



P.O. Box 4, Route 168  
Shippingport, PA 15077

April 1, 2002

Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

**Approved Renewal or Change of Environmental Permit**

SUBJECT: Beaver Valley Power Station, Unit No. 1 and No. 2  
BV-1 Docket No. 50-334, License No. DPR-66  
BV-2 Docket No. 50-412, License No. NPF -73

To Whom It May Concern:

Pursuant to Beaver Valley Operating License, NPF-73, Appendix B, Section 3.2, this letter transmits formal notice of the approved renewal of the National Pollutant Discharge Elimination System (NPDES) Permit for First Energy Nuclear Operating Company (FENOC), Beaver Valley Power Station. NPDES Permit #PA0025615 was issued to Beaver Valley Power Station on December 27, 2001 and was approved on February 1, 2002 by the Pennsylvania Department of Environmental Protection.

Notification is also made that the NPDES permit issued by the Pennsylvania Department of Environmental Protection is currently being appealed by Beaver Valley Power Station. The appeal was filed on February 1, 2002 by Beaver Valley Power with the Pennsylvania Department of Environmental Protection Hearing Board. Beaver Valley Power Station is working with the Pennsylvania Department of Environmental Protection to reach a mutually acceptable final approved permit. Beaver Valley Power Station will provide notification once a final approved permit is issued. The approved permit renewal and notice of appeal are attached for your consideration.

Sincerely,

Joseph W. Venzon  
Manager, Chemistry and  
Environmental

DJS

C: J.W. Venzon  
Licensing File

C001

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
WATER MANAGEMENT PROGRAM

**AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

**NPDES PERMIT NO. PA0025615**

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

First Energy Nuclear Operating Company  
175 S. Main Street  
Akron, OH 44308

is authorized to discharge from a facility located at

Beaver Valley Power Station  
Shippingport Borough  
Beaver County

to receiving waters named Ohio River and Peggs Run (Outfalls 012 and 013)

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

**THIS PERMIT SHALL EXPIRE AT MIDNIGHT, DEC 27 2006**

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

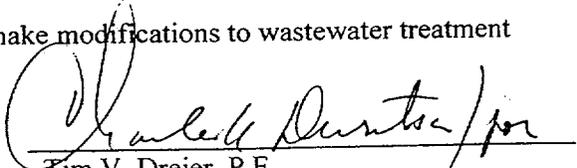
1. If there is a conflict between the application, its supporting documents and/or amendments and the terms and conditions of this permit, the terms and conditions shall apply.
2. Failure to comply with the terms, conditions, or effluent limitations of this permit is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal.
3. Complete application for renewal of this permit, or notification of intent to cease discharging by the expiration date, must be submitted to the Department at least 180 days prior to the expiration date (unless permission has been granted by the Department for submission at a later date), using the appropriate NPDES permit application form.

In the event that a timely and complete application for renewal has been submitted and the Department is unable, through no fault of the permittee, to reissue the permit before the expiration date, the terms and conditions of this permit, including submission of the Discharge Monitoring Reports, will be automatically continued and will remain fully effective and enforceable pending the grant or denial of the application for permit renewal.

4. This NPDES permit does not constitute authorization to construct or make modifications to wastewater treatment facilities necessary to meet the terms and conditions of this permit.

DATE PERMIT ISSUED DEC 27 2001

DATE EFFECTIVE FEB - 1 2002

ISSUED BY   
Tim V. Dreier, P.E.  
Water Management Program Manager

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR INTERNAL OUTFALL 101 WHICH RECEIVES WASTE FROM:  
Chemical Waste Treatment System (deminalizing regenerants, lab sink drains)

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					daily	continuous
Suspended Solids			30	100		1/week	2 hr. comp.
Oil and Grease			15	20		1/week	grab
*Hydrazine			Monitor and Report			1/week	grab
*Ammonia			Monitor and Report			1/week	grab
*Hydrazine and ammonia monitoring to apply during periods of wet layup.							
pH	not less than 6.0 nor greater than 9.0 standard units					1/week	grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: At the discharge from the chemical waste sump prior to mixing with any other water.

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR INTERNAL OUTFALL 301 WHICH RECEIVES WASTE FROM:

Unit #2 auxiliary boiler blowdown

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	estimate
Suspended Solids			30	100		2/month	grab
Oil and Grease			15	20		2/month	grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: The discharge of boiler blowdown prior to mixing with any other water.

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR INTERNAL OUTFALL 401 WHICH RECEIVES WASTE FROM:  
Drains from the chemical feed area of the auxiliary boilers for Unit #2

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	estimate
Suspended Solids			30	100		2/month	grab
Oil and Grease			15	20		2/month	grab
pH	not less than 6.0 standard units					2/month	grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Chemical feed area drains prior to mixing with any other water

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR INTERNAL OUTFALL 501 WHICH RECEIVES WASTE FROM:  
Unit #1 steam generator blowdown filter backwash

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	estimate
Total Suspended Solids			30	100		1/week	grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Internal monitoring point 501 prior to mixing with any other water

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR OUTFALL 001 WHICH RECEIVES WASTE FROM:  
Unit #1 and Unit #2 cooling tower blowdown, sources previously monitored at 101, 201, 301, and 401, treated rad waste and occasional clarified overflow  
at Latitude 40° 37' 16" Longitude 80° 26' 10" Stream Code 32317 River Mile Index (RMI) 945.7

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					daily	continuous
			<u>Average Concentration**</u>	<u>Maximum Concentration</u>			
Free Available Chlorine			0.2	0.5		continuous	recorded
Total Residual Chlorine			0.5		1.25	1/week	grab
Clamtrol (CT-1)			Not Detectable			when discharging	24 hr. comp.
Betz DT-1				35.0		when discharging	24 hr. comp.
Chromium			0.2	0.2		2/year	24 hr. comp.
Zinc			1.0	1.0		2/year	24 hr. comp.

It is the Department's understanding that the permittee does not add chromium or zinc compounds to the cooling water. The permittee is prohibited from adding chromium or zinc compounds to the cooling water unless the permittee obtains permission from the Department. Refer to Part C for restrictions on the discharge of the 126 priority pollutants (with the exception of chromium and zinc), free available and total residual chlorine, and the net addition of pollutants to non-contact cooling water.

\*\* The term "average concentration" as it relates to chlorine discharge means the average analyses made over a single period of chlorine release which does not exceed two hours.

## 1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR OUTFALL 001 (CONTINUED):

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Hydrazine*	Not Detectable		Using ASTM D-1385			1/week	grab
Ammonia*			Monitor and Report			1/week	grab
*Hydrazine and ammonia monitoring to apply during periods of wet layup.							
Phenols**, ***			Monitor and Report			2/month	grab
Iron**			Monitor and Report			2/month	grab
Aluminum**			Monitor and Report			2/month	grab
pH	not less than 6.0 nor greater than 9.0 standard units					1/week	grab

\*\*See Condition C-16

\*\*\*See Condition C-20

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: At the discharge

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR INTERNAL OUTFALL 102 WHICH RECEIVES WASTE FROM:  
Intake greenhouse (pump bearing cooling water leakage)

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					2/month	estimate
Suspended Solids			30	100		2/month	grab
Oil and Grease			15	20		2/month	grab
pH	not less than 6.0 nor greater than 9.0 standard units					2/month	grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: The discharge of collected pump bearing leakage prior to mixing with any other water

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR OUTFALL 002 WHICH RECEIVES WASTE FROM:

Intake screen backwash and pump bearing leakage from 102  
at Latitude 40° 37' 26" Longitude 80° 26' 07" Stream Code 32317 River Mile Index (RMI) 945.9

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	estimate

Debris collected on the intake trash racks shall not be returned to the waterway. )

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 002

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR INTERNAL OUTFALL 103 WHICH RECEIVES WASTE FROM:  
Settling basin handling sludge from the intake clarifier

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					2/month	estimate
Suspended Solids			30	100		2/month	24 hr. comp.
pH	not less than 6.0 nor greater than 9.0 standard units					2/month	grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Overflow from the basin prior to mixing with any other water

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR INTERNAL OUTFALL 203 WHICH RECEIVES WASTE FROM:  
The sewage treatment plant at the main plant

