIUM SILICATE
SUPER CASTABLE 32 (R)	0200-1272	1302-93-8	ALUMINOSILICATE
		12042-68-1	CEMENT, CALCIUM ALUMINATE
		60676-86-0	SILICA, AMORPHOUS (FUSED)
SUPER DUTY DEGREASER READY TO USE (CLEANW	0500-0490	57-55-6	PROPYLENE GLYCOL
		70750-47-9	QUATERNARY AMMONIUM COMPOUNDS,
SURETT N 270K 456088-05604	0100-0053	64742-11-6	LUBRICATING OIL BASE STOCK

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
SURF-KOTE A-5021 AEROSOL	0100-0537	1309-64-4	ANTIMONY TRIOXIDE
		12141-20-7	INORGANIC LEAD COMPOUND
SUVA HP62 (R404A) GENETRON 404A	0900-0833	420-46-2	ETHANE, 1,1,1-TRIFLUORO- (HFC-143A)
		354-33-6	PENTAFLUOROETHANE (HFC-125)
TANK-O-LON 18 SANITARY WHITE COMPONENT A	0200-0016	7727-43-7	BARIUM SULFATE
		107-98-2	PROPYLENE GLYCOL MONOMETHYL ETHER
TAP MAGIC CUTTING FLUID 8358	0100-0203	104-55-2	CINNAMIC ALDEHYDE
		68815-10-1	PETROLEUM OIL, ALIPHATIC
TECHNI-PLUS EN 25.3 HARDENER	0200-1107	- -	CYCLOALIPHATIC AMINE
		1477-55-0	m-XYLENE a,a'-DIAMINE
TECHNI-PLUS EN 25.3/EN 25.3 R RESIN	0200-1401	9003-36-5	EPOXY NOVOLAC RESIN
		1318-94-1	FLAKE FILLER
		2210-79-9	PROPANE, 1,2-EPOXY-3-(O-TOLYOXY)-
THC-900	0200-1791	103-23-1	BIS (2-ETHYLHEXYL) ADIPATE
THINNER #2 (0522S1NL)	0600-0197	108-88-3	TOLUENE
THINNER #25 0525S1NL	0600-0049	108-65-6	PROPYLENE GLYCOL METHYL ETHER ACETATE
THORTEX CERAMI TECH FG BASE	0200-0544	67762-90-7	AMORPHOUS SILICA
		- -	DI-IRON PHOSPHIDE
THORTEX CERAMI-TECH EG ACTIVATOR	0200-0549	- -	ALIPHATIC POLYAMINE ADDUCT
		- -	GLASS FIBRE
		- -	IRON OXIDE PIGMENT
		- -	PLIPHATIC POLYAMINE
		- -	TRIS 2,4,6-DIMETHYLAMINOMETHYL PHENOL
		13983-17-0	WOLLASTONITE
THORTEX CERAMI-TECH EG BASE	0200-0549	- -	IRON PHOSPHIDE
		409-21-2	SILICA, GRAPHITE
THORTEX FLEXI-TECH 80 FG ACTIVATOR	0200-0550	- -	AROMATIC DIAMINE
		9011-19-2	POLYSILOXANE
		- -	POTASSIUM SODIUM ALUMINO SILICATE
THORTEX FLEXI-TECH 80 FG BASE	0200-0550	53880-05-0	ALIPHATIC POLYISOCYANATE
		4098-71-9	ISOPHORONE DIISOCYANATE
TISAB III CAT. #940911	0900-0084	482-54-2	1,2-DIAMINOCYCLOHEXANE-N,N'-TETRAACETIC
		631-61-8	AMMONIUM ACETATE

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
TITANIUM PUTTY HARDENER	0200-0926	931-36-2	2-ETHYL-4-METHYLIMIDAZOLE
		32610-77-8	FORMALDEHYDE POLYMER WITH PHENOL AND TET
		108-95-2	PHENOL
		112-24-3	TRIETHYLENE TETRAMINE
TOC ANALYZER MODEL 800 CONSUMABLES PACKAG	0900-0716	7727-54-0	AMMONIUM PERSULFATE
TOUGH DUTY BATHROOM CLEANER READY TO USE	0500-0491	77-92-9	CITRIC ACID
		27176-87-0	DODECYLBENZENE SULFONIC ACID
		526-95-4	GLUCONIC ACID
TRIPLE BOILED LINSEED OIL	0100-0159	67746-08-1	LINSEED OIL
TRIZOL PENETRATING SOLVENT	0600-0041	61790-48-5	BARIUM PETROLEUM SULFONATE
		141-24-2	DEGUMMED CASTOR OIL
TURBIDITY STD 0.61 NTU #2479		108-90-7	CHLOROBENZENE
TURCO DECON 4324	0500-0069	1066-33-7	AMMONIUM BICARBONATE
		68915-31-1	SODIUM HEXAMETAPHOSPHATE
TWINKLE STAINLESS STEEL CLEANER (OIL BAS	0500-0021	63148-62-9	DIMETHYLPOLYSILOXANE
TWINKLE STAINLESS STEEL CLEANER & POLISH	0500-0022	68082-29-1	FATTY ACIDS WITH ADDITIVES
		- -	OLEFIN COPOLYMERS
ULTIMA GOLD XR	0900-0482	298-07-7	DI(2-ETHYLHEXYL)PHOSPHORIC ACID
		38640-62-9	DI-ISOPROPYLNAPHTHALENE (DIN)
ULTRA BLUE(R) SENSOR-SAFE RTV SILICONE GA	0200-0881	96-29-7	METHYL ETHYL KETOXIME
		2224-33-1	VINYL OXIMINOSILANE
ULTRAGEL II	0100-0014	9007-20-9	CARBOXY POLYMETHYL
		25619-56-1	CORROSION INHIBITORS
		- -	ODORANT
		- -	PRESERVATIVES
			SURFACTANTS
UNIVERSAL PLUS 3/6%	1000-0171	132778-08-6	ALKYL POLYGLYCOSIDE
		34455-29-3	FLUOROALKYL SURFACTANT
		142-87-0	SODIUM DECYL SULFATE
UNLEADED GASOLINE (GENERAL)	0900-0768	110-82-7	CYCLOHEXANE
		8006-61-9	GASOLINE
		1634-04-4	METHYL-tert-BUTYL ETHER
		109-66-0	PENTANE

TABLE 10D-3 - ADDITIONAL POLLUTANTS

PRODUCT	CICP	CAS No.	COMPONENT
URETHANE CLEARCOAT 8853	0200-1777	112-07-2	ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE
URETHANE CONVERTER 900	0200-1209	822-06-0	HEXAMETHYLENE DIISOCYANATE
		37790-63-3	POLYMERIC HDI
USG ALL PURPOSE JOINT COMPOUND	0200-0222	9003-20-7	POLYVINYL ACETATE
		9002-89-5	POLYVINYL ALCOHOL
VARSOL 18	0600-0045	95-63-6	TRIMETHYLBENZENE-1,2,4/1,2,5
VERSIGARD NON-REINFORCED EPDM	0200-1863	25038-36-2	ETHYLENE-PROPYLENE RUBBER
		125612-26-2	GROUND COAL
		64742-01-4	REFINED PETROLEUM OILS
VISCOSITY STD N1000, ETC.	0100-0391	9003-28-5	BUTYL RUBBER COMPOUND
WALLBOARD JOINT COMPOUND RTU	0100-0529	12174-11-7	PALYGORSCITE
		12001-26-2	SILICA, MICA
WASP & HORNET JET FREEZE	0700-0145	872-50-4	METHYL-2-PYRROLIDINONE, N-
		109-87-5	METHYLAL
WATER BASED CATALYZED EPOXY B60V25 SEMIGL	0200-1210	- -	EPOXY POLYMER
		2807-30-9	ETHYLENE GLYCOL PROPYL ETHER
		14464-46-1	SILICA, CRISTOBALITE
WAUKESHA FOUNDRY BLEND REVISED (GLYCERIN)	0100-0241	56-81-5	GLYCEROL
WELD-ON P-70 PRIMER FOR PVC PIPE	0600-0108	68-12-2	DIMETHYLFORMAMIDE
WINDSHIELD WASHER FLUID	0600-0296	3844-45-9	C.I. ACID BLUE 9, DISODIUM SALT
XUPER ULTRABOND 50000	0200-0598	7439-98-7	MOLYBDENUM
ZEROSTART STARTING FLUID - CYLINDER	0900-0777	60-29-7	DIETHYL ETHER
ZP-4B ZYGLO DRY DEVELOPER	0300-0159	115-77-5	PENTAERYTHRITOL
ZP-9E ZYGLO DEVELOPER	0300-0160	75-45-6	CHLORODIFLUOROMETHANE

HOPE CREEK GENERATING STATION
NJPDES PERMIT NJ0025411
ATTACHED INFORMATION FOR FORM C

ITEM 13 - CERTIFIED LABORATORY

NAME OF CERTIFIED LABORATORY	TELEPHONE #	CERTIFICATION NUMBER	POLLUTANT(S)/CATEGORIES ANALYZED
New England Bioassay Laboratory	(860)643-9560	NJ46405	Whole Effluent Testing
South Jersey Testing Laboratory	(856)455-4204	NJ06431	TSS, TOC, TPH, Ammonia, Copper, Iron, BOD, Oil & Grease, Fecal Coliform
The Washington Group (Previously Raytheon)	(610)497-8000	NJ77343	TSS, TOC, TPH, Ammonia, Copper, Iron, BOD, Oil & Grease, Fecal Coliform
Severn Trent Laboratories	(732)549-3900	NJ12028	Metals, Organics, Conventionals, Non-conventionals
Maplewood Testing Services	(973)761-1116	NJ07180	Temperature, pH, TRC, TSS
Hope Creek Generating Station	(856)339-5220	NJ77343	Temperature, pH, TRC, TSS, Flow
QC Laboratory	(215) 355-3900	PA166 / NJ06005	TSS, TOC, TPH, Ammonia, Copper, Iron, BOD, Oil & Grease, Fecal Coliform

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FACILITY NAME: Hope Creek Generating Station	OUTFALL NUMBER (DSN): 461A - Cooling Tower Blowdown

10A. EFFLUENT DATA – PART A

POLLUTANT	EFFLUENT							Intake (Optional)		
	Daily Maximum		Monthly Average		# of	Units		Average		# of
	Conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples
Biochemical Oxygen Demand (BOD_5)	(A)									
Chemical Oxygen Demand (COD)	(A)									
Total Organic Carbon (TOC)	12.0	3434	6.1	1078	48	mg/L	kg/day	4.5	990	48
Total Suspended Solids (TSS)	72	20603	72	12727	1	mg/L	kg/day	24.0	5278	1
Total Dissolved Solids (TDS)	11800	3.4×10^6	11800	2.1×10^6	1	mg/L	kg/day	8870	2.0×10^6	1
Ammonia (as N)	<0.40	N/A	<0.40	N/A	1	mg/L	kg/day	<0.40	N/A	1
UNITS AS INDICATED										
Flow (specify units)	Daily Max. 75.6		Monthly Avg. 46.7		1461	MGD	MGD	58.1		1461
Temperature (*winter*)	Daily Max. 34.0		Monthly Avg. 21.2		1093	°C		12.6		1093
Temperature (*summer*)	Daily Max. 36.1		Monthly Avg. 31.2		368	°C		25.9		368
pH	min. 7.2	max. 8.9			208	STANDARD UNITS		min. 7.5	max. 7.5	1

10B. EFFLUENT DATA – PART B

POLLUTANT (AND CAS NUMBER WHERE AVAILABLE)	MARK "X" believed present	MARK "X" believed absent	EFFLUENT Daily Maximum conc.	EFFLUENT Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	INTAKE (Optional) Average conc.	INTAKE (Optional) Average loading	# of samples
CONVENTIONAL and NON-CONVENTIONAL POLLUTANTS												
Bromide (24959-67-9)	X(B)											
Chlorine, Total Residual	X		< 0.1	N/A	< 0.1	N/A	1461	mg/L	kg/day			
Color, (specify units)	X(B)											
Fecal Coliform	X(C)											
Fluoride (16984-48-8)	X		0.48	137	0.48	85	1	mg/L	kg/day	0.38	84	1
Nitrate-Nitrite (as N)	X		0.84	240	0.84	148	1	mg/L	kg/day	0.64	141	1

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FACILITY NAME: Hope Creek Generating Station												OUTFALL NUMBER (DSN): 461A - Cooling Tower Blowdown		
10B. EFFLUENT DATA – PART B (continued)														
POLLUTANT	MARK "X"		EFFLUENT									INTAKE (Optional)		
(AND CAS NUMBER IF	believed	believed	Daily Maximum		Monthly Average		# of	Units				Average		# of
AVAILABLE)	present	absent	conc.	loading	conc.	loading	samples	conc.	loading			conc.	loading	samples
Nitrogen, Total Organic (as N)	X(C)		<0.60	N/A	<0.60	N/A	1	mg/L	kg/day			<0.60	N/A	1
☐ Oil & Grease or X Pet. Hydrocarbons	X(C)		<0.56	N/A	<0.56	N/A	1	mg/L	kg/day			<0.56	N/A	1
Phosphorus (as P), Total (7723-14-0)	X(C)		0.18	52	0.18	32	1	mg/L	kg/day			0.14	31	1
Alpha, Total	X				9.2×10^{-16}	N/A	926	Ci/L						
Beta, Total	X				1.4×10^{-12}	N/A	926	Ci/L						
Radium, Total		X												
Radium 226, Total		X												
Surfactants	X(C)													
Sulfide (as S)	X(B)		<2.0	N/A	<2.0	N/A	1	mg/L	kg/day			<2.0	N/A	1
Sulfite (as SO_3) (14265-45-3)	X(C)													
Sulfate (as SO_4) (14808-79-8)	X		974	278706	974	172163	1	mg/L	kg/day			692	152177	1
Aluminum, Total (7429-90-5)	X(C)													
Barium, Total (7440-39-3)	X(C)													
Boron, Total (7440-42-8)	X		1590	455	1590	281	1	µg/L	kg/day			1130	249	1
Cobalt, Total (7440-48-4)		X												
Iron, Total (7439-89-6)	X(C)													
Magnesium, Total (7439-95-4)	X(C)													
Molybdenum, Total (7439-98-7)	X(C)													
Manganese, Total(7439-96-5)	X(C)													
Tin, Total (7440-31-5)		X												
Titanium, Total (7440-32-6)	X(C)													

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FACILITY NAME: Hope Creek Generating Station	OUTFALL NUMBER (DSN): 461A - Cooling Tower Blowdown
10C. EFFLUENT DATA – PART C	○ If you do not analyze a sample for certain Item 10C pollutants because you qualify as a "Small Business" (see instructions for details), check this box and attach sales data for the most recent three years.

POLLUTANT	MARK "X"			EFFLUENT							INTAKE (Optional)		
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of
AVAILABLE)	required	present	absent	conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples
OTHER TOXIC POLLUTANTS (METALS and CYANIDE) and TOTAL PHENOLS													
Antimony, Total (7440-36-0)	X		X	<6.0	N/A	<6.0	N/A	1	µg/L	kg/day	<6.0	N/A	1
Arsenic, Total (7440-38-2)	X		X	<8.0	N/A	<8.0	N/A	1	µg/L	kg/day	<8.0	N/A	1
Beryllium, Total (7440-41-7)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day	<1.0	N/A	1
Cadmium, Total (7440-43-9)	X	X(C)		<4.0	N/A	<4.0	N/A	1	µg/L	kg/day	<4.0	N/A	1
Chromium, Total (7440-47-3)	X	X(C)		<10	N/A	<10	N/A	1	µg/L	kg/day	<10	N/A	1
Copper, Total (7550-50-8)	X	X(C)		28.4	8.1	28.4	5.0	1	µg/L	kg/day	<25	N/A	1
Lead, Total (7439-92-1)	X	X(C)		4.3	1.2	4.3	0.76	1	µg/L	kg/day	<3.0	N/A	1
Mercury, Total (7439-97-6)	X		X	<0.20	N/A	<0.20	N/A	1	µg/L	kg/day	<0.20	N/A	1
Nickel, Total (7440-02-0)	X	X(C)		<40	N/A	<40	N/A	1	µg/L	kg/day	<40	N/A	1
Selenium, Total (7782-49-2)	X		X	<10	N/A	<10	N/A	1	µg/L	kg/day	<10	N/A	1
Silver, Total (7440-22-4)	X		X	<10	N/A	<10	N/A	1	µg/L	kg/day	<10	N/A	1
Thallium, Total (7440-28-0)	X		X	<10	N/A	<10	N/A	1	µg/L	kg/day	<10	N/A	1
Zinc, Total (7440-66-6)	X	X(C)		31.5	9.0	31.5	5.6	1	µg/L	kg/day	27.2	6.0	1
Cyanide, Total (57-12-5)	X		X	<0.010	N/A	<0.010	N/A	1	µg/L	kg/day	<0.010	N/A	1
Phenols, Total	X		X	<0.20	N/A	<0.20	N/A	1	µg/L	kg/day	<0.20	N/A	1
DIOXIN													
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X										

