



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
State Pollutant Discharge Elimination System (SPDES)
DISCHARGE PERMIT

First3.99

Industrial Code: **4911**
Discharge Class (CL): **03**
Toxic Class (TX): **T**
Major Drainage Basin: **03**
Sub Drainage Basin: **01**
Water Index Number: **O (Lake Ontario)**
Compact Area: **GLBC**

SPDES Number: **NY- 0104213**
DEC Number: **9-2938-00003/00001**
Effective Date (EDP): **January 1, 2009**
Expiration Date (ExDP): **December 31, 2013**
Modification Dates: (EDPM)

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et.seq.)(hereinafter referred to as "the Act").

PERMITTEE NAME AND ADDRESS

Name: **AES Somerset, LLC**
Street: **7725 Lake Rd**
City: **Barker**

Attention: **Jon Reimann**
State: **NY** Zip Code: **14012**

is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS

Name: **AES Somerset, LLC**
Location (C,T,V): **Somerset (T)**
Facility Address: **7725 Lake Road**
City: **Barker**

County: **Niagara**
State: **NY** Zip Code: **14012**

NYTM -E: NYTM - N:
From Outfall No.: **001** at Latitude: **43 ° 22 ' 00 "** & Longitude: **78 ° 36 ' 06 "**
into receiving waters known as: **Lake Ontario** Class: **A-Special**

and; (list other Outfalls, Receiving Waters & Water Classifications)

01A, 01E, 008, 011, 012, 012A	Lake Ontario	Class A - Special
013 - 015, 024	Fish Creek	Class C
016 - 023	Lake Ontario	Class A - Special

in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth in this permit; and 6 NYCRR Part 750-1.2(a) and 750-2.

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS

Mailing Name: **AES Somerset, LLC**
Street: **7725 Lake Road**
City: **Barker**

State: **NY** Zip Code: **14012**
Phone: **(716) 795 - 9501**

Responsible Official or Agent: **Michelle Blackley**

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

DISTRIBUTION:

CO BWP - Permit Coordinator
RWE (Region 9)
RPA (Region 9)
EPA Region II - Michelle Josilo
Town of Somerset Clerk

Permit Administrator: William R. Adriance	
Address: 625 Broadway Albany, NY 12233-1750	
Signature: <i>William R. Adriance</i>	Date: 12/30/08

PERMIT LIMITS, LEVELS AND MONITORING DEFINITIONS

OUTFALL	WASTEWATER TYPE		RECEIVING WATER	EFFECTIVE	
	This cell describes the type of wastewater authorized for discharge. Examples include process or sanitary wastewater, storm water, non-contact cooling water.		This cell lists classified waters of the state to which the listed outfall discharges.	The date this page starts in effect. (e.g. EDP or EDPM)	The is n eff
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQ.	
e.g. pH, TRC, Temperature, D.O.	The minimum level that must be maintained at all instants in time.	The maximum level that may not be exceeded at any instant in time.	SU, °F, mg/l, etc.		
PARA-METER	EFFLUENT LIMIT	PRACTICAL QUANTITATION LIMIT (PQL)	ACTION LEVEL	UNITS	SAMPLE FREQUEN
	Limit types are defined below in Note 1. The effluent limit is developed based on the more stringent of technology-based limits, required under the Clean Water Act, or New York State water quality standards. The limit has been derived based on existing assumptions and rules. These assumptions include receiving water hardness, pH and temperature; rates of this and other discharges to the receiving stream; etc. If assumptions or rules change the limit may, after due process and modification of this permit, change.	For the purposes of compliance assessment, the analytical method specified in the permit shall be used to monitor the amount of the pollutant in the outfall to this level, provided that the laboratory analyst has complied with the specified quality assurance/quality control procedures in the relevant method. Monitoring results that are lower than this level must be reported, but shall not be used to determine compliance with the calculated limit. This PQL can be neither lowered nor raised without a modification of this permit.	Type I or Type II Action Levels are monitoring requirements, as defined below in Note 2, that trigger additional monitoring and permit review when exceeded.	This can include units of flow, pH, mass, Temperature, concentration. Examples include µg/l, lbs/d, etc.	Example include Dai 3/week weekly. 2/month monthly. quarterly, 2 and yearl

Note 1: DAILY DISCHARGE: The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents a day for the purposes of sampling. For pollutants expressed in units of mass, the 'daily discharge' is calculated as the total mass of the pollutant over the day. For pollutants with limitations expressed in other units of measurement, the 'daily discharge' is calculated as the average of the pollutant over the day.

DAILY MAX: The highest allowable daily discharge. **DAILY MIN:** The lowest allowable daily discharge.

MONTHLY AVG: The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges during a calendar month divided by the number of daily discharges measured during that month.

7 DAY ARITHMETIC MEAN (7 day average): The highest allowable average of daily discharges over a calendar week.

30 DAY GEOMETRIC MEAN: The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

7 DAY GEOMETRIC MEAN: The highest allowable geometric mean of daily discharges over a calendar week.

RANGE: The minimum and maximum instantaneous measurements for the reporting period must remain between the two values specified in the permit.

Note 2: ACTION LEVELS: Routine Action Level monitoring results, if not provided for on the Discharge Monitoring Report (DMR), shall be appended to the DMR for the period during which the sampling was conducted. If the additional monitoring requirement is triggered, the permittee shall undertake a short-term, high-intensity monitoring program for the parameter(s). Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive operating and discharging days and analyzed. Results shall be expressed in terms of concentration and mass, and shall be submitted no later than the end of the third month following the month when the additional monitoring requirement was triggered. Results may be appended to the DMR or transmitted under separate cover to the same address. If levels higher than the stated Action Level are confirmed, the permit may be reopened by the Department for consideration of revised Action Levels or effluent limits. The permittee shall not discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards. TYPE I monitoring requirement is triggered upon receipt by the permittee of any monitoring results in excess of the stated Action Level. TYPE II monitoring requirement is triggered upon receipt by the permittee of any monitoring results that show the stated action level exceeded in two of six consecutive samples, or for two of six consecutive samples by 20% or more, or for any one sample by 50 % or more.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
001	Condenser Cooling Water and Service Water Systems	Lake Ontario	EDP	ExDP

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	274	Monitor			MGD	Continuous	a	a
Discharge Temperature	NA	46.1°C (115.0°F)			°F (°C)	Continuous	Recorder	
Temperature Difference - Summer (Discharge Temp. - Intake Temp.)	18.7°C (33.7°F)	21.7°C (39.0°F)			°F (°C)	Continuous	Recorder	c, g
Temperature Difference - Winter (Discharge Temp. - Intake Temp.)	18.7°C (33.7°F)	22.2°C (40.0°F)			°F (°C)	Continuous	Recorder	c, g
Total Residual Chlorine ^d	NA	0.1 ^b			mg/l	Every 15 minutes during periods of Chlorination	Grab	b,d,e,f

Footnotes:

- a. Shall be measured directly or determined by recording the operating mode of the circulating water pumps.
- b. Shall be the maximum value observed on any day during the month.
- c. See also Special Conditions #2 and #3 on Page 14.
- d. The discharge of total residual chlorine shall not exceed a total of two hours per day. See also Special Condition #1 (page 14).
- e. The discharge of chlorine shall be measured by a series of grab samples collected no less frequently than every 15 minutes during the period of discharge of chlorine and sufficient to represent the amount of chlorine discharged or by a continuous recorder.
- f. The Interim TRC Limit of 0.2 mg/l shall remain in effect until EDP + 2 Years.
- g. This limitation is waived during two pump operation, as provided by Special Condition #3 (on page 14) and Biological Condition #13 (on page 19).

