



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: **03**
Water Index Number: **Ont. 52-1**
Compact Area: **GLC**

SPDES Number: **NY- 0000493**
DEC Number: **8-54-34-00010/00003-0**
Effective Date (EDP): **02/01/2010**
Expiration Date (ExDP): **12/31/2014**
Modification Dates: **5/01/11, 9/01/11, 2/15/2012**

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: **R.E. Ginna Nuclear Power Plant LLC**
Street: **1503 Lake Road**
City: **Town of Ontario**

Attention: **Thomas L. Harding, Jr.**

State: **NY** Zip Code: **14519**

is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS

Name: **R.E. Ginna Nuclear Power Plant, LLC**
Location (C,T,V): **Ontario (T)**
Facility Address: **1503 Lake Road**
City: **Ontario**
NYTM -E: **312.669**
From Outfall No.: **001**
into receiving waters known as: **Lake Ontario**

County: **Wayne**

State: **NY** Zip Code: **14519**

NYTM - N: **4794.248**

at Latitude: **43 ° 16 ' 44 "** & Longitude: **77 ° 18 ' 34 "**

Class: **A-Special**

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

01A, 01B, 01C, 01D and 002	Lake Ontario via Outfall 001	Class A-Special
02A	Lake Ontario via Outfall 002	Class A-Special
003	Lake Ontario	Class A-Special
004, 005, 006, 007, 009, and 010	Deer Creek	Class C
008	Groundwater or Deer Creek	GA or C

in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit and 6 NYCRR Part 750.

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS

Mailing Name: **R.E. Ginna Nuclear Power Plant LLC**
Street: **1503 Lake Road**
City: **Town of Ontario**

State: **NY** Zip Code: **14519**

Responsible Official or Agent: **Thomas L. Harding, Director - Licensing** Phone: **585-771-5219**
Edwin D. Dean III, Plant General Manager **585-771-5205**

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 8
RPA, Region 8
EPA Region II - Michelle Josilo
NYSDOH - Geneva Regional Office
Town of Ontario

Permit Administrator:	Kimberly A. Merchant
Address:	6274 East Avon-Lima Road Avon, NY 14414
Signature:	<i>Kimberly A. Merchant</i> Date: 2/14/2012

Outfall designation:

Following Outfall designations have been modified from previous permit to be consistent with EPA's Permit Compliance System (PCS):

Outfall Designation in this Permit	Outfall Designation in Previous Permit
01A	001-A
01B	001-B
01C	001-C
02A	002-A

PERMIT LIMITS, LEVELS AND MONITORING DEFINITIONS

OUTFALL	WASTEWATER TYPE		RECEIVING WATER	EFFECTIVE	EXPIRING	
	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 date this page is no longer in effect. (e.g. ExDP)	
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQ.	SAMPLE TYPE	
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.			
PARAMETER	EFFLUENT LIMIT	PRACTICAL QUANTITATION LIMIT (PQL)	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE
	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.	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.	Examples include Daily, 3/week, weekly, 2/month, monthly, quarterly, 2/yr and yearly.	Examples include grab, 24 hour composite and 3 grab samples collected over a 6 hour period.

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

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 measured 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 sum 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 shown.

Note 2: ACTION LEVELS: Routine Action Level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted. If the additional monitoring requirement is triggered as noted below, 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 both 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 Action Levels are confirmed, the permit may be reopened by the Department for consideration of revised Action Levels or effluent limits. The permittee is not authorized to discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
001	Non-Contact Cooling Water from Circulating Cooling Water and Service Water Pumps plus flow from steam generator blowdown and from 01A, 01B, 01C, 01D, 002 and 02A.	Lake Ontario	02/15/2012	12/31/2014

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH (Range)	6.0	9.0	SU	Weekly	Grab	

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.					
Flow	Monitor	520		MGD	Continuous	Pump Logs	
Hour, Total, at Flow > 519 mgd	NA	Monitor		Hr./mo.	Continuous	Recorder	
Cumulative Hour from January of the calendar year at flow = or > 519 mgd	NA	100		Hr./yr.	Calculated	Calculated	
Intake Temperature	Monitor	Monitor		° F	Continuous	Recorder	
Discharge Temperature	Monitor	106		° F	Continuous	Recorder	
Temperature Difference (Discharge temp. - Intake temp.) when Intake Temp. > 45°F (summer)	Monitor	25		° F	Continuous	Recorder	1, 2
Temperature Difference (Discharge temp. - Intake temp.) when Intake Temp. < or = 45° F (winter)	Monitor	35		°F	Continuous	Recorder	1, 3, 14
Net Discharge of Heat	NA	Monitor		MBTU/Hr.	Hourly	Calculated	
Total Residual Oxidant	Monitor	0.10		mg/l	Continuous	Recorder	4
Copper, Total - Intake	NA	Monitor		mg/l	Monthly	Grab	5
Copper, Total	NA	Monitor		mg/l	Monthly	Grab	5
Copper, Total (Net)			0.018	mg/l	Monthly	Calculated	5
Iron, Total - Intake			Monitor	mg/l	Quarterly	Grab	5
Iron, Total			Monitor	mg/l	Quarterly	Grab	5
Iron, Total (Net)			0.25	mg/l	Quarterly	Calculated	5
Ammonia (as NH ₃) – June 1 to Oct 31	NA	0.55		mg/l	Monthly	Grab	
Ammonia (as NH ₃) – Nov 1 to May 31	NA	1.81		mg/l	Monthly	Grab	
Boron		Monitor		mg/l	Monthly	Grab	
Hydrazine	NA	16.6		µg/l	Monthly	Grab	11

Footnotes: See Pages 13 and 14 of this permit.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
001 (Continued)	See previous page	Lake Ontario	09/01/2011	12/31/2014

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
WET - Acute Invertebrate			0.3	TUa	Quarterly	see footnote	6
WET - Acute Vertebrate			0.3	TUa	Quarterly	see footnote	6
WET - Chronic Invertebrate			1.6	TUc	Quarterly	see footnote	6
WET - Chronic Vertebrate			1.6	TUc	Quarterly	see footnote	6