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FACILITY NAME: Hope Creek Generating Station						OUTFALL NUMBER (DSN): 461A - Cooling Tower Blowdown								
10C. EFFLUENT DATA – PART C (continued)														
POLLUTANT	MARK "X"			EFFLUENT								INTAKE (Optional)		
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units			Average		# of
AVAILABLE)	required	present	absent	conc.	loading	conc.	loading	samples	conc.	loading		conc.	loading	samples
ORGANIC TOXIC POLLUTANTS – VOLATILES														
Acrolein (107-02-8)	X		X	<50	N/A	<50	N/A	1	µg/L	kg/day		<50	N/A	1
Acrylonitrile (107-13-1)	X		X	<10	N/A	<10	N/A	1	µg/L	kg/day		<10	N/A	1
Benzene (71-43-2)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day		<1.0	N/A	1
Bromoform (75-25-2)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day		<1.0	N/A	1
Carbon Tetrachloride (56-23-5)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day		<1.0	N/A	1
Chlorobenzene (108-90-7)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day		<1.0	N/A	1
Chlorodibromomethane (124-48-1)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day		<1.0	N/A	1
Chloroethane (75-00-3)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day		<1.0	N/A	1
2-Chloro-ethyl-vinyl Ether (110-75-8)	X		X	<5.0	N/A	<5.0	N/A	1	µg/L	kg/day		<5.0	N/A	1
Chloroform (67-66-3)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day		<1.0	N/A	1
Dichlorobromomethane (75-27-4)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day		<1.0	N/A	1
1,1-Dichloroethane (75-34-3)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day		<1.0	N/A	1
1,2-Dichloroethane (107-06-2)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day		<1.0	N/A	1
1,1-Dichloroethylene (75-35-4)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day		<1.0	N/A	1
1,2-Dichloropropane (78-87-5)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day		<1.0	N/A	1
1,3-Dichloropropylene (542-75-6)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day		<1.0	N/A	1
Ethylbenzene (100-41-4)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day		<1.0	N/A	1
Methyl Bromide (74-83-9)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day		<1.0	N/A	1
Methyl Chloride (74-87-4)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day		<1.0	N/A	1

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FACILITY NAME: Hope Creek Generating Station				OUTFALL NUMBER (DSN): 461A - Cooling Tower Blowdown									
10C. EFFLUENT DATA – PART C (continued)													
POLLUTANT	MARK "X"			EFFLUENT							INTAKE (Optional)		
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of
AVAILABLE)	required	present	absent	conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples
ORGANIC TOXIC POLLUTANTS – VOLATILES (continued)													
Methylene Chloride (75-09-2)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day	<1.0	N/A	1
1,1,2,2-Tetrachloroethane (79-34-5)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day	<1.0	N/A	1
Tetrachloroethylene (127-18-4)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day	<1.0	N/A	1
Toluene (108-88-3)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day	<1.0	N/A	1
1,2-Transdichloroethylene (156-60-5)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day	<1.0	N/A	1
1,1,1-Trichloroethane (71-55-6)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day	<1.0	N/A	1
1,1,2-Trichloroethane (79-00-5)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day	<1.0	N/A	1
Trichloroethylene (79-01-6)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day	<1.0	N/A	1
Vinyl Chloride (75-01-4)	X		X	<2.0	N/A	<2.0	N/A	1	µg/L	kg/day	<2.0	N/A	1
ORGANIC TOXIC POLLUTANTS – ACID COMPOUNDS													
2-Chlorophenol (95-57-8)	X		X	<5.6	N/A	<5.6	N/A	1	µg/L	kg/day	<5.6	N/A	1
2,4-Dichlorophenol (120-83-2)	X		X	<5.6	N/A	<5.6	N/A	1	µg/L	kg/day	<5.6	N/A	1
2,4-Dimethylphenol (105-67-9)	X		X	<5.6	N/A	<5.6	N/A	1	µg/L	kg/day	<5.6	N/A	1
4,6-Dinitro-O-Cresol (534-52-1)	X		X	<11	N/A	<11	N/A	1	µg/L	kg/day	<11	N/A	1
2,4-Dinitrophenol (51-28-5)	X		X	<22	N/A	<22	N/A	1	µg/L	kg/day	<22	N/A	1
2-Nitrophenol (88-75-5)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1
4-Nitrophenol (100-02-7)	X		X	<22	N/A	<22	N/A	1	µg/L	kg/day	<22	N/A	1
P-Chloro-M-Cresol (59-50-7)	X		X	<5.6	N/A	<5.6	N/A	1	µg/L	kg/day	<5.6	N/A	1
Pentachlorophenol (87-86-5)	X		X	<11	N/A	<11	N/A	1	µg/L	kg/day	<11	N/A	1
Phenol (108-95-2)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1
2,4,6-Trichlorophenol (88-06-2)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1

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C

FACILITY NAME: Hope Creek Generating Station						OUTFALL NUMBER (DSN): 461A - Cooling Tower Blowdown								
10C. EFFLUENT DATA – PART C (continued)														
POLLUTANT	MARK "X"			EFFLUENT							INTAKE (Optional)			
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of	
AVAILABLE)	required	present	absent	conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples	
ORGANIC TOXIC POLLUTANTS – BASE/NEUTRAL COMPOUNDS														
Acenaphthene (83-32-9)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
Acenaphthylene (208-96-8)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
Anthracene (120-12-7)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
Benzidine (92-87-5)	X		X	<22	N/A	<22	N/A	1	µg/L	kg/day	<22	N/A	1	
Benzo (a) Anthracene (56-55-3)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
Benzo (a) Pyrene (50-32-8)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
3,4-Benzofluoranthene (205-99-2)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
Benzo (ghi) Perylene (191-24-2)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
Benzo (k) Fluoranthene (207-08-9)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
Bis (2-Chloroethoxy) Methane (111-91-1)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
Bis (2-Chloroethyl) Ether (111-44-4)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
Bis (2-Chloroisopropyl) Ether (108-60-1)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
Bis (2-Ethylhexyl) Phthalate (117-81-7)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
4-Bromophenyl Phenyl Ether (101-55-3)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
Butyl Benzyl Phthalate (85-68-7)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
2-Chloronaphthalene (91-58-7)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
4-Chlorophenyl Phenyl Ether (7005-72-3)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
Chrysene (218-01-9)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	
Dibenzo (a,h) Anthracene (53-70-3)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1	

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C

FACILITY NAME: Hope Creek Generating Station						OUTFALL NUMBER (DSN): 461A - Cooling Tower Blowdown								
10C. EFFLUENT DATA – PART C (continued)														
POLLUTANT	MARK "X"			EFFLUENT								INTAKE (Optional)		
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units			Average		# of
AVAILABLE)	required	present	absent	conc.	loading	conc.	loading	samples	conc.	loading		conc.	loading	samples
ORGANIC TOXIC POLLUTANTS – BASE/NEUTRAL COMPOUNDS (continued)														
1,2-Dichlorobenzene (95-50-1)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		<2.2	N/A	1
1,3-Dichlorobenzene (541-73-1)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		<2.2	N/A	1
1,4-Dichlorobenzene (106-46-7)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		<2.2	N/A	1
3,3 –Dichlorobenzidine (91-94-1)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		<2.2	N/A	1
Diethyl Phthalate (84-66-2)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		<2.2	N/A	1
Dimethyl Phthalate (131-11-3)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		<2.2	N/A	1
Di-N-Butyl Phthalate (84-74-2)	X	X(B)		<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		2.5	N/A	1
2,4-Dinitrotoluene (121-14-2)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		<2.2	N/A	1
2,6-Dinitrotoluene (606-20-2)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		<2.2	N/A	1
Di-N-Octyl Phthalate (117-84-0)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		<2.2	N/A	1
1,2-Diphenylhydrazine (122-66-7)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		<2.2	N/A	1
Fluoranthene (206-44-0)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		<2.2	N/A	1
Fluorene (86-73-7)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		<2.2	N/A	1
Hexachlorobenzene (118-74-1)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		<2.2	N/A	1
Hexachlorobutadiene (87-68-3)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		<2.2	N/A	1
Hexachlorocyclopentadiene (77-47-4)	X		X	<11	N/A	<11	N/A	1	µg/L	kg/day		<11	N/A	1
Hexachloroethane (67-72-1)	X		X	<5.6	N/A	<5.6	N/A	1	µg/L	kg/day		<5.6	N/A	1
Indeno (1,2,3-cd) Pyrene (193-39-5)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		<2.2	N/A	1
Isophorone (78-59-1)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day		<2.2	N/A	1

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C

FACILITY NAME: Hope Creek Generating Station				OUTFALL NUMBER (DSN): 461A - Cooling Tower Blowdown									
10C. EFFLUENT DATA – PART C (continued)													
POLLUTANT	MARK "X"			EFFLUENT							INTAKE (Optional)		
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of
AVAILABLE)	required	present	absent	conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples
ORGANIC TOXIC POLLUTANTS – BASE/NEUTRAL COMPOUNDS (continued)													
Naphthalene (91-20-3)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1
Nitrobenzene (98-95-3)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1
N-Nitrosodimethylamine (62-75-9)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1
N-Nitrosodi-N-Propylamine (621-64-7)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1
N-Nitrosodiphenylamine (86-30-6)	X		X	<5.6	N/A	<5.6	N/A	1	µg/L	kg/day	<5.6	N/A	1
Phenanthrene (85-01-8)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1
Pyrene (129-00-0)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1
1,2,4-Trichlorobenzene (120-82-1)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day	<2.2	N/A	1
ORGANIC TOXIC POLLUTANTS – PESTICIDES													
Aldrin (309-00-2)			X										
Alpha-BHC (319-84-6)			X										
Beta-BHC (319-85-7)			X										
Gamma-BHC (58-89-9)			X										
Delta-BHC (319-86-8)			X										
Chlordane (57-74-9)			X										
4,4'-DDT (50-29-3)			X										
4,4'-DDE (72-55-9)			X										
4,4'-DDD (72-54-8)			X										
Dieldrin (60-57-1)			X										

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C

FACILITY NAME: Hope Creek Generating Station				OUTFALL NUMBER (DSN): 461A - Cooling Tower Blowdown									
10C. EFFLUENT DATA – PART C (continued)													
POLLUTANT	MARK "X"			EFFLUENT							INTAKE (Optional)		
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of
AVAILABLE)	required	present	absent	Conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples
ORGANIC TOXIC POLLUTANTS – PESTICIDES (continued)													
Alpha-Endosulfan (115-29-7)			X										
Beta-Endosulfan (115-29-7)			X										
Endosulfan sulfate (1031-07-8)			X										
Endrin (72-20-8)			X										
Endrin Aldehyde (7421-93-4)			X										
Heptachlor (76-44-8)			X										
Heptachlor Epoxide (1024-57-3)			X										
PCB-1242 (53469-21-9)	(D)		X										
PCB-1254 (11097-69-1)	(D)		X										
PCB-1221 (11104-28-2)	(D)		X										
PCB-1232 (11141-16-5)	(D)		X										
PCB-1248 (12672-29-6)	(D)		X										
PCB-1260 (11096-82-5)	(D)		X										
PCB-1016 (12674-11-2)	(D)		X										
Toxaphene (8001-35-2)			X										

EXPLANATION OF NOTES - FORM C, ITEM 10 -

(A) Analysis of these parameters is not required per approval of the NJDEP as specified under Item 10A on Page 4 of 8 of the instructions for Form C.

(B) These pollutants are believed present in the effluent based on their presence in the intake water. No addition of these pollutants in the effluent from facility operations is expected to occur.

(C) These pollutants are believed present in the effluent based on their presence in the intake water. These pollutants are also utilized at the facility in areas that could discharge through the respective outfall in the event of a spill, leak or inadvertent drain. These pollutants are not intentionally added to this effluent stream, and are not, therefore, normally discharged through this outfall and are not anticipated to be detected in the outfall in greater mass then the intake water.

(D) Analyses for PCB pesticides was waived by NJDEP based on the analyses collected and reported within the Delaware River Basin Commission Phase II Total Maximum Daily Load program, performed using Method 1668A.

SUMMARY TABLE DSN 461A

Facility: PSEG-Hope Creek **Latitude: 39° 28' 14"** **Receiving Stream: Delaware Estuary**
Discharge Serial Number (DSN): 461A **Longitude: 75° 32' 34"** **Classification: Zone 5**
WQMP Basin 17/Delaware River Basin

Wastewater Type: Non-contact cooling water cooling tower blowdown, LRW (DSN 461B, Note 2) effluent, LVOW (DSN 461C) effluent, STP (DSN 462B) effluent, ancillary sumps and drains. (Note 1)

Parameter All units in mg/L (kg/day) unless otherwise noted		NJPDES/ DSW Permit Application	Existing NJPDES/DSW Permit limits DSN 461A	NJPDES/ DSW DMR 1/03 – 12/06	Note	Draft Permit Limits for DSN 461A
Flow, Effluent, MGD	avg. max. data pts. monitor	46.7 75.6 1461 ---	NL NL --- Cont/Mt	46.7 75.6 1461 ---	3 4 5 6	NL NL --- Cont/Mt
Temperature, Influent °F °(C) (Sep-May)	avg. max. data pts. monitor	(25.9) (31.0) 1093 ---	NL NL --- Cont/Mt	(25.9) (31.0) 1093 ---	7 6	NL NL --- Cont/Mt
Temperature, Influent °F (°C) (Jun-Aug)	avg. max. data pts. monitor	(12.6) (28.4) 368 ---	NL NL --- Cont/Mt	(12.6) (28.4) 368 ---	7 6	NL NL --- Cont/Mt
Temperature, Effluent, °F (°C) (Sep-May)	avg. max. data pts. monitor	(21.2) (34.0) 1093 ---	NL 97.1(36.2) --- Cont/Mt	(21.2) (34.0) 1093 ---	8 6	NL 97.1(36.2) --- Cont/Mt
Temperature, Effluent, °F °(C) (Jun-Aug)	avg. max. data pts. monitor	(31.2) (36.1) 368 ---	NL 97.1(36.2) --- Cont/Mt	(31.2) (36.1) 368 ---	8 6	NL 97.1(36.2) --- Cont/Mt
Heat Rate MBTU/HR (Sep-May)	avg. max. data pts. monitor	219 657 1093	NL 662 --- D/Calc	219 657 1093	9	NL 662 --- D/Calc

Parameter All units in mg/L (kg/day) unless otherwise noted		NJPDES/ DSW Permit Application	Existing NJPDES/DSW Permit limits DSN 461A	NJPDES/ DSW DMR 1/03 – 12/06	Note	Draft Permit Limits for DSN 461A
Heat Rate MBTU/HR (Jun-Aug)	avg. max. data pts. monitor	181 334 368	NL 534 --- D/Calc	181 334 368	9	NL 534 --- D/Calc
Chlorine Produced Oxidants (mg/L)	avg. max. data pts. monitor	<0.1 0.5 1461 ---	0.2 0.5 --- Cont	<0.1 0.5 1461 ---	10	0.2 0.5 --- 3-W/G
pH, Effluent (S.U.)	min. max. data pts. monitor	7.2 8.9 208 ---	6.0 9.0 --- W/G	7.2 8.9 208 ---	11	6.0 9.0 --- W/G
Total Organic Carbon Net (mg/L)	avg. max. data pts. monitor	0.51 8.0 48 ---	NL NL --- M/G	0.51 8.0 48 ---	12	NA

The abbreviation "N/A" denotes "Not Applicable"; "NL" denotes "Not Limited" with monitoring and reporting required.
"MGD" denotes "million gallons per day"
"ND" denotes "Non-detected" value.
Monitoring requirement abbreviations are: "Cont" denotes "Continuous"; "D" denotes "Daily"; "3-W" denotes "three times per week"; "W" denotes "Weekly"; "2-M" denotes "Twice per Month"; "M" denotes "Monthly"; "Q" denotes "Quarterly"; "Mt" denotes "Meter"; "Cal" denotes "Calculated"; "G" denotes "Grab"; Comp" denotes "Composite"

1. The effluent discharged via DSN 461A is the largest discharge from HCGS, and primarily comprises cooling tower blowdown (46.7 Million Gallons per Day, or "MGD") with minor waste stream contributions from the Low Volume and Oily Waste System (DSN 461C, 0.04 MGD), the liquid radioactive waste system (DSN 461B, 0.06 MGD), and the Sewage Treatment System (DSN 462B, 0.01 MGD) as presented in the enclosed schematic entitled "Cooling Tower Blowdown". Sediment that collects in the cooling tower basin is removed as necessary for disposal of at an approved onsite dredge spoil area.

The cooling tower removes heat from the circulating water system by latent and sensible heat transfer from the circulating water to the air, at the cooling tower fill, causing the evaporation of a portion of the water (averaging approximately 13 MGD). To makeup for this evaporative loss, service water drawn from the tidal Delaware Estuary enters the cooling tower basin near the circulating water pump suctions. To prevent an excessive concentration of solids in the cooling tower, there is a continuous cooling tower blowdown back to the Delaware Estuary. The service water entering the cooling tower is chlorinated to prevent biofouling, using sodium hypochlorite, at the service water intake. Additional sodium hypochlorite is added to the cooling tower basin to prevent biofouling and biological growth. Ammonium bisulfate is added in the cooling tower blowdown to de-chlorinate the cooling tower blowdown before discharge to the Delaware Estuary. Sodium hydroxide is added to the cooling tower basin to further protect the cooling tower structure and components. Boron used in the Station can enter the circulating water, primarily in the condenser bay dewatering sump, and be discharged in the cooling tower blowdown. The deicing line shown on the Schematic of Water Flow (Form C, Item 3B) allows heated water from the circulating water system or service water system to be directed to the service water intake to prevent icing during harsh

winter conditions. This flow path bypasses the de-chlorination system but is infrequently used. Most of the water used for deicing is returned to the system through the service water pumps.

The contributions from the Low Volume and Oily Waste System (LVOW, DSN 461C) and the Sewage Treatment System (STP, DSN 462B) are discussed at the respective Tabs for these systems.

2. The liquid radioactive waste system (DSN 461B) is a low volume (0.06 MGD) wastewater source that mixes with the cooling tower blowdown prior to the effluent monitoring point. The liquid radioactive waste (LRW) system is designed to process liquid waste streams from inside the power generation facilities that potentially may contain radioactive material. The treatment system incorporates all necessary equipment to meet both United States Nuclear Regulatory Commission (USNRC) standards for the discharge of radioactivity and the applicable New Jersey State Water Quality Standards, as discussed in the Liquid Radioactive Waste System Treatment Works Application. Much of the wastewater processed through the system is recycled back into a 500,000 gallon condensate storage tank for reuse by the reactor water makeup systems. However, water used in the reactor must be of an extremely high purity and, although some of the wastewater would be considered clean according to state drinking water standards, it is neither practical nor economical to continue the further processing of the wastewater necessary to reach the high level of purity needed for reuse in the reactor.