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE DATE
01E	Liquid Waste Treatment System Effluent ^d	Lake Ontario	EDP

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOCUS
pH	6	9	SU	Continuous	Recorder	

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLING METHOD
	Monthly Avg.	Daily Max.	TYPE I	TYPE II			
Flow	Monitor	Monitor			GPD	Continuous	
Oil and Grease	NA	15			mg/l	Monthly	C
Total Suspended Solids	NA	50			mg/l	Monthly	24-hr
Aluminum, Total	NA	2.0			mg/l	Monthly	24-hr
Copper ^b , Total	NA	1.0			mg/l	Monthly	24-hr
Iron, Total	NA	1.0			mg/l	Monthly	24-hr
Iron, Total	NA	4.0			mg/l	Monthly	24-hr
Manganese, Total	NA	2.0			mg/l	Monthly	24-hr
Ammonia			10		mg/l	Monthly	C
Boron, Total	NA	Monitor			mg/l	Monthly	24-hr
Mercury, Total	NA	50			ng/l	Quarterly	C

Footnotes:

- See also Special Condition #12.
- Shall be applicable when chemical metal cleaning wastes are being treated, per 40 CFR 423.15(d).
- Shall be applicable when chemical metal cleaning wastes are not being treated.
- See Special Condition #12 (page 15) for description of wastewater type.
- EPA Method 1631 is required for Mercury Sampling.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
008	Fish Return (See Biological Condition #2)	Lake Ontario	EDP	ExDP

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	NA	Monitor			GPD	Monthly	Estimate	
Total Residual Chlorine	NA	0.19			mg/l	Every 15 minutes during periods of condenser Chlorination	Grab	a

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
013 - 015 ^b	Solid Waste Disposal Area Rainfall Runoff and Leachate to Fish Creek (none of these Outfalls are active at this time. See footnote b.)	Fish Creek	EDP	ExDP

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6	9	SU	Monthly	Grab	

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	Monitor			MGD	Each Event	Estimate	
Oil and Grease	NA	15			mg/l	Monthly	Grab	
Total Suspended Solids	NA	50			mg/l	Monthly	8-hr. comp.	
Aluminum, Dissolved	NA	0.1			mg/l	Monthly	8-hr. comp.	
Iron, Total	NA	0.3			mg/l	Monthly	8-hr. comp.	
Manganese, Total	NA	3.0			mg/l	Monthly	8-hr. comp.	
Mercury, Total	NA	50			ng/l	Quarterly	Grab	c
Arsenic, Total	NA	0.15			mg/l	Monthly	8-hr. comp.	
Copper, Total	NA	0.015			mg/l	Monthly	8-hr. comp.	

Footnotes:

- a. Total residual chlorine monitoring results for outfall 001 may be reported for this outfall during condenser chlorination unless service water system is being chlorinated at the service water pumps (01A).
- b. Discharge Monitoring Reports shall be submitted for Outfalls 011 and 012 which are active at this time. Notification shall be given 180 days prior to activation of any additional outfalls (013 - 015).
- c. EPA Method 1631 is required for Mercury Sampling.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE DATE
016 - 023	Storm Water Runoff (Non-contaminated)	Lake Ontario	EDP
NO MONITORING REQUIRED			

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE DATE
011 ^a	Solid Waste Disposal Area (Lake Ontario Basin)	Lake Ontario	EDP

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOCUS
pH	6	9	SU	Monthly	Grab	

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLING METHOD
	Monthly Avg.	Daily Max.	TYPE I	TYPE II			
Flow	Monitor	Monitor			MGD	Each Event	Estimate
Oil and Grease	NA	15			mg/l	Monthly	Composite
Total Suspended Solids	NA	50			mg/l	Monthly	8-hr
Aluminum, Total	NA	1.0			mg/l	Monthly	8-hr
Iron, Total	NA	3.0			mg/l	Monthly	8-hr
Manganese, Total	NA	3.0			mg/l	Monthly	8-hr
Mercury, Total	NA	50			ng/l	Quarterly	Composite
Arsenic, Total	NA	0.15			mg/l	Monthly	8-hr
Copper, Total	NA	0.16			mg/l	Monthly	8-hr
Ammonia	NA	NA	10		mg/l	Monthly	Composite
Boron, Total	NA	Monitor			mg/l	Monthly	8-hr

Footnotes:

- Discharge Monitoring Reports shall be submitted for Outfalls 011 and 012 which are active at this time. Notification 180 days prior to activation of any additional outfalls (013 - 015).
- EPA Method 1631 is required for Mercury Sampling.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
012 ^a	Solid Waste Disposal Area I and Area II Rainfall Runoff and Leachate (which includes discharge from Fish Creek Basin), and Groundwater from Area II (via Somerset Basin to Lake Ontario)	Lake Ontario	EDP	ExDP

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6	9	SU	Monthly	Grab	

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Flow	Monitor	Monitor			MGD	Each Event	Estimate	
Oil and Grease	NA	15			mg/l	Monthly	Grab	
Total Suspended Solids	NA	50			mg/l	Monthly	8-hr. comp.	
Aluminum, Total	NA	1.0			mg/l	Monthly	8-hr. comp.	
Iron, Total	NA	3.0			mg/l	Monthly	8-hr. comp.	
Manganese, Total	NA	3.0			mg/l	Monthly	8-hr. comp.	
Mercury, Total	NA	50			ng/l	Quarterly	Grab	b
Arsenic, Total	NA	0.15			mg/l	Monthly	8-hr. comp.	
Copper, Total	NA	0.16			mg/l	Monthly	8-hr. comp.	
Ammonia	NA	NA	10		mg/l	Monthly	Grab	
Boron, Total	NA	Monitor			mg/l	Monthly	8-hr. comp.	

Footnotes:

a. Discharge Monitoring Reports shall be submitted for Outfalls 011 and 012 which are active at this time. Notification shall be given 180 days prior to activation of any additional outfalls (013 - 015).

b. EPA Method 1631 is required for Mercury Sampling.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE DATE
12A	Emergency Overflow from Somerset Basin to Lake Ontario ^b	Lake Ontario	EDP

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOCUS
pH	6	9	SU	Monthly	Grab	

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLING TIME
	Monthly Avg.	Daily Max.	TYPE I	TYPE II			
Flow	Monitor	Monitor			MGD	Each Event	Est
Oil and Grease	NA	15			mg/l	Monthly	C
Total Suspended Solids	NA	50			mg/l	Monthly	8-hr
Aluminum, Total	NA	1.0			mg/l	Monthly	8-hr
Iron, Total	NA	3.0			mg/l	Monthly	8-hr
Manganese, Total	NA	3.0			mg/l	Monthly	8-hr
Mercury, Total	NA	50			ng/l	Quarterly	C
Arsenic, Total	NA	0.15			mg/l	Monthly	8-hr
Copper, Total	NA	0.16			mg/l	Monthly	8-hr
Ammonia	NA	NA	10		mg/l	Monthly	C
Boron, Total	NA	Monitor			mg/l	Monthly	8-hr

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE DATE
024	Discharge of Non-contaminated Storm Water Runoff (from outside SWDA II) from Northeast Storm Water Basin into Fish Creek ^c	Fish Creek	EDP

NO MONITORING REQUIRED

Footnotes:

- EPA Method 1631 is required for Mercury Sampling.
- In the event of an emergency overflow from Somerset Basin to Lake Ontario the discharge from Outfall 12A must be the results attached to the monthly DMR.
- Discharge from Northeast Stormwater Basin is authorized to Fish Creek Only.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
001, 008	Zebra Mussel Control	Lake Ontario	EDP	ExDP

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	TYPE I	TYPE II				
Betz Clam-Trol CT-1 (whole product)	NA	0.2			mg/l	Duration of chemical application and discharge	Multiple Grab*	

*For purpose of this authorization multiple grab is defined as individual grab samples collected on a three hour interval during the duration of chemical application and discharge.

