Exelon Generation®

SVP-14-006

January 28, 2014

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Quad Cities Nuclear Power Station, Units 1 and 2
Renewed Facility Operating License Nos. DPR-29 and DPR-30
NRC Docket Nos. 50-254 and 50-265

Subject: Illinois Environmental Protection Agency Violation Notice

Quad Cities Nuclear Power Station (QCNPS) has received Violation Notice W-2013-50241 from the Illinois Environmental Protection Agency (IEPA), pertaining to the Station's sanitary waste treatment plant outfall as identified in National Pollutant Discharge Elimination System (NPDES) permit IL0005037. Pursuant to Appendix B (Section 2.2) of the Renewed Facility Operating Licenses for QCNPS, enclosed is the IEPA Violation Notice and the Station's response.

Should you have any questions concerning this letter, please contact Mr. Wally J. Beck at (309) 227-2800.

Respectfully,

Scott Darin
Site Vice President
Quad Cities Nuclear Power Station

Enclosures: A – IEPA Violation Notice No. W-2013-50241 (dated January 7, 2014)
B – QCNPS Response to IEPA Violation Notice (dated January 21, 2014)

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Quad Cities Nuclear Power Station

IE23
NRR

Enclosure A

IEPA Violation Notice No. W-2013-50241

dated

January 7, 2014

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217)782-2829
PAT QUINN, GOVERNOR LISA BONNETT, DIRECTOR

217/524-6308

January 7, 2014

CERTIFIED MAIL # **7011 1150 0001 0860 2140**
RETURN RECEIPT REQUESTED

Exelon Generation Company, LLC
22710 206th Avenue North
Cordova, IL 61242

Re: Violation Notice: Exelon Generation Company, LLC
Violation Notice No.: W-2013-50241

Dear **Facility Owner**:

This constitutes a Violation Notice pursuant to Section 31(a)(1) of the Illinois Environmental Protection Act ("Act"), 415 ILCS 5/31(a)(1), and is based upon a review of available information and an investigation by representatives of the Illinois Environmental Protection Agency ("Illinois EPA").

The Illinois EPA hereby provides notice of alleged violations of environmental laws, regulations, or permits as set forth in Attachment A to this notice. Attachment A includes an explanation of the activities that the Illinois EPA believes may resolve the specified alleged violations, including an estimate of a reasonable time period to complete the necessary activities. Due to the nature and seriousness of the alleged violations, please be advised that resolution of the violations may also require the involvement of a prosecutorial authority for purposes that may include, among others, the imposition of statutory penalties.

A written response, which may include a request for a meeting with representatives of the Illinois EPA, must be submitted via certified mail to the Illinois EPA within 45 days of receipt of this letter. If a meeting is requested, it shall be held within 60 days of receipt of this notice. The response must include information in rebuttal, explanation, or justification of each alleged violation and a statement indicating whether or not the facility wishes to enter into a Compliance Commitment Agreement ("CCA") pursuant to Section 31(a) of the Act. If the facility wishes to enter into a CCA, the written response must also include proposed terms for the CCA that includes dates for achieving each commitment and may include a statement that compliance has been achieved for some or all of the alleged violations. The proposed terms of the CCA should contain sufficient detail and must include steps to be taken to achieve compliance and the necessary dates by which compliance will be achieved.

Exelon Generation Company, LLC
VN W-2013-50241

The Illinois EPA will review the proposed terms for a CCA provided by the facility and, within 30 days of receipt, will respond with either a proposed CCA or a notice that no CCA will be issued by the Illinois EPA. If the Illinois EPA sends a proposed CCA, the facility must respond in writing by, either agreeing to and signing the proposed CCA, or by notifying the Illinois EPA that the facility rejects the terms of the proposed CCA. When compliance is achieved, the owner of the facility must submit a completed statement of compliance form certifying that all Compliance Commitment Agreement measures/events have been successfully completed.

If a timely written response to this Violation Notice is not provided, it shall be considered a waiver of the opportunity to respond and meet, and the Illinois EPA may proceed with referral to a prosecutorial authority.

Written communications should be directed to:

Illinois EPA – Division of Water Pollution Control
Attn: Cathy Siders/ CAS#19
P.O.BOX 19276
Springfield, IL 62794-9276

All communications must include reference to this Violation Notice number, **W-2013-50241**.

Questions regarding this Violation Notice should be directed to Cathy Siders at 217/524-6308.

Sincerely,

Roger Callaway

Roger Callaway
Compliance Assurance Section
Division of Water Pollution Control
Bureau of Water

Attachments

ATTACHMENT A

Exelon Generation Company, LLC **VIOLATION NOTICE NO. W-2013-50241**

Questions regarding the violations identified in this attachment should be referred to Cathy Siders at (217) 524-6308.