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS		
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type	
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.			
Flow (mgd)	0.023					1/week	measured	
CBOD-5 Day			25	50		2/month	8 hr. comp.	
Suspended Solids			30	60		2/month	8 hr. comp.	
Total Residual Chlorine			1.4		3.3	2/month	grab	
% Removal (BOD-5 Day & SS)	refer to Part C							
Fecal Coliform Organisms	refer to Part C for effective disinfection						2/month	grab
pH	not less than 6.0 nor greater than 9.0 standard units						2/month	grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Overflow from the chlorine contact tank prior to mixing with any other water

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR INTERNAL OUTFALL 303 WHICH RECEIVES WASTE FROM:  
Oil water separator handling Unit #1 turbine room floor drain

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS		
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type	
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.			
Flow (mgd)	Monitor and Report					1/week	estimate	
Suspended Solids			30	100		1/week	grab	
Oil and Grease			15	20		1/week	grab	
pH	not less than 6.0 nor greater than 9.0 standard units						1/week	grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Overflow from the oil water separator prior to mixing with any other water

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR INTERNAL OUTFALL 403 WHICH RECEIVES WASTE FROM:  
Condensate blowdown and uncontaminated river water

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	estimate
Suspended Solids			30	100		1/week	grab
Oil and Grease			15	20		1/week	grab
Hydrazine*	Not detectable using ASTM D-1385					1/week	grab
Ammonia*			Monitor and Report			1/week	grab
TRC			0.5		1.25	1/week	grab
Clamtrol CT-1			Not Detectable			when discharging	24 hr. comp.
Betz DT-1				35		when discharging	24 hr. comp.
pH	not less than 6.0 nor greater than 9.0 standard units					1/week	grab

Monitoring is applicable to 403 and must be shown on the DMR for 403 whenever there is a discharge at 403.

\*Hydrazine and ammonia monitoring to apply during periods of wet layup.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Monitoring point 403 prior to mixing with any other water. The condensate blowdown and uncontaminated riverwater is conveyed via a flexible hose to Manhole No. 1B34.

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR OUTFALL 003 WHICH RECEIVES WASTE FROM:

See below  
at Latitude 40° 37' 26" Longitude 80° 26' 07" Stream Code 32317 River Mile Index (RMI) 946.0

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					2/month	estimate
Iron*	Monitor and Report					2/month	grab
Aluminum*	Monitor and Report					2/month	grab
Phenols*, **	Monitor and Report					2/month	grab
This discharge shall consist solely of uncontaminated yard storm water runoff, deionized water storage tank drainage, and those sources monitored at 103, 203, 303, and 403.							
Nitrate-Nitrite	Monitor and Report					2/month	grab
Phosphorus	Monitor and Report					2/month	grab

\*See Condition C-16  
\*\*See Condition C-20  
See Condition C-21

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: The flows from Outfalls 103, 203, 303 and 403 are to be totaled and reported as the 003 flow.

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR OUTFALL 004 WHICH RECEIVES WASTE FROM:

Unit #1 cooling tower overflow  
at Latitude 40° 37' 30" Longitude 80° 26' 02" Stream Code 32317 River Mile Index (RMI) 946.3

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	measured
			<u>Average Concentration</u>	<u>Maximum Concentration</u>			
Free Available Chlorine			0.2	0.5		1/week	grab
Total Residual Chlorine			0.5		1.25	1/week	grab
Iron*			Monitor and Report			2/month	grab
Aluminum*			Monitor and Report			2/month	grab
Phenols*, **			Monitor and Report			2/month	grab
Chromium			0.2	0.2		2/year	grab
Zinc			1.0	1.0		2/year	grab

This overflow at Outfall 004 normally takes place during the months July through October when the water level in the cooling tower basin is raised to increase pumping efficiency. The blowdown at Outfall 001 comes from the same basin, and the limitations and restrictions placed on 001 apply also to this 004. Outfall 004 must be sampled when discharging and the results must be reported on the Discharge Monitoring Report.

The term "average concentration" as it relates to chlorine discharge means the average analyses made over a single period of chlorine release which does not exceed two hours.

\*See Condition C-16  
\*\*See Condition C-20

pH not less than 6.0 nor greater than 9.0 standard units 1/week grab

There shall be no discharge of floating solids or visible foam in other than trace amount

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR OUTFALL 006 WHICH RECEIVES WASTE FROM:

Auxiliary intake screen backwash water  
at Latitude 40° 37' 26" Longitude 80° 26' 07" Stream Code 32317 River Mile Index (RMI) 946.6

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	estimated

Debris removed from the intake trash racks shall not be returned to the waterways.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 006

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR OUTFALL 007 WHICH RECEIVES WASTE FROM:

Auxiliary intake system testing water and periodic discharge from Unit #2 reactor plant river water system  
at Latitude 40° 37' 26" Longitude 80° 26' 07" Stream Code 32317 River Mile Index (RMI) 946.5

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	estimate
Free Available Chlorine			<u>Average Concentration</u> 0.2	<u>Maximum Concentration</u> 0.5		1/week	grab
Total Residual Chlorine			0.5		1.25	1/week	grab

Monitoring for flow, free available chlorine, and total residual chlorine are required only during those periods of discharge from the alternate flow path of the reactor plant river water system. Also refer to Part C for additional restrictions on free available and total residual chlorine, and the net addition of pollutants to non-contact cooling water.

The term "average concentration" as it relates to chlorine discharge means the average analyses made over a single period of chlorine release which does not exceed two hours.

pH not less than 6.0 nor greater than 9.0 standard units 1/week grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: At the discharge pipe

## 1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR OUTFALL 008 WHICH RECEIVES WASTE FROM:

Unit #1 cooling tower pumphouse drains and storm water runoff  
at Latitude 40° 37' 30" Longitude 80° 26' 02"

Stream Code 32317

River Mile Index (RMI) 946.36

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	estimate
Suspended Solids			30	100		2/month	grab
Oil and Grease			15	20		2/month	grab
Ammonia			Monitor and Report			2/month	grab
Iron, total*			Monitor and Report			2/month	grab
Aluminum*			Monitor and Report			2/month	grab
Manganese*			Monitor and Report			2/month	grab
Phenols*, **			Monitor and Report			2/month	grab
Zinc			Monitor and Report			2/month	grab
Color			Monitor and Report			2/month	grab
pH	not less than 6.0 nor greater than 9.0 standard units					2/month	grab

\*See Condition C-16

\*\*See Condition C-20

See Condition C-21

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: At the discharge pipe

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR INTERNAL OUTFALL 110 WHICH RECEIVES WASTE FROM:  
Unit #2 service water strainer backwash

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	estimate

Debris collected on the strainer shall not be returned to the waterway.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Monitoring point 110

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR OUTFALL 010 WHICH RECEIVES WASTE FROM:

Once-through cooling water from Unit #2 heat exchangers and IMP 110  
at Latitude 40° 37' 15" Longitude 80° 26' 21"

Stream Code 32317

River Mile Index (RMI)

945.2

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	measured
			<u>Average Concentration</u>	<u>Maximum Concentration</u>			
Free available Chlorine			0.2	0.5		1/week	grab during chlorination
Total Residual Chlorine			0.5		1.25	1/week	grab during chlorination
Clamtrol CT-1			Not Detectable			when discharging	24 hr. comp.
Betz DT-1				35.0		when discharging	24 hr. comp.
pH	not less than 6.0 nor greater than 9.0 standard units					1/week	grab

Refer to Part C for additional restrictions on free available and total residual chlorine, and the net addition of pollutants to non-contact cooling water.

The term "average concentration" as it relates to chlorine discharge means the average analyses made over a single period of chlorine release which does not exceed two hours.

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: At the emergency overflow structure

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR OUTFALL 011 WHICH RECEIVES WASTE FROM:  
 Diesel generator building oil/water separator drain (OWS #22) and turbine building oil/water separator drain (OWS #23) and storm water runoff  
 at Latitude 40° 37' 28" Longitude 80° 26' 05" Stream Code 32317 River Mile Index (RMI) 946.2

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	estimate

This discharge shall consist solely of those sources monitored at internal monitoring point 111 and 211 and yard storm water runoff. See Conditions C-20 and C-21.

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

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR INTERNAL OUTFALL 111 WHICH RECEIVES WASTE FROM:  
Diesel generator building oil/water separator drain (OWS #22)

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	estimate
Suspended Solids			30		100	1/week	grab
Oil and Grease			15		20	1/week	grab
pH	not less than 6.0 nor greater than 9.0 standard units					1/week	grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: at the discharge pipe

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR INTERNAL OUTFALL 211 WHICH RECEIVES WASTE FROM:  
Turbine building oil/water separator drain (OWS #23).

