

SPDES PERMIT FACT SHEET: Wastewater Data, Receiving Water Data, and, Permit Limit Derivation.

(see last pages of fact sheet for explanatory notes).

Date	March 30, 2009
Permit Writer	John Weidman
WQ Engineer	Dan Hayes

(1) General Permittee Data:

Permit Number	Permittee Name	Facility Name	Location (C, T, V)	County	Industrial Code	Major/Sub Basin
NY 0001325	AES Eastern Energy LP	AES Greendidge	Dresden (V)	Yates	4911	07-05

(2) Summary of Final Outfall Flow Rate(s) and Receiving Water Data:

Outfall Information					Receiving Water Information								
Outfall #	Latitude	Longitude	Flow Rate (MGD unless noted otherwise)		Name	Class	Water Index Number	For use by WQ Engineer - Critical Data					
	°, ', "	°, ', "	Average	Maximum or Design				7Q10 (MGD)	30Q10 (MGD)	Dilution/ Mixing	pH (SU)	Temp (°F)	Hardness (mg/l)
001	42,40,57	76,56,56	108	190	Keuka Lake Outlet	C(T)	Ont-66-12-P369-115	9.7	12.6	<1:1	7.5	24°C	155
01A			1500gpd	11,200gpd	Keuka Lake Outlet via 001	C(T)	Ont-66-12-P369-115	9.7	12.6	72000:1	7.5	24°C	155
002			2.1	9.2	Seneca Lake*	B(T)	Seneca Lake	-	-	10:1(S) 1:1(GW)	8.1	24°C	167
02A			5,800gpd	13,800gpd	Seneca Lake* via 002	B(T)	Seneca Lake	-	-	10:1(S) 1:1(GW)	8.1	24°C	167
02B			no discharge	no discharge	Seneca Lake* via 002	B(T)	Seneca Lake	-	-	-	8.1	24°C	167
02C			0.03	0.1	Seneca Lake* via 002	B(T)	Seneca Lake	-	-	10:1(S) 1:1(GW)	8.1	24°C	167
02D			-	2,100gpd	Seneca Lake* via 002	B(T)	Seneca Lake	-	-	10:1(S) 1:1(GW)	8.1	24°C	167
005			-	-	Seneca Lake	B(T)	Seneca Lake	-	-	10:1(S) 1:1(GW)	8.1	24°C	167
006			-	-	Seneca Lake	B(T)	Seneca Lake	-	-	10:1(S) 1:1(GW)	8.1	24°C	167

Notes:

* Receiving water may be to an “unnamed tributary” to Seneca Lake rather than to Seneca Lake (as identified in the current permit). Please confirm.

** Deleted previous Outfalls 003 (Fly Ash Pond A), 004 (Fly Ash Pond B) and 01C (Plattsburg Contaminated Drainage).

Outfall 01A dilution provided by internal mixing with 001.

Outfall 002 Dilution: 10:1 provided by lake; 1:1 assumed provided by groundwater.

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall	001
----------------	-----

Source(s) of Wastewater	Non-contact cooling water (and 01A discharge)
Existing Wastewater Treatment Facilities	none
EPA Point Source Category & Production Rate	40CFR423

Effluent Parameter (Units) <small>(concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)</small>	Existing Effluent Quality				Technology Based Effluent Limit						Water Quality Based Effluent Limit				Permit Basis (T or WQ)	WQ notes
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent		Type			
Avg/Max	95%/99%	Avg/Max	95%/99%	conc.							mass	Type		conc.	Basis	conc.
WET TESTING					NA						Recommended?		NO			
Flow Rate, units = MGD	Average	96.3	Maximum	146	190			NA	R	-	-			T		
pH (su)	Minimum	NA	Maximum	NA	NA		Range		R	6.5-8.5	NA			T		
Temperature: Summer (°F)	87/102	105/114	-	-	108*				R	70°F	70°F			T		
Temperature: Winter (°F)	62/66	67/70	-	-	86*				R	70°F	70°F			T		
Intake-Discharge Temp Difference: Summer (°F)	14.3/19.0	18.9/21.4	-	-	26				R					T		
Intake-Discharge Temp Difference: Winter (°F)	14.7/18.0	19.9/22.7	-	-	31				R					T		
Chlorine, Total Residual, mg/l	0.03/0.1	0.1/0.5	-	-	0.2				R - 40CFR423	0.005	0.005			WQ	1	

* Note 1 in current permit states: "The Water temperature at the surface of the lake shall not be raised more than three Fahrenheit degrees over that which existed before the addition of heat of artificial origin. This limitation may be exceeded in a mixing zone pursuant to 6NYCRR 704.3 in an area not to exceed 75 acres."