On October 16, 2013, the Illinois EPA received a letter dated October, 10, 2013 from Exelon Generation Company, LLC. In the letter it was noted that the facility has discharged sanitary treatment plant effluent via an outfall not specified in NPDES Permit #IL0005037, and is therefore in violation of the Environmental Protection Act.

A review of information available to the Illinois EPA indicates the following violations of statutes, regulations, or permits. Included with each type of violation is an explanation of the activities that the Illinois EPA believes may resolve the violation including an estimated time period for resolution.

Unpermitted Discharge/Failure to Obtain an NPDES Permit for Point Source Discharge

Implement necessary actions to prevent any further unpermitted discharge. Compliance is expected immediately.

Violation Date	Violation Description
10/16/2013	Except as in compliance with the provisions of the Act, Board regulations, and the CWA & (Clean Water Act), and the provisions and conditions of the NPDES (National Pollutant Discharge Elimination System) permit issued to the discharger, the discharge of any contaminant or pollutant by any person into the waters of the State from a point source shall be unlawful.
Rule/Reg.:	Section 12(a) and (f) of the Act, 415 ILCS 5/12(a) and (f) (2012), 35 Ill. Adm. Code 309.102(a)

Enclosure B

QCNPS Response to IEPA Violation Notice

dated

January 21, 2014

Exelon
Nuclear

Exelon Generation Company, LLC
Quad Cities Nuclear Power Station
22710 206th Ave North
Cordova, Il. 61242-9740

SVP-14-004

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

January 21, 2014

Illinois EPA – Division of Water Pollution Control
Attn: Cathy Siders/CAS#19
P.O. Box 19276
Springfield, Illinois 62794-9276

Subject: Violation Notice W-2013-50241
Facility I.D.: IL0005037 Quad Cities Nuclear Power Station

References: (1) Notification letter from Tim Hanley to Darin LeCrone, dated October 10, 2013 (SVP-13-067)
(2) NPDES Permit Modification Submittal letter from Tim Hanley to Darin LeCrone, dated October 10, 2013 (SVP-13-068)

Dear Ms. Siders:

This letter constitutes the response of Exelon Generation Company, LLC (Exelon) to the Illinois Environmental Protection Agency's Violation Notice W-2013-50241, dated January 7, 2014, (Violation Notice) concerning Quad Cities Nuclear Power Station (Quad Cities or the Station). This letter provides Exelon's explanation concerning the alleged violation and Exelon's request to enter into a Compliance Commitment Agreement (CCA), in accordance with the Violation Notice.

1. Explanation of Events

The Station's current National Pollutant Discharge Elimination System (NPDES) permit lists the sanitary waste treatment plant (STP) (Outfall C01) as an internal stream contributing to Outfall 001/002, Open Cycle Diffusers. On October 8, 2013, Station personnel discovered that Outfall C01 does not flow into Outfall 001/002, but rather is routed through a 10-inch conduit, which discharges through an independent outfall directly into the Mississippi River. This STP outfall (STP Outfall) is located approximately 250 feet downstream of Outfall 001/002. On October 10, 2013, Exelon notified the Illinois EPA of this discovery (Reference #1).

Through a follow up investigation, Exelon has determined that the STP Outfall has been in place and used by the Station since the 1970's. Prior to 1983, the STP Outfall was identified in

the Station's NPDES permits as independent Outfall 005, with direct discharge to the Mississippi River. The Station's NPDES permit renewal application, submitted to Illinois EPA in 1981 identified the STP Outfall as independent Outfall 005. However, the renewed NPDES permit issued by Illinois EPA in 1983, in response to the 1981 renewal application, erroneously listed STP Outfall 005 as a contributing stream to the Open Cycle Diffuser Outfalls (Diffuser Outfalls). Following issuance of the 1983 permit, subsequent renewal permit applications submitted on behalf of the Station unfortunately continued the error; describing the STP Outfall as contributing to the Diffuser Outfalls.

Despite this error, effluent discharged from the STP Outfall has been subject to sampling and Discharge Monitoring Reporting requirements pursuant to the Station's NPDES permit. Sanitary Treatment Plant effluent is sampled at the plant discharge weir. That sampling point is located within the treatment plant, at a point after all treatment has occurred and prior to being discharged to the Mississippi River. Thus, effluent discharged via the STP Outfall has been sampled, monitored and reported to assure that the discharge complies with applicable NPDES permit effluent limits.