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	estimate
Suspended Solids			30	100		1/week	grab
Oil and Grease			15	20		1/week	grab
pH	not less than 6.0 nor greater than 9.0 standard units					1/week	grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: at the discharge pipe

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR OUTFALL 012 WHICH RECEIVES WASTE FROM:  
Blowdown from the HVAC unit serving the emergency response facility and storm water runoff  
at Latitude 40° 37' 25" Longitude 80° 25' 47" Stream Code 33515 River Mile Index (RMI) 0.1

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/month	estimate
Total Dissolved Solids	Monitor and Report					1/week	grab
Chromium			0.2	0.2		1/week	grab
Zinc			1.0	1.0		1/week	grab
Copper	Monitor and Report					1/week	grab
<p>It is the Department's understanding that the permittee does not add chlorine or chromium and zinc compounds to the cooling water. The permittee is prohibited from adding chlorine, or chromium and zinc compounds to the cooling water unless the permittee obtains permission from the Department. Refer to Part C for restrictions on the discharge of the 126 priority pollutants (with the exception of chromium and zinc), and the net addition of pollutants to non-contact cooling water. See Conditions C-20 and C-21.</p>							
pH	not less than 6.0 nor greater than 9.0 standard units					1/month	grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: At the discharge pipe

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR INTERNAL OUTFALL 113 WHICH RECEIVES WASTE FROM:  
The sewage treatment plant serving Unit #2 and handling sanitary wastes

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS		
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type	
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.			
Flow (mgd)	0.043					1/week	measured	
CBOD-5 Day			25	50		2/month	8 hr. comp.	
Suspended Solids			30	60		2/month	8 hr. comp.	
Total Residual Chlorine			1.4		3.3	2/month	grab	
% Removal (BOD-5 Day & SS)	refer to Part C							
Fecal Coliform Organisms	refer to Part C for effective disinfection						2/month	grab
pH	not less than 6.0 nor greater than 9.0 standard units						2/month	grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Overflow from the chlorine contact tank prior to mixing with any other water

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR INTERNAL OUTFALL 213 WHICH RECEIVES WASTE FROM:  
Unit #2 cooling tower pumphouse floor and equipment drains

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS		
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type	
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.			
Flow (mgd)	Monitor and Report		1			1/week	estimate	
Suspended Solids			30	100		2/month	grab	
Oil and Grease			15	20		2/month	grab	
pH	not less than 6.0 nor greater than 9.0 standard units						2/month	grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Discharge from the pumphouse prior to mixing with any other water

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR INTERNAL OUTFALL 313 WHICH RECEIVES WASTE FROM:  
Turbine building oil/water separator drain (OWS #21)

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	estimate
Suspended Solids			30	100		1/week	grab
Oil and Grease			15	20		1/week	grab
pH	not less than 6.0 nor greater than 9.0 standard units					1/week	grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Discharge from OWS #21 prior to mixing with any other water

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR INTERNAL OUTFALL 413 WHICH RECEIVES WASTE FROM:

Bulk fuel storage oil/water separator drain (OWS #24)

- a. The permittee is authorized to discharge during the period from issued date through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	estimate
Suspended Solids			30	100		1/week	grab
Oil and Grease			15	20		1/week	grab
pH	not less than 6.0 nor greater than 9.0 standard units					1/week	grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Discharge from OWS #24 prior to mixing with any other water

1. INTERIM EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR OUTFALL 013 WHICH RECEIVES WASTE FROM:

See below

at Latitude 40° 37' 25" Longitude 80° 25' 47" Stream Code 33515 River Mile Index (RMI) 0.1

- a. The permittee is authorized to discharge during the period from issued date through three years after permit issuance.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	estimate
Total Residual Chlorine			0.5		1.25	2/month	calculated
Copper*			Monitor and Report			1/week	calculated
Chlorobenzene*			Monitor and Report			2/quarter	calculated
Temperature, °F					110°	1/week	grab (i-s)
Cyanide, tot*			Monitor and Report			2/month	calculated
<p>This discharge shall consist solely of uncontaminated storm water runoff and the sources monitored at 113, 213, 313, and 413.</p> <p>*See Condition C-25 See Conditions C-20 and C-21</p>							
pH	not less than 6.0 nor greater than 9.0 standard units					1/week	calculated

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: The permittee has stated this outfall is inaccessible. Therefore, to demonstrate compliance with these limitations and monitoring requirements, the permittee shall sample IMPs 113-413 for these parameters using a flow weighted composite (Copper, Temperature, Cyanide-Total, Chlorobenzene and pH). The calculated TRC value reported shall be based on the concentration of TRC in IMP 113 mass balanced with other contributing flows.

## 1. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR OUTFALL 013 WHICH RECEIVES WASTE FROM:

See below  
at Latitude 40° 37' 25" Longitude 80° 25' 47" Stream Code 33515 River Mile Index (RMI) 0.1

- a. The permittee is authorized to discharge during the period from three years after the permit issuance through expiration date.
- b. Based on the production data and/or anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply. Total (dissolved plus suspended fraction) is implied for each parameter unless otherwise indicated.

Discharge Parameter	DISCHARGE LIMITATIONS (gross unless otherwise indicated)					MONITORING REQUIREMENTS	
	Mass Units (lbs/day except flow)		Concentrations (mg/l unless otherwise indicated)			Measurement Frequency	Sample Type
	Average Monthly	Max. Daily	Average Monthly	Max. Daily	Instant. Max.		
Flow (mgd)	Monitor and Report					1/week	estimate
Total Residual Chlorine			0.5		1.25	1/week	grab
Copper*			0.05	0.1	0.125	1/week	24 hr. comp.
Chlorobenzene			Monitor and Report			1/week	24 hr. comp.
Cyanide, Total			Monitor and Report			1/week	24 hr. comp.
Temperature					110°	1/week	grab (i-s)
pH	not less than 6.0 nor greater than 9.0 standard units					1/week	grab

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

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: The permittee has stated this outfall is inaccessible. Therefore, to demonstrate compliance with these limitations and monitoring requirements, the permittee shall sample IMPs 113-413 for these parameters using a flow weighted composite (Copper, Temperature, Cyanide-Total, Chlorobenzene and pH). The calculated TRC value reported shall be based on the concentration of TRC in IMP 113 mass balanced with other contributing flows.

## DEFINITIONS

- a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
- b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- c. "Daily discharge" means the "discharge of a pollutant" measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.
- d. "Average" refers to the use of an arithmetic mean, unless otherwise specified in this permit.
- e. "Geometric average (mean)" means the average of a set of n sample results given by the n<sup>th</sup> root of their product.
- f. "Average monthly discharge limitation" means the highest allowable average of "daily discharge" over a calendar month, calculated as the sum of all "daily discharge" measured during a calendar month divided by the number of "daily discharge" measured during that month.
- g. "Average weekly discharge limitation" means the highest allowable average of "daily discharge" over a calendar week, calculated as the sum of all "daily discharge" measured during a calendar week divided by the number of "daily discharge" measured during that week.
- h. "Maximum daily discharge limitation" means the highest allowable "daily discharge."
- i. "Maximum any time" (or instantaneous maximum) means the concentration not to be exceeded at any time in any grab sample.
- j. "Composite sample" (for all except GC/MS volatile organic analysis) means a combination of at least 8 individual samples of at least 100 milliliters collected manually or automatically at periodic intervals during the operating hours of a facility over a 24 hour period. The composite must be flow-proportional; either the volume of each individual sample is proportional to discharge flow rates, or the sampling interval (for constant volume samples) is proportional to the flow rates over the time period used to produce the composite.

"Composite sample for GC/MS volatile organic analysis" consists of at least four (rather than eight) aliquots or grab samples collected during actual hours of discharge over a 24 hour period and need not be flow proportioned. The four samples are composited in the laboratory immediately before analysis, and only one analysis performed.

The maximum time period between individual samples used for any "composite sample" shall not exceed two hours, except that for wastes of a uniform nature the samples may be collected on a frequency of at least twice per working shift and shall be equally spaced over a 24-hour period (or over the operating day if flows are of a shorter duration).