The influent waste streams are segregated and classified based on the source and quality of the five different types of influent waste streams. They include the following systems:

- "Equipment drain wastes", or "high purity wastes", have conductivity values of 10 micromhos per centimeter or less and radioactivity levels ranging from those typical of reactor water to those typical of condensate. Sources of such waste include: the reactor recirculation system, the condensate system, the feedwater system, the cleanup phase separator decant, the waste sludge phase separator decant, and the excess flow from the reactor water cleanup system.

- "Floor drain wastes", or "low purity wastes", have conductivity values on the order of 10 to 100 micromhos per centimeter and generally have a low radioactivity concentration. Low purity wastes originate from floor drains, fuel pool cooling, and residual heat removal system flushing, and could contain small quantities of boron and cleaning and lubrication products utilized in these areas.

- "High conductivity wastes" have conductivity values on the order of 1,000 micromhos per centimeter or greater and have a potentially high radioactivity level. These wastes can be produced by regenerating the condensate demineralizers and the liquid radwaste demineralizers themselves; although to minimize the volume of radwaste, resins in the liquid radwaste system are not currently regenerated - they are transported to a USNRC-licensed facility. "High conductivity wastes" also arise from certain high conductivity sumps in the turbine and auxiliary buildings and could contain Delaware River water and small quantities of boron and cleaning and lubrication products utilized in these areas.

- "Chemical wastes" have conductivity values on the order of 1,000

micromhos per centimeter or greater with variable chemical concentrations, pH, and levels of radioactivity. Chemical wastes include those wastes from laboratory drains, decontamination drains, radwaste filter drains, and fuel pool filter demineralizer drains, and could contain laboratory reagents, decontamination chemicals, and small quantities of boron and cleaning and lubrication products utilized in these areas.

- "Detergent wastes" have a variable conductivity values, low radioactivity levels, but potential surfactant and other organic content. Personnel decontamination and the chemistry laboratory produce such wastes which could contain laboratory reagents, decontamination chemicals, and small quantities of boron and cleaning and lubrication products utilized in these areas. Although Hope Creek was originally designed to handle laundry cleaning wastes internally, protective clothing is currently shipped offsite for cleaning.

During normal modes of operation, the LRW system receives waste inputs from the liquid waste drainage and collection system, and from the solid radwaste collection subsystem. The attached two liquid waste management process flow schematics ("Equipment/Floor Drain Processing System" and "Chemical/Detergent Waste Processing System") show the normal process flow of wastewater. The inputs are segregated as to chemical content and purity level, with radioactivity level being a secondary consideration. The inputs may contain iron or zinc which may be added to the reactor coolant system in microgram per liter concentrations. The liquid is then processed on a batch basis in the appropriate subsystem. Processed LRW is then returned for plant reuse or discharged to the cooling tower blowdown through DSN 461B.

EXPLANATION OF SUMMARY TABLE NOTES

Treatment of LRW influent is dependent on the source and type of wastewater received. Each of the five types of influent waste streams is processed differently and can be routed through various components of the treatment system. Wastewater is treated in a batch mode and not all wastewater is routed through every component of the treatment system.

High purity wastes are normally processed by filtration and demineralization and returned to the condensate storage tank for reuse. Low purity wastes can be processed by filtration and demineralization followed by reuse or discharge. Future plans include evaporation as an option in which the distillate can be returned for reuse or discharged.

Chemical wastes can be processed in several different ways. When the evaporator is functioning, pH adjustment and evaporation produce a concentrate which can then be solidified and drummed in the solid radwaste system prior to offsite disposal. The distillate can then be recycled to the high purity waste influent stream. Detergent wastes are generally not suitable for plant reuse and are normally processed by filtration and discharged. If necessary, "high conductivity wastes" from the regeneration of the condensate demineralizers or LRW demineralizers can be collected in the neutralization tank and treated to a preset pH value by the addition of chemicals. When the evaporator is available, these wastes can also be processed through the waste evaporator for concentration to remove excess water. The distillate can then be transferred back to the waste collection tank for further processing.

The various subsystems of the LRW treatment system have numerous cross-connections to allow operational flexibility. Wastewaters can also be recirculated

back to collection tanks for reprocessing as necessary. Temporary additional treatment units may be used to improve water quality when appropriate.

After batch processing, treated wastewaters in excess of Station needs are collected in the final sample tanks where water quality is evaluated prior to discharge. Because of the need to minimize radiation exposure of operating personnel, sampling of these tanks is generally conducted remotely via installed conductivity and radioactivity monitors. A remote sampling panel is also available upon which various analyses can be performed to monitor water quality. Sampling of the treated effluent is restricted to those analyses specifically required to confirm compliance with discharge requirements in order to preclude unnecessary exposure of operating personnel to additional radioactivity.

Although the LRW system is the system designed to handle radioactive liquid wastes, the USNRC requires the Station to conduct low level monitoring of other environmental discharges to ensure radioactivity levels are not being discharged above those authorized. For example, the cooling tower blowdown effluent has an installed radioactivity monitor which triggers an alarm if radioactivity is being discharged above the setpoint. Very low levels of radioactivity can enter non-radiological treatment systems. Low levels of radioactivity have been identified in residuals prior to removal from the treatment systems and have required handling and disposal in accordance with USNRC regulations. Although very low levels of radioactivity may be present in any treatment system or effluent, they are at levels which do not pose any threat to the public or the environment and are well within the limitations imposed by the USNRC.

3. Effluent Flow is monitored continuously, calculated daily, and the daily maximum and monthly average flow is reported monthly in MGD. Effluent flow is normally monitored by measuring the height of the effluent over the cooling tower basin effluent weir - the required method is "meter". When the cooling tower is being bypassed, the service water influent flow measurement is reported as the effluent flow. If the continuous monitoring equipment is inoperable (e.g. for preventative maintenance, calibration, or repair), the readings will be taken once per shift to fulfill the continuous monitoring requirement. The provisions in the current regarding continuous monitoring should be retained.

4. Although no dye testing is required, the current Permit authorizes that Rhodamine WT may be used as a tracer dye for flow measurements of the cooling tower and cooling tower related systems by following the approval/notification requirements below:

a. Provide written notification to the Chief, Bureau of Point Source Permitting - Region 2 and the Southern Bureau of Water and Hazardous Waste Enforcement prior to the use of Rhodamine WT dye. This notification shall identify the expected dates of the discharge and the expected concentration of Rhodamine WT dye in the effluent.

b. Provide oral notification to the Southern Bureau of Water and Hazardous Waste Enforcement at least 24 hours prior to commencing the discharge of Rhodamine WT dye.

c. Within thirty (30) days of completion of the testing, provide written notification of completion to the Chief, Bureau of Point Source Permitting - Region 2 and to the Southern Bureau of Water and Hazardous Waste Enforcement. This notification shall include the actual dates of the discharge, the actual concentration of Rhodamine WT dye in the effluent, and the total quantity of Rhodamine WT dye added.

This provision should be retained in the renewed Permit. PSEG requests Uranine dye also be authorized within this provision.

5. The service water system normally provides makeup water to the cooling tower and discharges through DSN 461A. When the cooling tower is not in operation, service water normally will bypass the cooling tower and discharge through DSN 461A. Due to nuclear safety requirements, the service water system must remain in operation at all times. To facilitate necessary plant maintenance, the current permit authorizes the temporary redirection of service water to discharge through DSN 463A. The addition of sodium hypochlorite (or other biocide) is terminated during the bypass discharge. The following conditions are required for each planned bypass to DSN 463A:

a. Provide written notification to the Chief, Bureau of Point Source Permitting - Region 2 and the Southern Bureau of Water and Hazardous Waste Enforcement prior to the bypass discharge. This notification shall identify the expected dates of the bypass, confirmation that sodium hypochlorite addition to the service water system will be terminated during the bypass, and a brief description of the reason the bypass is necessary.

b. Provide oral notification to the Southern Bureau of Water and Hazardous Waste Enforcement at least 24 hours prior to commencing the bypass discharge.

The current permit also provides for the periodic anticipated bypass of service water through DSN 463A during service water pump swaps (i.e. "change outs") and system transients. The service water pump swaps and resultant bypasses are necessary to ensure sufficient service water cooling volumes to satisfy nuclear safety design parameters, especially during periods of increased river temperature during the summer months. The addition of sodium hypochlorite (or other biocide)

to the service water system is terminated during these bypass conditions and the bypass is expected to occur for a short duration (i.e. less then one minute). The Department has authorized these bypass operations and has specifically determined that there are no additional notifications pursuant to N.J.A.C. 7:14A based on the termination of biocide addition and the short duration of the anticipated bypass.

Both of these bypass provisions should be retained in the renewed Permit.

In addition, cooling tower blowdown can foam at the manholes in the blowdown line and foam can come to the surface and discharge on the ground. This is essentially heavy silt laden blowdown water. The blowdown water is chlorinated using sodium hypochlorite at the service water intake to prevent biofouling. Ammonium bisulfate is added in the cooling tower blowdown to de-chlorinate the cooling tower blowdown before discharge to the Delaware Estuary.

The cooling tower can also "mist" onto the ground around the tower under windy conditions. This water contains low levels of sodium hypochlorite that dissipates when it contacts the organic compounds on the ground. Furthermore, due to normal small leaks or weeps associated with thermal expansion and contraction of the piping joints and similar sources, discharges of river water, possibly containing low levels of sodium hypochlorite, to the ground or below the ground may occur. Lastly, incidental leaks or drips from other pipes that contain contaminants that are of a small volume or concentration, or that exhibit a low level of treatment chemical (but not toxic chemicals) may occur as bypasses.

The "pump swap" bypass provision discussed above provides relief for conditions where an additional service water pump is required to be started due to normally

changing plant and environmental conditions and there is the time to terminate the addition of sodium hypochlorite at the intake. If it is necessary to start an additional service water pump due to exigent conditions, where there is inadequate time to terminate intake sodium hypochlorite addition, some service water could be discharged through the automatic relief/vent valves on the building and spray onto the ground and be discharged through DSN 463A. This would be for a very short duration, generally less than a minute, and any residual chlorine would eb expected to be dissipated through aeration and contact with the organics on the ground and in the yard drain piping.

The Permittee requests that these additional sources of potential "bypass" be included in the Permit authorization.

6. Prior Permits have defined the reporting requirements for continuous monitoring as:

> For continuous monitoring, the daily value shall consist of all the values over a given calendar day (24 hour period) averaged together. The permittee shall report the highest of these daily values as the daily maximum on the DMR, and the average of the daily values as the monthly average.

This definition should be retained and is applicable not only to continuous monitoring but to all monitoring which may be conducted more then once per calendar day for which a daily maximum or a monthly average value must be calculated or reported.

7. Influent Temperature is the temperature in the Delaware Estuary and is monitored continuously - the daily value is used to calculate the heat discharge. Influent temperature is monitored by using either one temperature measuring device or the average of the two temperature measuring devices at the service water intake structure. If these instruments are inoperable (e.g., for preventative

maintenance, calibration, or repair), temporary monitors may be installed, the temperature at the adjacent Salem Generating Station intake may be used, or the influent temperature will be monitored manually once per shift. The daily maximum and monthly average are reported in degrees C. The provisions in the current Permit regarding continuous monitoring should be retained.

8. Effluent Temperature is monitored continuously and the daily maximum and monthly average values are reported in degrees C. The daily maximum Effluent Temperature is limited to 97.1 °F (36.2 °C). The provision that "a coincident occurrence of wet bulb temperature that exceeds 76 °F and a relative humidity below 60% during a given day for a period equal to or greater then 60 minutes, the daily maximum temperature limit does not apply and monitoring only is required" should be retained in the Permit.

9. Heat Rate is calculated daily as the product of heat capacity, effluent flow, and discharge-intake temperature difference. The daily maximum and monthly average values are reported in Million British Thermal Units per Hour (MBTU/Hr). Heat Rate is limited to 662 MBTU/Hr from September through May and 534 MBTU/Hr from June through August. The current limitations and conditions for Heat Rate should be retained in the Permit.

10. Chlorine Produced Oxidants (CPO) are measured continuously by meter. CPO is limited to a daily maximum of 0.5 mg/L and a monthly average of 0.2 mg/L. In accordance with 40 CFR Section 423.12(b)(8), Part III-B prohibits CPO discharges for more then two hours in any one day without prior approval. Chlorine residual concentrations are normally maintained within limitations by the addition of ammonium bisulphate, a de-chlorination agent, in the cooling tower blowdown line. PSEG Nuclear requests he current limitations for Chlorine Produced Oxidants be

retained in the Permit but the monitoring requirement be modified to .three times per week by grab sample. The empirical data collected during the term of the current permit identifies that residual chlorine is not normally discharged from the facility. We have not identified any suitable continuous residual chlorine analyzers that are designed to operate well in the brackish water and high solids concentrations in the Delaware Estuary at the site. The existing chlorine analyzers were installed based on significant research and testing, but require extensive maintenance to keep operational. returning to the three times per week grab sample monitoring protocol will provide adequate environmental protection and effluent monitoring without the need for a continuous analyzer.

11. pH is measured weekly by grab sample and the daily minimum and daily maximum pH are reported in Standard Units (SU). pH is limited such that the daily minimum pH shall not be less then 6.0 SU and the daily maximum pH shall not be greater then 9.0 SU. The current limitations and conditions for pH should be retained in the Permit.

12. Total Organic Carbon (TOC) is measured monthly by grab sample and the net daily maximum and monthly average values are reported in mg/L. The net concentration of TOC is determined as follows:

$$\text{Net TOC} = \frac{(\text{Eff. TOC}) \times (\text{Eff. Flow}) - (\text{Inf. TOC}) \times (\text{Inf. Flow})}{\text{Effluent Flow}}$$

The permittee is requesting deletion of TOC monitoring, conditions, and limitations. N.J.A.C. 7:14A-12.4(d) provides that:

Direct discharges to surface water from industrial treatment works shall be exempt from the minimum projected BOD_5 effluent standards in (b) above, when:

i. Statistically valid data indicate that the maximum projected BOD_5 concentration is consistently below the applicable effluent standard; or

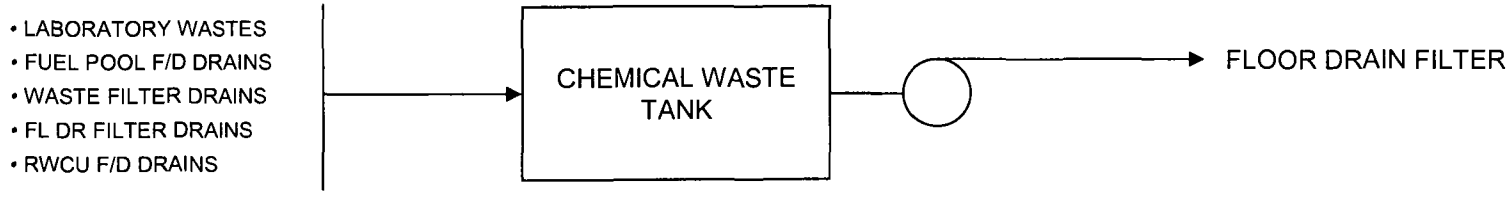
ii. The Department determines that, based on wastewater generating activities, no potential exists for the discharge to add BOD_5 , COD or TOC.

The Hope Creek Cooling Tower is an industrial treatment works designed to remove heat from the circulating water system. In accordance with the current Permit, monitoring has been conducted monthly. The analytical data for the current 48 month permit reporting period shows an average net TOC concentration of 0.51 mg/L and a maximum net TOC concentration of 8.0 mg/L (see attached two graphs).

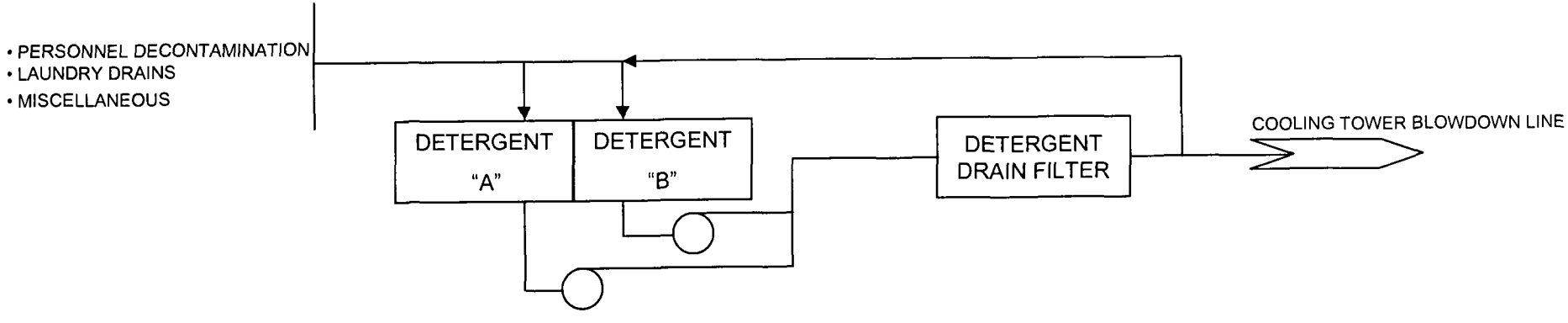
The analytical data for the prior 48-month permit reporting period, 04/01/97 (EDP) through 03/30/01, showed an average net TOC concentration of -0.02 mg/L and a maximum net TOC concentration of 6.0 mg/L. The calculated net TOC concentrations are essentially zero, the value which is expected since the cooling tower does not have the potential to add measurable amounts of BOD_5, COD or TOC. A record of over ten years of monitoring TOC at this outfall provides statistically valid data demonstrating the cooling tower does not have the potential to add measurable amounts of TOC. Since this discharge meets both alternative conditions of N.J.A.C. 7:14A-12.4(d), the permittee requests deletion of TOC monitoring, conditions, and limitations.