Water Quality Analysis notes:

1. See Hank Samide October 5, 1990 memo. TRC = 0.2 mg/l negotiated between NYSDEC and NYSEG.
- 2.
- 3.
- 4.

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall	01A
----------------	-----

Source(s) of Wastewater	Units 3 and 4 Boiler Blowdown
Existing Wastewater Treatment Facilities	none
EPA Point Source Category & Production Rate	40CFR423

Effluent Parameter (Units) <small>(concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)</small>	Existing Effluent Quality				Technology Based Effluent Limit						Water Quality Based Effluent Limit				Permit Basis (T or WQ)	WQ notes
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent		Type			
Avg/Max	95%/99%	Avg/Max	95%/99%	conc.							mass	Type		conc.	Basis	conc.
WET TESTING					NA						Recommended?		NO			
Flow Rate, units = gpd	Average	1,535	Maximum	11,223	Monitor			NA	R (BPJ)	6.5-8.5	6.0-9.0			T		
pH (su)	Minimum	NA	Maximum	NA	NA (none)		Range		R-(40CFR423)	703.2 Narr.	Tech ok			T		
Solids, Total Suspended, mg/l	5.8/28.0	11.8/16.8	-	-	50				R-(40CFR423)	703.2 Narr.	Tech ok			T		
Oil and Grease, mg/l	5/5	5/5	-	-	15				R-(40CFR423)	703.2 Narr.	Tech ok			T		

Water Quality Analysis notes:

- 1.
- 2.
- 3.
- 4.

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall 002

Source(s) of Wastewater	Bottom Ash Pond Overflow - stormwater, WWTP discharge from suboutfall 02C (treated coal pile runoff) , 02D (treated maintenance cleaning wastewater and boiler chemical cleaning wastes)
Existing Wastewater Treatment Facilities	Settling pond
EPA Point Source Category & Production Rate	-

Effluent Parameter (Units) <small>(concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)</small>	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)	WQ notes
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent, mg/l		Type		
	Avg/Max	95%/99%	Avg/Max	95%/99%							conc. ¹	mass			
WET TESTING					NA					Recommended?		YES			
Flow Rate, units = MGD	Average	2.1	Maximum	9.2	Monitor			NA	R	-				T	
pH (su)	Minimum	7.6	Maximum	8.7	6.5-8.5		Range		R	6.5-8.5	Tech ok	-		T	
Solids, Total Suspended, mg/l	6.8/22	13/17.6	-	-	50				R (BPJ)	Narr.	Tech ok	-		T	
Oil and Grease, mg/l	5.3/10	6.8/7.6	-	-	15				R (BPJ)	Narr.	Tech ok	-		T	
Aluminum, Total, mg/l	0.14/0.3	0.23/0.28	-	-	2.0				R (BPJ)	0.1 dis	Tech ok	-		T	2
Arsenic, Total, mg/l	0.021/0.05	0.03/0.033	-	-	0.05				R (WQ)	0.15(S) 0.025(GW)	0.05 (GW)	-		WQ	
Barium, Total, mg/l	0.05/0.1	0.08/0.09	-	-	2.0				R (WQ)	H(WS) 1.0	2.0	-		WQ	
Boron, Total net, mg/l	0.09/0.2	0.15/0.18	-	-	1.8				BPJ (TOGS 1.2.1)	10.0(S) 1.0(GW)	2.0 (GW)	-		WQ	
Boron, Dissolved net, mg/l	0.08/0.1	0.11/0.13	-	-	0.25				R (BPJ)	-	NA	-		T	
Copper, Total, mg/l	0.01/0.01	0.01/0.01	-	-	0.5				BPJ (TOGS 1.2.1)	0.06 (S) 0.20 (GW)	0.35(S)	-		WQ	
Flouride, Total, mg/l	0.15/0.4	0.27/0.33	-	-	3.0				R (WQ)	3.4 (S) 1.5(GW)	3.0(GW)	-		WQ	
Iron, Total, mg/l	0.2/1.0	0.42/0.53	-	-	3.0				R(BPJ)	1.0 (GW)	2.0(GW)	-		WQ	
Iron, Dissolved, mg/l	0.04/0.1	0.09/0.11	-	-	0.6				R (BPJ)	-	NA	-		T	
Magnesium, Dissolved	12.8/25	16.6/18.6	-	-	60				R (BPJ)	H(WS) 35.0	70.0(GW)	-		T	
Manganese, Dissolved, mg/l	0.01/0.1	0.04/0.05	-	-	0.6				R (WQ)	H(WS) 0.30	0.6(GW)	-		WQ	