Special Conditions (for use of Betz Clam Trol CT-1 for Zebra Mussel Control)

The Betz Clam-Trol CT-1 program for zebra mussel control, submitted by letter dated October 12, 1990 to Mr. Steven Doleski, is approved with the following conditions:

1. The effluent concentrations at the discharge shall not exceed 10 µg/l (ppb) of quaternary ammonium compounds and 6 µg/l (ppb) of dodecylguanidine hydrochloride. For Betz Clam-Trol-1, these limitations will be achieved by limiting effluent whole product concentrations.
2. Detoxification with bentonite clay or other Department approved adsorption medium is required.
3. The discharge from each individual mussel control treatment is limited to a maximum of 24 hours duration.
4. Records of product use, effluent flow and concentration of product during application and discharge must be maintained.
5. The Regional Water Engineer shall be notified not less than 48 hours before initiation of the zebra mussel control program unless the zebra mussel control program is being initiated during an unforeseen facility outage, in which case, the Regional Water Engineer shall be notified as far in advance as possible before initiation the treatment program.
6. Upon elimination of the original infestations, treatments are limited to not more than 4 times annually.
7. The reports describing the results of the effectiveness of the zebra mussel control program and effluent analyses for Betz Clam-Trol CT-1 shall be submitted within 60 days of chemical application to Regional Water Engineer, NYSDEC.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE DATE
01A	Service Water System	Lake Ontario	EDP

PARAMETER	ENFORCEABLE LIMIT		MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLING LOCATION
	Monthly Avg.	Daily Max.	TYPE I	TYPE II			
Chlorine, Total Residual	NA	2.0			mg/l	Daily*	C

* Samples shall be collected and analyzed for Total Residual Chlorine during periods of chlorine addition for Zebra Mussel control.

Discharge limits and monitoring requirements for Total Residual Chlorine in the service water system shall be applied downstream of the chlorine injection point but prior to where the flow is split and diverted to the various heat exchangers.

Special Conditions (for use of chlorine for zebra mussel control)

The chlorine program for zebra mussel control, submitted by letter dated May 3, 1990 to the Region 9 Office, is approved under the following conditions:

1. Chlorine treatment for zebra mussel control shall be limited to a maximum of 18 days of continuous treatment.
2. Chlorine treatments for zebra mussel control shall be limited to a maximum of four treatments annually. Treatment shall be limited to the period prior to and immediately after spawning, followed by a maximum of two additional treatments during the year.
3. Records of chlorine use, effluent flow and effluent concentration of chlorine during application and discharge must be maintained.
4. DEC Regional Office shall be notified 48 hours prior to initiation of zebra mussel control program.
5. The reports describing the results of the effectiveness of the zebra mussel control program and effluent analysis for chlorine shall be submitted within 60 days of chlorine application to Regional Water Engineer, NYSDEC.
6. This permit modification is issued based on the best environmental and aquatic toxicity information available at the time of authorization is subject to modification or withdrawal any time new information becomes available which warrants modification or withdrawal.
7. Monitoring for chlorine as required for outfalls 001 and will not be required when only service water system chlorine is in place.

TOXICITY TESTING PROGRAM

The Department has determined that an acute effluent toxicity monitoring program is required. The permittee shall implement the program as follows:

Effluent Toxicity Monitoring Requirements

OUTFALL No.	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
011 ² and 012	Discharge from Solid Waste Disposal Area Basins (Somerset and Lake Ontario Basins)	Lake Ontario	EDP	ExDP

PARAMETER	EFFLUENT LIMIT		PQL	MONITORING ACTION LEVEL		UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	Daily Max.	TYPE I	TYPE II				
WET - Acute Invertebrate				3.3		TUa	Quarterly	seefootnote	1
WET - Acute Vertebrate				3.3		TUa	Quarterly	seefootnote	1
WET - Chronic Invertebrate				11		TUc	Quarterly	seefootnote	1
WET - Chronic Vertebrate				11		TUc	Quarterly	seefootnote	1

1. Whole Effluent Toxicity (WET) Testing:

Testing Requirements - WET testing shall consist of **Acute and if necessary Chronic** for BOTH Outfalls 011 and 012. WET testing shall be performed in accordance with 40 CFR Part 136 and TOGS 1.3.2 unless prior written approval has been obtained from the Department. The test species shall be *Ceriodaphnia dubia* (water flea - invertebrate) and *Pimephales promelas* (fathead minnow - vertebrate). Receiving water collected upstream from the discharge should be used for dilution. All tests conducted should be static-renewal (two 24 hr composite samples with one renewal for Acute tests and three 24 hr composite samples with two renewals for Chronic tests). WET testing shall be coordinated with the monitoring of chemical and physical parameters limited by this permit so that the resulting analyses are also representative of the sample used for WET testing. The ratio of critical receiving water flow to discharge flow (i.e. dilution ratio) is 10:1 for acute, and 10:1 for chronic. Discharges which are chlorinated should be dechlorinated prior to WET testing or samples shall be taken immediately prior to the chlorination system.

Monitoring Period - WET testing shall be performed at the specified sample frequency **during calendar years ending in 5 and 0**, **beginning in January and lasting for a period of one full year.**

Reporting - Toxicity Units shall be calculated and reported on the DMR as follows: $TUa = (100)/(48 \text{ hr LC50})$ or $(100)/(48 \text{ hr EC50})$ (note that Acute data is generated by both Acute and Chronic testing) and $TUc = (100)/(NOEC)$ when Chronic testing has been performed or $TUc = (TUa) \times (10)$ when only Acute testing has been performed and is used to predict Chronic test results, where the 48 hr LC50 or 48 hr EC50 and NOEC are expressed in % effluent. This must be done for both species and using the Most Sensitive Endpoint (MSE) or the lowest NOEC and corresponding highest TUc. Report a TUa of 0.3 if there is no statistically significant toxicity in 100% effluent as compared to control.