13. Copper, lead, and zinc were identified in the effluent and zinc was identified at the intake. Based on the approximate concentration factor of 1.3 through the cooling tower system and comparing the mass at the intake and effluent, these parameters are not added in the cooling tower system. All are significantly below water quality standards. No organic parameters were identified in the effluent.

CHEMICAL WASTE (DECONTAMINATION SOLUTION) PROCESSING SYSTEM



DETERGENT WASTE PROCESSING SYSTEM



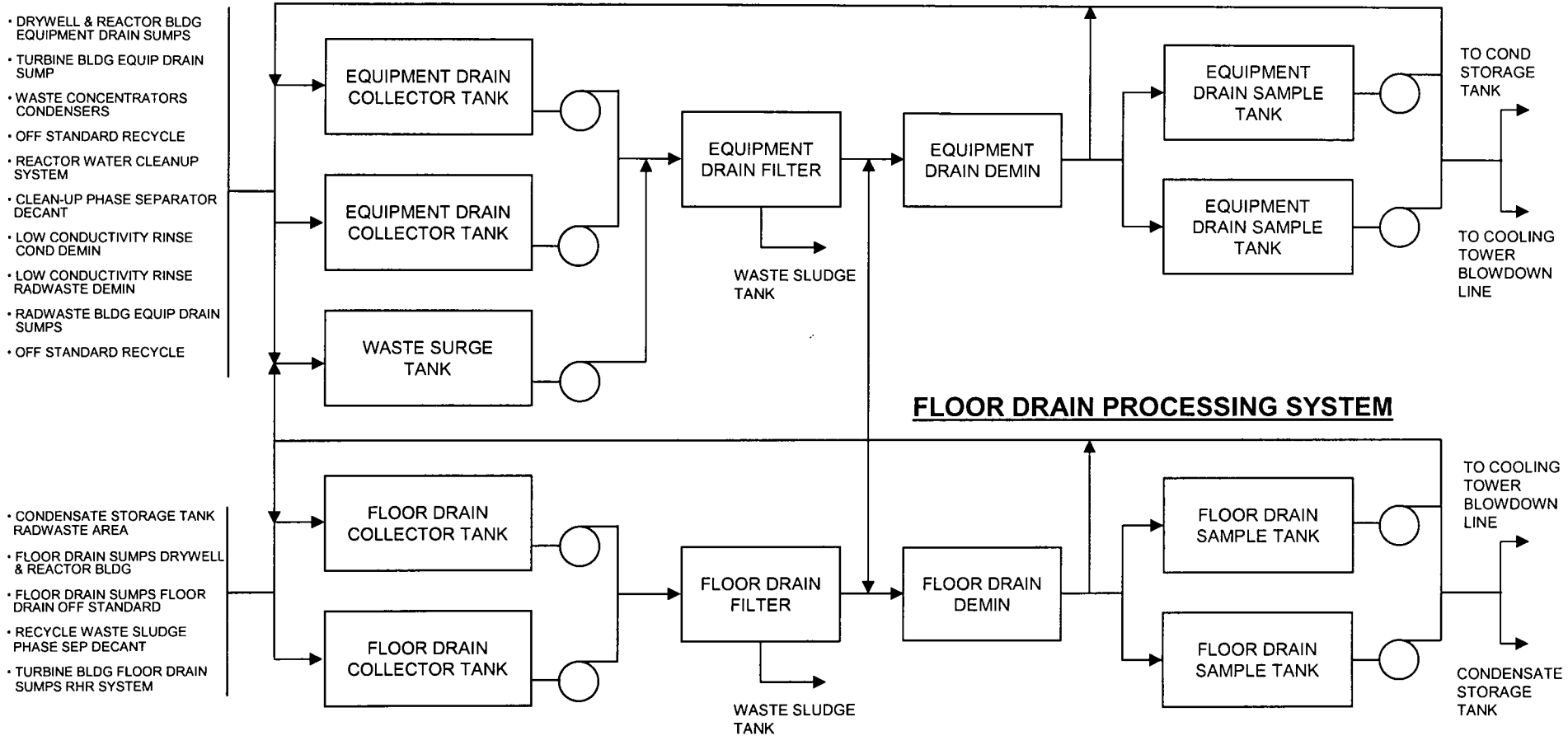
HOPE CREEK GENERATING STATION

CHEMICAL/ DETERGENT WASTE PROCESSING SYSTEM

NJPDES PERMIT NO. NJ0025411

SEPTEMBER 2007

EQUIPMENT DRAIN PROCESSING SYSTEM

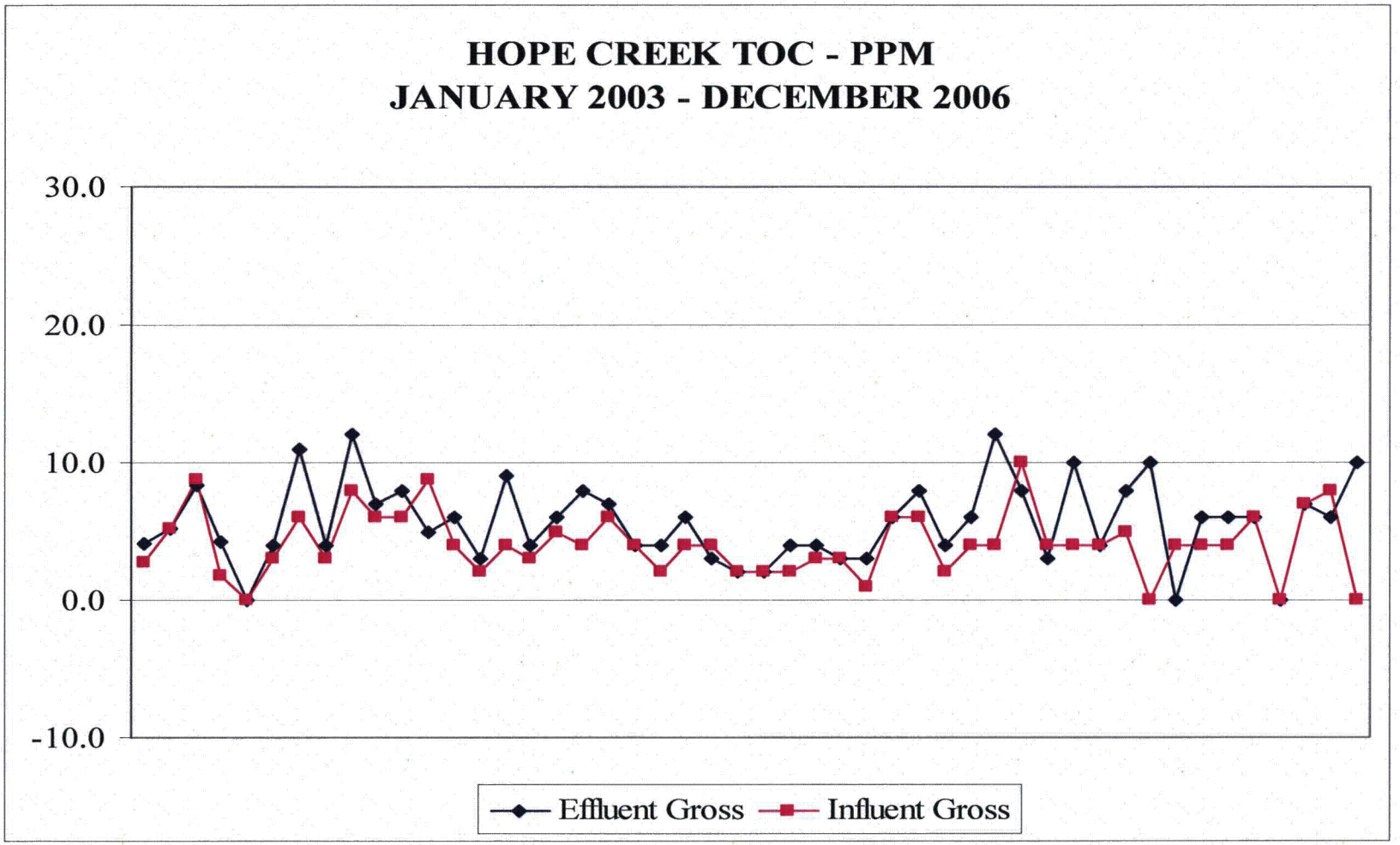


HOPE CREEK GENERATING STATION

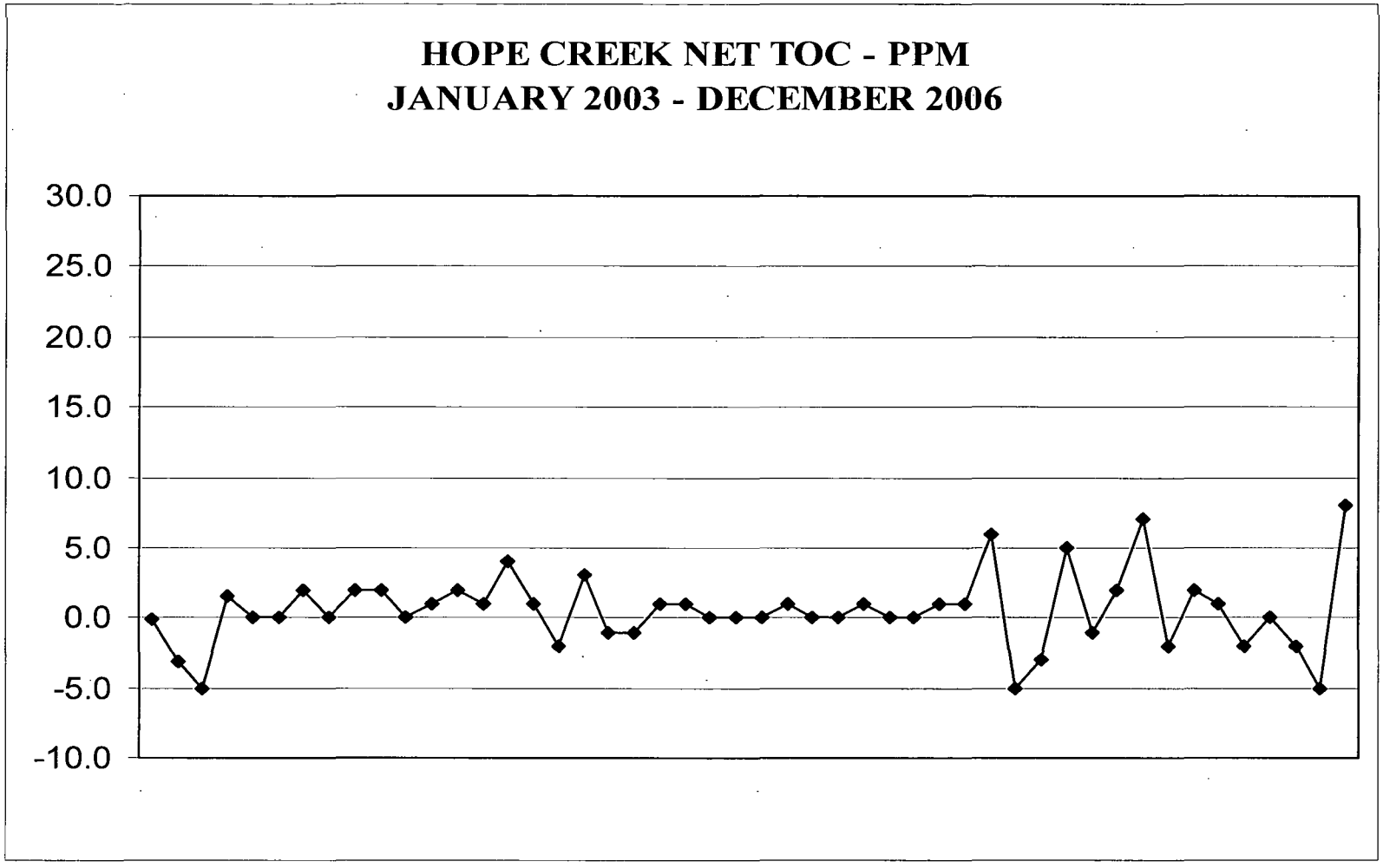
EQUIPMENT/FLOOR DRAIN PROCESSING SYSTEM

NJPDES PERMIT NO. NJ0025411

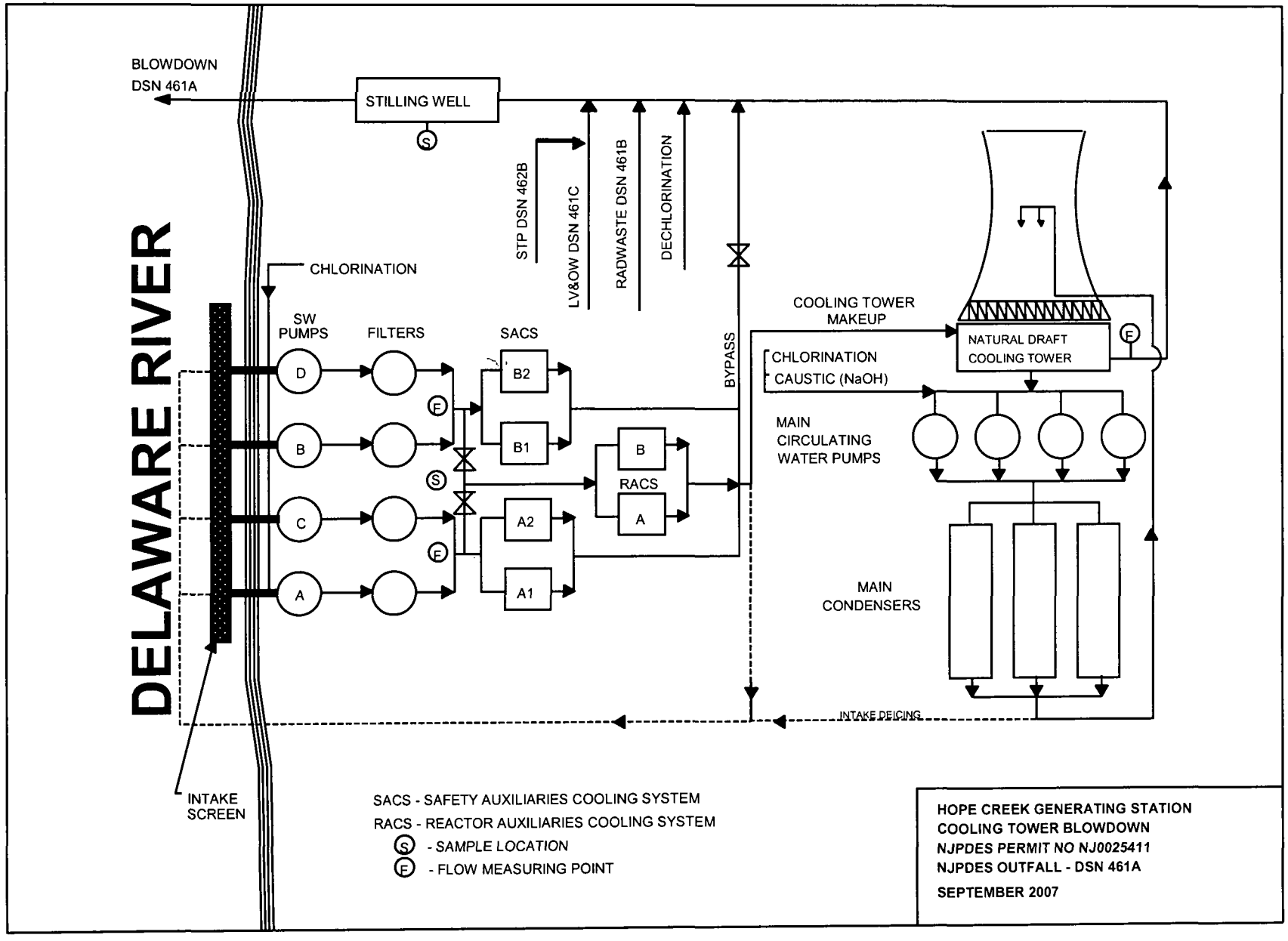
SEPTEMBER 2007



HOPE CREEK GENERATING STATION
TOTAL ORGANIC CARBON
NJ0025411 DSN 461A
SEPTEMBER 2007



HOPE CREEK GENERATING STATION
NET TOTAL ORGANIC CARBON
NJ0025411 DSN 461A
SEPTEMBER 2007


BLOWDOWN
DSN 461A
STILLING WELL
S
STP DSN 462B
LV&OW DSN 461C
RADWASTE DSN 461B
DECHLORINATION
BYPASS
CHLORINATION
SW
PUMPS
FILTERS
SACS
D
B
C
A
F
B2
B1
A2
A1
S
B
RACS
A
COOLING TOWER
MAKEUP
CHLORINATION
CAUSTIC (NaOH)
NATURAL DRAFT
COOLING TOWER
F
MAIN
CIRCULATING
WATER PUMPS
MAIN
CONDENSERS
INTAKE DEICING
DELAWARE RIVER
INTAKE
SCREEN
SACS - SAFETY AUXILIARIES COOLING SYSTEM
RACS - REACTOR AUXILIARIES COOLING SYSTEM
S - SAMPLE LOCATION
F - FLOW MEASURING POINT
HOPE CREEK GENERATING STATION
COOLING TOWER BLOWDOWN
NJPDES PERMIT NO NJ0025411
NJPDES OUTFALL - DSN 461A
SEPTEMBER 2007

FORM C
3/2/98

C

FACILITY NAME: Hope Creek Generating Station	OUTFALL NUMBER (DSN): 461C - Low Volume & Oily Waste System

10A. EFFLUENT DATA – PART A

POLLUTANT	EFFLUENT							Intake (Optional)		
	Daily Maximum		Monthly Average		# of	Units		Average		# of
	Conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples
Biochemical Oxygen Demand (BOD_5)	(A)									
Chemical Oxygen Demand (COD)	(A)									
Total Organic Carbon (TOC)	21.0	22.3	8.7	1.3	48	mg/L	kg/day			
Total Suspended Solids (TSS)	8.0	8.5	8.0	1.2	1	mg/L	kg/day			
Total Dissolved Solids (TDS)	432	458	432	65	1	mg/L	kg/day			
Ammonia (as N)	1.2	1.3	1.2	0.2	1	mg/L	kg/day			
UNITS AS INDICATED										
Flow (specify units)	Daily Max. 0.28		Monthly Avg. 0.04		1461	MGD	MGD			
Temperature (*winter*)	Daily Max. 8.3		Monthly Avg. 8.3		1	°C				
Temperature (*summer*)	Daily Max. 25.6		Monthly Avg. 25.6		1	°C				
pH	min. 7.63	max. 7.63			1	STANDARD UNITS		min.	max.	