12/11/01

- k. "Grab sample" means an individual sample of at least 100 milliliters collected at a randomly-selected time over a period not to exceed 15 minutes.
- l. "i-s" means immersion stabilization - in which a calibrated device is immersed in the wastewater until the reading is stabilized.
- m. "Daily average temperature" means the average of all temperature measurements made, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar day or during the operating day if flows are of a shorter duration.
- n. "Measured flow" means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.
- o. "At outfall XXX" means a sampling location in outfall line XXX below the last point at which wastes are added to outfall line XXX, or where otherwise specified.
- p. "Estimated flow" means any method of liquid volume measurement based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.
- q. "Non-contact cooling water" means water used to reduce temperature which does not come in direct contact with any raw material, intermediate product, waste product (other than heat), or finished product.

Such water may on occasion, as a result of corrosion, cooling system leakage or similar cooling system failures contain small amounts of process chemicals: provided, that all reasonable measures have been taken to prevent, reduce, eliminate and control to the maximum extent feasible such contamination: and provided further, that all reasonable measures have been taken that will mitigate the effects of such contamination once it has occurred.

- r. "Toxic pollutant" means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the Administrator of the United States Environmental Protection Agency, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in such organisms or their offspring.
- s. "Hazardous substance" means any substance designated under Title 40 Code of Federal Regulations Part 116 (40 CFR 116) pursuant to Section 311 of the Clean Water Act.
- t. "Publicly Owned Treatment Works" or "POTW" means a facility as defined by Section 212 of the Clean Water Act which is owned by a State or Municipality, as defined by Section 502(4) of the Clean Water Act, including any sewers that convey wastewater to such a treatment works, but not including pipes, sewers or other conveyances not connected to a facility providing treatment. The term also means the municipality as defined in Section 502(4) of the Clean Water Act which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

- u. "Industrial User" means an establishment which discharges or introduces industrial wastes into a Publicly Owned Treatment Works (POTW).
- v. "Total Dissolved Solids" means the total dissolved (filterable) solids as determined by use of the method specified in 40 CFR 136.
- w. "Storm water associated with industrial activity" means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw materials storage areas as defined at 40 CFR 122.26(b)(14).
- x. "Storm water" means storm water runoff, snow melt runoff, and surface runoff and drainage.
- y. "Best Management Practices ("BMPs")" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "Waters of the United States". BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

### 3. SELF-MONITORING, REPORTING, AND RECORDS KEEPING

#### a. Representative Sampling

- (1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

- (2) Records Retention

Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities which shall be retained for a period of at least 5 years, all records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for three (3) years from the date of the sample measurement, report, or application. The three year period shall be extended as requested by the Department or the EPA Regional Administrator.

- (3) Recording of Results

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

- (i) The exact place, date, and time of sampling or measurements;
- (ii) The person(s) who performed the sampling or measurements;
- (iii) The date(s) the analyses were performed;
- (iv) The person(s) who performed the analyses;

- (v) The analytical techniques or methods used; and the associated detection level; and
- (vi) The results of such analyses.

(4) Test Procedures

Unless otherwise specified in this permit, the test procedures for the analysis of pollutants shall be those contained in 40 CFR 136 (or in the case of sludge use or disposal, approved under 40 CFR 136 unless otherwise specified in 40 CFR 503), or alternate test procedures approved pursuant to those parts, unless other test procedures have been specified in the permit.

(5) Quality Assurance/Control

In an effort to assure accurate self-monitoring analyses results:

- (a) Permittee or its designated laboratory shall participate in the periodic scheduled quality assurance inspections conducted by the Department and EPA.
- (b) The permittee or its designated laboratory shall develop and implement a program to assure the quality and accurateness of the analyses performed to satisfy the requirements of this permit in accordance with 40 CFR 136, Appendix A

b. Reporting of Monitoring Results

- (1) The permittee shall effectively monitor the operation and efficiency of all wastewater treatment and control facilities, and the quantity and quality of the discharge(s) as specified in this permit.
- (2) Unless instructed otherwise in Part C of this permit, monitoring results obtained each month shall be summarized for that month and reported on a Discharge Monitoring Report (DMR).
- (3) The completed DMR Form shall be signed and certified either by the following applicable person (as defined in 40 CFR 122.22(a)) or by that person's duly authorized representative (as defined in 40 CFR 122.22(b)):
  - For a corporation - by a responsible corporate officer
  - For a Partnership or Sole Proprietorship - by a general partner or the proprietor, respectively
  - For a Municipality, State, Federal or other public agency - by a principle executive officer or ranking elected official.

If signed by other than the above, written notification of delegation of DMR signatory authority must be submitted to the Department. The DMR and any other reports required herein shall be submitted to the appropriate agency at the address listed in Part C of this permit and postmarked no later than the 28th day of the following month.

- (4) If the permittee monitors any pollutant, using analytical methods described in A.3.a(4) above, more frequently than the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR.

c. Reporting Requirements

(1) Planned Changes - The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- (a) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
- (b) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1).
- (c) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;

(2) Anticipated Non-Compliance

The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(3) Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(4) Twenty-Four Hour Reporting

- (a) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- (b) The following shall be included as information which must be reported within 24 hours under this paragraph.
  - (i) Any unanticipated bypass which exceeds any effluent limitation in the permit.
  - (ii) Any catastrophic event which causes the discharge to exceed effluent limitations in this permit.
  - (iii) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.

- (c) The Department may waive the written report on a case-by-case basis for reports under paragraph c (4)(a) of this section if the oral report has been received within 24 hours.

(5) Other Noncompliance

The permittee shall report all instances of noncompliance not reported under paragraphs c (3), (4) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph c (4) of this section.

Compliance with reporting requirements under A.3.c. above shall not excuse a person from immediate notification of incidents causing or threatening pollution pursuant to 25 Pa. Code, Chapter 91.33.

d. Specific Toxic Substance Notification Levels (for Manufacturing, Commercial, Mining, and Silvicultural Dischargers) The permittee shall notify the Department as soon as it knows or has reason to believe the following:

- (1) That any activity has occurred, or will occur, which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge on a routine or frequent basis will exceed the highest of the following "notification levels".
  - (a) One hundred micrograms per liter.
  - (b) Two hundred micrograms per liter for acrolein and acrylonitrile.
  - (c) Five hundred micrograms per liter for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol.
  - (d) One milligram per liter for antimony.
  - (e) Five (5) times the maximum concentration value reported for that pollutant in the permit application.
  - (f) Any other notification level established by the Department.
- (2) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
  - (a) Five hundred micrograms per liter;
  - (b) One milligram per liter for antimony;
  - (c) Ten (10) times the maximum concentration value reported for that pollutant in the permit application;
  - (d) Any other notification level established by the Department.

MANAGEMENT REQUIREMENTSa. Compliance Schedules

- (1) The permittee shall achieve compliance with the terms and conditions of this permit within the time frames specified in Part C of this permit.
- (2) The permittee shall submit reports of compliance or noncompliance with, or progress reports as applicable, any interim and final requirements contained in this permit. Such reports shall be submitted no later than 14 days following the applicable schedule date or compliance deadline.

b. Permit Modification, Termination, or Revocation and Reissuance

- (1) This permit may be modified, terminated, or revoked in whole or in part during its term for cause including, but not limited to, any of the causes specified in 25 Pa. Code, Chapter 92.
- (2) The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated non-compliance, does not stay any permit condition.
- (3) In the absence of a Departmental action to modify or revoke and reissue this permit, the permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time specified in the regulations that establish those standards or prohibitions.

c. Duty to Provide Information

- (1) The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.
- (2) The permittee shall furnish to the Department, upon request, copies of records required to be kept by this permit.
- (3) Other Information - Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information to the Department.
- (4) Where the permittee is a POTW, the permittee shall provide adequate notice to the Department of the following:
  - (a) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Sections 301 and 306 of the Clean Water Act if it were otherwise discharging those pollutants.
  - (b) Any substantial change in the volume or character of pollutants being introduced into the POTW by an Industrial User which was discharging into the POTW at the time of issuance of this permit.

(c) Adequate notice shall include information on:

- (i) the quality and quantity of the effluent introduced into the POTW, and
- (ii) any anticipated impact of the change on the quantity or quality of the effluent to be discharged from the POTW.

The submission of the above information in the POTW's Annual Wasteload Management Report, required under the provisions of 25 Pa. Code Chapter 94, will normally be considered as providing adequate notice to the Department, unless a more stringent time period is required by law, regulation, or permit condition in which case the more stringent submission date shall apply.