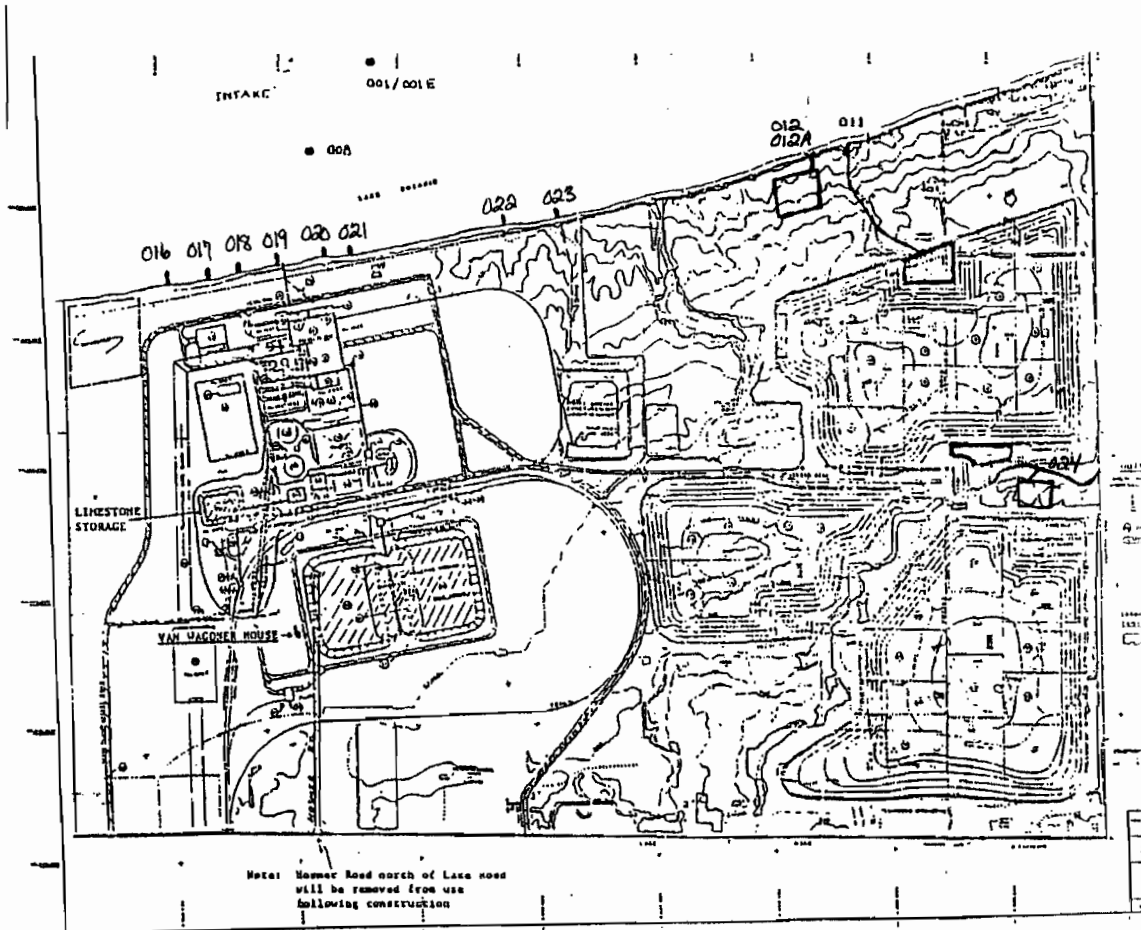
The complete test report including all corresponding results, statistical analyses, reference toxicity data, daily average flow at the time of sampling and other appropriate supporting documentation, shall be submitted within 60 days following the end of each test period to the Toxicity Testing Unit, Bureau of Watershed Assessment and Research, 625 Broadway, Albany, NY 12233-3502. A summary page of the test results for the invertebrate and vertebrate species indicating TUa, 48 hr LC50 or 48 hr EC50 for Acute tests and/or TUc, NOEC, IC25, and most sensitive endpoints for Chronic tests, should also be included at the beginning of the test report.

WET Testing Action Level Exceedances - If an action level is exceeded then the Department may require the permittee to conduct additional WET testing including Acute and/or Chronic tests. Additionally, the permittee may be required to perform a Toxicity Reduction Evaluation (TRE) in accordance with Department guidance. If such additional testing or performance of a TRE is necessary, the permittee shall be notified in writing by the Regional Water Engineer. The written notification shall include the reason(s) why such testing or a TRE is required.

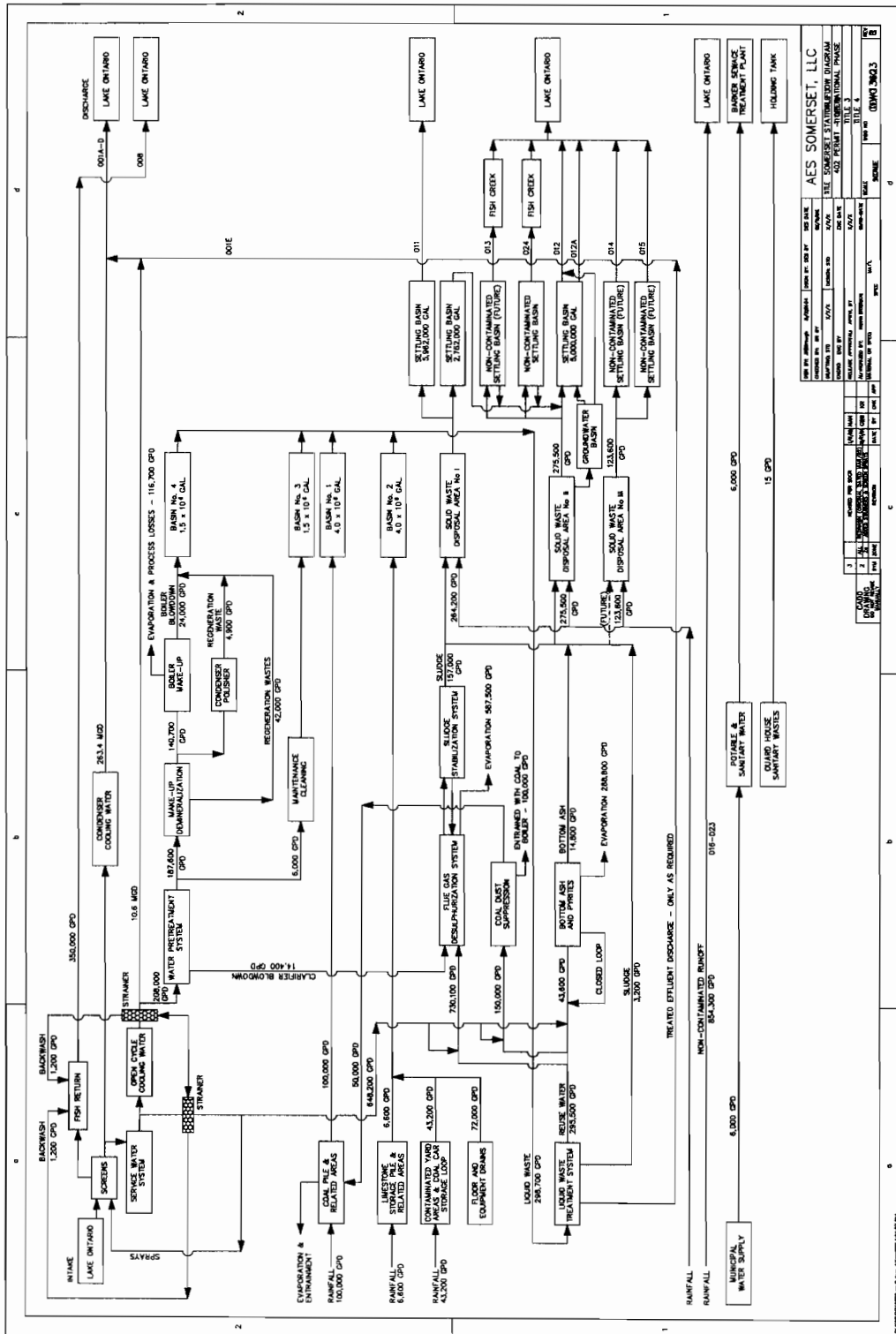
2. WET testing for both Outfalls 011 and 012 is required during calendar year 2010. After that testing shall be performed for Outfall 012 as required above. If an action level is exceeded then the Department may require the permittee to conduct additional WET testing, including Acute and/or Chronic tests, as specified above.

MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in the location(s) specified below:



The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) specified below:



A. SPECIAL CONDITIONS

1. When applied, chlorine shall be:
 - a. kept to the minimum amount necessary to maintain plant operating efficiency; and
 - b. applied only during daylight hours.
2. The maximum summer temperature increase limitation may be exceeded during periods when three circulating pumps are operating as a result of pump breakdown or pump maintenance shall these limitations be exceeded for more than three percent of the time during any year.
3. The winter periods shall be defined as periods when Lake temperatures are less than 60°F and temperature limitations shall apply for that period (see also Biological Condition 13).
4. With three (3) circulating water pumps operating, the discharge velocity at the ports of the high-speed multiport diffuser facility shall average not less than 15 fps.
5. The water temperature at the surface of Lake Ontario shall not be raised more than 3°F over temperature that existed before the addition of heat of artificial origin outside a mixing zone encompass an area not larger than 18 acres more frequently than five (5) percent of the time and within which such temperatures may be exceeded. At no time during the year shall the isotherm impact the shoreline.
6. To the extent practicable, the permittee shall give priority to the restoration of power to open facilities and/or provide such other means as may be appropriate to insure that the discharge of inadequately treated wastewater does not occur during failure of the primary source of power to treatment facilities.
7. In addition to the specific effluent limitations enumerated in this permit, the discharges shall be such that they will not cause or significantly contribute to any violation of the requirements of subchapter 1 of Article 17 of the Environmental Conservation Law, Chapter III Title 10 (Health) of the Official Compilation of Codes, Rules and Regulations of the State of New York at sources of water supply dedicated for present or future use for domestic or municipal purposes.
8. There shall be no discharge of polychlorinated biphenyl compounds (PCB's).
9. The facilities shall not receive wastes beyond their design capacity as to volume and character of waste treated, nor shall the facilities be changed or modified or otherwise altered as to type, degree of treatment provided, disposal of treated effluent or treatment and disposal of separated solids or combinations thereof resulting from the treatment process without prior approval of the Department.
10. The permittee shall not discharge floating solids or visible foam except as specifically authorized in this permit.
11. No biocides, dyes, corrosion control chemicals or other water treatment chemical additives shall be used for use by the permittee except for those approved by the Department in accordance with the Treatment Chemical (WTC) Usage Notification Requirements. New or increased use of a

prior DEC review and authorization. If DEC staff does not take exception to the use of any such material within 60 days of the receipt of the request, any use which does not violate the specific effluent limitations of this permit or violate any water standard or criteria will be allowed until objection is made by staff of DEC.

12. The liquid waste treatment system effluent (Outfall 01E), which includes treated demineralizer regenerative wastes, boiler blowdown, bottom ash system discharges, pyrite system discharges, FGD system supernatant overflow discharges, coal pile runoff, maintenance cleaning wastes, drainage from contaminated yard areas, building floor and equipment drainage and limestone storage area runoff, shall be used as make-up water for the flue gas desulfurization system and for dust suppression on the coal handling system to the extent practicable. The average daily waste discharge flow shall be calculated based on the number of days in the month.

Thermal Discharge

13. By EDP + 1 year, the permittee must submit approvable thermal study plans designed to address issues regarding the thermal criteria contained in 6 NYCRR Part 704 and the thermal standard contained in 6 NYCRR §704.1 and Sec. 316(a) of the Clean Water Act.

Thermal Criteria

The *Thermal Criteria Study Plan* must be designed to describe all applicable criteria contained in 6 NYCRR §704 and evaluate compliance with those criteria. The *Thermal Criteria Study Plan* must include study protocols, a schedule for conducting the studies, and the submission of approvable *Thermal Criteria Report*. The *Thermal Criteria Report* must include all information obtained from implementing the plan; provide a comparison of the applicable criteria to the varying operating conditions of the facility; document the Daily Maximum Discharge Temperature (as delineated on page 3 of this permit) the facility can discharge to meet all applicable criteria; and provide all assumptions, calculations, and models used in deriving the Daily Maximum Discharge Temperature.

Thermal Standard

The *Thermal Standard Study Plan* must be designed to evaluate compliance with the standard contained in 6 NYCRR §704.1 and 316(a) of the Clean Water Act and determine if the thermal discharge associated with AES Somerset assures the protection and propagation of a balanced indigenous population of shellfish, fish, and/or wildlife in and on Lake Ontario (e.g., a 316(a) Demonstration). The *Thermal Standard Study Plan* must include study protocols, a schedule for conducting the studies, and the submission of an approvable *Thermal Standard Report*. The *Thermal Standard Report* must include all the biological information collected in accordance with the plan and must evaluate compliance with the Clean Water Act and New York thermal standards.

Upon receipt of Department approval of the *Thermal Study Plans*, the permittee must complete the studies and submit the *Thermal Reports* in accordance with the approved schedules.

All submissions required by Special Condition 13 shall be submitted to the Regional Water Engineer; the Bureau of Water Compliance (cover letter only); and the Bureau of Water Assessment & Management, 625 Broadway, Albany, New York 12233-3502.

14. Short Term High Intensity Monitoring Programs: The permittee shall complete Short Term Intensity Monitoring Programs as specified in the Schedule of Compliance section of this permit.

B. BIOLOGICAL REQUIREMENTS

All submissions under this section should be provided as follows:

- Two (2) copies to the Steam Electric Unit Leader;
- One (1) copy of the cover letter to the Division of Water -
State Pollution Discharge Elimination System (SPDES)
Compliance Information Section; and
- One (1) copy of the cover letter to the Regional Water Engineer; unless otherwise noted.

Existing Measures

1. Cooling water shall be withdrawn from Lake Ontario through a submerged off-shore intake fitted with a velocity cap. Cooling water flow cannot exceed 281.0 MGD. Mean face approach velocity cannot exceed 2.0 feet/second and should be 0.5 feet/second during normal operation.
2. The cooling water intake structure shall include bucket-type screens fitted with fine mesh (1/4" openings), a two-stage screen wash, and an isothermal fish return system to allow for maximum unharmed fish to Lake Ontario. The fish return system shall be operated year-round and shall be located away from the influence of the intake and discharge and to water as close as possible to the discharge of the intake flow. The screens shall be operated continuously, except for short term testing, or emergency periods.

The permittee must inspect the following fish protection equipment daily to determine that:

- a. fish spray nozzle articulation operates as designed and spray nozzles are not plugged;
- b. "flap seal" operates as designed,
- c. fish spray wash operates at 10-15 psi with the following exception:

During periods of episodic blinding of the cooling water intake screens by algae influx, the fish spray wash pressure may be increased to a maximum of 20 psi. Any increase in fish spray wash pressure shall only be applied for the time required to clear the screens for continued plant operation.

These inspections and fish spray wash pressure must be documented and if a problem is found, corrective action shall be taken. Records of these inspections and any necessary corrective actions shall be maintained on site and made available for Department staff upon request.

Biological Monitoring

3. By EDP + 1 Month, the Permittee must submit, for Departmental approval, final reports from the biological monitoring program described in Section 2 of Appendix B of the *Proposal for Information Collection in Connection with Section 316(b) Phase II-Requirements of the Clean Water Act for Somerset Generating Station* (October 2005 and last revised 9 May 2006) and *AES Somerset, LLC Generating Station Operating Procedures; Biological Monitoring Program* (dated June 2006).

Design and Construction Technology Review

4. By EDP + 3 Months, the permittee must submit an approvable *Design and Construction Technology Review* report that includes:
 - a. Tables showing the average monthly and annual net generation of the AES Somerset Generating Station in MWhr (megawatt hours) measured over the last 5 years and the net capacity of the Station in MW (megawatts).
 - b. An estimate of impingement and entrainment under current operation at the AES Somerset Generating Station, as well as an estimate of baseline impingement and entrainment when the station is operating at full flow and full capacity.
 - c. An analysis of all feasible technologies and/or operational measures capable of being installed and implemented at the AES Somerset Generating Station to minimize adverse environmental impact. At a minimum, the following technologies and operational measures must be evaluated:
 - closed cycle cooling,
 - variable speed pumps,
 - other feasible reduced flow options,
 - modified Ristroph traveling screens,
 - cylindrical wedgewire screens,
 - aquatic filter barrier, and
 - sonic deterrent system
 - For each feasible alternative include:
 - i. A detailed description of the alternative (including preliminary drawings and site maps, if appropriate);
 - ii. A discussion of the engineering feasibility of the alternative;
 - iii. An assessment of the mitigative benefits in reducing impingement mortality and entrainment abundance for all life stages of fish, through utilization of the alternative;
 - iv. A breakdown of all applicable costs including costs associated with capital improvements, operation and maintenance, and construction downtime;
 - v. An estimate of the time required to implement the alternative; and
 - vi. An evaluation of any adverse environmental impacts to aquatic biota, habitat, or water quality that may result from construction, installation, and use of the alternative.
 - d. Electronic spreadsheet (Excel®) and hard copy table with last five (5) years of daily water intake temperature maximums.
5. Within 1 month of the Department's approval of the *Design and Construction Technology Review* report, the permittee must submit, for Department review and consideration, a proposed suite of technologies or operational measures that meets the requirements of 6 NYCRR Part 704.5 and 316(b) of the federal Clean Water Act and adheres to the following:
 - a. Alone, or in combination, such technologies or operational measures *minimize* impingement mortality and entrainment of fish at the AES Somerset Generating Station.