10B. EFFLUENT DATA – PART B

POLLUTANT (AND CAS NUMBER WHERE AVAILABLE)	MARK "X" believed present	MARK "X" believed absent	EFFLUENT Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	INTAKE (Optional) Average conc.	INTAKE (Optional) Average loading	# of samples
CONVENTIONAL and NON-CONVENTIONAL POLLUTANTS												
Bromide (24959-67-9)		X										
Chlorine, Total Residual	X		<0.1	N/A	<0.1	N/A	1	mg/L	kg/day			
Color, (specify units)		X										
Fecal Coliform		X										
Fluoride (16984-48-8)	X(B)		0.35	0.4	0.35	0.1	1	mg/L	kg/day			
Nitrate-Nitrite (as N)	X		1.6	1.7	1.6	0.2	1	mg/L	kg/day			

FORM C
3/2/98

C

FACILITY NAME: Hope Creek Generating Station			OUTFALL NUMBER (DSN): 461C - Low Volume & Oily Waste System									
10B. EFFLUENT DATA – PART B (continued)												
POLLUTANT	MARK "X"		EFFLUENT							INTAKE (Optional)		
(AND CAS NUMBER IF	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of
AVAILABLE)	present	absent	conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples
Nitrogen, Total Organic (as N)	X		<0.60	N/A	<0.60	N/A	1	mg/L	kg/day			
☐ Oil & Grease or X Pet. Hydrocarbons	X		<0.56	N/A	<0.56	N/A	1	mg/L	kg/day			
Phosphorus (as P), Total (7723-14-0)	X		0.23	0.2	0.23	0.03	1	mg/L	kg/day			
Alpha, Total		X										
Beta, Total		X										
Radium, Total		X										
Radium 226, Total		X										
Surfactants		X(B)										
Sulfide (as S)	X(B)		<2.0	N/A	<2.0	N/A	1	mg/L	kg/day			
Sulfite (as SO_3) (14265-45-3)		X										
Sulfate (as SO_4) (14808-79-8)	X(B)		46.3	49	46.3	7	1	mg/L	kg/day			
Aluminum, Total (7429-90-5)		X										
Barium, Total (7440-39-3)		X										
Boron, Total (7440-42-8)		X	<100	N/A	<100	N/A	1	µg/L	kg/day			
Cobalt, Total (7440-48-4)		X										
Iron, Total (7439-89-6)	X		2260	2.4	2260	0.3	1	µg/L	kg/day			
Magnesium, Total (7439-95-4)		X										
Molybdenum, Total (7439-98-7)		X(B)										
Manganese, Total(7439-96-5)		X										
Tin, Total (7440-31-5)		X										
Titanium, Total (7440-32-6)		X										

FORM C
3/2/98

C

FACILITY NAME: Hope Creek Generating Station	OUTFALL NUMBER (DSN): 461C - Low Volume & Oily Waste System

10C. EFFLUENT DATA – PART C

o If you do not analyze a sample for certain Item 10C pollutants because you qualify as a "Small Business" (see instructions for details), check this box and attach sales data for the most recent three years.

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X"			EFFLUENT							INTAKE (Optional)		
	testing required	believed present	believed absent	Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	Average conc.	Average loading	# of samples
OTHER TOXIC POLLUTANTS (METALS and CYANIDE) and TOTAL PHENOLS													
Antimony, Total (7440-36-0)	X		X	<6.0	N/A	<6.0	N/A	1	µg/L	kg/day			
Arsenic, Total (7440-38-2)	X		X	<8.0	N/A	<8.0	N/A	1	µg/L	kg/day			
Beryllium, Total (7440-41-7)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Cadmium, Total (7440-43-9)	X		X	<4.0	N/A	<4.0	N/A	1	µg/L	kg/day			
Chromium, Total (7440-47-3)	X		X	<10	N/A	<10	N/A	1	µg/L	kg/day			
Copper, Total (7550-50-8)	X	X		466	0.5	466	0.1	1	µg/L	kg/day			
Lead, Total (7439-92-1)	X		X	<3.0	N/A	<3.0	N/A	1	µg/L	kg/day			
Mercury, Total (7439-97-6)	X		X	<0.20	N/A	<0.20	N/A	1	µg/L	kg/day			
Nickel, Total (7440-02-0)	X		X	<40	N/A	<40	N/A	1	µg/L	kg/day			
Selenium, Total (7782-49-2)	X		X	<10	N/A	<10	N/A	1	µg/L	kg/day			
Silver, Total (7440-22-4)	X		X	<10	N/A	<10	N/A	1	µg/L	kg/day			
Thallium, Total (7440-28-0)	X		X	<10	N/A	<10	N/A	1	µg/L	kg/day			
Zinc, Total (7440-66-6)	X	X		88.5	0.1	88.5	0.01	1	µg/L	kg/day			
Cyanide, Total (57-12-5)	X		X	<0.010	N/A	<0.010	N/A	1	µg/L	kg/day			
Phenols, Total	X		X	<0.20	N/A	<0.20	N/A	1	µg/L	kg/day			
DIOXIN													
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X										

FORM C
3/2/98

C

FACILITY NAME: Hope Creek Generating Station				OUTFALL NUMBER (DSN): 461C - Low Volume & Oily Waste System									
10C. EFFLUENT DATA – PART C (continued)													
POLLUTANT	MARK "X"			EFFLUENT							INTAKE (Optional)		
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of
AVAILABLE)	required	present	absent	conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples
ORGANIC TOXIC POLLUTANTS – VOLATILES													
Acrolein (107-02-8)	X		X	<50	N/A	<50	N/A	1	µg/L	kg/day			
Acrylonitrile (107-13-1)	X		X	<10	N/A	<10	N/A	1	µg/L	kg/day			
Benzene (71-43-2)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Bromoform (75-25-2)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Carbon Tetrachloride (56-23-5)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Chlorobenzene (108-90-7)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Chlorodibromomethane (124-48-1)	X		X	0.70	$7x10^{-4}$	0.70	$1x10^{-4}$	1	µg/L	kg/day			
Chloroethane (75-00-3)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
2-Chloro-ethyl-vinyl Ether (110-75-8)	X		X	<5.0	N/A	<5.0	N/A	1	µg/L	kg/day			
Chloroform (67-66-3)	X	X		8.5	$9x10^{-3}$	8.5	$1.3x10^{-3}$	1	µg/L	kg/day			
Dichlorobromomethane (75-27-4)	X	X		1.7	$1.8x10^{-3}$	1.7	$2.6x10^{-4}$	1	µg/L	kg/day			
1,1-Dichloroethane (75-34-3)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
1,2-Dichloroethane (107-06-2)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
1,1-Dichloroethylene (75-35-4)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
1,2-Dichloropropane (78-87-5)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
1,3-Dichloropropylene (542-75-6)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Ethylbenzene (100-41-4)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Methyl Bromide (74-83-9)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Methyl Chloride (74-87-4)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			

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FACILITY NAME: Hope Creek Generating Station				OUTFALL NUMBER (DSN): 461C - Low Volume & Oily Waste System									
10C. EFFLUENT DATA – PART C (continued)													
POLLUTANT	MARK "X"			EFFLUENT							INTAKE (Optional)		
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of
AVAILABLE)	required	present	absent	conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples
ORGANIC TOXIC POLLUTANTS – VOLATILES (continued)													
Methylene Chloride (75-09-2)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
1,1,2,2-Tetrachloroethane (79-34-5)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Tetrachloroethylene (127-18-4)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Toluene (108-88-3)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
1,2-Transdichloroethylene (156-60-5)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
1,1,1-Trichloroethane (71-55-6)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
1,1,2-Trichloroethane (79-00-5)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Trichloroethylene (79-01-6)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Vinyl Chloride (75-01-4)	X		X	<2.0	N/A	<2.0	N/A	1	µg/L	kg/day			
ORGANIC TOXIC POLLUTANTS – ACID COMPOUNDS													
2-Chlorophenol (95-57-8)	X		X	<5.6	N/A	<5.6	N/A	1	µg/L	kg/day			
2,4-Dichlorophenol (120-83-2)	X		X	<5.6	N/A	<5.6	N/A	1	µg/L	kg/day			
2,4-Dimethylphenol (105-67-9)	X		X	<5.6	N/A	<5.6	N/A	1	µg/L	kg/day			
4,6-Dinitro-O-Cresol (534-52-1)	X		X	<11	N/A	<11	N/A	1	µg/L	kg/day			
2,4-Dinitrophenol (51-28-5)	X		X	<22	N/A	<22	N/A	1	µg/L	kg/day			
2-Nitrophenol (88-75-5)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
4-Nitrophenol (100-02-7)	X		X	<22	N/A	<22	N/A	1	µg/L	kg/day			
P-Chloro-M-Cresol (59-50-7)	X		X	<5.6	N/A	<5.6	N/A	1	µg/L	kg/day			
Pentachlorophenol (87-86-5)	X		X	<11	N/A	<11	N/A	1	µg/L	kg/day			
Phenol (108-95-2)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
2,4,6-Trichlorophenol (88-06-2)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			

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FACILITY NAME: Hope Creek Generating Station				OUTFALL NUMBER (DSN): 461C - Low Volume & Oily Waste System									
10C. EFFLUENT DATA – PART C (continued)													
POLLUTANT	MARK "X"			EFFLUENT							INTAKE (Optional)		
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of
AVAILABLE)	required	present	absent	conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples
ORGANIC TOXIC POLLUTANTS – BASE/NEUTRAL COMPOUNDS													
Acenaphthene (83-32-9)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
Acenaphthylene (208-96-8)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
Anthracene (120-12-7)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
Benzidine (92-87-5)	X		X	<22	N/A	<22	N/A	1	µg/L	kg/day			
Benzo (a) Anthracene (56-55-3)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
Benzo (a) Pyrene (50-32-8)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
3,4-Benzofluoranthene (205-99-2)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
Benzo (ghi) Perylene (191-24-2)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
Benzo (k) Fluoranthene (207-08-9)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
Bis (2-Chloroethoxy) Methane (111-91-1)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
Bis (2-Chloroethyl) Ether (111-44-4)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
Bis (2-Chloroisopropyl) Ether (108-60-1)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
Bis (2-Ethylhexyl) Phthalate (117-81-7)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
4-Bromophenyl Phenyl Ether (101-55-3)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
Butyl Benzyl Phthalate (85-68-7)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
2-Chloronaphthalene (91-58-7)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
4-Chlorophenyl Phenyl Ether (7005-72-3)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
Chrysene (218-01-9)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			
Dibenzo (a,h) Anthracene (53-70-3)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day			

FACILITY NAME: Hope Creek Generating Station						OUTFALL NUMBER (DSN): 461C - Low Volume & Oily Waste System								
10C. EFFLUENT DATA – PART C (continued)														
POLLUTANT	MARK "X"			EFFLUENT							INTAKE (Optional)			
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of	
AVAILABLE)	required	present	absent	conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples	
ORGANIC TOXIC POLLUTANTS – BASE/NEUTRAL COMPOUNDS (continued)														
1,2-Dichlorobenzene (95-50-1)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
1,3-Dichlorobenzene (541-73-1)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
1,4-Dichlorobenzene (106-46-7)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
3,3 –Dichlorobenzidine (91-94-1)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
Diethyl Phthalate (84-66-2)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
Dimethyl Phthalate (131-11-3)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
Di-N-Butyl Phthalate (84-74-2)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
2,4-Dinitrotoluene (121-14-2)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
2,6-Dinitrotoluene (606-20-2)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
Di-N-Octyl Phthalate (117-84-0)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
1,2-Diphenylhydrazine (122-66-7)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
Fluoranthene (206-44-0)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
Fluorene (86-73-7)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
Hexachlorobenzene (118-74-1)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
Hexachlorobutadiene (87-68-3)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
Hexachlorocyclopentadiene (77-47-4)	X		X	<11	N/A	<11	N/A	1	µg/L	kg/day				
Hexachloroethane (67-72-1)	X		X	<5.6	N/A	<5.6	N/A	1	µg/L	kg/day				
Indeno (1,2,3-cd) Pyrene (193-39-5)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
Isophorone (78-59-1)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				

FACILITY NAME: Hope Creek Generating Station						OUTFALL NUMBER (DSN): 461C - Low Volume & Oily Waste System								
10C. EFFLUENT DATA – PART C (continued)														
POLLUTANT	MARK "X"			EFFLUENT							INTAKE (Optional)			
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of	
AVAILABLE)	required	present	absent	conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples	
ORGANIC TOXIC POLLUTANTS – BASE/NEUTRAL COMPOUNDS (continued)														
Naphthalene (91-20-3)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
Nitrobenzene (98-95-3)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
N-Nitrosodimethylamine (62-75-9)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
N-Nitrosodi-N-Propylamine (621-64-7)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
N-Nitrosodiphenylamine (86-30-6)	X		X	<5.6	N/A	<5.6	N/A	1	µg/L	kg/day				
Phenanthrene (85-01-8)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
Pyrene (129-00-0)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
1,2,4-Trichlorobenzene (120-82-1)	X		X	<2.2	N/A	<2.2	N/A	1	µg/L	kg/day				
ORGANIC TOXIC POLLUTANTS – PESTICIDES														
Aldrin (309-00-2)			X											
Alpha-BHC (319-84-6)			X											
Beta-BHC (319-85-7)			X											
Gamma-BHC (58-89-9)			X											
Delta-BHC (319-86-8)			X											
Chlordane (57-74-9)			X											
4,4'-DDT (50-29-3)			X											
4,4'-DDE (72-55-9)			X											
4,4'-DDD (72-54-8)			X											
Dieldrin (60-57-1)			X											

FACILITY NAME: Hope Creek Generating Station						OUTFALL NUMBER (DSN): 461C - Low Volume & Oily Waste System								
10C. EFFLUENT DATA – PART C (continued)														
POLLUTANT	MARK "X"			EFFLUENT							INTAKE (Optional)			
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of	
AVAILABLE)	required	present	absent	Conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples	
ORGANIC TOXIC POLLUTANTS – PESTICIDES (continued)														
Alpha-Endosulfan (115-29-7)			X											
Beta-Endosulfan (115-29-7)			X											
Endosulfan sulfate (1031-07-8)			X											
Endrin (72-20-8)			X											
Endrin Aldehyde (7421-93-4)			X											
Heptachlor (76-44-8)			X											
Heptachlor Epoxide (1024-57-3)			X											
PCB-1242 (53469-21-9)			X											
PCB-1254 (11097-69-1)			X											
PCB-1221 (11104-28-2)			X											
PCB-1232 (11141-16-5)			X											
PCB-1248 (12672-29-6)			X											
PCB-1260 (11096-82-5)			X											
PCB-1016 (12674-11-2)			X											
Toxaphene (8001-35-2)			X											

EXPLANATION OF NOTES - FORM C, ITEM 10 -

(A) Analysis of these parameters is not required per approval of the NJDEP as specified under Item 10A on Page 4 of 8 of the instructions for Form C.

(B) These pollutants are utilized at the facility in areas that could discharge through the respective outfall in the event of a spill, leak or inadvertent drain. These pollutants are not intentionally added to this effluent stream, and are not, therefore, normally discharged through this outfall.

SUMMARY TABLE DSN 461C

Facility: PSEG-Hope Creek **Latitude: 39° 28' 13"**
Discharge Serial Number (DSN): 461C **Longitude: 75° 32' 23"** **Internal Monitoring Point**

Wastewater Type: Effluent of the LVOW oil water separator from area, building, auxiliary boiler, and equipment drains. (Note 1)

Parameter All units in mg/L (kg/day) unless otherwise noted		NJPDES/ DSW Permit Application	Existing NJPDES/DSW Permit limits DSN 461C	NJPDES/ DSW DMR 1/03-12/06	Note	Draft Permit Limits for DSN 461C
Flow, Effluent, MGD	avg. max. data pts. monitor	0.04 0.28 1461 ---	NL NL --- Cont/Mt	0.04 0.28 1461 ---	2	NL NL --- Cont/Mt
Organic Carbon, Total (mg/L)	avg. max. data pts. monitor	8.7 21.0 48 ---	NL 50 --- M/Comp	8.7 21.0 48 ---	3	NL 50 --- M/Comp
Petroleum Hydrocarbons (mg/L)	avg. max. data pts. monitor	<1.0 14.0 96 ---	10 15 --- 2-M/G	<1.0 14.0 96 ---	4	10 15 --- 2-M/G
Total Suspended Solids (mg/L)	avg. max. data pts. monitor	10.9 77.0 48 ---	30 100 --- M/Comp	10.9 77.0 48 ---	5	30 100 --- M/Comp

The abbreviation "N/A" denotes "Not Applicable"; "NL" denotes "Not Limited" with monitoring and reporting required.
"MGD" denotes "million gallons per day"
"ND" denotes "Non-detected" value.
Monitoring requirement abbreviations are: "Cont" denotes "Continuous"; "D" denotes "Daily"; "3-W" denotes "three times per week"; "W" denotes "Weekly"; "2-M" denotes "Twice per Month"; "M" denotes "Monthly"; "Q" denotes "Quarterly"; "Mt" denotes "Meter"; "Cal" denotes "Calculated"; "G" denotes "Grab"; Comp" denotes "Composite"

EXPLANATION OF SUMMARY TABLE NOTES

1. The low volume and oily waste (LVOW) system, DSN 461C, is a low volume (0.04 MGD) internal waste stream that collects and treats potentially oily wastewater from area, building, and equipment drains throughout the site. The major influents, flowpaths, and treatment components are shown on the enclosed schematic entitled "Low Volume and Oily Waste System". The oily waste collection system includes transformer catch basins, switchyard underdrains, the fuel oil tank dike and transfer station, secondary containments for tank truck unloading areas, emergency diesel fire pump oil tank dike drains, the turbine building emergency sumps, and miscellaneous equipment and floor drains. The turbine building emergency sumps are designed to remove excess water from the turbine building in the event of flooding. Normal discharges from these sumps are minimal and are composed primarily of groundwater infiltration. Most influent water to the oily waste collection system is precipitation, other influents may include freshwater or service water, along with the pollutants handled or stored within the area drained, primarily petroleum products. The low volume system collects waste streams from cooling tower chemical tank dikes and drains (sodium hydroxide, ammonium bisulfate, and sodium hypochlorite), chlorine analyzer drains (including the analytical reagents), circulating water system building drains, the fuel oil day tank containment drain, and the auxiliary boiler building and blowdown drains (including ammonia and ammonia related [e.g., hydrazine and carbohydrazide] treatment chemicals and analytical reagents).