2. Responsive Measures

The following measures have been implemented in response to the STP Outfall discovery:

1. The STP Outfall flow was verified through dye testing on October 9, 2013. Verbal communications with Illinois EPA regarding the STP Outfall were made on October 9, 2013, following verification with dye testing. Follow-up written notification was submitted to Illinois EPA on October 10, 2013 (Reference #1).

2. Quad Cities submitted a request for modification to its existing NPDES permit No. IL 0005037 (dated August 26, 2010). The requested modification does not seek to change any effluent limitations, but rather requests a change of the outfall for the sanitary wastewater treatment plant (C01) effluent from a contributing stream to the Diffuser Outfalls (Outfall 001/002) to an independent Outfall (003), discharging directly to the Mississippi River at a specified location. Application Form 2C, Wastewater Discharge Information, Consolidated Permit Program and Site Water / Wastewater Flow Diagram were provided as Attachments to the permit modification request (Reference #2).

3. Compliance Commitment Agreement

Exelon wishes to enter into a Compliance Commitment Agreement with Illinois EPA.

4. Proposed Terms of Compliance Commitment Agreement

Submit NPDES Permit modification request for STP Outfall.

Exelon submitted a request for modification to its existing NPDES permit No. IL 0005037 (dated August 26, 2010), requesting a change of the outfall for its sanitary wastewater treatment plant (C01) effluent from a contributing stream of Outfall 001/002 to an independent Outfall (003), for Illinois EPA review and approval (Reference #2).

Exelon understands that the Illinois EPA has proposed to revise Quad Cities NPDES permit No. IL 0005037 to reflect the requested modification and that the Illinois EPA will issue the modified permit on or before April 14, 2014. Issuance of the revised permit and implementation of the CCA will fully address the violation alleged in Violation Notice W-2013-50241.

Please note that nothing in this letter should be deemed an admission to any violation of the Illinois Environmental Protection Act, the Federal Clean Water Act, or any associated regulations.

Exelon is not requesting a meeting with Illinois EPA to further discuss this matter, as provided for in the Violation Notice. However, if Illinois EPA believes a meeting would be beneficial or if you have any questions or need additional information, please contact Mark Stuhlman at (309) 227-2765 or John Petro at (630) 657-3209.

Sincerely,

Ka O'Ke (for)

Scott Darin
Site Vice President
Quad Cities Station

Enclosures: Reference #1: Notification letter from Tim Hanley to Darin LeCrone, dated October 10, 2013 (SVP-13-067)
Reference #2: NPDES Permit Modification Submittal letter from Tim Hanley to Darin LeCrone, dated October 10, 2013 (SVP-13-068)

Exelon Generation Company, LLC
Quad Cities Nuclear Power Station
22710 206th Avenue North
Cordova, IL 61242-9740
www.exeloncorp.com

Exelon Nuclear

SVP-13-067

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

October 10, 2013

Darin LeCrone
Acting Manager, Industrial Unit, Permit Section
Division of Water Pollution Control
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

Subject: Exelon Generation Company
Quad Cities Nuclear Power Station
NPDES Permit No. IL0005037 dated August 26, 2010

Dear Mr. LeCrone:

This follows our previous communications regarding Quad Cities Station's sanitary waste treatment plant. The Station's NPDES permit lists the sanitary waste treatment plant (Outfall C01) as a contributing stream to Outfall 001/002, Open Cycle Diffusers. On October 8, 2013, Station personnel discovered that Outfall C01 is not flowing into Outfall 001/002, but is otherwise routed through a 10-inch conduit, which discharges through an independent outfall. This outfall is located downstream of Outfall 001/002.

As we have discussed with you, sampling of the sanitary treatment plant effluent demonstrates that the plant has complied with the applicable NPDES permit effluent limits, notwithstanding this independent outfall. The existing sampling point, located at the discharge weir within the sanitary waste treatment plant, is representative of the effluent stream after all treatment but prior to discharge to the Mississippi River. Quad Cities plans to continue using this sampling point to monitor compliance with NPDES permit requirements for the sanitary waste treatment plant.

Quad Cities is currently preparing to submit to IEPA the appropriate information to support a permit revision, which accurately reflects the existing outfall arrangement. The permit revision request will not seek to modify the existing

permit effluent limits applicable to the Station's sanitary waste treatment plant. If you have any questions or need additional information, please contact Mark Stuhlman at (309) 227-2765 or John Petro at (630) 657-3209.