OUTFALL NUMBER	WASTEWATER TYPE			RECEIVING WATER	EFFECTIVE	EXPIRING
01A	House Service Boiler Blowdown			Lake Ontario	09/01/2011	12/31/2014

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
pH (Range)	6.0	9.0	SU	Each Discharge	Grab	7

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.					
Flow	Monitor	3,800		GPD	Each Discharge	Estimate	
Oil & Grease	Monitor	15		mg/l	Each Discharge	Grab	
Suspended Solids	30	100		mg/l	Each Discharge	Grab	
Iron	NA	4.0		mg/l	Each Discharge	Grab	
Copper	NA	1.0		mg/l	Each Discharge	Grab	

Footnotes: See Pages 13 and 14 of this permit

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL NUMBER	WASTEWATER TYPE		RECEIVING WATER		EFFECTIVE	EXPIRING
01B	High Conductivity Waste Tank Discharge		Lake Ontario		09/01/2011	12/31/2014
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH (Range)	6.0	9.0	SU	Monthly	Grab	

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.					
Flow	NA	Monitor		GPD	Quarterly	Instantaneous	
Oil & Grease	Monitor	15		mg/l	2/year	Grab	
Suspended Solids	NA	50		mg/l	Quarterly	Grab	
Chromium, Total	NA	1.5		mg/l	Monthly	Grab	
Copper, Total	NA	1.0		mg/l	Monthly	Grab	
Zinc, Total	NA	0.3		mg/l	Monthly	Grab	
Boron, Total	NA	20		mg/l	Monthly	Grab	
Iron, Total	NA	4.0		mg/l	Monthly	Grab	
Arsenic	NA	0.15		mg/l	Monthly	Grab	
Ammonia (as NH3)	NA	Monitor		mg/l	Monthly	Grab	

OUTFALL NUMBER	WASTEWATER TYPE		RECEIVING WATER		EFFECTIVE	EXPIRING
01C	Radiation Waste Holdup and Treatment System (Includes Condensate Tank, A & B Monitor Tanks, Laundry Tanks)		Lake Ontario		09/01/2011	12/31/2014
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH (Range)	6.0	9.0	SU	Weekly	Grab	7

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.					
Flow	NA	Monitor		GPD	Quarterly	Grab	
Oil & Grease	NA	15		mg/l	Quarterly	Grab	
Suspended Solids	30	100		mg/l	Quarterly	Grab	
Boron	140	NA		lbs/day	Quarterly	Grab	
Boron	Monitor	Monitor		mg/l	Quarterly	Grab	
Copper, Total	NA	Monitor		mg/l	Quarterly	Grab	

Footnotes: See Pages 13 and 14 of this permit.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
01D	Screenwash Return Water	Lake Ontario	09/01/2011	12/31/2014
Note: No monitoring required.				

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
02A	Retention Tank (Includes Demineralizer Regeneration, Wastes and Floor Drains) and Service Water from Service Water Pumps	Lake Ontario	09/01/2011	12/31/2014

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH (Range)	6.0	9.0	SU	Continuous	Recorder	8

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.					
Flow	Monitor	Monitor		GPD	Monthly	Instantaneous	
Oil & Grease	Monitor	15		mg/l	Monthly	Grab	
Suspended Solids	30	100		mg/l	Monthly	Grab	
Copper	NA	1.0		mg/l	Monthly	Grab	
Iron	NA	4.0		mg/l	Monthly	Grab	

Footnotes: See Pages 13 and 14 of this permit.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
002	Stormwater Runoff and Low Volume Waste (02A)	Lake Ontario via Outfall 001	09/01/2011	12/31/2014
003 *	Stormwater Runoff	Lake Ontario	09/01/2011	12/31/2014
004	Stormwater Runoff	Deer Creek	09/01/2011	12/31/2014

* For sampling purpose, Outfall 003 is assigned as the representative outfall for Outfalls 002, 003 and 004. However, visual monitoring observation shall be conducted at Outfalls 002, 003 and 004. See Footnote 10.

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH (Range)	6.0	9.0	SU	Quarterly	Grab	

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.					
Flow	NA	Monitor		GPD	Quarterly	Instantaneous	
Oil & Grease	NA	15		mg/l	Quarterly	Grab	
Solids, Total Suspended	NA	50		mg/l	Quarterly	Grab	
Visual Monitoring	NA	NA			Monthly		10

Footnotes: See Pages 13 and 14 of this permit.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
005	Stormwater Runoff from Retention Pond.	Deer Creek	09/01/2011	12/31/2014

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH (Range)	6.0	9.0	SU	Each Discharge	Grab	13

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.					
Flow	Monitor	Monitor		GPD	Each Discharge	Estimate	
Solids, Total Suspended	NA	50		mg/l	Each Discharge	Grab	
Oil & Grease	NA	15		mg/l	Each Discharge	Grab	
Solids, Total Dissolved	NA	Monitor		mg/l	Each Discharge	Grab	
COD	NA	Monitor		mg/l	Each Discharge	Grab	
Chlorine, Total Residual	NA	0.10		mg/l	Each Discharge	Grab	9
Visual Monitoring	NA	NA			Monthly		10

Note: Compliance samples are to be collected from the approximately middle of the retention pond at the surface immediately upgradient of the Outfall pipe in a location where it represents the discharge through Outfall 005. When the Retention Pond is covered in ice, the permittee may alter the sampling protocol for safety reasons and samples may be collected at the edge of the retention pond in areas free of ice and/or accessible for sample collection.