Flows from containments and dikes are primarily precipitation and may include circulating water or service water and the auxiliary boiler blowdown contains quench water. Most flows to the system are intermittent. Waste waters are collected in one of two lift stations which have level-operated pumps to transfer the wastewater to the treatment system as required.

Collected waste streams are processed through an API-type oil water separator for removal of solid and floatable materials. Settleable solids are removed from the waste stream by gravity separation and are transferred to the oily sludge holding tank before being removed to an USNRC-licensed facility if the residuals contain low levels of radioactivity, or trucked offsite to a licensed disposal facility. The system also has provisions for recycle of this oily sludge to aid in settling of the influent wastewaters. Oil and floatables removed by the separator are routed to the waste oil tank before being trucked offsite to a licensed disposal facility.

Treated effluent is then discharged through the internal monitoring point DSN 461C (0.04 MGD) which combines with DSN 461A (46.7 MGD) before discharge to the Delaware Estuary. This results in a reduction in concentration of a pollutant by a factor of approximately 1000 prior to discharge. The monitoring point for DSN 461A is after the commingling with DSN 461C.

2. Effluent Flow is monitored continuously by meter on the inlet to the separator and the daily maximum and monthly average flow is reported monthly in Million Gallons per Day (MGD). If the continuous monitoring equipment is inoperable (e.g. for preventative maintenance, calibration, or repair), the flow is calculated based on the operating hours of the lift station pumps or the lift station operating events to fulfill the continuous monitoring requirement. The provisions in the current Permit should be retained.

Prior Permits defined the reporting requirements for continuous monitoring as:

> For continuous monitoring, the daily value shall consist of all the values over a given calendar day (24 hour period) averaged together. The permittee shall

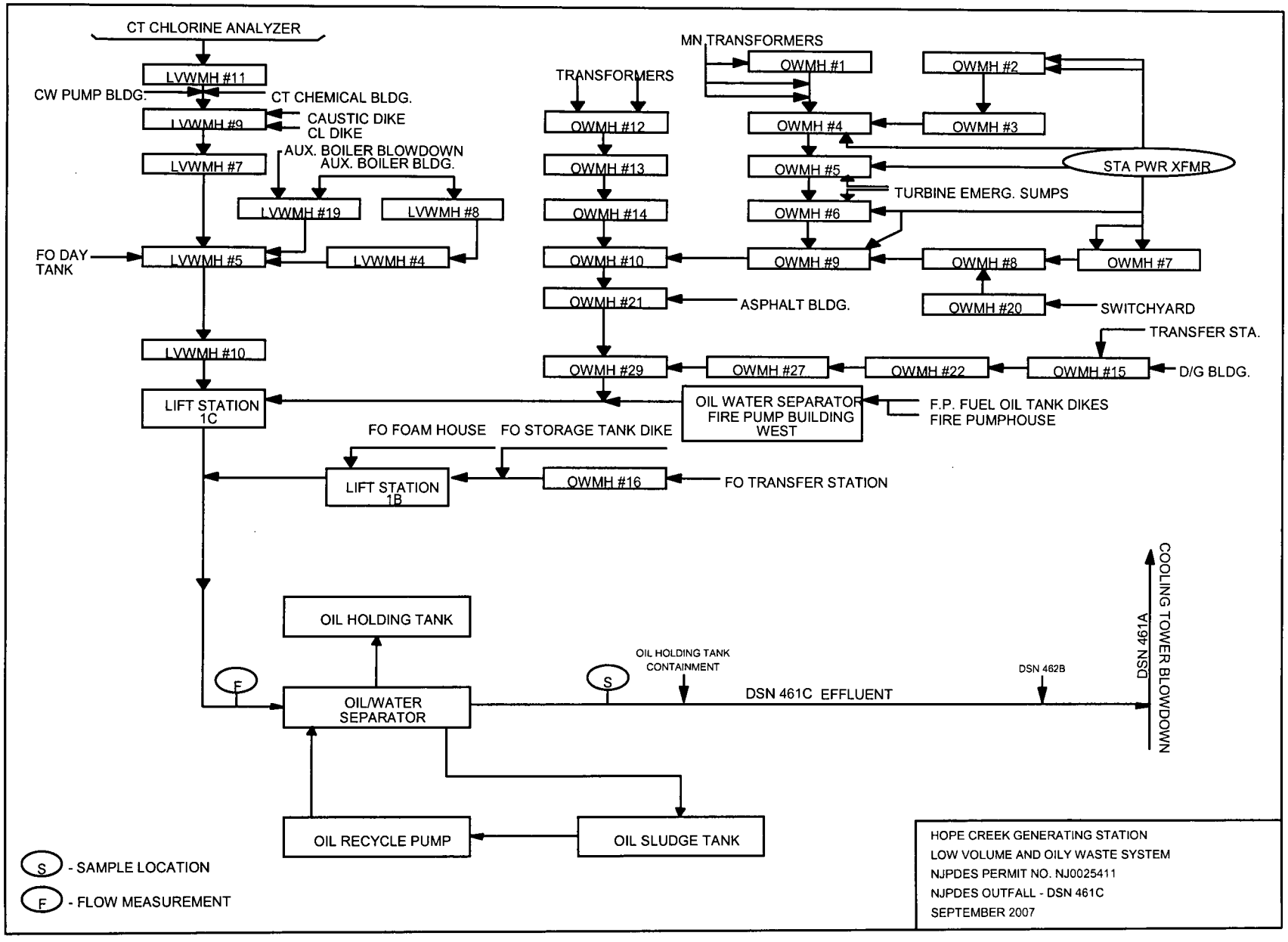
report the highest of these daily values as the daily maximum on the DMR, and the average of the daily values as the monthly average.

This definition should be retained and is applicable not only to continuous monitoring but to all monitoring which may be conducted more then one per calendar day for which a daily maximum or a monthly average value must be calculated or reported.

3. Total Organic Carbon (TOC) is measured monthly by 24-hour time-weighted composite sample. TOC is limited to a daily maximum of 50 mg/L. The daily maximum concentration and monthly average concentration are reported monthly in mg/L . The current limitations and conditions for Total Organic Carbon should be retained in the Permit.

4. Total Petroleum Hydrocarbons (TPH) is measured twice per month by grab sample. TPH is limited to a daily maximum of 15 mg/L and a monthly average of 10 mg/L. The daily maximum concentration and monthly average concentration are reported monthly in mg/L . The current limitations and conditions for Total Petroleum Hydrocarbons should be retained in the Permit.

5. Total Suspended Solids (TSS) is measured monthly by 24-hour composite sample. TSS is limited to a daily maximum of 100 mg/L and a monthly average of 30 mg/L. The daily maximum concentration and monthly average concentration are reported monthly in mg/L. The current limitations and conditions for Total Suspended Solids should be retained in the Permit.


CT CHLORINE ANALYZER
LVWMH #11
CW PUMP BLDG.
CT CHEMICAL BLDG.
LVWMH #9
CAUSTIC DIKE
CL DIKE
LVWMH #7
AUX. BOILER BLOWDOWN
AUX. BOILER BLDG.
LVWMH #19
LVWMH #8
FO DAY TANK
LVWMH #5
LVWMH #4
LVWMH #10
LIFT STATION 1C
LIFT STATION 1B
FO FOAM HOUSE
FO STORAGE TANK DIKE
TRANSFORMERS
MN TRANSFORMERS
OWMH #1
OWMH #2
OWMH #12
OWMH #4
OWMH #3
OWMH #13
OWMH #5
STA PWR XFMR
TURBINE EMERG. SUMPS
OWMH #14
OWMH #6
OWMH #10
OWMH #9
OWMH #8
OWMH #7
OWMH #21
ASPHALT BLDG.
OWMH #20
SWITCHYARD
TRANSFER STA.
OWMH #29
OWMH #27
OWMH #22
OWMH #15
D/G BLDG.
OIL WATER SEPARATOR FIRE PUMP BUILDING WEST
F.P. FUEL OIL TANK DIKES
FIRE PUMPHOUSE
OWMH #16
FO TRANSFER STATION
OIL HOLDING TANK
OIL HOLDING TANK CONTAINMENT
F
S
OIL/WATER SEPARATOR
DSN 461C EFFLUENT
DSN 462B
DSN 461A
COOLING TOWER BLOWDOWN
OIL RECYCLE PUMP
OIL SLUDGE TANK
S - SAMPLE LOCATION
F - FLOW MEASUREMENT
HOPE CREEK GENERATING STATION
LOW VOLUME AND OILY WASTE SYSTEM
NJPDES PERMIT NO. NJ0025411
NJPDES OUTFALL - DSN 461C
SEPTEMBER 2007

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FACILITY NAME: Hope Creek Generating Station							OUTFALL NUMBER (DSN): 462B – Sewage Treatment System						
10A. EFFLUENT DATA – PART A													
POLLUTANT	EFFLUENT						Intake (Optional)						
	Daily Maximum		Monthly Average		# of	Units		Average		# of			
	Conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples			
Biochemical Oxygen Demand (BOD_5)	10	3.0	5.08	0.2	48	mg/L	kg/day						
Chemical Oxygen Demand (COD)	(A)												
Total Organic Carbon (TOC)	(A)												
Total Suspended Solids (TSS)	73.3	22	73.3	2.8	1	mg/L	kg/day						
Total Dissolved Solids (TDS)	545	165	545	21	1	mg/L	kg/day						
Ammonia (as N)	13	3.9	13	0.5	1	mg/L	kg/day						
UNITS AS INDICATED													
Flow (specify units)	Daily Max. 0.08		Monthly Avg. 0.01		1461		MGD						
Temperature (*winter*)	Daily Max. 9.3		Monthly Avg. 9.3		1	°C							
Temperature (*summer*)	Daily Max. 26.0		Monthly Avg. 26.0		1	°C							
pH	min. 6.85	max. 6.85			1	STANDARD UNITS		min.	max.				

10B. EFFLUENT DATA – PART B													
POLLUTANT (AND CAS NUMBER WHERE AVAILABLE)	MARK "X" believed present	MARK "X" believed absent	EFFLUENT Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	INTAKE (Optional) Average conc.	Average loading	# of samples
CONVENTIONAL and NON-CONVENTIONAL POLLUTANTS												
Bromide (24959-67-9)		X										
Chlorine, Total Residual	X		0.02	0.006	0.02	0.00077	1	mg/L	kg/day			
Color, (specify units)	X(B)											
Fecal Coliform	X		620	N/A	16	N/A	48					
Fluoride (16984-48-8)	X(B)		1.1	0.3	1.1	0.04	1	mg/L	kg/day			
Nitrate-Nitrite (as N)	X		68.0	21	68.0	2.6	1	mg/L	kg/day			

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FACILITY NAME: Hope Creek Generating Station										OUTFALL NUMBER (DSN): 462B – Sewage Treatment System		
10B. EFFLUENT DATA – PART B (continued)												
POLLUTANT	MARK "X"		EFFLUENT							INTAKE (Optional)		
(AND CAS NUMBER IF	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of
AVAILABLE)	present	absent	conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples
Nitrogen, Total Organic (as N)	X		15.6	4.7	15.6	0.6	1	mg/L	kg/day			
X Oil & Grease or ☐ Pet. Hydrocarbons	X		29.0	9.0	2.4	0.09	1	mg/L	kg/day			
Phosphorus (as P), Total (7723-14-0)	X		7.8	2.4	7.8	0.3	1	mg/L	kg/day			
Alpha, Total		X										
Beta, Total		X										
Radium, Total		X										
Radium 226, Total		X										
Surfactants		X(B)										
Sulfide (as S)	X		<2.0	N/A	<2.0	N/A	1	mg/L	kg/day			
Sulfite (as SO_3) (14265-45-3)		X										
Sulfate (as SO_4) (14808-79-8)	X		23.1	7	23.1	1	1	mg/L	kg/day			
Aluminum, Total (7429-90-5)		X										
Barium, Total (7440-39-3)		X										
Boron, Total (7440-42-8)	X		313	0.1	313	0.01	1	µg/L	kg/day			
Cobalt, Total (7440-48-4)		X										
Iron, Total (7439-89-6)	X		1950	0.6	1950	0.1	1	µg/L	kg/day			
Magnesium, Total (7439-95-4)		X										
Molybdenum, Total (7439-98-7)		X(B)										
Manganese, Total(7439-96-5)		X										
Tin, Total (7440-31-5)		X										
Titanium, Total (7440-32-6)		X										

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FACILITY NAME: Hope Creek Generating Station	OUTFALL NUMBER (DSN): 462B – Sewage Treatment System

10C. EFFLUENT DATA – PART C

○ If you do not analyze a sample for certain Item 10C pollutants because you qualify as a "Small Business" (see instructions for details), check this box and attach sales data for the most recent three years.

POLLUTANT (AND CAS NUMBER IF AVAILABLE)	MARK "X"			EFFLUENT							INTAKE (Optional)		
	testing required	believed present	believed absent	Daily Maximum conc.	Daily Maximum loading	Monthly Average conc.	Monthly Average loading	# of samples	Units conc.	Units loading	Average conc.	Average loading	# of samples
OTHER TOXIC POLLUTANTS (METALS and CYANIDE) and TOTAL PHENOLS													
Antimony, Total (7440-36-0)	X		X	<6.0	N/A	<6.0	N/A	1	µg/L	kg/day			
Arsenic, Total (7440-38-2)	X		X	<8.0	N/A	<8.0	N/A	1	µg/L	kg/day			
Beryllium, Total (7440-41-7)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Cadmium, Total (7440-43-9)	X		X	<4.0	N/A	<4.0	N/A	1	µg/L	kg/day			
Chromium, Total (7440-47-3)	X		X	<10	N/A	<10	N/A	1	µg/L	kg/day			
Copper, Total (7550-50-8)	X	X		173	0.1	173	6.5×10^{-3}	1	µg/L	kg/day			
Lead, Total (7439-92-1)	X		X(B)	<3.0	N/A	<3.0	N/A	1	µg/L	kg/day			
Mercury, Total (7439-97-6)	X		X	<0.20	N/A	<0.20	N/A	1	µg/L	kg/day			
Nickel, Total (7440-02-0)	X		X	<40	N/A	<40	N/A	1	µg/L	kg/day			
Selenium, Total (7782-49-2)	X		X	<10	N/A	<10	N/A	1	µg/L	kg/day			
Silver, Total (7440-22-4)	X		X	<10	N/A	<10	N/A	1	µg/L	kg/day			
Thallium, Total (7440-28-0)	X		X	<10	N/A	<10	N/A	1	µg/L	kg/day			
Zinc, Total (7440-66-6)	X	X		187	0.1	187	7.1×10^{-3}	1	µg/L	kg/day			
Cyanide, Total (57-12-5)	X		X	<0.010	N/A	<0.010	N/A	1	µg/L	kg/day			
Phenols, Total	X		X	<0.20	N/A	<0.20	N/A	1	µg/L	kg/day			
DIOXIN													
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X										

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FACILITY NAME: Hope Creek Generating Station				OUTFALL NUMBER (DSN): 462B – Sewage Treatment System									
10C. EFFLUENT DATA – PART C (continued)													
POLLUTANT	MARK "X"			EFFLUENT							INTAKE (Optional)		
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of
AVAILABLE)	required	present	absent	conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples
ORGANIC TOXIC POLLUTANTS – VOLATILES													
Acrolein (107-02-8)	X		X	<50	N/A	<50	N/A	1	µg/L	kg/day			
Acrylonitrile (107-13-1)	X		X	<10	N/A	<10	N/A	1	µg/L	kg/day			
Benzene (71-43-2)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Bromoform (75-25-2)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Carbon Tetrachloride (56-23-5)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Chlorobenzene (108-90-7)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Chlorodibromomethane (124-48-1)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Chloroethane (75-00-3)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
2-Chloro-ethyl-vinyl Ether (110-75-8)	X		X	<5.0	N/A	<5.0	N/A	1	µg/L	kg/day			
Chloroform (67-66-3)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Dichlorobromomethane (75-27-4)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
1,1-Dichloroethane (75-34-3)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
1,2-Dichloroethane (107-06-2)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
1,1-Dichloroethylene (75-35-4)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
1,2-Dichloropropane (78-87-5)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
1,3-Dichloropropylene (542-75-6)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Ethylbenzene (100-41-4)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Methyl Bromide (74-83-9)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Methyl Chloride (74-87-4)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			