Sincerely,

Tim Hanley
Site Vice President
Quad Cities Station

TH/MS

CC: Roger Callaway, IEPA Compliance
Leslie Lowry, IEPA Permitting
Mark Stuhlman
Letterbook

Exelon Generation Company, LLC
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22710 206th Avenue North
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Exelon Nuclear

SVP-13-068

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

October 10, 2013

Darin LeCrone
Acting Manager, Industrial Unit, Permit Section
Division of Water Pollution Control
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

Subject: Exelon Generation Company
Quad Cities Nuclear Power Station
NPDES Permit No. IL0005037 dated August 26, 2010

Dear Mr. LeCrone:

Quad Cities Station is requesting a modification to its existing National Pollutant Discharge Elimination System (NPDES) permit No. IL 0005037. The requested modification does not seek to change any permitted effluent limitations but rather requests a change of the outfall for its sanitary wastewater treatment plant (C01) effluent from a contributing stream of outfall 001/002 to an independent outfall (003) and the location of the outfall. Application Form 2C, Wastewater Discharge Information, Consolidated Permit Program and Site Water / Wastewater Flow Diagram are provided as Attachments to this document.

If you have any questions or need additional information, please contact Mark Stuhlman at (309) 227-2765 or John Petro at (630) 657-3209.

Sincerely,

Tim Hanley
Site Vice President
Quad Cities Station

TH/MS

CC: Roger Callaway, IEPA Compliance
Leslie Lowry, IEPA Permitting
Mark Stuhlman
Letterbook

Please print or type in the unshaded areas only.

EPA I.D. NUMBER *(copy from Item 1 of form 1)*
ILD060862810

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98

FORM **2C** NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER *(list)*	B. LATITUDE 1. DEG.	2. MIN.	3. SEC.	C. LONGITUDE 1. DEG.	2. MIN.	3. SEC.	D. RECEIVING WATER *(name)*
003	41	43	28	90	18	45	Mississippi River

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g. for certain mining activities), provide a pictorial description of the nature and amount of any source of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. *(list)*	2. OPERATION(S) CONTRIBUTING FLOW a. OPERATION *(list)*	b. AVERAGE FLOW *(include units)*	3. TREATMENT a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
003	Sanitary Waste Treatment Plant	.004 MGD	Discharge to Surface Water	4-A	
			Grinding, Equalization,	1-L	X-X
			Sedimentation	1-U	
			Rotating Biological Contactor,	X-X	
			Sedimentation, Disinfection,	1-U	2-F
			Aerobic Digestion, Drying Beds	5-A	5-H
			Landfill (radioactive burial)	5-Q	

OFFICIAL USE ONLY *(effluent guidelines sub-categories)*

CONTINUED FROM THE FRONT

C. except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

[ ] YES *(complete the following table)* [X] NO *(go to Section III)*

1. OUTFALL NUMBER *(list)*	2. OPERATION(s) CONTRIBUTING FLOW *(list)*	3. FREQUENCY a. DAYS PER WEEK *(specify average)*	3. FREQUENCY b. MONTHS PER YEAR *(specify average)*	4. FLOW a. FLOW RATE *(in mgd)* 1. LONG TERM AVERAGE	4. FLOW a. FLOW RATE *(in mgd)* 2. MAXIMUM DAILY	4. FLOW b. TOTAL VOLUME *(specify with units)* 1. LONG TERM AVERAGE	4. FLOW b. TOTAL VOLUME *(specify with units)* 2. MAXIMUM DAILY	4. FLOW c. DURATION *(in days)*

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

[X] YES *(complete item III-B)* [ ] NO *(go to Section IV)*

B. Are limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?

[ ] YES *(complete item III-C)* [X] NO *(go to Section IV)*

C. If you answered "yes" to item III-B, list the quantity which represents an actual measurement of your level of production, expressed in terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	2. AFFECTED OUTFALLS *(list outfall numbers)*
N/A	N/A	N/A	N/A

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or Local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

[ ] YES *(complete the following table)* [X] NO *(go to Item IV-B)*

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO.	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED
N/A	N/A	N/A	N/A	N/A	

B. OPTIONAL: You may wish to attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may affect your discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

[ ] MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED.

EPA I.D. NUMBER *(copy from item 1 of form 1)*

ILD060862810

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding - Complete one set of tables for each outfall - Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
N/A	N/A	N/A	N/A

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

[ ] YES *(list all such pollutants below)* [X] NO *(go to item VI-B)*

N/A

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of you discharges or on a receiving water in relation to your discharge within the last 3 years?