- b. The reductions in entrainment and impingement mortality resulting from the technologies and/or operational measures can be no less stringent, and if possible substantially greater than the following requirements:
 - i. Entrainment must be reduced by at least 60 percent from the full-flow calculation.
 - ii. Impingement mortality must be reduced by at least 80 percent from calculation baseline.

NOTE: Based on this and other relevant information, the Department will select technologies and/or operational measures that meet the requirements of 6 NYCRR Part 704.5 and 316(b) of the Clean Water Act, and will modify this SPDES permit to require the use of these selected technologies and/or operational measures.

Technology Installation and Operation Plan

- 6. Within 3 months of the effective date of the permit, identified in the note above and hereinafter as EDP(2), requiring technologies and/or operational measures to meet requirements of 6 NYCRR Part 704.5 and 316(b) of the Clean Water Act, the permittee must submit an approvable *Installation and Operation Plan*. This plan must include:
 - a. a schedule for installing and implementing the technologies and/or operational measures to meet requirements of 6 NYCRR Part 704.5 and 316(b) of the Clean Water Act within the time frame of this permit; and
 - b. the methodology for assessing the efficacy of these technologies and operational measures.

Upon receipt of Department approval, the permittee must implement the *Technology Installation and Operation Plan* in accordance with the approved schedule. The *Technology Installation and Operation Plan* and approved schedule will become an enforceable condition of this SPDES permit.

Verification Monitoring Plan

- 7. No later than 3 months after approval of the *Technology Installation and Operation Plan*, the permittee must submit an approvable *Verification Monitoring Plan*. This plan must include details of the monitoring program to confirm that the necessary reductions in impingement and entrainment required by this permit are achieved, and must include the following:
 - a. At a minimum, two years of monitoring to verify the full-scale performance of BTA.
 - b. A description of the frequency and duration of monitoring, the parameters to be monitored, and the basis for determining the parameters and the frequency and duration for monitoring.
 - c. A schedule of implementation.
 - d. A draft proposed Standard Operation Procedure (SOP) that describes the sampling and analysis procedures for these monitoring studies.

The plan and SOP must be updated as required by the Department. Upon receipt of Department approval, the permittee must complete the *Verification Monitoring Plan* in accordance with the approved schedule.

The *Verification Monitoring Plan* and approved schedule will become an enforceable condition of this SPDES permit.

8. 6 months prior to the expiration date of this permit, the permittee must submit an approvable report to the Steam Electric Unit Leader that demonstrates compliance with 6 NYCRR Part 704.5 and 316(b) of the Clean Water Act.

Additional Reporting Requirements

9. The permittee must maintain records of all data, reports and analysis pertaining to compliance with 6 NYCRR Part 704 and Section 316(b) CWA for a period no less than 10 years from EDP.
10. The permittee must submit status reports at EDP + 2.5 years and EDP + 4.5 years. At a minimum, these status reports must include a description of the operational status of the facility during the preceding two years and compliance with Biological Requirements 1 through 6 of this permit.
11. 6 months prior to the expiration date of this permit, the permittee must submit a report that includes:
 - a. a description and detailed analysis of the cumulative reductions in impingement and entrainment achieved during the first four years of this permit modification, and
 - b. a detailed analysis of technologies and/or operational measures available at that time, which have been demonstrated to, or have the potential to, further reduce fish mortality at the AES Somerset Generating Station. The list of technologies and/or operational measures included in this analysis must be selected with the concurrence of the Department.

General Requirement

12. Modification of the facility cooling water intake must not occur without prior Department approval. The permittee must submit written notification, including detailed descriptions and plans, to the NYS DEC Steam Electric Unit; the Director of the Bureau of Water Compliance Program; and both the Regional Permit Administrator and the Regional Water Engineer, Region 2, at least 60 days prior to any proposed change which would result in the alteration of the permitted operation, location, design, construction or capacity of the cooling water intake structure. The permittee must submit with the written notification a demonstration that the change reflects the best technology available for minimizing adverse environmental impacts pursuant to 6 NYCRR §704.5 and Section 316(b) of the Clean Water Act. As determined by NYS DEC, a permit modification application in accordance with 6 NYCRR Part 621 may be required.
13. Two pump operation shall be commenced within 7 days after the minimum intake temperature falls below 60°F for 3 consecutive days. Two pump operation shall be terminated within 7 days after the average intake temperature has exceeded 60°F for 3 consecutive days. During the period of two-pump operation, the plant shall:
 - a. revert to 3-pump operation for at least 48 hours prior to any scheduled plant outage;
 - b. resume discharge of water within 10°F of the previously prevailing discharge temperature as soon as practicable after any unscheduled outage.

SPECIAL CONDITIONS - INDUSTRY BEST MANAGEMENT PRACTICES

1. **General** - The permittee shall develop, maintain, and implement a Best Management Practices (BMP) plan to prevent the release of significant amounts of pollutants to the waters of the State through plant site runoff, spillage and leaks; solid waste disposal; and stormwater discharges including, but not limited to, drainage from raw material storage.

The BMP plan shall be documented in narrative form and shall include the 13 minimum BMPs and any necessary drawings, or maps. Other documents already prepared for the facility such as a Safety Manual or a Spill Prevention and Countermeasure (SPCC) plan may be used as part of the plan and may be incorporated by reference. A copy of the BMP plan shall be submitted to the Department as required in item (2.) below and a copy must be maintained at the facility and shall be available to authorized Department representatives upon request.

2. **Compliance Deadlines** - The initial completed BMP plan shall be submitted **WITHIN 9 MONTHS** to the Regional Water Engineer. The BMP plan shall be implemented within 6 months of submission, unless a different deadline is approved by the Department. The BMP plan shall be reviewed annually and shall be modified whenever (a) the facility materially increases the potential for releases of pollutants, (b) actual releases indicate the plan is inadequate, or (c) a letter from the Department identifies inadequacies in the plan. The permittee shall certify in writing, as an attachment to the December Discharge Monitoring Report (DMR), that the annual review has been completed. All BMP plan revisions (with the exception of SWPPPs - see item (4.B.) below) must be submitted to the Regional Water Engineer within 30 days of completion. The permittee is not required to obtain Department approval of the BMP plan (or of any SWPPPs) unless notified otherwise. Subsequent modifications to or renewal of this permit does not reset or revise these deadlines unless a new deadline is explicitly provided by such permit modification or renewal.

3. **Facility Review** - The permittee shall review all facility components or systems (including but not limited to storage areas; in-plant transfer, process, and material handling areas; loading and unloading operations; storm water management; sediment control measures; process emergency control systems; and sludge and waste disposal areas) where pollutants are used, manufactured, stored or handled to evaluate the potential for the release of pollutants to the waters of the State. In performing such an evaluation, the permittee shall consider such factors as the probability of equipment failure or improper operation, cross-contamination of storm water by process materials, settlement of facility air emissions, natural phenomena such as freezing temperatures and precipitation, fires, and the facility's history of spills. The relative toxicity of the pollutant shall be considered in determining the significance of potential releases.

The review shall address all substances present at the facility that are identified in Tables 6-10 of SPDES Appendix A, NY-2C (available at <http://www.dec.state.ny.us/website/dcs/permits/olpermits/form2c.pdf>) or that are required to be managed by the SPDES permit.

