

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

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

Date	April 14, 2009
Permit Writer	John Weidman
WQ Engineer	Charles St. Lucia

(1) General Permittee Data:

Permit Number	Permittee Name	Facility Name	Location (C, T, V)	County	Industrial Code	Major/Sub Basin
000 1333	AES Cayuga, LLC	AES Cayuga, LLC	Lansing (T)	Tompkins	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)		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			240	245	Cayuga Lake	AA(T)	O-66-12-P296	N/A	N/A	10:1**	8.1	24°C	167
01A			-	3500 gpd	Cayuga Lake (via 001)	AA(T)	O-66-12-P296	N/A	N/A	68570:1*	8.1	24°C	167
01B			3.8	9.3	Cayuga Lake (via 001)	AA(T)	O-66-12-P296	N/A	N/A	62:1*	8.1	24°C	167
01C			0.06	0.2	Cayuga Lake (via 001)	AA(T)	O-66-12-P296	N/A	N/A	4000:1*	8.1	24°C	167
01D			0.06	0.2	Cayuga Lake (via 001)	AA(T)	O-66-12-P296	N/A	N/A	4000:1*	8.1	24°C	167
01F			36,000 gpd	65,000 gpd	Cayuga Lake (via 001)	AA(T)	O-66-12-P296	N/A	N/A	NA	8.1	24°C	167
002			2500 gpd	2500 gpd	Cayuga Lake	AA(T)	O-66-12-P296	N/A	N/A	10:1	8.1	24°C	167
003			NA	NA	Cayuga Lake	AA(T)	O-66-12-P296	N/A	N/A	10:1	8.1	24°C	167
005			0.022	0.034	Cayuga Lake	AA(T)	O-66-12-P296	N/A	N/A	10:1	8.1	24°C	167
009			0.126	0.761	Cayuga Lake	AA(T)	O-66-12-P296	N/A	N/A	10:1	8.1	24°C	167
004			NA	NA	Cayuga Lake	AA(T)	O-66-12-P296	N/A	N/A	10:1	8.1	24°C	167
010, 011, 012			NA	NA	Cayuga Lake	AA(T)	O-66-12-P296	N/A	N/A	10:1	8.1	24°C	167
006, 007, 008			NA	NA	Cayuga Lake	AA(T)	O-66-12-P296	N/A	N/A	10:1	8.1	24°C	167
013			0.31	0.34	Cayuga Lake	AA(T)	O-66-12-P296	N/A	N/A	10:1	8.1	24°C	167
014			-	NA	Cayuga Lake	AA(T)	O-66-12-P296	N/A	N/A	10:1	8.1	24°C	167

NA: Not available and was not provided with the NY-2C Application

See attached table for description of each outfall.

*Internal dilution provided by Outfall 001.

**10:1 dilution pending dilution study

OUTFALL SUMMARY

<u>Outfall Number</u>	<u>Source(s) of Wastewater</u>	<u>Maximum Flow Rate</u>
001	Condenser Cooling Water	245 MGD
01A	Sanitary Wastewater	3500 gpd
01B	Process Water Reclamation Facility (including flow from Brine Concentrator).	9.3 MGD
01C	Coal Pile Runoff, Maintenance Cleaning Wastewater & Boiler Chemical Cleaning Wastes	0.2 MGD
01D	Non-Contact Cooling Water	NA
01F	FGD Wastewater Treatment Effluent	65,000 gpd
002	Emergency Overflow for API	2500 gpd
003	Lift Station Emergency Overflow	na
005	Stormwater Flow	0.034 MGD
009	Stormwater Flow	NA
004	Stormwater - Uncontaminated	NA
010, 011, 012	Stormwater - Uncontaminated	NA
006, 007, 008	Stormwater Flow	NA
013	Stormwater from Ash Disposal Site Sedimentation Pond (Direct Discharge to Cayuga Lake)	0.34 MGD
014	Emergency Overflow	NA

*there is no Outfall 01E, left blank intentionally.