[ ] YES *(identify the test(s) and describe their purposes below)* [X] NO *(go to Section VIII)*

N/A

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

[X] YES *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* [ ] NO *(go to Section IX)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code & no.)*	D. POLLUTANTS ANALYZED *(list)*
TestAmerica Incorporated	704 Enterprise Drive Cedar Falls, Iowa 50613-0625	(319) 277-2401	Outfall C01: All Analysis

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE *(type or print)*	B. PHONE NO. *(area code & no.)*
Tim Hanley / Site Vice President Quad Cities Nuclear Station	(309) 227- 3600
C. SIGNATURE	D. DATE SIGNED
	10/10/13

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages.
SEE INSTRUCTIONS

EPA I.D. NUMBER *(copy from Item1 of Form 1)*: ILD 060882810

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)* — OUTFALL NO. 003

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	3. UNITS a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE (optional) d. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	36.0	1.20	21.2	0.71	9.4	0.31	41	mg/L	lbs/day			
b. Chemical Oxygen Demand (COD)												
c. Total Organic Carbon (TOC)												
d. Total Suspended Solids (TSS)	29.5	0.98	22.2	0.74	11.6	0.39	44	mg/L	lbs/day			
e. Ammonia												
f. Flow	VALUE	0.007	VALUE	0.005	VALUE	0.004	45	MGD		VALUE		
g. Temperature *(winter)*	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM 6.6	MAXIMUM 7.6	MINIMUM 6.8	MAXIMUM 7.4			44	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly or indirectly but expressly in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a you must provide quantitative data or an explanation of their presence in you discharge. Complete one table for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X" b. BELIEVED PRESENT	2. MARK "X" c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) d. NO. OF ANALYSES
a. Bromide (24959-67-9)		x	< 2.5	< 0.083					1	mg/L	lbs/day			
b. Chlorine, Total Residual	x		> 3.5	> 0.117	> 3.5	> 0.117	3.4	0.113	152	mg/L	lbs/day			
c. Color	x		75						1	Pt-Co				
d. Fecal Coliform	x		< 1		< 1		< 1		45	#col/100 ml				
e. Fluoride (16984-48-8)	x		< 0.20	< 0.007					1	mg/L	lbs/day			
f. Nitrate-Nitrite *(as N)*	x		52	1.736					1	mg/L	lbs/day			

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (If available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (If available) (2) MASS	c. LONG TERM AVRG. VALUE (If available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (If available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) d. NO. OF ANALYSES
g. Nitrogen, Total Organic (as N)	x		11.9	0.397					1	mg/L	lbs/day			
h. Oil and Grease	x		< 5.1	< 0.170					4	mg/L	lbs/day			
i. Phosphorus (as P), Total (7723-14-0)	x		10.8	0.361					1	mg/L	lbs/day			
j. Radioactivity														
(1) Alpha, Total	x		< 1.9						1	pCi/L				
(2) Beta, Total	x		32.8						1	pCi/L				
(3) Radium, Total	x		3.4						1	pCi/L				
(4) Radium 226, Total	x		< 0.1						1	pCi/L				
k. Sulfate (as SO_4) (14808-79-8)	x		57	1.9					1	mg/L	lbs/day			
l. Sulfide (as S)		x	< 1.0	< 0.033					1	mg/L	lbs/day			
m. Sulfite (as SO_3) (14265-45-3)		x												
n. Surfactants	x		0.0972	0.003					1	mg/L	lbs/day			
o. Aluminum, Total (7429-90-5)	x		< 0.10	< 0.003					1	mg/L	lbs/day			
p. Barium, Total (7440-39-3)	x		0.020	0.001					1	mg/L	lbs/day			
q. Boron, Total (7440-42-8)	x		0.10	0.003					1	mg/L	lbs/day			
r. Cobalt, Total (7440-48-4)	x		< 0.020	< 0.001					1	mg/L	lbs/day			
s. Iron, Total (7439-89-6)	x		0.19	0.006					1	mg/L	lbs/day			
t. Magnesium, Total (7439-95-4)	x		22	0.73					1	mg/L	lbs/day			
u. Molybdenum, Total (7439-98-7)	x		< 0.050	< 0.002					1	mg/L	lbs/day			
v. Manganese, Total (7439-96-5)	x		0.031	0.001					1	mg/L	lbs/day			
w. Tin, Total (7440-31-5)	x		< 0.10	< 0.003					1	mg/L	lbs/day			
x. Titanium, Total (7440-32-6)	x		< 0.050	< 0.002					1	mg/L	lbs/day			