- (d) The identity of Industrial Users served by the POTW which are subject to pretreatment standards adopted under Section 307(b) of the Clean Water Act; the POTW shall also specify the total volume of discharge and estimated concentration of each pollutant discharged into the POTW by the Industrial Users.
- (e) The POTW shall require all Industrial Users to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Clean Water Act and any regulations adopted thereunder, and the Clean Streams Law and any regulations adopted thereunder.

d. Facilities Operation

The permittee shall at all times maintain in good working order and properly operate and maintain all facilities and systems which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls including appropriate quality assurance procedures. This provision also includes the operation of backup or auxiliary facilities or similar systems which are installed by the permittee, only when necessary to achieve compliance with the terms and conditions of this permit.

The permittee shall develop, install, and maintain Best Management Practices to control or abate the discharge of pollutants when the practices are reasonably necessary to achieve the effluent limitations and standards in this permit or to carry out the purposes and intent of the Clean Water Act, or when required to do so by the Department.

e. Adverse Impact

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

f. Bypassing

- (1) Bypassing Not Exceeding Permit Limitations - The permittee may allow a bypass to occur which does not cause effluent limitations to be violated, but only if the bypass is essential for maintenance to assure efficient operation. This type of bypassing is not subject to the reporting and notification requirements of Part A.3.c.

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

## 2. PENALTIES AND LIABILITY

### a. Violations of Permit Conditions

Any person violating Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act or any permit condition or limitation implementing such sections in a permit issued under Section 402 of the Act is subject to civil, administrative, and/or criminal penalties as set forth in 40 CFR 122.41(a)(2).

Any person or municipality who violates any provision of this permit, any rule, regulation, or order of the Department, or any condition or limitation of any permit issued pursuant to the Clean Streams Law is subject to criminal and/or civil penalties as set forth in Sections 602, 603 and 605 of the Clean Streams Law.

### b. Falsifying Information

Any person who does any of the following:

Falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit; or

Knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit (including monitoring reports or reports of compliance or non-compliance);

shall, upon conviction, be punished by a fine and/or imprisonment as set forth in 18 P.S. §4904 and 40 CFR 122.41(j)(5) and (k)(2).

c. Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance pursuant to Section 309 of the Clean Water Act or Sections 602, 603 or 605 of the Clean Streams Law.

Nothing in this permit shall be construed to preclude the institution of any legal action or to relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under the Clean Water Act and the Clean Streams Law.

d. Enforcement Proceedings

- (1) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

## 3. OTHER RESPONSIBILITIES

a. Right of Entry

Pursuant to Sections 5(b) and 305 of Pennsylvania's Clean Streams Law and 25 Pa. Code, Chapter 92, the permittee shall allow the head of the Department, the EPA Regional Administrator, and/or their authorized representatives, upon the presentation of credentials and other documents as may be required by law:

- (1) To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- (2) To have access to and copy at reasonable times any records that must be kept under the conditions of this permit;
- (3) To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit;
- (4) To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

b. Transfer of Permits

- (1) *Transfers by modification.* Except as provided in paragraph (2) of this section, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act.
- (2) *Automatic transfers.* As an alternative to transfers under paragraph (1) of this section, any NPDES permit may be automatically transferred to a new permittee if:
  - (a) The current permittee notifies the Department, at least 30 days in advance, of the proposed transfer date in paragraph (2)(b) of this section;

- (b) The notice includes the appropriate Department transfer form signed by the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
  - (c) The Department does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. A modification under this subparagraph may also be a minor modification. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph (2)(b) of this section.
- (3) In the event the Department does not approve transfer of the permit, the new owner or controller must submit a new permit application.

c. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

d. Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

## OTHER REQUIREMENTS

1. In accordance with Part A.3.b of this permit, the permittee shall submit a copy of the reports to each of the following:
  - Department of Environmental Protection  
Water Management  
400 Waterfront Drive  
Pittsburgh, PA 15222-4745
  - U.S. EPA - Region III  
NPDES Discharge Monitoring Reports (3WP31)  
1650 Arch Street  
Philadelphia, PA 19103-2029
2. For Outfall 203, effective disinfection to control disease producing organisms shall be the production of an effluent which will contain a concentration of fecal coliform organisms not greater than
  - a. 200/100 ml as a monthly geometric mean, nor greater than 1000/100 ml in more than ten percent of the samples examined during any month from May through September inclusive.
  - b. 2000/100 ml as a monthly geometric mean based on five consecutive samples collected on different days during any month from October through April inclusive.
3. For Outfall 113, effective disinfection to control disease producing organisms shall be the production of an effluent which will contain a concentration of fecal coliform organisms not greater than
  - a. 200/100 ml as a monthly geometric mean of all values for effluent samples collected during any one of the months from May through October inclusive, nor exceed 400/100 ml in more than ten percent of the samples during any one of the months.
  - b. 2000/100 ml as a monthly geometric mean of all values for effluent samples collected during any month from November through April inclusive.

4. In no case shall the arithmetic means of the effluent values of the biochemical oxygen demand (BOD-5 Day) and suspended solids discharged during a period of 30 consecutive days exceed 15 percent of respective arithmetic means of the influent values for those parameters during the same time period except as specifically authorized by the Department. .
5. There shall be no net addition of pollutants to non-contact cooling water over intake values except for heat and water conditioning additives for which complete information was submitted in the application or is required to be submitted as a condition of this permit.
6. There shall be no discharge of polychlorinated byphenyl (PCB) compounds such as those commonly used for transformer fluid.
7. In cooling tower blowdown there shall be no detectable amount of the 126 priority pollutants from chemicals added for cooling tower maintenance. The 126 priority pollutants are listed at 40 CFR 423 - Appendix A, and "no detectable amount" means that the pollutants are not detectable by the analytical methods at 40 CFR 136.
8. Neither free available chlorine nor total residual chlorine may be discharged from any generating unit for more than two hours in any one day and nor more than one generating unit in any plant may discharge free available or total residual chlorine at any one time unless the permittee can demonstrate to the Department that the units in a particular location cannot operate at or below this level of chlorination.
9. Waterborne releases of radioactive material to unrestricted areas shall conform to criteria set forth in Title 10 Code of Federal Regulations part 50 Appendix I - Numerical guides for Design Objectives and Limiting Conditions For Operation To Meet The Criterion "As Low As Is Reasonably Achievable" For Radioactive Material In Light-Water-Cooled Nuclear Reactor Effluents, as implemented through the Environmental Technical Specifications for the Facility. The facility operator shall provide the Department with copies of reports specifying the quantities of radioactive materials released to unrestricted areas in liquid/gaseous effluents. The facility operator shall provide the Department with copies of reports of the results of environmental surveillance activities and other such reports as necessary for the estimation of the dose consequential to facility operation. The above reports are to be forwarded to the following addresses:  
  
Pennsylvania Department of Environmental Protection  
Bureau of Radiation Protection and Toxicology  
PO Box 2063  
Harrisburg, PA 17120
10. The discharge may not change the temperature of the receiving stream by more than 2°F in any one hour period.

11. Usage rates of any chemical additives used at this facility that may be discharged and blow-down rates shall be controlled by the permittee to prevent any impairments to receiving water uses and/or effluent limit violations. Chemical additives include, but are not limited to, any chemicals added to water for control of corrosion, scaling, algae, slime or fouling in cooling, boiler, or process water systems. Chemical additives also include, but are not limited to agents used to aid in treatment such as water softeners, flocculants, coagulants, emulsion breakers, anti-foaming agents, dispersants, oxygen scavengers, pH stabilizers, and regenerants. Usage rates shall be limited to the minimum amount necessary to accomplish the intended purpose of the chemical addition.

Accurate and complete records of chemical usage and discharge volumes must be maintained and summarized on a monthly basis using the attached form and kept on-site by the permittee. These records must be produced upon request by the Department. The "allowable usage rate" is the rate specified in the information submitted as required below unless notified otherwise by the Department.

The information described below must be submitted within ninety (90) days of the effective date of this permit (with 2 copies) for all chemical additives currently in use at this facility, unless the specific chemical additive has already been approved in writing by the Department.