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FACILITY NAME: Hope Creek Generating Station				OUTFALL NUMBER (DSN): 462B – Sewage Treatment System									
10C. EFFLUENT DATA – PART C (continued)													
POLLUTANT	MARK "X"			EFFLUENT							INTAKE (Optional)		
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of
AVAILABLE)	required	present	absent	conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples
ORGANIC TOXIC POLLUTANTS – VOLATILES (continued)													
Methylene Chloride (75-09-2)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
1,1,2,2-Tetrachloroethane (79-34-5)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Tetrachloroethylene (127-18-4)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Toluene (108-88-3)	X	X		1.6	4.8×10^{-4}	1.6	6.1×10^{-5}	1	µg/L	kg/day			
1,2-Transdichloroethylene (156-60-5)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
1,1,1-Trichloroethane (71-55-6)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
1,1,2-Trichloroethane (79-00-5)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Trichloroethylene (79-01-6)	X		X	<1.0	N/A	<1.0	N/A	1	µg/L	kg/day			
Vinyl Chloride (75-01-4)	X		X	<2.0	N/A	<2.0	N/A	1	µg/L	kg/day			
ORGANIC TOXIC POLLUTANTS – ACID COMPOUNDS													
2-Chlorophenol (95-57-8)	X		X	<5.6	N/A	<5.3	N/A	1	µg/L	kg/day			
2,4-Dichlorophenol (120-83-2)	X		X	<5.6	N/A	<5.3	N/A	1	µg/L	kg/day			
2,4-Dimethylphenol (105-67-9)	X		X	<5.6	N/A	<5.3	N/A	1	µg/L	kg/day			
4,6-Dinitro-O-Cresol (534-52-1)	X		X	<11	N/A	<11	N/A	1	µg/L	kg/day			
2,4-Dinitrophenol (51-28-5)	X		X	<22	N/A	<21	N/A	1	µg/L	kg/day			
2-Nitrophenol (88-75-5)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
4-Nitrophenol (100-02-7)	X		X	<22	N/A	<21	N/A	1	µg/L	kg/day			
P-Chloro-M-Cresol (59-50-7)	X		X	<5.6	N/A	<5.3	N/A	1	µg/L	kg/day			
Pentachlorophenol (87-86-5)	X		X	<11	N/A	<11	N/A	1	µg/L	kg/day			
Phenol (108-95-2)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
2,4,6-Trichlorophenol (88-06-2)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			

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FACILITY NAME: Hope Creek Generating Station				OUTFALL NUMBER (DSN): 462B – Sewage Treatment System									
10C. EFFLUENT DATA – PART C (continued)													
POLLUTANT	MARK "X"			EFFLUENT							INTAKE (Optional)		
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of
AVAILABLE)	required	present	absent	conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples
ORGANIC TOXIC POLLUTANTS – BASE/NEUTRAL COMPOUNDS													
Acenaphthene (83-32-9)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Acenaphthylene (208-96-8)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Anthracene (120-12-7)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Benzidine (92-87-5)	X		X	<22	N/A	<21	N/A	1	µg/L	kg/day			
Benzo (a) Anthracene (56-55-3)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Benzo (a) Pyrene (50-32-8)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
3,4-Benzofluoranthene (205-99-2)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Benzo (ghi) Perylene (191-24-2)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Benzo (k) Fluoranthene (207-08-9)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Bis (2-Chloroethoxy) Methane (111-91-1)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Bis (2-Chloroethyl) Ether (111-44-4)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Bis (2-Chloroisopropyl) Ether (108-60-1)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Bis (2-Ethylhexyl) Phthalate (117-81-7)	X	X		1.9	5.8×10^{-4}	1.9	7.2×10^{-5}	1	µg/L	kg/day			
4-Bromophenyl Phenyl Ether (101-55-3)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Butyl Benzyl Phthalate (85-68-7)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
2-Chloronaphthalene (91-58-7)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
4-Chlorophenyl Phenyl Ether (7005-72-3)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Chrysene (218-01-9)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Dibenzo (a,h) Anthracene (53-70-3)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			

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FACILITY NAME: Hope Creek Generating Station				OUTFALL NUMBER (DSN): 462B – Sewage Treatment System									
10C. EFFLUENT DATA – PART C (continued)													
POLLUTANT	MARK "X"			EFFLUENT							INTAKE (Optional)		
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of
AVAILABLE)	required	present	absent	conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples
ORGANIC TOXIC POLLUTANTS – BASE/NEUTRAL COMPOUNDS (continued)													
1,2-Dichlorobenzene (95-50-1)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
1,3-Dichlorobenzene (541-73-1)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
1,4-Dichlorobenzene (106-46-7)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
3,3 –Dichlorobenzidine (91-94-1)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Diethyl Phthalate (84-66-2)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Dimethyl Phthalate (131-11-3)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Di-N-Butyl Phthalate (84-74-2)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
2,4-Dinitrotoluene (121-14-2)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
2,6-Dinitrotoluene (606-20-2)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Di-N-Octyl Phthalate (117-84-0)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
1,2-Diphenylhydrazine (122-66-7)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Fluoranthene (206-44-0)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Fluorene (86-73-7)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Hexachlorobenzene (118-74-1)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Hexachlorobutadiene (87-68-3)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Hexachlorocyclopentadiene (77-47-4)	X		X	<11	N/A	<11	N/A	1	µg/L	kg/day			
Hexachloroethane (67-72-1)	X		X	<5.6	N/A	<5.3	N/A	1	µg/L	kg/day			
Indeno (1,2,3-cd) Pyrene (193-39-5)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			
Isophorone (78-59-1)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day			

FACILITY NAME: Hope Creek Generating Station						OUTFALL NUMBER (DSN): 462B – Sewage Treatment System								
10C. EFFLUENT DATA – PART C (continued)														
POLLUTANT	MARK "X"			EFFLUENT								INTAKE (Optional)		
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units			Average		# of
AVAILABLE)	required	present	absent	conc.	loading	conc.	loading	samples	conc.	loading		conc.	loading	samples
ORGANIC TOXIC POLLUTANTS – BASE/NEUTRAL COMPOUNDS (continued)														
Naphthalene (91-20-3)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day				
Nitrobenzene (98-95-3)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day				
N-Nitrosodimethylamine (62-75-9)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day				
N-Nitrosodi-N-Propylamine (621-64-7)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day				
N-Nitrosodiphenylamine (86-30-6)	X		X	<5.6	N/A	<5.3	N/A	1	µg/L	kg/day				
Phenanthrene (85-01-8)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day				
Pyrene (129-00-0)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day				
1,2,4-Trichlorobenzene (120-82-1)	X		X	<2.2	N/A	<2.1	N/A	1	µg/L	kg/day				
ORGANIC TOXIC POLLUTANTS – PESTICIDES														
Aldrin (309-00-2)			X											
Alpha-BHC (319-84-6)			X											
Beta-BHC (319-85-7)			X											
Gamma-BHC (58-89-9)			X											
Delta-BHC (319-86-8)			X											
Chlordane (57-74-9)			X											
4,4'-DDT (50-29-3)			X											
4,4'-DDE (72-55-9)			X											
4,4'-DDD (72-54-8)			X											
Dieldrin (60-57-1)			X											

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FACILITY NAME: Hope Creek Generating Station				OUTFALL NUMBER (DSN): 462B – Sewage Treatment System									
10C. EFFLUENT DATA – PART C (continued)													
POLLUTANT	MARK "X"			EFFLUENT							INTAKE (Optional)		
(AND CAS NUMBER IF	testing	believed	believed	Daily Maximum		Monthly Average		# of	Units		Average		# of
AVAILABLE)	required	present	absent	Conc.	loading	conc.	loading	samples	conc.	loading	conc.	loading	samples
ORGANIC TOXIC POLLUTANTS – PESTICIDES (continued)													
Alpha-Endosulfan (115-29-7)			X										
Beta-Endosulfan (115-29-7)			X										
Endosulfan sulfate (1031-07-8)			X										
Endrin (72-20-8)			X										
Endrin Aldehyde (7421-93-4)			X										
Heptachlor (76-44-8)			X										
Heptachlor Epoxide (1024-57-3)			X										
PCB-1242 (53469-21-9)			X										
PCB-1254 (11097-69-1)			X										
PCB-1221 (11104-28-2)			X										
PCB-1232 (11141-16-5)			X										
PCB-1248 (12672-29-6)			X										
PCB-1260 (11096-82-5)			X										
PCB-1016 (12674-11-2)			X										
Toxaphene (8001-35-2)			X										

EXPLANATION OF NOTES - FORM C, ITEM 10 -

(A) Analysis of these parameters is not required per approval of the NJDEP as specified under Item 10A on Page 4 of 8 of the instructions for Form C.

(B) These pollutants are utilized at the facility in areas which could discharge through the respective outfall in the event of a spill, leak or inadvertent drain. These pollutants are not intentionally added to this effluent stream, and are not, therefore, normally discharged through this outfall.

SUMMARY TABLE DSN 462B

Facility: PSEG-Hope Creek **Latitude: 39° 28' 11"**
Discharge Serial Number (DSN): 462B **Longitude: 75° 32' 25"** **Internal Monitoring Point**

Wastewater Type: Effluent of the Sewage Treatment Plant. (Note 1)

Parameter *All units in mg/L* (kg/day) unless otherwise noted		**NJPDES/ DSW Permit Application**	**Existing NJPDES/DSW Permit limits DSN 462B**	**NJPDES/ DSW DMR 1/03-12/06**	**Note**	**Draft Permit Limits for DSN 462B**
Flow, Effluent, MGD	avg. max. data pts. monitor	0.01 0.08 1461 ---	NL NL --- D/Mt	0.01 0.08 1461 ---	2	NL NL --- D/Mt
BOD_5 (kg/day)	avg. max. data pts. monitor	5.1 10.0 48 ---	8 NL --- M/Comp	5.1 10.0 48 ---	3	8 NL --- M/Comp
BOD_5 (% Removal)	min. max. data pts. monitor	90.0 99.6 48	87.5 N/A --- M/Calc	90.0 99.6 48	4	87.5 N/A --- M/Calc
Total Suspended Solids (mg/L)	avg. max. data pts. monitor	9.4 23.0 48 ---	30 NL --- M/Comp	9.4 23.0 48 ---	5	30 NL --- M/Comp
Total Suspended Solids (% Removal)	min. max. data pts. monitor	87.0 100.0 48	85 N/A --- M/Calc	87.0 100.0 48	6	85 N/A --- M/Calc
F. Coliform (MPN/100ml)	avg. max. data pts. monitor	15.7 620 48 ---	200 400 --- M/G	15.7 620 48 ---	7	200 400 --- M/G

Oil and Grease (mg/L)	avg. max. data pts. monitor	1.4 29.0 48 ---	10 15 --- M/G	1.4 29.0 48 ---	8	10 15 --- M/G

The abbreviation "N/A" denotes "Not Applicable"; "NL" denotes "Not Limited" with monitoring and reporting required.
"MGD" denotes "million gallons per day"
"ND" denotes "Non-detected" value.
Monitoring requirement abbreviations are: "Cont" denotes "Continuous"; "D" denotes "Daily"; "3-W" denotes "three times per week"; "W" denotes "Weekly"; "2-M" denotes "Twice per Month"; "M" denotes "Monthly"; "Q" denotes "Quarterly"; "Mt" denotes "Meter"; "Cal" denotes "Calculated"; "G" denotes "Grab"; Comp" denotes "Composite"

EXPLANATION OF SUMMARY TABLE NOTES

1. The Sewage Treatment System (DSN 462B, an internal monitoring point) treats collected domestic waste waters from the Salem and Hope Creek Generating Stations, support (e.g., administrative) facilities, and sewage holding facilities from unconnected buildings on-site. The major flowpaths and treatment components are shown on the enclosed schematic entitled "Sewage Treatment System". Influent wastewater and return activated sludge are introduced into the single-channel oxidation ditch where extended aeration, a modification of the activated sludge process, is used to oxidize the organic constituents of the influent waste water. This process acts to remove Biochemical Oxygen Demand (BOD), reduce suspended solids, nitrify, and partially denitrify the wastewater. Rotor aerators are used to mix air into the contents of the basin and to keep the contents moving around the oxidation ditch. Following aeration, mechanical settling in the biological clarifiers is used to separate suspended solids from the liquid flow. The settled solids, or sludge, is either returned to the oxidation ditch or wasted to a sludge holding tank, based upon process requirements. The liquid wastewater flows from the clarifiers to the sand filters or directly to the chlorination facilities. The deep-bed downflow gravity sand filters can be used to further reduce suspended solids. Filter effluent flows to the clearwell for use as filter backwash water or is discharged to the chlorination facilities. The chlorination system is a flow-dependant tablet chlorination system, currently using calcium hypochlorite tablets followed by chlorine contact tanks to provide the retention necessary for the biocide to function. The effluent of the chlorine contact tanks flows over a cascading weir to the effluent pump lift station. Level-controlled effluent pumps transfer the treated water (0.01 MGD) to the cooling tower blowdown, DSN 461A (46.7 MGD), for discharge to the Delaware Estuary. Residual cooling tower blowdown de-chlorination chemical, ammonium bisulfite, de-chlorinates the sewage treatment system effluent. Settled solids or sludge is removed from the waste

stream to the sludge holding tank for aeration and dewatering before being trucked offsite to a licensed disposal facility, or to an USNRC-licensed facility if the residuals contain low levels of radioactivity.

In accordance with the current Permit, the sewage treatment system effluent discharges through the cooling tower blowdown outfall (DSN 461A). The sewage treatment system outfall is an internal waste stream. Emergency provisions have been retained for discharge of the sewage treatment system effluent through DSN 465A upon failure of the lift station pumps to prevent sewage overflow. Treated effluent is discharged through the internal monitoring point DSN 462B (0.01 MGD) which combines with DSN 461A (46.7 MGD) before discharge to the Delaware Estuary. This results in a reduction in the concentration of a pollutant by a factor of approximately 2000 prior to discharge. The monitoring point for DSN 461A is after the commingling with DSN 462B.

2. Effluent Flow is monitored daily by meter and the daily maximum and monthly average flow is reported monthly in Million Gallons per Day (MGD). If the monitoring equipment is inoperable (e.g. for preventative maintenance, calibration, or repair), the flow is to be calculated based on the manual measurement of height of the effluent over a v-notched weir. Manual flow measurement should be included with the alternative monitoring provisions in the current Permit at Part IV-G.4.

3. Biochemical Oxygen Demand (BOD_5) is measured monthly by 24-hour time-weighted composite sample. The mass of BOD_5 discharged is limited to a monthly average of 8 Kg/day. This is equivalent to a carbonaceous (first stage)

oxygen demand (FSOD) of 9.5 kg/day (21 pounds per day) as assigned by the Delaware River Basin Commission. The daily maximum and monthly average are reported monthly in kg/day. There is no change requested to the current limitations and conditions for BOD_5 loading.

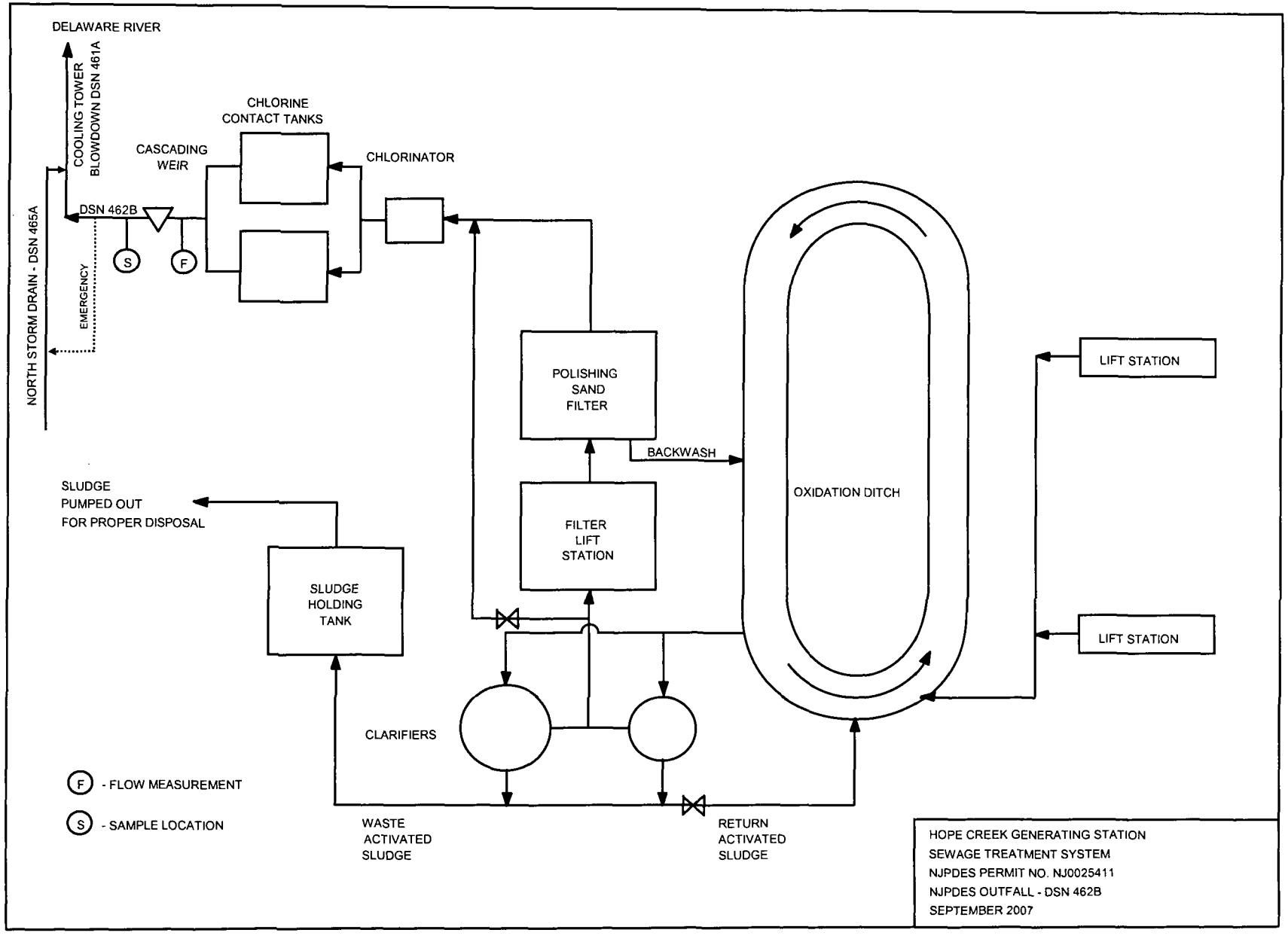
4. The percent removal of Biochemical Oxygen Demand (BOD_5) is calculated from the monthly 24-hour composite samples on the influent and effluent of the Sewage Treatment System. The monthly minimum is reported monthly in percent. The monthly minimum limitation of 87.5% is consistent with the Delaware River Basin Commission (DRBC) Docket Decision D-87-70 and the DRBC Effluent Quality Requirements. There is no change requested to the current limitations and conditions for percent removal of BOD_5.