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PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and non-required GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb of greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4,6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater Otherwise for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are seven pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVRG. VALUE *(if available)*		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		d. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)		x		< 0.10	< 0.003					1	mg/L	lbs/day			
2M. Arsenic, Total (7440-38-2)		x		< 0.0050	< 0.0002					1	mg/L	lbs/day			
3M. Beryllium, Total (7440-41-7)		x		< 0.010	< 0.000					1	mg/L	lbs/day			
4M. Cadmium, Total (7440-43-9)		x		< 0.020	< 0.00087					1	mg/L	lbs/day			
5M. Chromium, Total (7440-47-3)		x		< 0.020	< 0.0007					1	mg/L	lbs/day			
6M. Copper, Total (7440-50-8)		x		< 0.020	< 0.001					1	mg/L	lbs/day			
7M. Lead, Total (7439-92-1)		x		< 0.10	< 0.0033					1	mg/L	lbs/day			
8M. Mercury, Total (7439-97-6)		x		< 0.00020	< 0.00001					1	mg/L	lbs/day			
9M. Nickel, Total (7440-02-0)		x		< 0.050	< 0.002					1	mg/L	lbs/day			
10M. Selenium, Total (7782-49-2)		x		< 0.0050	< 0.0002					1	mg/L	lbs/day			
11M. Silver, Total (7440-22-4)		x		< 0.020	< 0.0007					1	mg/L	lbs/day			
12M. Thallium, Total (7440-28-0)		x		< 1.0	< 0.0334					1	mg/L	lbs/day			
13M. Zinc, Total (7440-66-6)		x		0.133	0.004					1	mg/L	lbs/day			
14M. Cyanide, Total (57-12-5)		x		0.019	0.001					4	mg/L	lbs/day			
15M. Phenols, Total		x		< 0.020	< 0.001					4	mg/L	lbs/day			
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK "X"			3. EFFLUENT							4.UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (If available)		c.LONG TERM AVRG. VALUE (If available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		d. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)			X												
2V. Acrylonitrile (107-13-1)			X												
3V. Benzene (71-43-2)			X												
4V. Bis (Chloromethyl) Ether (542-88-1)			X												
5V. Bromoform (75-25-2)			X												
6V. Carbon tetrachloride (56-23-5)			X												
7V. Chlorobenzene (108-90-7)			X												
8V. Chlorodibromomethane (124-48-1)			X												
9V. Chloroethane (75-00-3)			X												
10V. 2-Chloroethylvinyl ether (110-75-8)			X												
11V. Chloroform (67-66-3)			X												
12V. Dichlorobromomethane (75-27-4)			X												
13V. Dichlorodifluoromethane (75-71-8)			X												
14V. 1,1-Dichloroethane (75-34-3)			X												
15V. 1,2-Dichloroethane (107-06-2)			X												
16V. 1,1-Dichloroethylene (75-35-4)			X												
17V. 1,2-Dichloropropane (75-87-5)			X												
18V. 1,3-Dichloropropylene (542-75-6)			X												
19V. Ethylbenzene (100-41-4)			X												
20V. Methyl bromide (74-83-9)			X												
21V. Methyl chloride (74-87-3)			X												

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1. POLLUTANT AND CAS NUMBER (If available)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (If available)		c. LONG TERM AVRG. VALUE (If available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		d. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)															
22V. Methylene chloride (75-09-2)			X												
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X												
24V. Tetrachloroethylene (127-18-4)			X												
25V. Toluene (108-88-3)			X												
26V. 1,2-Trans-dichloroethylene (156-60-5)			X												
27V. 1,1,1-Trichloroethane (71-55-6)			X												
28V. 1,1,2-Trichloroethane (79-00-5)			X												
29V. Trichloroethylene (79-01-6)			X												
30V. Trichlorofluoromethane (75-69-4)			X												
31V. Vinyl chloride (75-01-4)			X												
GC/MS FRACTION - ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X												
2A. 2,4-Dichlorophenol (120-83-2)			X												
3A. 2,4-Dimethylphenol (105-67-9)			X												
4A. 4,6-Dinitro-O-cresol (534-52-1)			X												
5A. 2,4-Dinitrophenol (51-28-5)			X												
6A. 2-Nitrophenol (88-75-5)			X												
7A. 4-Nitrophenol (100-02-7)			X												
8A. P-Chloro-M-cresol (59-50-7)			X												
9A. Pentachlorophenol (87-86-5)			X												
10A. Phenol (108-95-2)			X												
11A. 2,4,6-Trichlorophenol (88-06-2)			X												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK "X" a. TEST-ING REQUIRED	2. MARK "X" b. BELIEVED PRESENT	2. MARK "X" c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (If available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (If available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (If available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (If available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) d. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X												
2B. Acenaphthylene (208-96-8)			X												
3B. Anthracene (120-12-7)			X												
4B. Benzidine (92-87-5)			X												
5B. Benzo (a) anthracene (56-55-3)			X												
6B. Benzo (a) pyrene (50-32-8)			X												
7B. 3,4-Benzofluoranthene (205-99-2)			X												
8B. Benzo (ghi) perylene (191-24-2)			X												
9B. Benzo (k) fluoranthene (207-08-9)			X												
10B. Bis (2-chloroethoxy) methane (111-91-1)			X												
11B. Bis (2-chloroethyl) ether (111-44-4)			X												
12B. Bis (2-chloroisopropyl) ether (102-60-1)			X												
13B. Bis (2-ethylhexyl) phthalate (117-81-7)			X												
14B. 4-Bromophenyl phenyl ether (101-55-3)			X												
15B. Butyl benzyl phthalate (85-68-7)			X												
16B. 2-Chloronaphthalene (91-58-7)			X												
17B. 4-Chlorophenyl phenyl ether (7005-72-3)			X												
18B. Chrysene (218-01-9)			X												
19B. Dibenzo (a,h) anthracene (53-70-3)			X												
20B. 1,2-Dichlorobenzene (95-50-1)			X												
21B. 1,3-Dichlorobenzene (541-73-1)			X												