- a. Trade name of the additive.
- b. Name, address and phone number of the chemical additive manufacturer.
- c. A list of all the active and inactive ingredients.
- d. The additive usage rate (in lb/day or gal/day).
- e. The conditioned water discharge rate (MGD).
- f. The "in-system" concentration of whole product which the usage rate in item d. above will produce (mg/l). Include the product density (lb/gal) for liquids used to convert usage rate (gal/day) to concentration (mg/l).
- g. Any available data regarding in-system degradation or decomposition of the additive and any other data or information that would be helpful to the Department in completing its review.
- h. The expected concentration of the product at the final outfall.
- i. The analytical test method that could be used to verify final outfall concentrations and the associated minimum analytical detection level.

- j. A flow diagram showing the point of chemical addition and the affected outfalls.
- k. 96 hour - LC50 bioassay data on the whole product for at least one species of freshwater fish (mg/l).
- l. The MSDS and any mammalian toxicity data that is available for the whole product.

If the additive is currently in use at the facility, it may continue to be used at the maximum rate reported pursuant to item d. above unless the permittee is notified otherwise.

Whenever a change in chemical additives or an increase in usage rates is desired by the permittee, a complete written notification shall be submitted at least sixty (60) days prior to the proposed use of the chemical. This notification, at a minimum shall include the information outlined above. If the information is complete, and its use is not specifically denied, use of the proposed chemical additive is allowed 60 days after notification. The usage rate shall not exceed the maximum rate reported pursuant to item d. above.

Use of additives that contain one or more ingredients that are carcinogens are generally prohibited, and should be substituted with alternative products. If no alternatives are available, the permittee must submit written documentation with the information required above that no alternatives are available and that the carcinogen involved will be "not detectable" in the final effluent using the most sensitive analytical method available.

Based on the information submitted, the Department will determine if any effluent limitations or other restrictions are necessary to protect water quality standards for aquatic life or human health. The permittee is responsible for preventing impairments to receiving water uses independent of the Department's review of this material.

## 12. Total Residual Chlorine (TRC)

### A. Chlorine Minimization

The permittee will ensure that applied chlorine dosages, used for disinfection or other purposes, are optimized to the degree necessary such that the total residual chlorine in the discharge does not cause an adverse stream impact. In doing so, the permittee shall consider relevant factors affecting chlorine dosage, such as wastewater characteristics, mixing and contact times, desired result of chlorination, and expected impact on the receiving water body.

To reduce or eliminate the amount of chlorine discharged into water bodies, the permittee must: (1) improve/adjust process controls and (2) improve operation/maintenance practices.

B. Site-Specific Data Collection

The permittee may choose to conduct studies to collect site-specific data to determine in-stream chlorine demand and/or discharge mixing characteristics to refine the final water quality-based TRC effluent limitations. The permittee waives the right to conduct such studies if the intent is not conveyed in writing to the Department within sixty (60) days of the permit effective date (PED).

The studies must be conducted in accordance with the Department's document titled "Discharger Determination of Site-Specific Chlorine Demand". Within eighteen (18) months of the PED, the study results must be submitted to the Department for use in reevaluating the effluent limitations. The final water quality-based effluent limitations for TRC in Part A of this permit may be adjusted and superseded by the Department on the basis of the reevaluation.

13. If the continuous recorder to measure free available chlorine is inoperable, the permittee shall measure free available chlorine two times per day using grab samples at Outfall 001. The monitoring is to be conducted during chlorination. This condition is applicable only if all reasonable measures to repair or replace the recorder are being taken.
14. The permittee is authorized to use chemical additives, subject to the following conditions:
- A. No chemical addition for control of corrosion, scaling, algae, slime or fouling shall be made to the cooling or boiler water system which has a discharge covered by this permit, without prior written approval by the Department.
- B. The additives and usage rate currently approved are the following:

<u>Name</u>	<u>Usage Rate (lbs/day)</u>
Hydrazine (35%)	1-20 gallons/day/unit

The permittee is authorized to use a 30% solution of hydrogen peroxide or equivalent amounts of sodium hypochlorite at Outfalls 101 and 403 to oxidize unreacted Hydrazine in the wet layup from the Unit 1 and Unit 2 secondary systems, provided compliance with pH limitations is maintained.

15. Asiatic Clam Control

The permittee is authorized to add 7,000 pounds per day of Betz Clamtrol (CT-1) and 21,000 pounds per day of Betz DT-1 (bentonite clay) for a period not to exceed 24 hours on an as-needed basis. These are maximum useage rates and efforts are to be made to minimize the addition of these chemicals. Simultaneous multi unit dosing is prohibited.

Effluent limitations and monitoring requirements have been placed on Outfalls 001, 403 and 010. If any other outfall is affected, the CT-1 concentration is not to be detectable and the DT-1 concentration shall not exceed 35 mg/l (maximum daily). The amount of DT-1 in any discharge is to be estimated using the feed rate and discharge flow rate.

The permittee will ensure that all Clamtrol effluent is detoxified prior to discharge. If the product exhibits toxicity or impairment to the receiving stream's aquatic life, use is to be terminated immediately.

The permittee shall submit advanced (14 days) written notice of any large system dosings. Reports with the conclusions of large system dosings shall be submitted 120 days after dosing.

Clamtrol may also be used to treat small subsystems of the plant without detoxifying with clay. Quarterly reports on the amount of Clamtrol used, dates and times of product addition shall be recorded and submitted to the Department.

16. In addition to the effluent monitoring required in Part A of the permit, and in order to demonstrate that there is no net addition of pollutants to non-contact cooling water over intake values, the permittee should monitor the following outfalls and intake:

For Outfalls 001, 003 and 004 sample analysis shall include Iron, Aluminum, Phenols, and pH.

For Outfall 008 sample analysis shall include Iron, Aluminum, Manganese, Phenols, and pH.

The influent analysis shall include Iron, Aluminum, Manganese, Phenols, and pH.

If, after six months of additional influent and effluent sampling, data indicates addition of pollutants to the non-contact cooling water discharges, in addition to the sampling required by Part A of the permit, the permittee shall, within sixty days of the conclusion of the six month sampling period, submit to the Department a plan and schedule of implementation to (a) identify the source of pollution and (b) outline the measures necessary to eliminate/remove the sources from these non-contact cooling water discharges. The schedule of implementation shall require demonstration that there is no net addition and/or the sources have been eliminated within 3 years from permit issuance date.

17. The permittee shall implement Best Management Practices to minimize the amount of deionized water storage tank drainage discharged through the storm water drains via Outfall 003.

18. Storm Water Discharges

- A. Except as provided in Section B of this condition, all storm water discharges shall be composed entirely of uncontaminated storm water.

- B. The following non-storm water discharges are authorized provided the non-storm water component of the discharge is in compliance with Section C of this condition: discharges from firefighting activities, fire hydrant flushings, potable water sources including waterline flushings, irrigation drainage, lawn watering, routine external building washdown which does not use detergents or other compounds, pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used, air conditioning condensate, springs, uncontaminated ground water, and foundation or footing drains where flows are not contaminated with process materials such as solvents.
- C. This permit does not authorize any discharge (storm water or non-storm water) which contains any pollutant that may cause or contribute to an impact on aquatic life or pose a substantial hazard to human health or the environment due to its quantity or concentration.
- D. This permit does not authorize the discharge of any pollutant resulting from an on-site spill, any such occurrence is subject to Sections A.3.c or d of this permit.
- E. Preparedness, Prevention and Contingency Plans (PPC)
1. Operators of facilities shall review and revise as appropriate the PPC Plan for the site in accordance with 25 Pa. Code, Chapter 91, Section 91.34 to address storm water. The PPC Plan shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges from the facility. Each of the following shall be evaluated for the reasonable potential for contributing pollutants to runoff: loading and unloading operations, outdoor storage activities, outdoor manufacturing or processing activities, significant dust or particulate generating process, and on-site waste disposal practices. Factors to consider include the toxicity of chemicals; quantity of chemicals used, produced or discharged; the likelihood of contact with storm water; and history of significant leaks or spills of toxic or hazardous pollutants. In addition, the PPC Plan shall describe the implementation of practices which are to be used to reduce the pollutants in storm water discharges ensuring compliance with the terms and conditions of this permit.
  2. Facilities subject to SARA Title III, Section 313 reporting requirements for releases of Section 313 water priority chemicals that have occurred within the last three years shall include a description of such releases in the PPC Plan.
  3. Qualified personnel shall conduct site compliance evaluations at least once a year. A report summarizing the evaluation and any required follow-up actions shall be prepared and kept on-site. Such evaluations shall include the items in 3.a of this condition.