OUTFALL NUMBER	WASTEWATER TYPE			RECEIVING WATER	EFFECTIVE	EXPIRING
006	Redundant Service Water Discharge (1 ~ 10 times per year)			Deer Creek	09/01/2011	12/31/2014
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH (Range)	6.0	9.0	SU	Each Discharge	Grab	

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.					
Flow	Monitor	Monitor		GPD	Each Discharge	Estimate	
Chlorine, Total Residual	NA	0.10		mg/l	Each Discharge	Grab	
Temperature	NA	90		°F	Daily	Grab	

Footnotes: See Pages 13 and 14 of this permit.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
007	Stormwater from Firing Range, Stormwater Retention Pond and Contractor Parking Lot	Deer Creek	09/01/2011	12/31/2014

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH (Range)	6.0	9.0	SU	Quarterly	Grab	

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.					
Flow	Monitor	Monitor		GPD	Quarterly	Instantaneous	12
Solids, Total Suspended	NA	50		mg/l	Quarterly	Grab	
Oil & Grease	NA	15		mg/l	Quarterly	Grab	
Visual Monitoring	NA	NA			Monthly		10

OUTFALL NUMBER	WASTEWATER TYPE				RECEIVING WATER	EFFECTIVE	EXPIRING
008	Stormwater runoff from Stormwater Retention Basin serving the new Independent Spent Fuel Storage and the surrounding area				Groundwater or Deer Creek	09/01/2011	12/31/2014
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)	
pH (Range)	6.5	8.5	SU	Quarterly	Grab		

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.					
Flow	Monitor	Monitor		GPD	Quarterly	Instantaneous	12
Solids, Total Suspended	NA	50		mg/l	Quarterly	Grab	
Oil & Grease	NA	15		mg/l	Quarterly	Grab	
Visual Monitoring	NA	NA			Monthly		10

Footnotes: See Pages 13 and 14 of this permit.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL NUMBER	WASTEWATER TYPE			RECEIVING WATER	EFFECTIVE	EXPIRING
009	Stormwater runoff from the roof of the new Canister Processing Building and adjacent areas			Deer Creek	09/01/2011	12/31/2014
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH (Range)	6.0	9.0	SU	Quarterly	Grab	

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.					
Flow	Monitor	Monitor		GPD	Quarterly	Instantaneous	12
Solids, Total Suspended	NA	50		mg/l	Quarterly	Grab	
Oil & Grease	NA	15		mg/l	Quarterly	Grab	
Visual Monitoring	NA	NA			Monthly		10

OUTFALL NUMBER	WASTEWATER TYPE			RECEIVING WATER	EFFECTIVE	EXPIRING
010	Stormwater runoff from catch basins located in paved areas along the southeast side of the facility			Deer Creek	09/01/2011	12/31/2014
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH (Range)	6.0	9.0	SU	Quarterly	Grab	

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.					
Flow	Monitor	Monitor		GPD	Quarterly	Instantaneous	12
Solids, Total Suspended	NA	50		mg/l	Quarterly	Grab	
Oil & Grease	NA	15		mg/l	Quarterly	Grab	
Visual Monitoring	NA	NA			Monthly		10

Footnotes: See Pages 13 and 14 of this permit.

PERMIT LIMITS, LEVELS AND MONITORING**Zebra Mussel Control Program:**

OUTFALL NUMBER	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
001	Circulating Cooling Water	Lake Ontario	09/01/2011	12/31/2014

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
Oxidants, Total Residual	NA	0.10	mg/l	Daily *	Grab	See Special Conditions below
Note: * Samples shall be collected and analyzed daily for Total Residual Oxidant during periods of Actibrom 7342, Sodium Hypochlorite and SeaQuest are used for Zebra Mussel control.						

Special Conditions for Zebra Mussel Control Program:

The use of Actibrom 7342, Sodium Hypochlorite and SeaQuest for zebra mussel control, approved by letter dated April 18, 2008 to Brian R. Weaver of R.E. Ginna Nuclear Power Plant, is allowed with the following conditions concerning circulating cooling water:

1. The zebra mussel control shall be limited to a maximum of 30 days of continuous treatment.
2. Chlorine treatments for zebra mussel control shall be limited to a maximum of four treatments annually. Treatment shall be separated by at least 30 days.
3. The permittee uses Orion 1770 chlorine monitor for Total Residual Chlorine (TRC) analysis (or equivalent in-line monitor). The Orion 1770 uses techniques and technology adapted from SM 4500-Cl B which is one of the EPA approved methods to measure TRC. As indicated in 40CFR423.11, total residual oxidants (TRO) shall be used when intake water with bromides. Since all TRC method will also pick up TRO, the Orion 1770 chlorine monitor can be used to analyze and report TRO. Current use of Orion 1770 chlorine monitor for TRC/TRO analysis does not preclude the permittee to use other analytical methods listed in 40CFR136 at a future date.
4. Records of chemical dosages, concentration, effluent flow and effluent concentration of total residual oxidant during addition and discharge must be maintained. The flow shall be measured at the frequency specified for flow elsewhere in this permit or at the frequency of the parameters specified above, whichever is more frequent.
5. The Regional Water Engineer shall be notified not less than 48 hours prior to initiation of zebra mussel control program.
6. This permit modification is issued based on the best environmental and aquatic toxicity information available at this time. This authorization is subject to modification or revocation any time new information becomes available which justifies such modification or revocation.

Footnotes:

1. One second temperature readings of untempered intake and discharge water will be used to compute the hourly average temperature difference. Twenty four hourly average temperatures would be used to compute the daily average temperature difference. The highest hourly temperature difference recorded during the day would be the maximum reported.
2. The summer period in this permit is defined as when intake temperature is higher than (>) 45 °F.
3. The winter period in this permit is defined as when the intake temperature is equal to or less than (<) 45 °F.
4. According to 40CFR423, total residual chlorine (TRC) may not be discharged from any single generating unit for more than two hours per day for macroinvertebrate control. The permittee is using Actibrom 7342, Sodium Hypochlorite and SeaQuest (see Water Treatment Chemical Page of this permit) for general biofouling control to the condenser cooling water. Same chemicals are being used for Zebra Mussel Control Program (ZMCP). During the years when ZMCP is needed, the permittee shall follow requirements listed in the ZMCP page of this permit. During the years when ZMCP is not needed, the permittee may apply the general biofouling control program.