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

Outfall 001

Source(s) of Wastewater	Condenser Cooling Water
Existing Wastewater Treatment Facilities	
EPA Point Source Category & Production Rate	40 CFR Part 423

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)
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent		Type		
	Avg/Max	95%/99%	Avg/Max	95%/99%							conc.	mass		mass	
WET TESTING					NA						Recommended?		NO		
Flow Rate, units = MGD	Average	240	Maximum	243	245			NA	R(BPJ)	-	-			T	
Temperature	24.1°C/ 36.1°C				36.7°C				R(704)	70°F	*(see footnote)			T	
Discharge - Intake Temperature Difference	9.6°C/ 12.0°C				10°C				R(704)		*(see footnote)			T	
Total Residual Chlorine	NA				0.2 mg/l				R(40CFR 423)	0.005 mg/l	0.05**			WQ/ DL	

* Interim WQ (based on detective level) limit pending Thermal analysis and dilution study.

**Total Residual Chlorine interim limit based on 10:1 dilution.

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

Outfall	01A - Sanitary Discharge - Intermittent
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Type of Treatment:	Septic tank, chlorination
and	
Sludge Handling:	

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)
	concentration		mass		conc.	mass	Type	Basis	AWQC conc.	Effluent		Type	
	Avg	Max	Avg	Max						conc.	conc.	mass	Type
Whole Effluent Toxicity (WET) TESTING									Recommended?	NO			
Flow Rate, units = MGD	Average	1923	Maximum	2766	3500			R (BPJ, TOGS 1.3.3)	-	-			T
pH (SU)	Minimum	7.5	Maximum	8.3	6-9		Range	R (40 CFR 102(e))	6.5-8.5				T
BOD ₅ (30 day), mg/l, lbs/day	6.0 mg/l	7.0 mg/l			30 mg/l			R (40 CFR 133.102)	DO std				T
BOD ₅ (7 day), mg/l, lbs/day	6.0	7.0			45			R (40 CFR 133.102)	DO std				T
TSS (30 day), mg/l, lbs/day	4.33	7.0			30			R (40 CFR 133.102)	Narr.				T
TSS (7 day), mg/l, lbs/day	4.33	7.0			45			R (40 CFR 133.102)	Narr.				T
Solids, Settleable, ml/l	0.1	0.1			0.3			R (TOGS 1.3.3)	Narr.				T
Effluent Disinfection: <input checked="" type="checkbox"/> All Year <input type="checkbox"/> Seasonal from:													
Fecal Coliform(30 day/7 day), #/100 ml	-	-			200/400		GM	R (6NYCRR 703.4)	200/400				T
Chlorine, Total Residual, mg/l	0.87	4.0			2.0			TOGS 1.3.3	0.005	not app.(1)			T

1. Per June 1991 interim guidance no WQL will be given for dilutions greater than 80:1.

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

Outfall	01B
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Source(s) of Wastewater	Process Water Reclamation Facility (Including Flow from Brine Concentrator)
Existing Wastewater Treatment Facilities	Sedimentation (oil skimming), Flocculation (Alum Addition), Sand Filtration, Carbon (in Sand Filter)
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)
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent		Type		
	Avg/Max	95%/99%	Avg/Max	95%/99%							conc.	mass		mass	
WET TESTING					NA						Recommended?		NO		
Flow Rate, units = MGD	Average	3.8	Maximum	9.3	Monitor			NA	R (BPJ)	-	-			T	
pH (su)	Minimum	7.2	Maximum	10.1	6-9		Range		R (BPJ)	6.5-8.5	6.0-9.0			T	
Oil and Grease	18.5/235	-			15 mg/l				R (BPJ)	Narr	Tech ok			T	
Aluminum, Total	0.27/0.5 0.36/1.0	0.43/- 0.69/-			2 mg/l avg 4 mg/l max				R (BPJ)	0.1mg/l ionic	Tech ok*			T	
Total Residual Chlorine	-	-			2.0				R (BPJ)	0.005	Tech ok			T	
Chlorides (Daily max)	295/478				1500 mg/l				R	250	15,789			T	
TSS (average)	4.75/10.0	6.9/-			30 mg/l				R (BPJ)	Narr.	Tech ok			T	
TSS (max)	6.97/43.0	6.9			100 mg/l				R (BPJ)	Narr.	Tech ok			T	
Ammonia	0.5/0.5				2.5mg/l				R (WQ - AL)	0.6	TBEL OK			T	

*per TOGS 1.3.1E

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

Outfall	01C
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Source(s) of Wastewater	Coal Pile Runoff (Batch)
Existing Wastewater Treatment Facilities	Chemical Precipitation (lime addition), Flocculation, Pressure Filtration
EPA Point Source Category & Production Rate	40 CFR Part 423