4. **A. 13 Minimum BMPs** - Whenever the potential for a release of pollutants to State waters is determined to exist, the permittee shall identify BMPs that have been established to prevent or minimize such potential releases. If the existing BMPs are inadequate or absent, appropriate BMPs shall be established. In selecting appropriate BMPs, the permittee shall consider industry practices and, where appropriate, structural measures such as secondary containment and erosion/sediment control devices and practices. USEPA guidance for development of stormwater elements of the BMP is available in the 1992 manual *Storm Water Management for Industrial Activities*, EPA 832-R-92-006 (available from NTIS under order # PB 92235969). As a minimum, the plan shall include the following BMPs:

- | | | |
|-------------------------------------|---|---------------------------------|
| 1. BMP Pollution Prevention Team | 6. Security | 10. Spill Prevention & Response |
| 2. Reporting of BMP Incidents | 7. Preventive Maintenance | 11. Erosion & Sediment Control |
| 3. Risk Identification & Assessment | 8. Good Housekeeping | 12. Management of Runoff |
| 4. Employee Training | 9. Materials/Waste Handling, Storage, & Compatibility | 13. Street Sweeping |
| 5. Inspections and Records | | |

Note that for some facilities, especially those with few employees, some of the above BMPs may not be applicable. In these cases, the permittee may indicate "Not Applicable" for the portion(s) of the BMP Plan that do not apply, along with an explanation.

B. Stormwater Pollution Prevention Plans (SWPPPs) Required for Discharges of Stormwater From Construction Activity to Surface Waters - As part of BMP #11, a SWPPP shall be developed prior to the initiation of any site disturbance of one acre or more of uncontaminated area. Uncontaminated area means soils or groundwater which are free of contamination by any toxic or non-conventional pollutants identified in Tables 6-10 of SPDES application Form NY-2C. Disturbance of any size contaminated area(s) and the resulting discharge of contaminated stormwater is not authorized by this permit unless the discharge is under State or Federal oversight as part of a remedial program or after review by the Regional Water Engineer; nor is such discharge authorized by any SPDES general permit for stormwater discharges. SWPPPs are not required for discharges of stormwater from construction activity to groundwaters.

The SWPPP shall conform to the *New York Standards and Specifications for Erosion and Sediment Control* and *New York State Stormwater Management Design Manual*, unless a variance has been obtained from the Regional Water Engineer, and to any local requirements. The permittee shall submit a copy of the SWPPP and any amendments thereto to the local governing body and any other authorized agency having jurisdiction or regulatory control over the construction activity **at least 30 days prior to soil disturbance**. The SWPPP shall also be submitted to the Regional Water Engineer if contamination, as defined above, is involved and the permittee must obtain a determination of any SPDES permit modifications and/or additional treatment which may be required prior to soil disturbance. Otherwise, the SWPPP shall be submitted to the Department only upon request. When a SWPPP is required, a properly completed *Notice of Intent* (NOI) form shall be submitted (available at www.dec.state.ny.us/website/dow/toolbox/swforms.html) prior to soil disturbance. Note that submission of a NOI is required for informational purposes; the permittee is not eligible for and will not obtain coverage under any SPDES general permit for stormwater discharges, nor are any additional permit fees incurred. SWPPPs must be developed and submitted for subsequent site disturbances in accordance with the above requirements. The permittee is responsible for ensuring that the provisions of each SWPPP is properly implemented.

MERCURY MINIMIZATION PROGRAM REQUIREMENTS INDUSTRIAL FACILITIES

1. **General** - The permittee shall develop, implement, and maintain a Mercury Minimization Program (MMP) required because the 50 ng/L permit limit exceeds the state-wide calculated water quality based effluent limit (WQBEL) for Total Mercury. The goal of the MMP will be to reduce mercury effluent levels in pursuit of WQBEL.
2. **MMP Elements** - The MMP shall be documented in narrative form and shall include any necessary drawings and related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. At a minimum, the MMP shall include an on-going program consisting of: periodic monitoring; an acceptable control strategy to become enforceable under this permit; and, submission of annual status reports.
 - A. **Monitoring** - The permittee shall conduct periodic monitoring designed to quantify and, over time, track the mercury. All permit-related mercury monitoring shall be performed using EPA Method 1631 and shall be coordinated so that the results can be compared. All samples should be grabs and use of EPA Method 1669 during sampling is recommended. Minimum required monitoring shall be at the following locations: effluent from outfalls (01 required by Permits Limits pages), influent to Somerset and Lake Ontario Basins (quarterly), any other key wastewater and/or stormwater collection systems, and known or potential mercury sources, including industrial processes. Additional monitoring must be completed as may be required elsewhere in this permit or upon Department request.
 - B. **Control Strategy** - An acceptable control strategy is required for reducing mercury discharges via cost-effective means which may include, but is not limited to, more stringent control of tributary waste streams, remediation, and/or new or improved treatment facilities. Required monitoring shall also be used, and supplemented if appropriate, as the most effective way to operate the wastewater treatment system(s) to ensure effective removal of mercury and maintaining compliance with other permit requirements.
 - C. **Annual Status Report** - An annual status report shall be submitted to the Regional Water Engineer and to the Department of Environmental Conservation summarizing: (a) all MMP monitoring results for the previous year; (b) a list of known and potential mercury sources; (c) a mass balance comparison of influent, effluent, and sludge levels or from any other known mercury sources; (d) all action undertaken pursuant to the strategy during the previous year; (e) actions planned for the upcoming year; and (f) progress toward the goal. The first annual report (for the 2009 calendar year) is due by April 1, 2010 and for subsequent years are due annually thereafter (by April 1st for the previous calendar year). Note that the complete MMP documentation shall not be submitted to the Department unless otherwise requested.
3. **MMP Modification** - The MMP shall be modified whenever: (a) changes at the facility or within the catchment area increase the potential for mercury discharges; (b) actual discharges exceed 50 ng/L; (c) a letter from the Department identifies inadequacies in the MMP; or (d) pursuant to a permit modification.

DISCHARGE NOTIFICATION REQUIREMENTS

- (a) Except as provided in (c) and (f) of these Discharge Notification Act requirements, the permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit. Such signs shall be installed within 90 days of the Effective Date of this Modification.
- (b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.
- (c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.
- (d) The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

The signs shall have **minimum** dimensions of eighteen inches by twenty four inches (18" x 24") and shall have white letters on a green background and contain the following information:

N.Y.S. PERMITTED DISCHARGE POINT

SPDES PERMIT No.: NY _____

OUTFALL No. : _____

For information about this permitted discharge contact:

Permittee Name: _____

Permittee Contact: _____

Permittee Phone: () - ### - #####

OR:

NYSDEC Division of Water Regional Office Address :

NYSDEC Division of Water Regional Phone: () - ### - #####

- (e) For each discharge required to have a sign in accordance with a), the permittee shall, concurrent with the installation of the sign, provide a repository of copies of the Discharge Monitoring Reports (DMRs), as required by the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of this permit. This repository shall be open to the public, at a minimum, during normal daytime business hours. The repository may be at the business office repository of the permittee or at an off-premises location of its choice (such location shall be the village, town, city or county clerk's office, the local library or other location as approved by the Department). In accordance with the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of your permit, each DMR shall be maintained on record for a period of five years.