5. Total Suspended Solids (TSS) is measured monthly by 24-hour time-weighted composite sample. TSS is limited to a monthly average of 30 mg/L. The daily maximum concentration and monthly average concentration are reported monthly in mg/L. There is no change requested to the current limitations and conditions for Total Suspended Solids.

6. The percent removal of Total Suspended Solids (TSS) is calculated from the monthly 24-hour composite samples on the influent and effluent of the Sewage Treatment System. The monthly minimum is reported monthly in percent. The monthly minimum limitation of 85% is consistent with the Delaware River Basin Commission (DRBC) Docket Decision D-87-70 and the DRBC Effluent Quality Requirements. There is no change requested to the current limitations and conditions for percent removal of TSS.

7. Fecal Coliform is monitored monthly by grab sample and reported monthly. The monthly average is calculated as the geometric mean over a 30 consecutive day period and the maximum is calculated as the geometric mean over a seven consecutive day period. Fecal Coliform is limited to a monthly average of 200 MPN/100ml (based on the DRBC Stream Quality Objectives) and a maximum of 400 MPN/100ml (based on the State Water Quality Standards). There is no change requested to the current limitations and conditions for Fecal Coliform.

8. Oil and Grease (O&G) is measured monthly by grab sample. O&G is limited to a monthly average of 10 mg/L and a daily maximum of 15 mg/L. The daily maximum concentration and monthly average concentration are reported monthly in mg/L. There is no change requested to the current limitations and conditions for Oil and Grease.


DELAWARE RIVER
COOLING TOWER BLOWDOWN DSN 461A
CHLORINE CONTACT TANKS
CASCADING WEIR
CHLORINATOR
DSN 462B
NORTH STORM DRAIN - DSN 465A
EMERGENCY
S
F
POLISHING SAND FILTER
BACKWASH
OXIDATION DITCH
LIFT STATION
LIFT STATION
SLUDGE PUMPED OUT FOR PROPER DISPOSAL
SLUDGE HOLDING TANK
FILTER LIFT STATION
CLARIFIERS
F - FLOW MEASUREMENT
S - SAMPLE LOCATION
WASTE ACTIVATED SLUDGE
RETURN ACTIVATED SLUDGE
HOPE CREEK GENERATING STATION
SEWAGE TREATMENT SYSTEM
NJPDES PERMIT NO. NJ0025411
NJPDES OUTFALL - DSN 462B
SEPTEMBER 2007

1. Stormwater runoff at the facility is directed via a conveyance system to three discrete outfalls identified as DSN 465A (North Yard Drain), DSN 463A (South Yard Drain) and DSN 464 (Perimeter Drain). As required in the current Permit the Stormwater Pollution Prevention Plan (SPPP) has been implemented and all requirements of the SPPP have been met for the term of the Permit. The SPPP has been demonstrated to be an effective mechanism to ensure that proper stormwater operations, maintenance procedures, and good housekeeping practices function to minimize the contact between stormwater runoff and the facility's operations. There is no treatment within these systems and therefore there are no residuals generated. As noted in the current Permit, the tidal influence is predominant in the effluent.

2. The North Yard Drain (DSN 465A) [annotated as DSN 462A in earlier permits] collects and discharges (0.16 MGD) to the Delaware Estuary, site drainage from the facility parking lots, Centralized Warehouse roof drain, loading ramp catch basins, Auxiliary Boiler roof drain, Fire Water Pumphouse, No. 2 Reactor Building roof and area drains, Materials Center area and roof drains, construction and excavation dewatering, and runoff from other miscellaneous sources. The sewage treatment system (DSN 462B) emergency overflow can discharge through this outfall but the sewage treatment system is monitored independently. The primary influents and the flow paths are shown on the enclosed schematic entitled North Yard Drain. Containments and isolated catch basins which collect precipitation or other sources of water are first evaluated for pollutants then released to the yard drain system. The evaluation includes a determination based on the source of the water and the potential for pollutant presence and then, if appropriate, the water is analyzed prior to release. The North Yard Drain system may contain precipitation, river water or groundwater (including fresh water and potable water), but the

effluent consists primarily of Delaware Estuary water, largely due to the tidal influence.

3. The South Yard Drain (DSN 463A) collects and discharges (0.33 MGD) to the Delaware Estuary, site drainage from the Security Center roof, drain and parking lot, roof and area drains from the Administrative Building, Auxiliary Boiler, Turbine Building, Reactor Building, Materials Center, and Services Facility Building, as well as the Chlorine Structure drains, service water valve pit, dewatering sump, construction and excavation dewatering, and runoff from other miscellaneous sources. The primary influents and the flow paths are shown on the enclosed schematic entitled South Yard Drain. Containments and isolated catch basins which collect precipitation or other sources of water are first evaluated for pollutants then released to the yard drain system. The evaluation includes a determination based on the source of the water and the potential for pollutant presence and then, if appropriate, the water is analyzed prior to release. For example, the service water sodium hypochlorite tank containment may contain precipitation, fresh water, and service water and contain low concentrations of chlorine residual. The containment contents are analyzed for residual chlorine prior to release to the South Yard Drain and the release is not conducted if residual chlorine is detected. The South Yard Drain system may contain precipitation, river water (including service water) or groundwater (including fresh water and potable water), but the effluent consists primarily of Delaware Estuary water, largely due to the tidal influence

4. The Perimeter Drain (DSN 464) collects and discharges (0.26 MGD) to the Delaware Estuary, site drainage and runoff from the access road area, Administration Building roof drains and parking lots, Combo Shop roof drains, catch basins in undeveloped portions of the site, groundwater infiltration, natural drainage

from the adjacent marshes, and drainage from areas external to the Hope Creek site. Due to the facility elevations and proximity to the River, this outfall can also be tidally influenced.

5. As discussed above, groundwater has also been identified as an influent to the yard drains, DSN 463A, DSN 465A and DSN 464. Groundwater can infiltrate or be an influent to any of the three yard drains. Shallow groundwater can infiltrate the piping of the yard drain systems or enter the yard drain systems through leakage into sumps or pits that enter the yard drain systems or through pumping to the yard drains from dewatering activities. Deeper groundwater is obtained at the site from wells that withdraw water from primarily the PRM aquifer, although the Middle Raritan aquifer may be utilized infrequently. This deeper groundwater is employed throughout the site in applications for which brackish water from the Delaware Estuary is not appropriate. This groundwater is called by many names, generally based on the intended use of the groundwater. The deeper groundwater is called fire water when it enters the fire suppression/fighting water tanks and system, fresh water when it is enters the fresh water system, potable water (or domestic or drinking water) when it enters the potable water tank and system, bearing seal water when it is filtered and used to cool and seal pump bearings, demineralized water when it has gone through filtration and ion exchange, and similar designations relative to the intended use.

The fire water system, in addition to directing groundwater to the other systems, provides water to sprinklers, hydrants, fire suppression systems, hose connections, and similar fire protection related equipment and applications. Fire water can enter the yard drains through activation of a fire suppression system, flushing or testing of hoses and hydrants, tank or pipe draining, or fire fighting activities or training. There are no chemicals added to the fire water system;

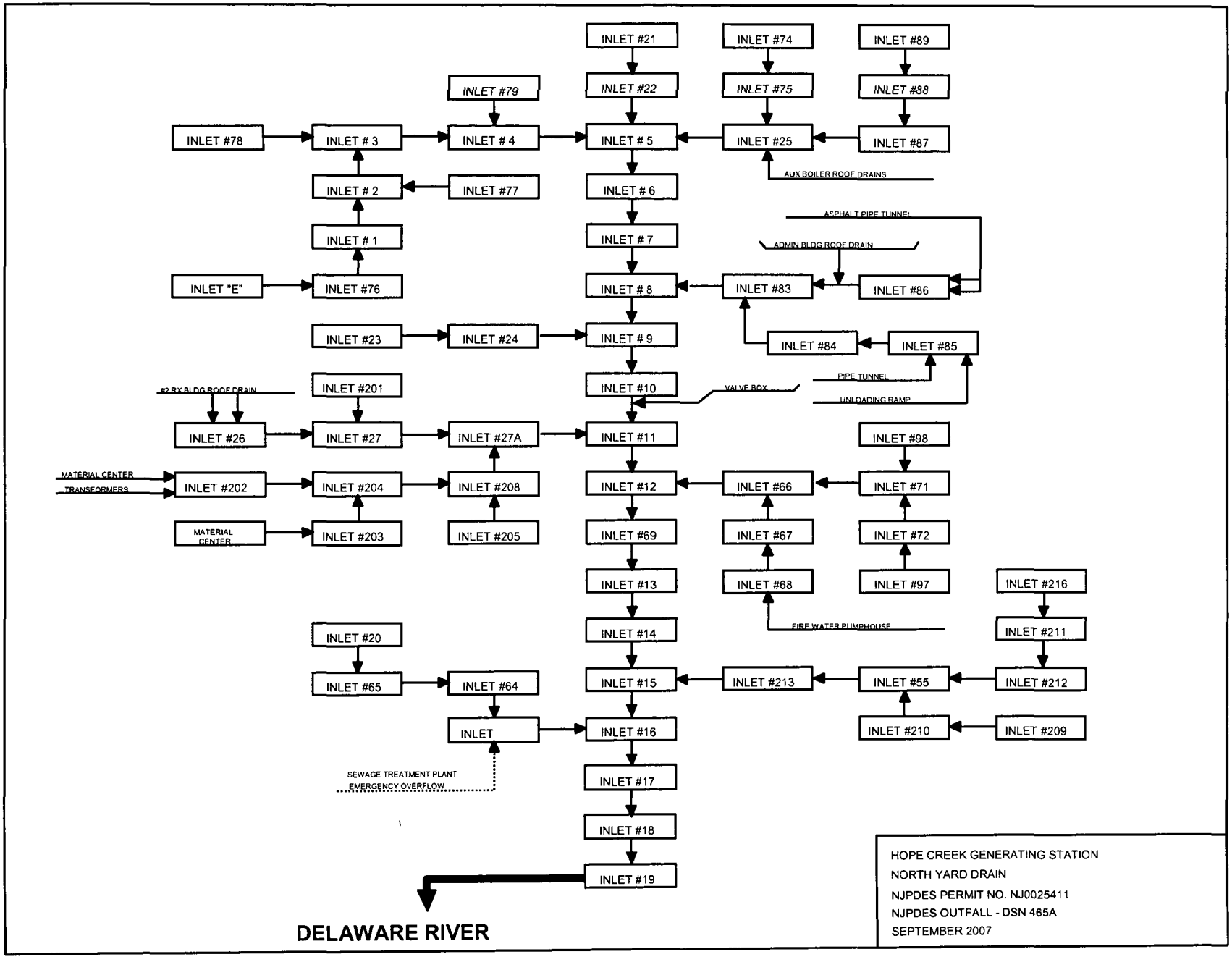
however, there is a foam system that the fire water mixes with for suppression of primarily oil fires which is generally collected in a treatment system if activated.

Fresh water is provided for general uses such as safety showers, small closed-loop cooling systems, general hose connections, general wash water, and janitorial supply.

Potable water provides drinking water, sanitary services, sinks, showers, kitchen supply, and similar consistent miscellaneous uses. Potable water can enter the yard drains through draining of the system tanks or pipes or miscellaneous other points. Potable water contains no treatment chemicals.

Demineralized water is ultra-purified groundwater that is specifically required for a variety of processes at the Station. Demineralization consists of processing groundwater through a series of filters and ion exchange resins. Demineralized water can enter the yard drains from leaking process pipes, during analytical testing of the processed water, and during maintenance of demineralized water facilities. Demineralized water contains no treatment chemicals. Since demineralized water is groundwater with some impurities removed, demineralized water may also enter any of the yard drains.

Any waters, derived from groundwater without the addition of any chemicals, and no matter how internally named, can be discharged through any outfall. This practice is consistent with the application and practice in all prior permit applications but has been more clearly explained in this application.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AUX BOILER ROOF DRAINS
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ASPHALT PIPE TUNNEL
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ADMIN BLDG ROOF DRAIN
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INLET #85
INLET #201
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PIPE TUNNEL
VALVE BOX
UNLOADING RAMP
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INLET #27A
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MATERIAL CENTER
TRANSFORMERS
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INLET #97
INLET #216
FIRE WATER PUMPHOUSE
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INLET #15
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INLET #55
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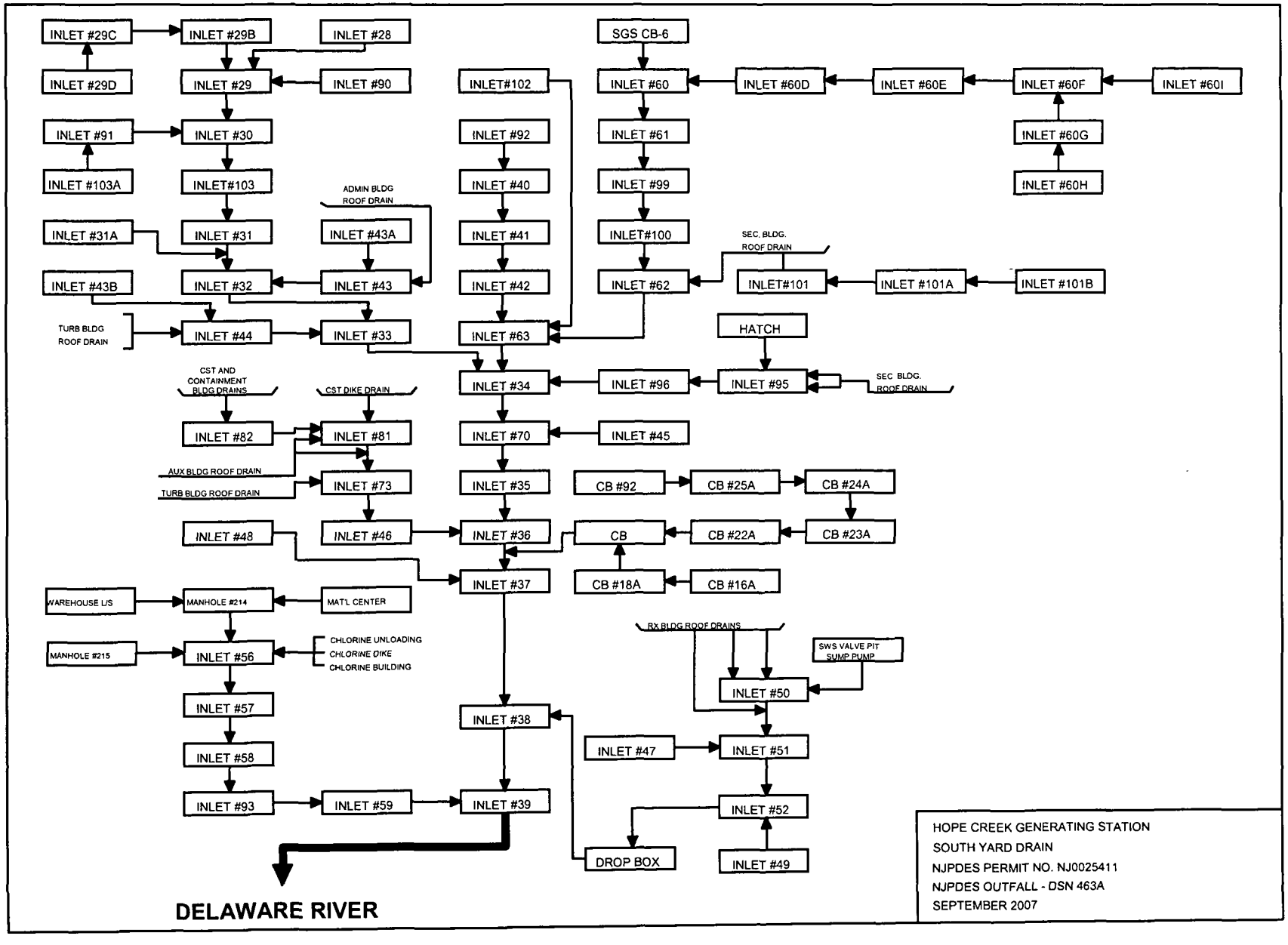
INLET
INLET #16
INLET #210
INLET #209
SEWAGE TREATMENT PLANT
EMERGENCY OVERFLOW
INLET #17
INLET #18
INLET #19
DELAWARE RIVER
HOPE CREEK GENERATING STATION
NORTH YARD DRAIN
NJPDES PERMIT NO. NJ0025411
NJPDES OUTFALL - DSN 465A
SEPTEMBER 2007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TURB BLDG ROOF DRAIN
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CST AND CONTAINMENT BLDG DRAINS
CST DIKE DRAIN
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AUX BLDG ROOF DRAIN
TURB BLDG ROOF DRAIN
INLET #73
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WAREHOUSE L/S
MANHOLE #214
MAT'L CENTER
MANHOLE #215
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CHLORINE UNLOADING
CHLORINE DIKE
CHLORINE BUILDING
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DELAWARE RIVER
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CB #24A
CB
CB #22A
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CB #18A
CB #16A
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INLET #52
DROP BOX
INLET #49
HOPE CREEK GENERATING STATION
SOUTH YARD DRAIN
NJPDES PERMIT NO. NJ0025411
NJPDES OUTFALL - DSN 463A
SEPTEMBER 2007