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TEST-ING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		d. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
226. 1,4-Dichlorobenzene (106-46-7)			X												
227. 3,3'-Dichlorobenzidine (91-94-1)			X												
228. Diethyl phthalate (84-66-2)			X												
229. Dimethyl phthalate (131-11-3)			X												
230. Di-N-butyl phthalate (84-74-2)			X												
231. 2,4-Dinitrotoluene (121-14-2)			X												
232. 2,6-Dinitrotoluene (606-20-2)			X												
233. Di-N-octyl phthalate (117-84-0)			X												
234. 1,2-Diphenylhydrazine (122-66-7)			X												
235. Fluoranthene (206-44-0)			X												
236. Fluorene (86-73-7)			X												
237. Hexachlorobenzene (118-74-1)			X												
238. Hexachlorobutadiene (87-68-3)			X												
239. Hexachlorocyclopentadiene (77-47-4)			X												
240. Hexachloroethane (67-72-1)			X												
241. Indeno (1,2,3-cd) pyrene (193-39-5)			X												
242. Isophorone (78-59-1)			X												
243. Naphthalene (91-20-3)			X												
244. Nitrobenzene (98-95-3)			X												
245. N-Nitrosodimethylamine (62-75-9)			X												
246. N-Nitrosodi-N-propylamine (621-64-7)			X												

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1. POLLUTANT AND CAS NUMBER (If available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (If available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (If available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
438. N-Nitrosodiphenylamine (86-30-6)			X												
440. Phenanthrene (85-01-8)			X												
459. Pyrene (129-00-0)			X												
468. 1,2,4-Trichlorobenzene (120-82-1)			X												
GC/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)			X												
2P. α-BHC (319-84-6)			X												
3P. β-BHC (319-85-7)			X												
4P. γ-BHC (58-89-9)			X												
5P. δ-BHC (319-86-8)			X												
6P. Chlordane (57-74-9)			X												
7P 4,4'-DDT (50-29-3)			X												
8P. 4,4'-DDE (72-55-9)			X												
9P. 4,4'-DDD (72-54-8)			X												
10P. Dieldrin (60-57-1)			X												
11P α-Endosulfan (115-29-7)			X												
12P β-Endosulfan (115-29-7)			X												
13P Endosulfan Sulfate (1031-07-8)			X												
14P Endrin (72-20-8)			X												
15P Endrin Aldehyde (7421-93-4)			X												
16P Heptachlor (76-44-8)			X												

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1. POLLUTANT AND CAS NUMBER (If available)	2. MARK "X"			3. EFFLUENT							4.UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (If available)		c.LONG TERM AVRG. VALUE (If available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		d. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)			X												
18P. PCB-1242 (53469-21-9)			X												
19P. PCB-1254 (11097-69-1)			X												
20P. PCB-1221 (11104-28-2)			X												
21P. PCB-1232 (11141-16-5)			X												
22P. PCB-1248 (12672-29-6)			X												
23P. PCB-1260 (11096-82-5)			X												
24P. PCB-1016 (12674-11-2)			X												
25P. Toxaphene (8001-35-2)			X												