Effluent Parameter (Units) <small>(concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)</small>	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)	WQ notes
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent, mg/l		Type		
	Avg/Max	95%/99%	Avg/Max	95%/99%							conc. ¹	mass			
Nickel, Total, mg/l	0.02/0.02	0.02/0.02	-	-	1.0				R (BPJ)	0.18(S) 0.1(GW)	0.2(GW)	-		WQ	
Zinc, Total, mg/l	0.01/0.01	0.1/0.1	-	-	5.0				R (BPJ)	0.54(S) 2.0(GW)	3.2(S)	-		WQ	
Sulfate, Total (as S), mg/l	24.8/74	42/54	-	-	500				R (WQ)	H(S) 250.0	500(GW)	-		WQ	
Chlorine, Total Residual, mg/l	0.07/0.1	0.13/0.16	-	-	0.5				R (BPJ)	0.005	Tech ok	-		T	3
Mercury, ng/l	8.1	-	-	-	50				WQ/DL-Quarterly	0.7	0.7	-		WQ	4

Water Quality Analysis notes:

1. More stringent limit, surface (S) or groundwater (GW), applied.
2. Tech ok TOGS 1.3.1E for receiving waters w/ pH>6.5.
3. Ref memo 8/31/93
4. Apply Hg permit writing procedures

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall	02B
----------------	------------

Source(s) of Wastewater	Boiler Cleaning Final Rinse
Existing Wastewater Treatment Facilities	none
EPA Point Source Category & Production Rate	CFR423

Effluent Parameter (Units) <small>(concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)</small>	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)	WQ notes
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent		Type		
	Avg/Max	95%/99%	Avg/Max	95%/99%							conc.	mass			
WET TESTING					NA					Recommended?		NO			
Flow Rate, units = mgd	Average	*	Maximum	*	Monitor			NA	R	-	-			T	
pH (su)	Minimum	-	Maximum	-	6-9		Range		R (CFR423)	6.5-8.5	Tech ok			T	
Oil and Grease, mg/l	-	-			15				R (CFR423)	Narr	Tech ok			T	
Copper, Total, mg/l	-	-			1.0				R (CFR423)	0.06(S) 0.2(GW)	0.35(S)			WQ	
Iron, Total, mg/l	-	-			1.0				R (CFR423)	1.0	2.0(GW)			T	
Solids, Total Suspended, mg/l	-	-			100				R (CFR423)	Narr.	Tech ok			T	

* No discharges were reported on DMRs for the period 6/30/2005 - 9/30/2008

Water Quality Analysis notes:

- 1.
- 2.
- 3.
- 4.

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall 02C

Source(s) of Wastewater	Treated Coal Pile Runoff - batch discharged to Ash Pond.
Existing Wastewater Treatment Facilities	equalization, precipitation, neutralization, dewatering
EPA Point Source Category & Production Rate	40CFR423