The permittee also uses sodium hypochlorite and SeaQuest for Service Water (for 4 service pumps) System biofouling/zebra mussel control program. Continuing dosing performed when intake temperature > 50° F

The permittee uses Orion 1770 chlorine monitor for TRC analysis(or equivalent in-line monitor). The Orion 1770 uses techniques and technology adapted from SM 4500-Cl B which is one of the EPA approved methods to measure TRC. As indicated in 40CFR423.11, total residual oxidants (TRO) shall be used when intake water with bromides. Since TRC methods will also pick up TRO, the Orion 1770 chlorine monitor can be used to analyze and report TRO. Current use of Orion 1770 chlorine monitor for TRC/TRO analysis does not preclude the permittee to use other analytical methods listed in 40CFR136 at a future date.

5. The permittee may use Analysis Methods such as Method 200.7 (ICP/AES) or other methods listed under 40CFR136 for copper and iron analysis if the Practical Quantitation Limit (PQL) of that analytical method is lower than the permit limit. For copper, the permittee shall "monitor and report" copper concentrations from EDP to January 31, 2012. The permittee shall comply with copper discharge action level beginning February 1, 2012 and thereafter. See additional copper study in the Schedule of Compliance page of the permit.

6. Whole Effluent Toxicity (WET) Testing:

Testing Requirements - WET testing shall consist of Chronic only. 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 from the intake without the influences of the discharges 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). The appropriate dilution series bracketing the IWC and including one exposure group of 100% effluent should be used to generate a definitive test endpoint, otherwise an immediate rerun of the test is required. 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 1.61:1 for acute, and 1.66:1 for chronic. Discharges which are disinfected using chlorine should be dechlorinated prior to WET testing or samples shall be taken immediately prior to the chlorination system.

The WET testing should be conducted during the majority of the WTCs are being used at the facility and residual of WTCs appear in the discharge.

Monitoring Period - Four WET testing shall be performed per year, i.e. one per every three month. The first testing shall be conducted in EDP + 3 months. The permittee shall repeat the four quarterly WET testing every 5th year.

Reporting - Toxicity Units shall be calculated and reported on the DMR as follows: $TU_a = (100)/(48 \text{ hr LC}_{50})$ or $(100)/(48 \text{ hr EC}_{50})$ (note that Acute data is generated by both Acute and Chronic testing) and $TU_c = (100)/(NOEC)$ when Chronic testing has been performed or $TU_c = (TU_a) \times (10)$ 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 and WTCs used 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. 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.

Note: There is possibility of complex synergistic or additive effects of water treatment chemicals. Samples for toxicity testing shall be collected during the applications of the most of the water treatment chemicals in the system.

7. The pH limit may be exceeded when conductivity is less than 10 micro mhos per cm². Conductivity monitoring is only required when the pH limit is exceeded.
8. Where pH is continuously recorded, the permittee is allowed excursions from the designated, allowable pH range, subject to the following conditions:
 - a. The total time during which the pH values of each discharge are outside the required range shall not exceed 7 hours and 26 minutes in any calendar month.
 - b. No individual excursion shall exceed 60 minutes in duration.
 - c. No excursion shall cause or contribute to a contravention of water quality standards.
9. TRC at Outfall 005 - See schedule of compliance for additional TRC analysis. From EDP to EDP + 12 months, the permittee shall monitor the TRC and report the results.
10. Monthly visual monitoring shall be conducted when discharge occurs at Outfalls 002, 003, 004, 005, 007, 008, 009, and 010.

Outfall 002 - The visual monitoring at Outfall 002 should remain to detect any oil and floating substances on the surface per 6NYCRR Part 703.2.

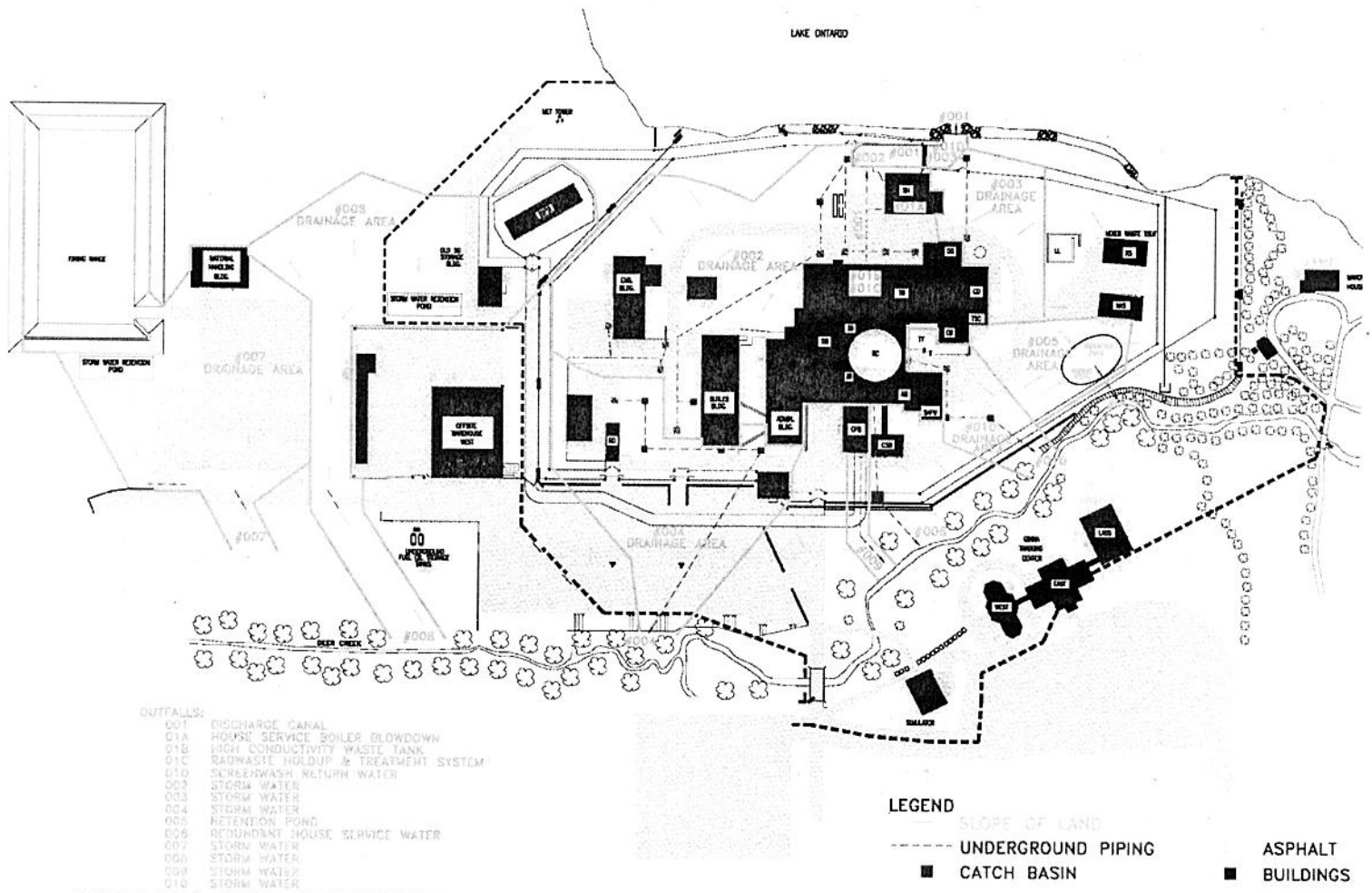
Outfall 004 - Per 6 NYCRR Part 703.2, visual monitoring at Outfall 004 shall be performed. In the event of accessibility challenges and/or safety concerns during the winter, the permittee may forgo visual monitoring during such occasions but must provide these reasons on its visual monitoring forms that are submitted to the NYSDEC. See General Operational Requirements, note 8 (page 17 of 29).