- a. Areas contributing to a storm water discharge shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural storm water management measures, sediment and erosion control measures, and other structural pollution prevention measures identified in the plan shall be observed to ensure that they are operating correctly.
- b. Based on the results of the inspection, the description of potential pollutant sources and pollution prevention measures and controls identified in the PPC Plan shall be revised as appropriate and shall provide for implementation of any changes to the plan in a timely manner.

#### F. Sampling Requirements

Storm water samples are required by Part C of this permit Condition C-21. They shall be collected as a grab sample during the first 30 minutes of the discharge. Analytical results of the sampling event shall be summarized on the attached Discharge Monitoring Reports (DMR) and submitted to the Department. If it is not practicable to collect samples due to adverse climatic conditions, or other circumstances beyond the permittee's control, the discharger must submit an explanation with the DMR as to exactly why the samples could not be collected.

19. In order to demonstrate that Chromium and Zinc are not added for cooling tower maintenance, the permittee shall sample (grab) Outfalls 001 and 012 twice per year in the same calendar month. The results of the sampling shall be summarized and submitted as an attachment to the next Discharge Monitoring Report Form.
20. For the pollutants listed at the outfalls below, the permittee shall survey the plant to identify the sources of the pollutants, implement measures to eliminate or reduce the pollutants, and submit a Pollutant Reduction Report to the Department by June 1, 2002. In the report the permittee shall: (a) identify the sources of the pollutants; (b) describe those measures that were tried after issuance of this permit and their effectiveness in meeting the discharge limitations and/or eliminating or reducing the pollutants; and (c) describe and submit schedules for those measures that will be put into effect.

<u>Outfall</u>	<u>Pollutants</u>
001	Phenols
003	Phenols
004	Phenols

008	Phenols
011	Phenols
012	TDS, Copper
013	Chlorobenzene, Cyanide, total

21. Storm Water Pollution Prevention Plan (SWPPP)

Within one year from the permit issuance date, the permittee shall submit a Storm Water Pollution Prevention Plan (SWPPP) for Outfalls 003, 008, 011, 012, and 013. The SWPPP shall identify Best Management Practices (BMPs), housekeeping procedures, and control structures installed or implemented to reduce the amounts of pollutants in Outfalls 003, 008, 011, 012, and 013 storm water discharges.

The storm water component of these discharges shall be monitored quarterly for Iron and Zinc.

If, after one year of sampling (a minimum of twelve sample results), the permittee can demonstrate that implementation of the SWPPP results in an uncontaminated storm water runoff discharge, the permittee may submit an NPDES permit amendment application. The permittee shall, upon application submission, (a) demonstrate that the characteristics of the storm water runoff have changed significantly, and (b) request that the permit be amended to authorize the discharge of uncontaminated storm water runoff.

*some only discharge once/year.*

22. Within 120 days of permit issuance, the permittee shall sample all internal monitoring points and report the results to the Department in accordance with the NPDES permit applications and for pollutants listed in Groups 1-5 of the application.
23. All discharges of floating materials, oil, grease, scum and substances which produce tastes, color, odors, turbidity or settle to form deposits shall be controlled at levels which will not be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life.
24. Collected screenings, slurries, sludges and other solids shall be handled and disposed of in compliance with 25 Pa. Code, Chapters 271, 273, 275, 283, and 285 (related to permits and requirements for landfilling, land application, incineration and storage of sewage sludge) Federal Regulations 40 CFR 257, and the Federal Clean Water Act and its amendments.

*34, 45 ??*

Sludges and other solids shall be handled and disposed of in compliance with the Solid Waste Management Act of 1980 (Act 97) and with 25 Pa. Code, Chapters 287, 291, and 299 (relating to residual waste generators) and 288 and 289 (relating to residual waste landfills and impoundments) and the Federal Clean Water Act and its amendments.

## 25. Toxics Reduction Evaluation (TRE)

## A. Preliminary Water Quality Based Effluent Limitations (PWQBELs)

1. Based on the discharge and stream data currently available to the Department, the PWQBELs denoted with an asterisk (\*) on page 2cc of 14 are necessary to protect the receiving stream uses designated in Chapter 93 of the Department's Rules and regulations. The Final WQBELs denoted with a double asterisk (\*\*) were developed based on sufficient discharge and stream data, and further site-specific data collection is not necessary. Therefore Sections A.2, C.2 and C.3 below do not apply to the \*\* parameters.
2. Within 60 days of the permit effective date (PED), the permittee must submit notification to the Department verifying one of the following options has been selected:

- a. The permittee accepts the Department's modeling which was the basis for the PWQBEL's and will not proceed with the optional site-specific data collection activities described in C.2 and C.3 below. In this case, the PWQBELs on page 2cc of 14 will be considered final and enforceable within three years of PED as currently shown on page 2cc of 14, and should be used as the basis for Phase II of the TRE.

or

- b. The permittee agrees to conduct the optional site-specific discharge or stream data collection described in C.2 or C.3 below that would provide the Department with data for use in verifying and refining the PWQBELs. In this case, the PWQBELs on page 2cc of 14 would not go into effect until the Department modifies the permit. The permittee will be notified of the results of the Phase I review, at which time the permittee can proceed with Phase II.

If the permittee fails to select one of these options within 60 days of the PED, option "a" is selected by default.

3. In either case, the Permittee must conduct a TRE as outlined below. Phase I of the TRE has both required and optional components. The Department will review the Phase I report and may establish final WQBELs and compliance schedules through a permit modification. Any such permit modification shall be considered a formal permitting action by the Department. The permittee shall submit progress reports to the Department as shown on the TRE schedule below outlining the progress being made to achieve the final WQBELs and/or modify the PWQBELs.

## B. TRE Submission Requirements

1. The TRE shall be developed to:
  - a. confirm and quantify the presence of the pollutants in the discharge with PWQBELs.
  - b. verify or refine the modeling data and/or assumptions used to develop the PWQBELs.
  - c. identify sources of the pollutants with final WQBELs or PWQBELs.
  - d. recommend management practices, wastewater treatment technologies, or other control techniques to reduce or eliminate these pollutants.
  
2. A copy of the Department's "Guidelines for Conducting a Toxics Reduction Evaluation" is enclosed for your use. The TRE and associated reports shall be completed and submitted in accordance with the following schedule:

<u>Action</u>	<u>Date</u>
a. submit notification specified in A.2 above	within 60 days of PED
b. submit work plan for conducting Phase I	within 90 days of PED
c. start Phase I	within 120 days of PED
d. submit complete Phase I report (3 copies)	within 18 months of PED
e. start Phase II	within 30 days of notice from the Department to proceed with Phase II
f. submit complete Phase II report	within 180 days of notice to proceed with Phase II
g. progress reports	every three months starting 120 days after PED



BABST | CALLAND | CLEMENTS | ZOMNIR  
A PROFESSIONAL CORPORATION

STACIA A. CHRISTMAN  
Attorney at Law  
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(412) 394-5432

February 1, 2000

**VIA FEDERAL EXPRESS**

(p) (717) 787-3483

William T. Phillipy, IV  
Secretary to the Board  
Environmental Hearing Board  
2<sup>nd</sup> Floor – Rachel Carson State Office Building  
400 Market Street, P.O. Box 8457  
Harrisburg, PA 17105-8457

RE: Notice of Appeal

Dear Mr. Phillipy:

Enclosed for filing with the Pennsylvania Environmental Hearing Board are one original and two copies of a NOTICE OF APPEAL filed on behalf of FirstEnergy Nuclear Operating Company. Please also find enclosed the requisite Certificate of Service. Your assistance in this matter is greatly appreciated.