Effluent Parameter (Units) <small>(concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)</small>	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)	WQ notes
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent		Type		
	Avg/Max	95%/99%	Avg/Max	95%/99%							conc.	mass			
WET TESTING					NA					Recommended?		YES/NO			
Flow Rate, units = MGD	Average	0.03	Maximum	0.1	Monitor			NA	R(BPJ)	-	-			T	
pH (su)	Minimum	7.6	Maximum	9.0	6-9		Range		R(BPJ)	6.5-8.5	Tech ok			T	
Solids, Total Suspended, mg/l	7.9/71	15.8/45			30 avg 50 max				R(BPJ)	Narr	Tech ok			T	
Oil and Grease, mg/l	5.3/13	7.1/8.1			15				R(BPJ)	Narr	Tech ok			T	
Aluminum, Total, mg/l	0.88/3.0	1.6/2.4			2.0 avg 4.0 max				R(BPJ)	0.1 dissolved	Tech ok			T	
Arsenic, Total, mg/l	0.025/0.2	0.07/0.09			0.05 avg 0.1 max				R(BPJ)	0.15(S) 0.025(GW)	0.05 (GW)			WQ	
Chromium, Total, mg/l	0.01/0.01	0.01/0.01			0.5 1.0				R(BPJ)	0.56(S) 0.05(GW)	0.1(GW)			WQ	
Copper, Total, mg/l	0.01/0.1	0.03/0.06			0.4 avg 0.8 max		DM		R(TOGS 1.2.1)	0.06(S) 0.20(GW)	0.35(S)			WQ	
Iron, Total, mg/l	0.29/2.0	0.7/1.8			2.0 avg 4.0 max				R(BPJ)	1.0	2.0(GW)			WQ	
Nickel, Total, mg/l	0.02/0.1	0.05/0.06			1.0 2.0				R(BPJ)	0.18(S) 0.10(GW)	0.2(GW)			WQ	
Zinc, Total, mg/l	0.01/0.04	0.02/0.03			0.5 1.0				R(BPJ)	0.54(S) 2.0(GW)	3.2(S)			T	
Selenium, Total, mg/l	0.017	-			None				BPJ	0.005(S) dis 0.01(GW)	0.02(GW)			WQ	

Effluent Parameter (Units) <small>(concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)</small>	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)	WQ notes
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent		Type		
	Avg/Max	95%/99%	Avg/Max	95%/99%							conc.	mass			
Barium, Total, mg/l	0.052	-			None				BPJ	1.0 H(W.S)	2.0(GW)			T	
Boron, Total, mg/l	0.34	-			None				BPJ	10.0(S) 1.0(GW)	2.0(GW)			T	
Manganese, Total, mg/l	1.25	-			1.0 avg 2.0 max				TOGS 1.2.1	0.30 H(W.S)	0.6(GW)			WQ	
Ammonia, Total, mg/l	10.8	-			None				BPJ	0.59	NA			T	
Flouride, Total, mg/l	0.45	-			None				BPJ	3.4(S) 1.5(GW)	3.0(GW)			T	
Mercury, Total, ng/l	-	-			50ng/l				WQ/DL - Quarterly	0.7	0.7*			WQ	

*apply Hg permit writing procedures.

Water Quality Analysis notes:

- 1.
- 2.
- 3.
- 4.

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall	02D*
----------------	------

Source(s) of Wastewater	Treated Maintenance Cleaning Wastewater - batch discharged via 02C to Ash Pond
Existing Wastewater Treatment Facilities	equalization, precipitation, neutralization, dewatering
EPA Point Source Category & Production Rate	40CFR423

Effluent Parameter (Units) <small>(concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)</small>	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)	WQ notes
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent		Type		
	Avg/Max	95%/99%	Avg/Max	95%/99%							conc.	mass			
WET TESTING					NA					Recommended?		NO			
Flow Rate, units = MGD	Average	**	Maximum	**	Monitor			NA	R (BPJ)	-				T	
pH (su)	Minimum	-	Maximum	-	6-9		Range		R (40CFR423)	6.5-8.5	Tech. ok			T	
Solids, Total Suspended, mg/l	-	-			30 avg				R (40CFR423)	Narr.	Tech. ok			T	
Oil and Grease, mg/l	-	-			20				R (40CFR423)	Narr.	Tech. ok			T	
Copper, Total, mg/l	-	-			1.0 max				R (40CFR423)	0.06(S) 0.2(GW)	0.35(S)			WQ	
Iron, Total, mg/l	-	-			1.0 max				R (40CFR423)	1.0	Tech. ok			T	

* Facility treats and batch discharges this wastestream thru outfall 02C. However, for reporting purposes on DMRs, it is listed as Outfall 02D.

** * No discharges were reported on DMRs for the period 6/30/2005 - 9/30/2008

Water Quality Analysis notes:

- 1.
- 2.
- 3.
- 4.