Outfall 005 - Visual monitoring can be performed by observing the pond prior to discharging it to Deer Creek.
11. Hydrazine: The permittee shall use Method ASTM D 1385-07 (<http://www.astm.org/Standards/D1385.htm>) for analyzing Hydrazine.
12. Instantaneous flow measurements for storm water outfalls 003, 007, 008, 009 and 010 are to be based on estimates made during sample collection.
13. Barley Straw and beneficial enzyme products are approved for use in the storm water Retention Pond, which discharges to Deer Creek via Outfall 005.
14. In the event that the facility is experiencing intake icing conditions during the winter season, the Outfall 001 Temperature Difference (Discharge temperature - Intake temperature) limit of 35 degrees Fahrenheit may be exceeded by an additional 5 degrees Fahrenheit for no more than two hours. This additional Temperature Difference condition shall be limited to one occurrence per calendar day and is only available during the period between January 1st and March 31st each year. The permittee shall indicate the dates, duration, and reason for operating above the 35 degrees Fahrenheit Temperature Difference limit in the monthly Discharge Monitoring Report.

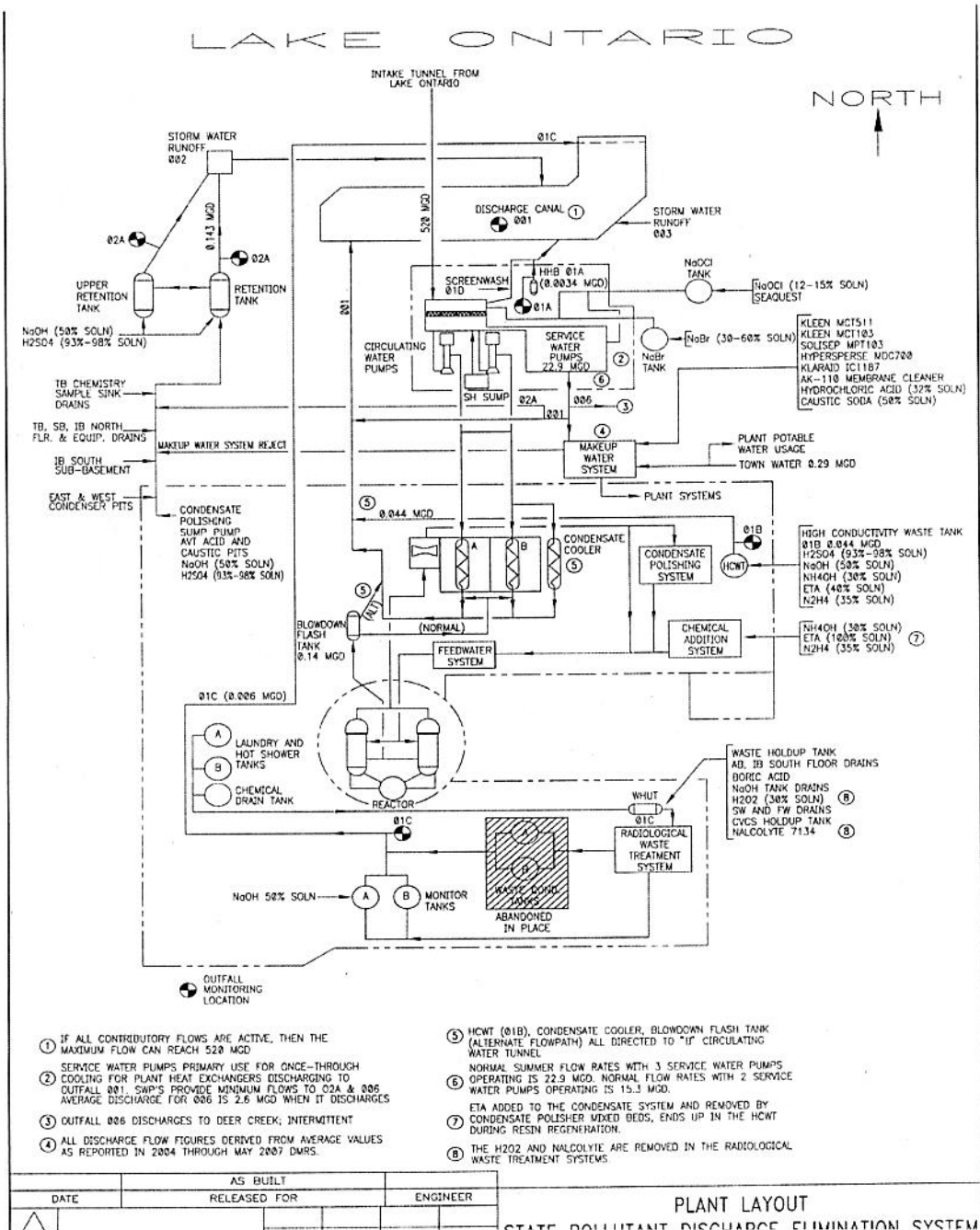
MONITORING LOCATIONS

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

Note: For sampling purpose, the permittee is permitted to use Outfall 003 as the representative Outfall for Outfalls 002, 003 and 004.