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)
	concentration		mass		conc. (mg/l)	mass	Type	PQL conc.	Basis	AWQC conc. (mg/l)	Effluent			
	Avg/Max (mg/l)	95%/99%	Avg/Max	95%/99%							conc. (mg/l)	mass	Type	
WET TESTING					NA					Recommended?	NO			
Flow Rate, units = MGD	Average	0.06	Maximum	0.2	MONITOR			NA	R (BPI)	-	-			T
pH (su)	Minimum	6.6	Maximum	8.0	6-9			Range	R (T)	6.5-8.5	6.0-9.0			T
Aluminum, Total	avg max	0.55/2.0 0.73/2.0			2.0 mg/l avg 4.0 mg/l max				R (TOGS 1.2.1)	0.1mg/l ionic	Tech ok*			T
Arsenic	avg max	0.02/0.02 0.02/0.02			0.05 0.1				R (TOGS 1.2.1)	0.05	200			T
Chromium	avg max	0.01/0.01 0.01/0.01			0.5 1.0				R (TOGS 1.2.1)	0.05	200			T
Copper	avg max	0.01/0.01 0.01/0.01			0.4 0.8				R (TOGS 1.2.1)	0.025	100			T
Iron	avg max	0.05/2.0 1.0/4.0			2.0 4.0				R (TOGS 1.2.1)	1.0	4000			T
Lead	avg max	0.02/0.02 0.02/0.02			0.2 0.4				R	0.016	64			T
Mercury		61.3 ng/l			50 ng/l				WQ/DL	0.7ng/l	0.7ng/l			WQ
Nickel	avg max	0.04/0.1 0.06/0.2			1.0 2.0				R (TOGS 1.2.1)	0.10	400			T
Zinc	avg max	0.03/0.1 0.04/0.1			0.5 1.0				R (TOGS 1.2.1)	0.26	1040			T
Boron		1.43			1.8				TOGS 1.2.1					T
Molybdenum		0.013			0.125 mg/l				R (AL)	No std	N/A			T

*per TOGS 1.3.1E

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

Outfall	01C
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Source(s) of Wastewater	Maintenance Cleaning Wastewater and Boiler Chemical Cleaning Wastes (Batch)
Existing Wastewater Treatment Facilities	Chemical Precipitation (Lime Addition), Flocculation, Pressure Filtration
EPA Point Source Category & Production Rate	40 CFR Part 423

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)
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc. (mg/l)	Effluent conc. (mg/l)		mass	
	Avg/Max (mg/l)	95%/99%	Avg/Max	95%/99%	(mg/l)									
WET TESTING					NA					Recommended?	NO			
Flow Rate, units = MGD	Average	0.06	Maximum	0.2	MONITOR			NA	R (BPJ)	-	-			T
pH (su)	Minimum	6.6	Maximum	8.0	6-9			Range	R (40CFR423)	6.5-8.5	6.0-9.0			T
TSS	NA				30 avg 100 max				40CFR423					T
Oil and Grease	NA				15				40CFR423					T
Aluminum, Total	avg max	0.55/2.0 0.73/2.0			2.0 mg/l avg 4.0 mg/l max				R (TOGS 1.2.1)	0.1 ionic	tech ok*			T
Arsenic, Total	avg max	0.02/0.02 0.02/0.02			0.05 0.1				R (TOGS 1.2.1)	0.050	200			T
Chromium, Total	avg max	0.01/0.01 0.01/0.01			0.5 1.0				R (TOGS 1.2.1)	0.050	200			T
Copper, Total	avg max	0.01/0.01 0.01/0.01			1.0 1.0				R (40CFR 423)	0.025	100			T
Iron, Total	avg max	0.05/2.0 1.0/4.0			1.0 1.0				R (40CFR 423)	1.0	4000			T
Lead, Total	avg max	0.02/0.02 0.02/0.02			0.2 0.4				R (TOGS 1.2.1)	0.016	64			T
Mercury, Total		91.6 ng/l			50 ng/l				WQ/DL	0.7ng/l	0.7ng/l			WQ