(3) Individual Outfall Data Summaries and Permit Limit Development:

Outfall 005

Source(s) of Wastewater	Stormwater and Groundwater Discharge
Existing Wastewater Treatment Facilities	none
EPA Point Source Category & Production Rate	none

Effluent Parameter (Units) <small>(concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)</small>	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)	WQ notes
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent		Type		
Avg/Max	95%/99%	Avg/Max	95%/99%	conc.							mass	Type		conc.	Basis
WET TESTING					NA					Recommended?		NO			
Flow Rate, units = GPD	Average	1780	Maximum	-	No Monitoring*			NA	BPJ					T	

Outfall 006

Source(s) of Wastewater	Stormwater
Existing Wastewater Treatment Facilities	none
EPA Point Source Category & Production Rate	none

Effluent Parameter (Units) <small>(concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)</small>	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)	WQ notes
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent		Type		
Avg/Max	95%/99%	Avg/Max	95%/99%	conc.							mass	Type		conc.	Basis
WET TESTING					NA					Recommended?		NO			
Flow Rate, units = GPD	Average	103,000	Maximum		No Monitoring*			NA	BPJ					T	

Notes:

* Permit will include STHI monitoring for outfalls 005 and 006 which will require sampling for 126 priority pollutants. EPA Method 1631 is required for mercury sampling.

(4) Additional Issues:

Water Quality Based Effluent Limits (WQBELs):

New York State water quality regulations (for surface waters) are implemented by applying the Total Maximum Daily Load (TMDL) process to watersheds, drainage basins or waterbody segments on a pollutant specific basis. The analysis determines if there is a “reasonable potential” that the discharge of a pollutant will result in exceedance of ambient water quality criteria (AWQC). If there is a reasonable potential for an exceedance of AWQC, the TMDL is used to establish waste load allocations for point sources and load allocations for nonpoint sources of the pollutant. For point sources, the waste load allocations are translated to WQBELs for inclusion in SPDES permits. Reference - TOGS 1.3.1, USEPA Guidance for Water Quality - Based Decisions: The TMDL Process, 40 CFR 130 and the Clean Water Act 303(d).

The following table has been completed only for those parameters for which WQBELs were determined to be necessary.

Parameter					
Amount to be Allocated (TMDL)					
Number of Sources					
Allocation to this Permit					

Statistics:

The statistical methods utilized are consistent with TOGS 1.2.1 and the USEPA, Office of Water, Technical Support Document For Water Quality-based Toxics Control, March 1991, Appendix E. Generally based on lognormal analysis. If other data distributions such as normal or delta-lognormal are utilized it is noted below. Statistical calculations were not performed for parameters with insufficient data. Generally, ten or more data points are needed to calculate percentiles. Two or more data points are necessary to calculate an average and a maximum. Non-detects were included in the statistical calculations at the reported detection limit unless otherwise noted.

Monitoring data collected during the following time period was used to calculate statistics: **DMRs for the period 6/30/2005 - 9/30/2008**

This data was taken from the following source(s): **DMRs for the period 6/30/2005 - 9/30/2008**

Internal Waste Stream Monitoring:

40 CFR 122.45(h)(1) allows the permit authority to monitor and limit parameters at internal locations when controlling them solely at the final outfall is impractical or infeasible. Dilution of a process wastewater with large volumes of cooling water and/or storm water is one example of when the use of an internal monitoring point is justified. Monitoring at the following internal outfalls is necessary for the reasons specified: **01A, 02A, 02B, 02C, 02D**

WET Testing:

Testing is required, in accordance with TOGS 1.3.2, for the following reasons: **For Outfall 002 only: Possible complex synergistic/additive effects.**

Indicator Parameters:

In accordance with 40 CFR 122.44(e)(2), The permit writer has determined that effective treatment and/or acceptable performance for specific parameters is indicated by one or more other parameters which are limited and therefore a decision has been made to not limit or monitor these specific parameters. This judgement is based on the similarity between this and the regulated parameter(s) and historical data where available. The use of indicator parameters is not appropriate for WQBELs. Following is a list of the affected parameters: na

Schedule of Compliance: - see Schedule of Compliance contained in draft SPDES permit (page 24 of permit).