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



Additional Requirements

A. General Operational Requirements

1. There shall be no discharge of auxiliary boiler chemical cleaning wastes and other metal cleaning wastewaters other than those using boric acid.
2. In regards to 6 NYCRR Part 750-2.8(e) items 3 and 4 items shall be reported annually to NYSDEC offices in Avon.
3. The permittee shall submit annual operating report, by January 28th of each year, to the Department's offices in Albany (Bureau of Water Permits, 625 Broadway, Albany, NY 12233) and Avon (6274 East Avon-Lima Road, Avon, NY 14414). The annual operating report shall include following items:
 - a. Daily minimum, average, and maximum station electrical output shall be determined and logged.
 - b. Daily minimum, average, and maximum water use shall be directly or indirectly measured or calculated and logged.
 - c. Daily minimum, average, and maximum intake and discharge temperatures shall be logged.
 - d. Measurement in a, b, and c shall be taken on an hourly basis.
4. There shall be no discharge of PCB's from this facility.
5. Radioactivity: Concentrations of radioactivity in effluent are subject to the requirements of the U.S. Nuclear Regulatory Commission license conditions.
6. Ethanolamine (ETA) used for iron transport control at the Ginna secondary system through the feed-water supply shall be maintained at a concentration in Outfall 001 of less than or equal to 0.7 mg/l. Method of determination of this concentration in outfall 001 (Circulating Cooling Water) shall be calculated by the feed rate. A log shall be maintained subject to the reporting requirements of the Water Treatment Chemical requirement page of this permit.
7. This thermal discharge requirement applies to current 1775 megawatts-thermal power production: The thermal discharge from this facility shall assure the protection and propagation of a balanced indigenous population of shellfish, fish and wildlife in and on Lake Ontario. In this regard, the Department has approved the permittee's request for alternative effluent limitations pursuant to Section 316(a) of the Clean Water Act for the 5 year life of the permit. The effluent limitations in this permit reflect this approval. The water temperature at the surface of Lake Ontario shall not be raised more than 3-degree Fahrenheit over the temperature that existed before the addition of heat of artificial origin except that in a mixing zone consisting of 1521 acres from the point of discharge on a instantaneous basis (one percent probability occurrence), and an average of 360 acres from the point of discharge measured during the calendar day (i.e. midnight to midnight).
8. The permittee shall fill out "Quarterly Visual Monitoring Form" located in Appendix D of SPDES Multi-Sector General Permit (GP-0-06-002), dated December 2006, for every stormwater outfall and submit annually along with the annual BMP update to the Regional Water Engineer.

B. Biological Monitoring Requirements

All submissions under this section should provide:

- Two (2) copies to the Steam Electric Unit Leader;
 - One (1) copy each of the cover letter to the Bureau of Water Permits and Bureau of Water Compliance Program of Division of Water; and
 - One (1) copy of the cover letter to the Regional Water Engineer;
- unless otherwise noted.

Background Information

1. The requirement has been completed.

Design and Construction Technology Plan

2. The permittee must submit an approvable *Design and Construction Technology Plan*. This report was submitted and approved by the Department.
3. A proposed suite of technologies or operational measures (PSTOM) was submitted to meet the requirements of 6 NYCRR Part 704.5. The PSTOM is required to meet the following standards:
 - a. Alone, or in combination, these technologies or operational measures *minimize* impingement mortality and entrainment of fish and shellfish at the Ginna Nuclear Generating Station
 - b. The reductions in entrainment and impingement mortality resulting from the proposed technologies and/or operational measures can be no less stringent, and if possible, should be substantially greater than the following requirements:
 - i. Entrainment must be reduced by at least 60 percent from the full-flow calculation baseline;
 - ii. Impingement mortality must be reduced by at least 80 percent from the full-flow 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 will modify this SPDES permit to require the use of these selected technologies and/or operational measures.

Technology Installation and Operation Plan

4. Within 3 months of the effective date of the permit modification requiring technologies and/or operational measures to meet requirements of 6 NYCRR Part 704.5, the permittee must submit an approvable *Technology Installation and Operation Plan*. This plan must include:
 - a. a schedule for installing and implementing the technologies and/or operational measures selected to meet requirements of 6 NYCRR Part 704.5 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

5. Within 3 months of Department approval of the *Technology Installation and Operation Plan*, the permittee must submit an approvable *Verification Monitoring Plan*. This plan must include details of procedures to confirm that the necessary reductions in impingement and entrainment required by this permit are being achieved, and must include the following:
 - a. A five year averaging period which shall include at a minimum, two years of biological monitoring to verify the full-scale performance of BTA measures to reduce impingement and entrainment.
 - 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 protocols 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.

6. Within 6 months of the completion of the initial monitoring program outlined in the *Verification Monitoring Plan* the permittee must submit an approvable report to the Steam Electric Unit Leader that demonstrates compliance with 6 NYCRR Part 704.5.

Additional Reporting Requirements

7. The permittee must maintain records of all data, reports and analysis pertaining to compliance with 6NYCRR Part 704 and Section 316(b) CWA for a period no less than 10 years from EDP.
8. Each impingement report submitted during this period shall include figures and a complete description of the cooling water intake system including trash racks, traveling screen type, size, mesh, and standard operating procedures; screen washwater discharge sluice configuration and disposition of screen washings, and the nature and estimated quantity of debris collected.