(continued)

- (f) All requirements of the Discharge Notification Act, including public repository requirements, are waived meeting any of the following circumstances, provided Department notification is made in accordance with (g).
- (i) such sign would be inconsistent with any other state or federal statute;
 - (ii) the Discharge Notification Requirements contained herein would require that such sign could only be placed in an area that is damaged by ice or flooding due to a one-year storm or storms of less severity;
 - (iii) instances in which the outfall to the receiving water is located on private or government property which is not accessible to the public through fencing, patrolling, or other control mechanisms. Property which is posted with additional control mechanisms, does not qualify for this provision;
 - (iv) instances where the outfall pipe or channel discharges to another outfall pipe or channel, before reaching the receiving water; or
 - (v) instances in which the discharge from the outfall is located in the receiving water, two-hundred or more feet from the shoreline of the receiving water.
- (g) If the permittee believes that any outfall which discharges wastewater from the permitted facility meets any of the criteria listed in (f) above, notification (form enclosed) must be made to the Department's Bureau of Water Pollution Control Office, of such fact, and, provided there is no objection by the Department, a sign and DMR repository for the outfall(s) are not required. This notification must include the facility's name, address, telephone number, permit number, outfall number(s), and reason why such outfall(s) is waived from the requirements of discharge notification. The Department may evaluate the applicability of a waiver at any time, and take appropriate measures to assure that all associated regulations are complied with.
- (h) The permittee shall periodically inspect the outfall identification signs in order to ensure that they are maintained, visible and contain information that is current and factually correct.

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Action Code	Outfall Number(s)	Compliance Action	Due Date
	012	Dye dilution study: The purpose of the dye study is to determine the nearfield and farfield dilution factors in the ambient water (Lake Ontario). The dilution factors will be used in refining the current water quality based effluent limits (WQBEL) for Outfalls 011 and 012. The permittee shall submit an approvable work plan of the dye dilution study, prepared by a Professional Engineer currently licensed to practice in New York State, for review and approval. The work plan shall include a schedule for the dye dilution study. If the Department approves the work plan, the approved schedule will become an enforceable schedule.	EDP + 2 yrs
	001	At the conclusion of the dye study, the permittee shall submit a report summarizing the results of the study which shall include measurement of the dye in ambient water at suitable intervals at various distances away from the discharge location from Outfall 012, dilution profiles from between 5 feet to 500 feet from the discharge structure (upstream, downstream and etc.). The Department reserves the right to modify WQBEL's pending the results of the report.	
		Thermal Study By EDP + 1 year, the permittee must submit approvable thermal study plans designed to address issues regarding the thermal criteria contained in 6 NYCRR Part 704 and the thermal standard contained in 6 NYCRR §704.1 and 316(a) of the Clean Water Act. Upon receipt of Department approval of the Thermal Study Plans, the permittee must complete the studies and submit the Thermal Reports in accordance within the approved schedules.	EDP + 1 year
		BMP Plan: Submit initial completed BMP PLAN (see BMP Special Conditions)	EDP + 9 Months
		MMP PLAN: Submit Annual Report as required by the MMP requirements to the Regional Water Engineer and to the Bureau of Water Permits.	by April 1, 2010 and annually thereafter.
	011* and 012	Effluent Toxicity Monitoring Program (Page 11). (*See footnote 2 on page 11 for Outfall 011)	years ending in 5 and 0
		<u>Biological Requirements</u>	
		B.3. Submit all biological monitoring reports	EDP + 1 month
		B.4. Submit an approvable "Design and Construction Technology Review" (DCTRP)	EDP + 3 months
		B5. Submit a "Proposed Suite of Technologies or Operational Measures" (PSTOM) for Department review and consideration.	DCTRP approval + 1 month
		B.6. Submit an approvable "Technology Installation and Operation Plan" (TIOP)	EDP(2) + 3 months
		B.7. Submit an approvable "Verification Monitoring Plan" (VMP)	TIOP approval + 3 months
		B.8. Submit an approvable report to demonstrates compliance with 6 NYCRR Part 704.5 and 316(b) of the Clean Water Act	EDP + 4.5 yrs
		B.10. Submit status reports	EDP + 2.5 and 4.5 yrs
		B.11. Submit report on cumulative reductions in impingement and entrainment and analysis of technologies.	EDP + 4.5 yrs

a) The permittee shall comply with the following schedule:

Action Code	Outfall Number(s)	Compliance Action
	011 and 012	<u>Short Term High Intensity Monitoring for Total Suspended Solids, Thallium and Molybdenum</u> - The permittee shall collect grab samples from Outfalls 011 and 012 once per discharge for at least 3 discharges for analysis of Thallium, Molybdenum and Total Suspended Solids. Each grab sample must be collected during the discharge from Outfalls 011 and 012. Sample results are due by EDP + 9 months.
	01E	<u>Short Term High Intensity Monitoring for Thallium</u> - The permittee shall collect grab samples from Outfall 01E once per discharge for a period of at least 3 discharges for analysis of Thallium. Each grab sample must be collected during the discharge from Outfall 01E. Sample results are due by EDP + 9 months.
		All sampling and analytical results, along with the flow for each sampling event, shall be submitted to the Bureau of Water Permits - Wastewater Permits West Section, 625 Broadway, Albany, NY 12233-3505, with a copy of the cover letter sent to each of the addresses listed on the last page of this permit. [NOTE: The Department reserves the right to modify the permit pending review of the Short Term High Intensity Monitoring results.]

The above compliance actions are one time requirements. The permittee shall comply with the above compliance actions to the Department's satisfaction once. When this permit is administratively renewed by NYSDEC letter entitled "SPDES NOTICE/RENEWAL APPLICATION/PERMIT," the permittee is not required to repeat the submission(s) noted above. The above due dates are from the effective date of the permit stated in the letter of "SPDES NOTICE/RENEWAL APPLICATION/PERMIT."

- b) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 15 days following each elapsed date, unless conditions require more immediate notice as prescribed in 6 NYCRR Part 750-2. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall contain the following information:
1. A short description of the non-compliance;
 2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
 3. A description or any factors which tend to explain or mitigate the non-compliance; and
 4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.
- c) The permittee shall submit copies of any document required by the above schedule of compliance to NYSDEC Regional Office, the location listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS and to the Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505, unless otherwise specified in the permit or in writing by the Department.

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- a) The permittee shall also refer to 6 NYCRR Part 750-1.2(a) and 750-2 for additional information concerning monitoring and reporting requirements and conditions.
- b) The monitoring information required by this permit shall be summarized, signed and retained for a period of at least five years from the date of the sampling for subsequent inspection by the Department or its designated agent. **Also, monitoring information required by this permit shall be summarized and reported by submitting;**

☒ (if box is checked) completed and signed Discharge Monitoring Report (DMR) forms for each 1 month reporting period to the locations specified below. Blank forms are available at the Department's Albany office listed below. The first reporting period begins on the effective date of this permit and the reports will be due no later than the 28th day of the month following the end of each reporting period.

☐ (if box is checked) an annual report to the Regional Water Engineer at the address specified below. The annual report is due by February 1 and must summarize information for January to December of the previous year in a format acceptable to the Department.

☐ (if box is checked) a monthly "Wastewater Facility Operation Report..." (form 92-15-7) to the:

☐ Regional Water Engineer and/or ☐ County Health Department or Environmental Control Agency specified below

Send the **original** (top sheet) of each DMR page to:

Department of Environmental Conservation
Division of Water
Bureau of Water Compliance Programs
625 Broadway
Albany, New York 12233-3506

Phone: (518) 402-8177

Send the **first copy** (second sheet) of each DMR page to:

Department of Environmental Conservation
Regional Water Engineer
Region 9
270 Michigan Ave
Buffalo, New York 14203-2999

Send an **additional copy** of each DMR page to:

- c) Noncompliance with the provisions of this permit shall be reported to the Department as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2.
- d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- e) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculations and recording of the data on the Discharge Monitoring Reports.
- f) Calculation for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- g) Unless otherwise specified, all information recorded on the Discharge Monitoring Report shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- h) Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section five hundred two of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be sent to the Environmental Laboratory Accreditation Program, New York State Health Department Center for Laboratories and Research, Division of Environmental Sciences, The Nelson A. Rockefeller Empire State Plaza, Albany, New York 12201.