(5) Summary of Proposed Permit Changes:

Compared to the issued permit this draft is intended to replace, the following significant changes are proposed -

- Outfall 001:** - Replaced Note 1 with Thermal Discharge Study Requirement (see Additional Requirements pages of permit).
- Outfall 01A:** - Lowered limit for Oil & Grease from 20 mg/l to 15 mg/l based on best professional judgement (BPJ) for this parameter.
- Outfall 002:**
- Replaced the current Boron (total net) limit of 100mg/l with a Water Quality Based Effluent Limit (WQBEL) for Total Boron limit of 2.0 mg/l.
 - Replaced the Total Copper limit of 1 mg/l with a WQBEL of 0.35 mg/l.
 - Replaced the Total Iron limit of 3 mg/l with a WQBEL of 2.0 mg/l. Deleted limit for Dissolved Iron.
 - Replaced the Dissolved Manganese limit of 0.6 mg/l with a WQBEL of 0.6 mg/l for Total Manganese.
 - Replaced the Total Nickel limit of 2 mg/l with a WQBEL of 0.2 mg/l.
 - Replaced the Total Zinc limit of 5 mg/l with a WQBEL of 3.2 mg/l.
 - Added a WQBEL of 50 ng/l for Total Mercury. Also included a Mercury Minimization Program.
 - Replaced current Footnote 'd' with a limit of 1.0 mg/l for Iron and Manganese.
- Outfall 02A:** - Replaced current limit of 20mg/l for Oil & Grease with a new limit of 15mg/l based on BPJ.
- Outfall 02B:** - Replaced the current Total Copper limit of 1.0 mg/l with a WQBEL of 0.35 mg/l.
- Outfall 02C (Treated Coal Pile Runoff):**
- Reduced the Total Arsenic limit from 0.05 mg/l average and 0.1 mg/l max to a daily max limit of 0.05 mg/l (WQBEL).
 - Reduced the Total Chromium limit from 0.5 mg/l average and 1 mg/l max to a daily max limit of 0.1 mg/l (WQBEL).
 - Reduced the Total Copper limit from 0.4 mg/l average and 0.8 mg/l max to a daily max limit of 0.35 mg/l (WQBEL).
 - Reduced the Total Iron limit from 2 mg/l average and 4 mg/l max to a daily max limit of 2.0 mg/l (WQBEL).
 - Reduced the Total Nickel limit from 1 mg/l average and 2 mg/l max to a daily max limit of 0.2 mg/l (WQBEL).
 - Added a new daily maximum WQBEL for Total Manganese of 0.6 mg/l (WQBEL).
 - Added a new daily max WQBEL for Total Selenium of 0.02 mg/l (WQBEL).
 - Added a new daily max WQBEL for Total Mercury of 50 ng/l (WQBEL).
- Outfall 02D (Maintenance Cleaning Wastewater & Boiler Chemical Wastes):**
- Reduced the Total Copper limit from 1 mg/l average and 1 mg/l max to a daily max limit of 0.35 mg/l (WQBEL).
 - Lowered the current limit for Oil & Grease from 20 mg/l to 15 mg/l based on best professional judgement (BPJ) for this parameter.
- Other Outfalls:**
- As requested by applicant deleted Plattsburg Contaminated Drainage discharges and associated limits from permit.
 - As requested on application, deleted Outfalls 01B (Sanitary Wastes), 003 (Fly Ash Pond A) and 004 (Fly Ash Pond B) from permit.
- Other changes:**
- Added new Biological Monitoring Requirements (starting on page 12 of permit). Biological Fact Sheet is attached.
 - Added Thermal Discharge Study requirement for Outfall 001 (Additional Requirement 8 on page 10 of permit).
 - Added Toxicity Testing Requirements for Outfall 002 (once every 5 years) due to possible complex synergistic/additive effects as per TOGS 1.3.2 (page 15).
 - Added Mercury Minimization Program requirements (page 21 of permit).
 - Added standard Best Management Practices requirements (page 18 of permit).
 - Included Short Term Monitoring Program for Outfalls 005, 006 and 02D (see Schedule of Compliance on page 24 of permit) and Bottom Ash Sluice Systems for Units 3 & 4.
 - Added Schedule of Compliance page to permit (page 24 of permit).
 - Updated list of Water Treatment Chemicals must be provided to the Department by EDP + 6 months.
 - Added standard Discharge Notification Act Requirements (page 22 of permit)

(6) Explanatory Notes:

Please note that some of these terms are not applicable to every fact sheet.