General Requirements

9. 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 8, 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.

10.
 - a. During any time when a circulating pump is operational, each traveling screen shall be washed for approximately fifteen (15) minutes each hour, except when a screen is inoperable due to required maintenance.
 - b. No sampling gear or other impediments to the return of impinged fish to Lake Ontario shall be placed in the washwater sluice excepting those necessary to conduct studies approved by NYSDEC.
11. Biological specimens will be required to be submitted to NYSDEC upon request, if notice is given prior to collection.

SPECIAL CONDITIONS - INDUSTRY BEST MANAGEMENT PRACTICES

1. **General** - The permittee shall develop, maintain, and implement a Best Management Practices (BMP) plan to prevent releases of significant amounts of pollutants to the waters of the State through plant site runoff; spillage and leaks; sludge or 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 plot plans, drawings, or maps. Other documents already prepared for the facility such as a Safety Manual or a Spill Prevention, Control and Countermeasure (SPCC) plan may be used as part of the plan and may be incorporated by reference. A copy of the current 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 permittee has submitted initial BMP plan on May 29, 2007 to the Regional Water Engineer. The BMP plan shall be implemented within 6 months of submission, unless a different time frame is approved by the Department. The BMP plan shall be reviewed annually and shall be modified whenever: (a) changes at the facility materially increase 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. Note that 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 set explicitly by such permit modification or renewal.

3. **Facility Review** - The permittee shall review all facility components or systems (including but not limited to material storage areas; in-plant transfer, process, and material handling areas; loading and unloading operations; storm water, erosion, and sediment control measures; process emergency control systems; and sludge and waste disposal areas) where materials and 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, the effects of natural phenomena such as freezing temperatures and precipitation, fires, and the facility's history of spills and leaks. 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 application Form NY-2C (available at <http://www.dec.state.ny.us/website/dcs/permits/olpermits/form2c.pdf>) and that are required to be monitored for by the SPDES permit.

4. **A. 13 Minimum BMPs** - Whenever the potential for a release of pollutants to State waters is determined to be present, the permittee shall identify BMPs that have been established to prevent or minimize such potential releases. Where BMPs are inadequate or absent, appropriate BMPs shall be established. In selecting appropriate BMPs, the permittee shall consider good 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 September 1992 manual *Storm Water Management for Industrial Activities*, EPA 832-R-92-006 (available from NTIS, 703-487-4650, 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. It is acceptable in these cases to indicate "Not Applicable" for the portion(s) of the BMP Plan that do not apply to your facility, 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.

5. **Special Note:** The Department acknowledges the NRC's exclusive authority over licensed activities, and does not intend that the BMP conflict with, or duplicate any requirements of Ginns'a reactor license. The permittee should provide a description of those procedures required under Gina's NRC license that fulfill the intent of the BMP.

WATER TREATMENT CHEMICAL (WTC) REQUIREMENTS ^(9/99)

New or increased use of a WTC requires prior DEC review and authorization. At a minimum, the permittee must notify the DEC in writing of its intent to change WTC use by submitting a completed WTCFX Form for each WTC. The DEC will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed outside of the formal permit administrative process. **The majority of WTC authorizations do not require formal SPDES permit modification.** WTCs which are used in closed systems and cannot be discharged or those which are discharged to municipal STP do not require DEC review. **WTC use and discharge questions or requests for forms** should be directed to the DEC staff person who developed your SPDES permit. If you are not sure who that is, contact the DEC staff person who last inspected your facility.

Examples of WTCs include, biocides, coagulants, conditioners, corrosion inhibitors, defoamers, flocculants, scale inhibitors, sequestrants, and settling aids. DEC staff may also direct you to use a WTCFX Form for review and authorization of substances other than WTCs, e.g. process chemicals.

The permittee must demonstrate that the use and discharge of any WTCs containing **phosphorus**, tributary to the Great Lakes Basin or other ponded waters, is necessary and that no acceptable alternatives exist. Please note that in some cases your permit may require modification to regulate phosphorus.

Generic WTC Usage Requirements

- WTC use shall not exceed the rate reported by the permittee or authorized below, whichever is less.
- The discharge shall not cause or contribute to a violation of water quality or an exceedance of ambient water quality criteria.
- **The permittee must maintain a logbook** of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure that excessive levels of WTCs are not used and subsequently discharged through outfalls. The permittee shall retain the logbook data for a period of at least 5 years. This period may be extended by request of the DEC.
- **The permittee shall provide an annual report**, attached to the December DMR, containing the following information for each outfall: the current list of WTCs authorized for use and discharge by the DEC, for each WTC the amount in pounds used during the year, identification of authorized WTCs the permittee no longer uses, and any other pertinent information.

List of WTCs Authorized for Use and Discharge*

Affected Outfall(s)	Dosage (lbs/day)		WTC Manufacturer and Product Name	WTC Function
	Avg	Max		
001	167.5	185.8	Nalco Company - Actibrom 1338	General biofouling control to the condenser cooling water.
	389.5	432.0	Nalco Company - Sodium Hypochlorite (A)	Up to 365 days per year with 2-hour per day of application according to 40CFR423.
001	1028.2	1140.5	Nalco Company - Actibrom 1338	Zebra mussel control program.
	4673.7	5184.1	Occidental Chemical Corp. - Sodium Hypochlorite (A)	Up to four events per year consisting of 30 days continuous dosage.
001	918	1529	Occidental Chemical Corp. - Sodium Hypochlorite (12 - 15% solution) (A)	Service Water (for 4 service pumps) biofouling/zebra mussel control program. Continuing dosing performed when intake temperature > 50 ° F
001 (thru 02A & 002)	200	200	GE Betz, Inc. - KLEEN MCT511	Reverse osmosis (R.O.) membrane cleaner
001 (thru 02A & 002)	225	270	GE Betz, Inc. - KLEEN MCT103	R. O. Membrane Cleaning Agent
001 (thru 02A & 002)	47	60	GE Betz, Inc. - SOLISEP MPT103	Flocculent - Pretreatment R.O.