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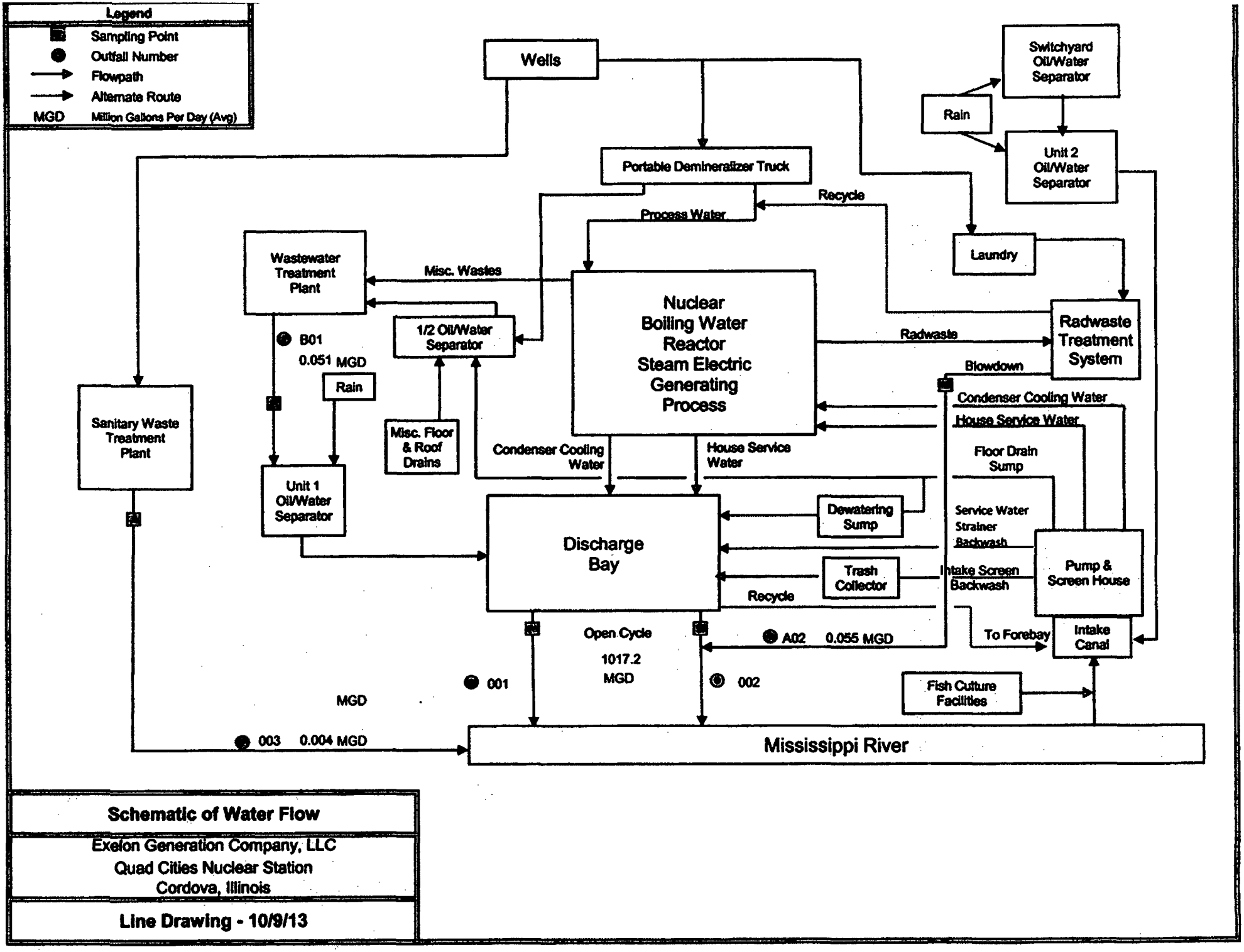
Legend
Sampling Point
Outfall Number
Flowpath
Alternate Route
MGD
Million Gallons Per Day (Avg)
Wells
Switchyard Oil/Water Separator
Rain
Unit 2 Oil/Water Separator
Portable Demineralizer Truck
Recycle
Process Water
Laundry
Wastewater Treatment Plant
Misc. Wastes
Nuclear Boiling Water Reactor Steam Electric Generating Process
Radwaste Treatment System
B01
0.051 MGD
1/2 Oil/Water Separator
Radwaste
Blowdown
Rain
Condenser Cooling Water
House Service Water
Floor Drain Sump
Sanitary Waste Treatment Plant
Misc. Floor & Roof Drains
Condenser Cooling Water
House Service Water
Unit 1 Oil/Water Separator
Dewatering Sump
Service Water Strainer Backwash
Discharge Bay
Trash Collector
Intake Screen Backwash
Pump & Screen House
Recycle
Open Cycle
1017.2 MGD
A02
0.055 MGD
To Forebay
Intake Canal
001
002
Fish Culture Facilities
MGD
003
0.004 MGD
Mississippi River
Schematic of Water Flow
Exelon Generation Company, LLC
Quad Cities Nuclear Station
Cordova, Illinois
Line Drawing - 10/9/13