AL -	Action level calculated in accordance with TOGS 1.2.1 (non POTWs) and TOGS 1.3.3 (POTWs). See the permit for a complete definition.
AVG or Av -	Average. The arithmetic mean.
AWQC -	Ambient water quality criteria for the receiving water. The applicable standard, guidance value or estimated value in accordance with TOGS 1.1.1, TOGS 1.3.1 and 6NYCRR 700-705.
Basis -	The technical analysis, internal guidance, regulation and/or law upon which an effluent limit or monitoring requirement is proposed.
BAT -	Best Available Technology Economically Achievable in accordance with TOGS 1.2.1 (non POTWs) and TOGS 1.3.3 (POTWs), 40 CFR 125, 6NYCRR 750, ECL 17-0811 and the Clean Water Act.
BCT -	Best Conventional Control Technology in accordance with TOGS 1.3.4, 40 CFR 125, 6NYCRR 750, ECL 17-0811 and the Clean Water Act.
BPJ -	Best Professional Judgement in accordance with TOGS 1.2.1 (non POTWs) and TOGS 1.3.3 (POTWs), 40 CFR 122 and 125, 6NYCRR 750, ECL 17-0811 and the Clean Water Act.
BPT -	Best Practicable Control Technology in accordance with TOGS 1.2.1, 40 CFR 125, 6NYCRR 750, ECL 17-0811 and the Clean Water Act.
Conc. -	Concentration in units of mg/l, ug/l or ng/l.
Design Flow -	Treatment system design capacity as noted in an approved engineering report.
Final -	Final permit period requirements. A level of performance that must be achieved according to a schedule specified in either the permit or a consent order.
g/d -	Grams per day discharged.
(GW) -	Groundwater effluent limitation developed in accordance with TOGS 1.2.1 (nonPOTWs), TOGS 1.3.3 (POTWs), TOGS 1.1.2 and 6NYCRR 703.
Ind -	Indicated parameter. See definition in section (4).
Interim -	Interim permit period requirements. A level of performance that must be achieved while improvements are being implemented in order to achieve final permit period requirements.
lbs/d or #/d -	Pounds per day discharged.
Mass -	Mass discharge in units of #/d or g/d discharge.
Max or Mx -	The maximum value.
MGD -	Million gallons per day.
mg/l -	Milligrams per liter.
Dilution/Mixing -	Used to determine dilution available in receiving waters. For lakes, estuaries and slowly flowing rivers and streams, mixing zone dilution is generally assumed to be 10:1 unless data is available to indicate otherwise.
Model -	Calibrated water quality model applied in accordance with TOGS 1.3.1.
Mon -	Monitor only.
NA -	The characteristics of this parameter and the reported discharge levels do not justify routine monitoring or a limit. Also indicates "not applicable".
ng/l -	Nanograms per liter. 1000 ng/l = 1 ug/l = 0.001 mg/l.
PQL -	The DEC published or site specific practical quantitation limit; the concentration in wastewater at which analytical results are thought to be accurate to within approximately plus or minus thirty percent.
R -	"Rolled Over", i.e. the specific requirement in this permit is equivalent to the previous permit. R(T) is roll over of a technology based requirement and R(WQ) is roll over of a WQBEL.
Range -	The discharge is limited to a range of effluent values, e.g. a pH limit of (6.0-9.0) SU.
RREL -	EPA's Risk Reduction Engineering Laboratory treatability database.
(S)	Surface Water
T -	Technology based effluent limit or requirement.
TOGS -	Technical and Operational Guidance Series. Internal guidance to permit drafters used by the NYSDEC Division of Water to aid in permit drafting. Copies of these guidance documents may be obtained from the internet at http://www.dec.state.ny.us/website/dow/togs/index.htm .
ug/l -	Micrograms per liter. 1000 ug/l = 1 mg/l.
WET-	Whole Effluent Toxicity (testing). See TOGS 1.3.2.
WQ -	Water quality.
WQBEL -	Water quality-based effluent limit. See information in section (4).
7Q10 -	The minimum average 7 consecutive day flow at a recurrence interval of 10 years. Applicable to evaluations involving aquatic health based AWQC.
30Q10 -	The minimum average 30 consecutive day flow at a recurrence interval of 10 years. Applicable to evaluations involving human health based AWQC.
95% -	The 95th percent confidence interval for the historical effluent data used to draft the permit.
99% -	The 99th percent confidence interval for the historical effluent data used to draft the permit.
133 -	Secondary treatment requirements in accordance with TOGS 1.3.3, 40 CFR 133, 6NYCRR 750, ECL 17-0509 and the Clean Water Act.
+ -	These parameters represent scans. Detections vary among the compounds which are included in the scans. The listed value represent the maximum detected level of any compound in the scan.