Affected Outfall(s)		Dosage (lbs/day) Avg Max		WTC Manufacturer and Product Name	WTC Function
001 (thru 02A & 002)		6.8	13.6	GE Betz, Inc. - SOLISEP MPT150	Flocculent
001 (thru 02A & 002)		20	25	GE Betz, Inc. - HYPERSPERSE MDC700	R. O. Antiscalant
001 (thru 02A & 002)		52	60	GE Betz, Inc. - Klaraid IC1187	Coagulant
001 (thru 02A & 002)		200	200	GE Betz, Inc. - AK-110 Membrane Cleaning	R.O. Membrane Cleaning Agent
001 (thru 02A & 002)		150	200	GE Betz, Inc. - Hydrochloric Acid, 32%	Cleaning Agent
001 (thru 02A & 002)		150	200	GE Betz, Inc. - Caustic Soda, 50%	Cleaning Agent
001 (thru 01B)		50	75	Nalco Company - PRE-TECT PT 7000 (B)	Steam Condensate Corrosion Control Agent
001 (thru 01B)	During Continuous Operation	8.58	25.23	Tanner Industries - Ammonia Hydroxide 30% (A)	pH control (ammonia is covered by permit limit)
	During Refueling Outage	8.58	22.50		
001 (thru 01B)	During continuous operations	23	115	Beacon Water Equipment Co. – Hydrazine (35%)	Oxygen scavenger
001 (thru 01B)	During refueling outage	4.0	9.33	Beacon Water Equipment Co. – Hydrazine (35%)	Oxygen scavenger
Notes: (A) Following WTCs may obtain from alternative vendors as long as the ingredients and percentages are the same as listed in the application: Sodium Hypochlorite, Ammonia Hydroxide, and Sulfuric Acid					

* - Authorized WTCs must either be listed above or identified in a letter sent to the permittee by the DEC subsequent to issuance of this permit page. In cases where a WTC is listed above and in a letter from the DEC, the more recent document will control.

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 before initiation of any discharge.
- (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: (585) - 226 - 5450

- (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 three years.

- continued -

- (f) If, upon November 1, 1997, the permittee has installed signs that include the information required by 17-0815-a(2)(a) of the ECL, but do not meet the specifications listed above, the permittee may continue to use the existing signs for a period of up to five years, after which the signs shall comply with the specifications listed above.
- (g) The permittee shall periodically inspect the outfall identification signs in order to ensure that they are maintained, are still 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
	001 and Intake	Copper - The permittee shall conduct additional copper monitoring study according to the approved "Wok Plan for Copper and Iron" on April 17, 2007 with following modifications: 1. Total copper and dissolved copper shall be monitored, 2. Sampling frequency shall be three samples per month (same as in the approved work plan) for 6 months, and [Note: The permittee shall use EPA analytical methods listed under 40CFR136 with detection level lower than the permit limit or action level.] By EDP + 10 month the permittee shall submit a copper report summarizing all copper data (including copper data from 2007 study) with QC summary sheet for each sample data, analyzing all copper data, present findings and conclusions.	EDP + 10 months (02/01/2010 + 10 mos. = 12/01/2010)
	005	Phenols, Total Chlorinated and Phenols, Total Unchlorinated - The data submitted (July 21, 2010) under the priority pollutants program indicated that total phenols at a level of 0.002 and 0.009 mg/l. It is requested that the permittee conduct a sampling program to report the concentrations of total chlorinated phenols and total unchlorinated phenols using three grab samples at three separate discharges at Outfall 005 (retention pond) and submit the data by 05/01/2012.	05/01/2012
	007, 008, 009 & 010	Mercury – The mercury data submitted in the permit modification application for stormwater Outfalls was analyzed using Method 245.1. The permittee shall collect three separate grab samples from three stormwater discharges from these outfalls using Method 1631 for mercury analysis with detection limit of 0.5 ng/l.	05/01/2012
	010	Total Copper, Total Zinc, Total Lead – Permittee shall perform a sampling program consisting of 8 quarterly grab samples taken over two years and analyzed for total copper, total zinc, and total lead. The permittee shall submit a report summarizing results of this sampling program by EDP + 27 months.	08/01/2013

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 independent 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 14 days following each elapsed date, unless conditions require more immediate notice as prescribed in 6 NYCRR Part 750-1.2(a) and 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 include 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 of 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 Water Engineer at 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 this permit or in writing by the Department.

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Action Code	Outfall Number(s)	Compliance Action	Due Date
		<u>Biological Monitoring Requirements</u> (RE: Sec. B of the Additional Requirements in this permit) B2. Design and Construction Technology Plan (DCTP) - The permittee submitted the DCTP it has been approved by the Department. B3. The permittee shall submit a proposed suite of technologies or operational measures in accordance with the outlines listed in the Additional Requirement B3, the Department will modify the SPDES permit (EDM2) to require the use of those selected technologies and/or operational measures. (Note: The PSTOM was submitted October 2009) B4. Technology Installation and Operational Plan (TIOP) - The permittee shall submit an approvable TIOP. B5. Verification Monitoring Plan (VMP) - The permittee shall submit an approvable VMP. B6. Demonstration in compliance with 6NYCRR Part 704.5 - The permittee shall submit an approvable demonstration report.	DEC approval of DCTP + 1 Month (submitted 10/2009) EDM2* + 3 Months DEC approval of TIOP + 3 Months Completion of VMP + 6 Months.

Note: EDM2 = 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 will modify this SPDES permit to require the use of these selected technologies and/or operational measures.

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 independent from the effective date of the permit stated in the letter of "SPDES NOTICE/RENEWAL APPLICATION/PERMIT."

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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 Water Engineer at 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 this permit or in writing by the Department.

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- a) The permittee shall also refer to 6NYCRR Part 750 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 three 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 Watershed 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 8
6274 East Avon-Lima Road
Avon, NY 14414
Phone: (585) 226-5450

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 6NYCRR Part 750.
- 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.