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

Effluent Parameter (Units) (concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)	Existing Effluent Quality				Technology Based Effluent Limit						Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	concentration		mass		conc. (mg/l)	mass	Type	PQL conc.	Basis	AWQC conc. (mg/l)	Effluent				
	Avg/Max (mg/l)	95%/99%	Avg/Max	95%/99%							conc. (mg/l)	mass	Type		
Nickel, Total avg max	0.04/0.1 0.06/0.2				1.0 2.0				R (TOGS 1.2.1)	0.10	400			T	
Zinc, Total avg max	0.03/0.1 0.04/0.1				0.5 1.0				R (TOGS 1.2.1)	0.255	1040			T	
Boron, Total	4.89				1.8				TOGS 1.2.1					T	
Molybdenum, Total	0.041				0.125 mg/l				R (AL)	No std	N/A			T	
Ammonia	1.5/7.6				2.5 mg/l				R (WQ - AL)	0.6	TBEL ok			T	

*per TOGS 1.3.1E

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

Outfall	01F
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Source(s) of Wastewater	FGD Wastewater Treatment Effluent
Existing Wastewater Treatment Facilities	Chemical Precipitation (Lime Addition), Flocculation, Pressure Filtration
EPA Point Source Category & Production Rate	40CFR423

Effluent Parameter (Units) (concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)	Existing Effluent Quality				Technology Based Effluent Limit						Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	concentration		mass		conc. (mg/l)	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent		Type		
	Avg/Max (mg/l)	95%/99%	Avg/Max	95%/99%							conc.	mass			
WET TESTING					NA						Recommended?	NO			
Flow Rate, units = GPD	Average	36,000	Maximum	65,000	Monitor			NA	BPJ					T	
pH (su)	Minimum	NA	Maximum	NA	6.0-9.0		Range		40CFR423					T	
Oil and Grease	NA				15				40CFR423					T	
TSS	NA				50				40CFR423					T	
Aluminum, Total	0.183				2.0 avg 4.0 max				BPJ	0.1 ionic	tech ok*			T	
Antimony, Total	0.028				None				BPJ					T	
Arsenic, Total	0.082				0.05 avg 0.10 max				BPJ					T	
Barium, Total	1.52				2.0 avg 4.0 max				BPJ					T	
Boron, Total	474				Monitor				BPJ					T	
Cadmium, Total	0.005				0.1 avg 0.2 max				BPJ					T	
Chromium, Total	0.012				0.5				BPJ					T	
Iron, Total	0.019				1.0				BPJ					T	
Mercury, Total	NA	NA	NA	NA	50 ng/l				BPJ					T	
Molybdenum, Total	0.063				None				BPJ					T	
Sodium, Total	1470				None				BPJ					T	
Zinc, Total	0.011				None				BPJ					T	

* apply Technology Based effluent limits to all parameters due to dilution with non-contact cooling water.

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

Outfalls 003 (Lift Station Overflow)

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)
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent		Type	
	Avg/Max	95%/99%	Avg/Max	95%/99%							conc.	mass		
Ammonia	<0.5mg/l				2.5 mg/l				R (AL)	0.6	Tech ok			T

Outfalls 004, 010, 011, 012: Stormwater - Uncontaminated
006, 007, 008: Stormwater Flow

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)
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc.	Effluent		Type	
	Avg/Max	95%/99%	Avg/Max	95%/99%							conc.	mass		
NO MONITORING REQUIRED														

* Additional monitoring to be required for all stormwater outfalls at facility.

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

Outfall	013
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Source(s) of Wastewater	Discharge from Ash Disposal Site Sedimentation Pond (Direct Discharge to Cayuga Lake)
Existing Wastewater Treatment Facilities	Sedimentation
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)	
	concentration		mass		conc.	mass	Type	PQL conc.	Basis	AWQC conc. (mg/l)	Effluent		Type		
	Avg/Max	95%/99%	Avg/Max	95%/99%							conc. (mg/l)	conc. (mg/l)	mass	Type	
WET TESTING					NA					Recommended?	YES				
Flow Rate, units = MGD	Average	0.31	Maximum	0.34	Monitor			NA	R	-	-				
pH (su)	Minimum		Maximum		6.5 - 9.0		Range		R	6.5-8.5	6.0-9.0				T
Aluminum, Total	0.16/0.6				2.0 mg/l				R (TOGS 1.2.1)	0.1mg/l ionic	Tech ok				T
Arsenic, Total	0.02/0.03				0.15				R (TOGS 1.2.1)	0.05	0.55				T
Cadmium, Total Recoverable	0.005/0.005				0.016				R (TOGS 1.2.1)	0.005	0.055				T
Iron, Total	0.08/0.3				4.0				R (TOGS 1.2.1)	1.0	11.0				T
Manganese, Total	0.09/0.6				1.0				R (TOGS 1.2.1)	0.30	3.3				T
Mercury, Total	1.6 ng/l				50 ng/l				WQ/DL	0.7ng/l	0.70ng/l				WQ
Nickel, Total Recoverable	0.08/0.1				1.37				R (TOGS 1.2.1)	0.10	1.1				WQ
Oil and Grease	5/5				15				R (TOGS 1.2.1)	Narr	Tech ok				T
Solids, Suspended	5.3/21				50				R (TOGS 1.2.1)	Narr	Tech ok				T
Zinc, Total Recoverable	0.03/0.1				0.3				R (TOGS 1.2.1)	0.255	2.8				T
Solids, Total Dissolved*	2200/4440				5000				R (TOGS 1.2.1)	500	5500				T
Sulfate*	992/1860				2500				R (TOGS 1.2.1)	250	2750				T
Ammonia	0.5/0.5				2.5 mg/l				R (WQ - AL)	0.6	5.6				T
Molybdenum	1.07				Monitor				BPJ	No std	NA				T
Boron	12.8mg/l				1.8 mg/l				TOGS 1.2.1						