Very truly yours,

  
Stacia A. Christman

SAC/\_\_\_

Enclosure

Cc: Charles Duritsa  
Diane Houtz  
(both w/enclosure)

William T. Phillipy, IV  
Secretary to the Board  
Page 2  
February 1, 2002

Bcc: Scott F. Brown  
Mary O'Reilly  
Elizabeth Shaw  
~~Joseph Venzon~~  
Doug Weber  
Donald C. Bluedorn II  
*(all w/ enclosure)*

BEFORE THE COMMONWEALTH OF PENNSYLVANIA  
ENVIRONMENTAL HEARING BOARD  
2<sup>nd</sup> Floor, Rachel Carson State Office Building  
400 Market Street  
P.O. Box 8457  
Harrisburg, PA 17105-8457

FIRSTENERGY NUCLEAR OPERATING )  
COMPANY )

Route 168 )

Shippingport, Pennsylvania 15077 )

(724) 682-5113 )

Appellant, )

vs. )

EHB Docket No. \_\_\_\_\_

COMMONWEALTH OF )  
PENNSYLVANIA, DEPARTMENT OF )  
ENVIRONMENTAL PROTECTION, )

Appellee. )

**NOTICE OF APPEAL**

Now comes Appellant FirstEnergy Nuclear Operating Company (“FENOC” or “Permittee”), by and through its counsel, Babst, Calland, Clements & Zomnir, P.C., and files this Notice of Appeal, and in support thereof states the following:

**BACKGROUND**

1. FENOC owns and operates a nuclear powered, steam electric generation station located in Shippingport, Pennsylvania (the “Facility”).

2. The Facility discharges wastewater into the Ohio River and Peggs Run, a tributary to the Ohio River, pursuant to National Pollutant Discharge Elimination System (“NPDES”) Permit No. PA0025615 issued by the Pennsylvania Department of Environmental Protection (“DEP” or “Department”).

3. On or about March 30, 2000, FENOC submitted a NPDES Permit Renewal Application (“Application”) to the Department requesting renewal of NPDES Permit No. PA0025615.

4. On or about September 27, 2000, the Department visited the Facility to discuss the Application with FENOC.

5. On November 14, 2000, the Department met with FENOC regarding the Application.

6. As a result of the November 14, 2000 meeting, among other actions, by letter dated November 22, 2000, FENOC offered to perform sampling and analysis of internal monitoring points (“IMPs”) 101, 301, 401, 103, 203, 113 and 213, and FENOC responded to the Department’s inquiry regarding levels of certain parameters in the intake water at the Facility. A true and correct copy of the November 22, 2000 letter is attached hereto as “Attachment A” and is incorporated herein by reference.

7. Also as a result of the November 14, 2000 meeting, FENOC performed storm water sampling and analysis and submitted the results thereof to the Department by letter dated January 5, 2001. A true and correct copy of the January 5, 2001 letter is attached hereto as “Attachment B” and is incorporated herein by reference.

8. The Department published the draft renewal permit in the Pennsylvania Bulletin on November 17, 2001 (31 Pa. Bull. 6293) (“Draft Permit”).

9. By letter dated December 17, 2001, FENOC submitted written comments to the Draft Permit (“Comments”). A true and correct copy of the Comments is attached hereto as “Attachment C” and is incorporated herein by reference.

10. On December 27, 2001, the Department issued the final renewal NPDES permit ("Final Permit"). A true and correct copy of the Final Permit is attached hereto as "Attachment D" and is incorporated herein by reference.

11. To date, the Final Permit has not been published in the Pennsylvania Bulletin.

12. By its terms, the Final Permit will become effective on February 1, 2002.

#### FACTUAL AND LEGAL OBJECTIONS TO DEPARTMENT'S ACTION

13. FENOC objects to and challenges the Department's action of issuing the Final Permit, which contains terms and conditions that are unreasonable, inappropriate, unlawful, arbitrary, capricious, overburdensome, and/or an abuse of the Department's discretion.

14. Specifically, FENOC objects to the following:

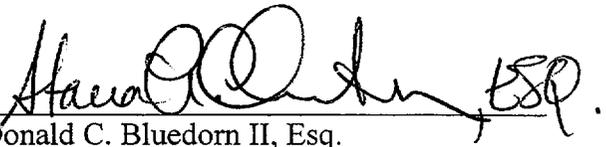
- A. With regard to Outfalls 301 and 401, the Final Permit should expressly state that the monitoring and reporting requirements for these Outfalls are applicable only during times when the discharges are routed to Outfall 010 and are not applicable during times when the discharges are routed to the Unit No. 2 water re-circulation system.
- B. The Final Permit should not require FENOC to monitor and report analytical results for Phenols, Iron and Aluminum at Outfalls 001 and 004.
- C. The Final Permit should not require FENOC to monitor and report analytical results for Iron, Aluminum, Phenols, Nitrate-nitrite, and Phosphorus at Outfall 003.
- D. The Final Permit should not require FENOC to monitor and report analytical results for Ammonia, Total Iron, Aluminum, Manganese, Phenols, Zinc, and Color at Outfall 008.

- E. The Final Permit should not impose discharge limitations for Chromium and Zinc at Outfall 012.
- F. The Final Permit should not require FENOC to monitor and report analytical results for Total Dissolved Solids (“TDS”) and Copper at Outfall 012.
- G. With regard to Outfall 213, the Final Permit should expressly state that the monitoring and reporting requirements for this Outfall are applicable only during times when the discharge is routed to Outfall 013 and are not applicable during times when the discharge is routed to the Unit No. 2 water re-circulation system.
- H. The Final Permit should not impose monitoring or discharge limitations for Copper at Outfall 013.
- I. Alternatively, the Final Permit should provide a five-year compliance schedule for FENOC to comply with the Copper limitation at Outfall 013 within which FENOC should have the express option to conduct a dissolved metals translator to determine the appropriate Total Recoverable Copper limitation for Outfall 013.
- J. The Final Permit should not impose monitoring requirements for Chlorobenzene at Outfall 013.
- K. The Final Permit should not impose monitoring requirements for Total Cyanide at Outfall 013.
- L. The Final Permit should not impose Total Residual Chlorine (“TRC”) and Temperature limitations at Outfall 013.
- M. The Final Permit should not impose weekly interim monitoring requirements at Outfall 013 for Flow, Copper, and Temperature, and the Final Permit should not impose semi-monthly monitoring requirements for Total Cyanide.

- N. The Final Permit should not impose weekly final monitoring requirements at Outfall 013 for Flow, TRC, Copper, Chlorobenzene, Total Cyanide, Temperature, and pH.
  - O. Paragraph 16 of Part C of the Final Permit should not impose monitoring, reporting, and investigation requirements at Outfalls 001, 003, 004, 008, and at the intake for parameters such as Phenols, Iron, Aluminum, Manganese, and pH.
  - P. Paragraph 20 of Part C of the Final Permit should not require FENOC to conduct a Pollution Reduction Survey and Report regarding sources of Phenols at Outfalls 001, 003, 004, 008, 011, and 013 and sources of Chlorobenzene and Total Cyanide at Outfall 013.
  - Q. Paragraph 21 of Part C of the Final Permit should not require monitoring of storm water for Iron and Zinc and should not impose the specific demonstration regarding storm water quality.
  - R. Paragraph 22 of Part C of the Final Permit should not require FENOC to conduct sampling and analysis of all internal monitoring points for Groups 1-5 of the Application.
  - S. Paragraph 25 of Part C of the Final Permit should not require FENOC to conduct a Toxics Reduction Evaluation.
20. FENOC reserves the right to amend this Notice of Appeal for any reason permissible under law, including those set forth at 25 Pa. Code § 1021.53.

WHEREFORE, Appellant respectfully requests that the Environmental Hearing Board sustain this appeal and require the Department to reissue FENOC's NPDES Permit No. PA0025615 as described herein.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Donald C. Bluedorn II, Esq.", written over a horizontal line.

Donald C. Bluedorn II, Esq.

PA Atty. I.D. No. 47726

Stacia A. Christman, Esq.

PA Atty. I.D. No. 82566

BABST, CALLAND, CLEMENTS &  
ZOMNIR

A Professional Corporation

Two Gateway Center

Pittsburgh, PA 15222

412-394-5400

Attorneys for Appellant

FirstEnergy Nuclear Operating Company

CERTIFICATE OF SERVICE

It is hereby certified that a true and correct copy of the foregoing Notice of Appeal was served by United States Postal Service, Certified Mail, Return Receipt Requested, this 1st day of February 2002 upon:

Commonwealth of Pennsylvania  
Department of Environmental Protection  
Southwest Region Office  
Charles Duritsa, Regional Director  
For Tim V. Dreier, Water Management Program Manager  
400 Waterfront Drive  
Pittsburgh, Pennsylvania 15222-4745

Pennsylvania Department of Environmental Protection  
Office of Chief Counsel  
Bureau of Litigation  
Attention: Diane Houtz  
Third Floor, 909 Elmerton Avenue  
Harrisburg, PA 17110-8200

  
Attorney for Appellant