* Monitoring for these parameters required only if Gypsum and or Salt byproducts from the Clean Coal Technology Project are landfilled at this site.

(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: 3 years of data (2003-2006)

This data was taken from the following source(s): DMR and SPDES Information System.

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, 01B,01C,01D and 01F.

WET Testing:

Testing is required, in accordance with TOGS 1.3.2, for the following reasons: Item 3: presence of substances which WQBEL<PQL and Item 4: possibility of synergistic or additive effects of chemicals (number of metals > 5).

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: refer to permit.

(5) Summary of Proposed Permit Changes:

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

1. For Outfall 001 the total residual chlorine limit was lowered from 0.2 mg/l to 0.1 mg/l. The new limit is a water quality based effluent limit. The current limit of 0.2mg/l shall remain in effect until November 1, 2010.
2. For Outcall 01C and 013: A revised final water quality based effluent limit for Mercury is 50 ng/l (beginning on Nov 1, 2011). The interim limit shall be 200 ng/l until then. Limit is based on the detection level using EPA Method 1631. In addition, a Mercury Minimization Program is also required because the 50 ng/l limit exceeds the state-wide water quality based effluent limit of 0.70 ng/l for Total Mercury.
3. A new suboutfall (01F), limits and monitoring requirements has been added to the permit for the discharge of FGD Wastewater Treatment Effluent. Additional sampling from this outfall is also required.
4. Outfall 003 (Lift Station Emergency Overflow). Limits added to the permit for Oil and Grease (15 mg/l) and Total Suspended Solids (100 mg/l) during discharge from this outfall.
5. Outfall 013: Limit for Nickel has been reduced from 1.37 mg/l to 1.1 mg/l. The new limit is a water quality based effluent limit. In addition, duration of each batch discharge shall also be monitored and reported on the DMRs.
6. A toxicity testing program has been added to the permit for Outfall 013 (on page 11 of the permit) due to the possibility of complex synergistic or additive effects of chemicals. As per TOGS 1.3.2, Toxicity Testing should be required when the number of metals or organic compounds discharged by a permittee equals or exceeds five.
7. Deleted Additional Requirement 12 since Nuchem DCAP-135 is no longer used at the facility.
8. Outfall 001: Included a Thermal Discharge Study Requirement (see Additional Requirement 11) along with a dye dilution study (Additional Requirement 12).
9. New Biological Monitoring Requirements have been added to the Permit (beginning on page 17 of permit).
10. Standard Best Management Practiced (BMP) Plan requirements added to the permit (starting on page 21 of permit).
11. Mercury Minimization Program (MMP). Permit will require the permittee to develop, implement and maintain a MMP for those Outcall which have mercury effluent limits for reasons explained on page 24 of the permit.
12. Standard Discharge Notification Requirements language added to the permit (page 25).
13. Schedule of Compliance pages added to the permit (starting on page 26 of permit).
14. Permittee will be required to submit list of all Water Treatment Chemicals used at the facility on appropriate WTC forms (see Schedule of Compliance on page 27 of permit).
15. Permittee required to perform a short term monitoring program for the outfalls listed on Schedule of Compliance page 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.
Narr -	Narrative Standard
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.
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.