



L. V. Sutton Energy Complex
801 Sutton Steam Plant Rd
Wilmington, NC 28401

☎ 910.341.4750
📠 910.341.4790

July 1, 2016

Mr. Jeffrey O. Poupart
NCDEQ-DWR, Water Quality Permitting Section
1617 Mail Service Center
Raleigh, NC 27699-1617

Subject: Duke Energy Progress, LLC.
L. V. Sutton Energy Complex NPDES Permit NC0001422
NPDES Wastewater Renewal Application

Dear Mr. Poupart:

The current NPDES Permit for the L.V. Sutton Energy Complex (Sutton) expires on December 31, 2016. By this correspondence, Duke Energy Progress, LLC (Duke Energy) requests that the NPDES permit for this facility be reissued. Enclosed with this letter are one signed original and two copies of the NPDES renewal application.

Specifically we have attached the following application materials:

- EPA Form 1;
- EPA Form 2C;
- Attachment 1- Site map showing the location of all outfalls (internal and final);
- Attachment 2- Flow chart and description of waste flows (Form 2C Attachment 2- Item II-A);
- Attachment 3- Narrative description of sources of pollution and treatment technologies (Form 2C Attachment 3 Item II-B);
- Attachment 4 - List of potential items not covered by analysis (Form 2C Attachment 4).

Section A(17) of the existing NPDES permit (effective December 7, 2015) requires Duke Energy to conduct annual fish tissue monitoring and submit results with the permit renewal application. The fish tissue monitoring plan was submitted to the Division for approval on April 22, 2016. Fish tissue monitoring for the 2016 calendar year is currently ongoing.

Section A(22) of the existing NPDES permit requires Duke Energy to conduct instream monitoring for metals and to submit the monitoring results with the NPDES permit renewal application. Per DEQ's March 3, 2016 "Error Correction Letter", instream monitoring requirements are waived due to Duke Energy's participation in the Lower Cape Fear River Program Monitoring Coalition.

With reissuance of the permit, Duke Energy requests that NCDEQ staff incorporate the following changes into the renewed NPDES permit:

1. Duke Energy plans to construct a lined coal ash landfill onsite at Sutton Plant. The wastewater and stormwater for the landfill will be managed as follows:
 - a. Landfill leachate will be collected in two 500,000 gallon tanks and routed to the ash pond water treatment system (WTS) for treatment and discharge through Outfall 001.

- b. Non-contact stormwater will be collected in two dry retention ponds (North and South Ponds) and permitted initially as construction stormwater under the NC Construction General Permit NCG120000. Once the landfill is constructed, filled, and capped, non-contact water will be routed along the ground surface to the dry retention ponds. The ponds are designed to capture, treat, and infiltrate the 25 year, 24-hour storm with an additional 1 foot of freeboard. NCDEMLR has typically declined to permit stormwater detention basins that capture and treat industrial stormwater from the referenced design storm, therefore Duke Energy requests that the spillways be documented in the NPDES permit materials consistent with other stormwater reference points at Sutton.
2. On June 3, 2016, Duke Energy submitted a design recommendation for a fish barrier in the effluent channel, as required by Section A(9) of the NPDES permit. As stated in that letter and as you are aware, Duke Energy is required by the Coal Ash Management Act (CAMA) to close the two Sutton ash ponds by August 2019. Closure of these ponds will be accomplished by excavating and removing the ash. The effluent channel, which conveys wastewater from the Sutton Plant to the cooling pond is flanked on either side by legacy ash disposal areas. Full excavation of the ash will require that the portions of the berms on either side of the effluent channel be removed and rebuilt. Due to the extent and complexity of these activities, and the urgency and priority with which Duke Energy must perform the excavation, Duke Energy requests that the Division allow the installation of a fish barrier after pond closure is complete and the effluent channel has been re-established. Duke Energy believes that the extent of ash removal activities and the construction on the channel itself will serve to minimize fish passage into the channel.
3. Duke Energy requests that the State clarify that the existing temperature mixing zone includes the entirety of Sutton Lake, consistent with the existing mixing zone and the waterbody's intended use. DEQ has historically granted Duke Energy a temperature mixing zone which extends from the plant discharge location (historically at Outfall 001) to a point 1.25 miles downstream in the Cape Fear River. The December 2015 permit maintained the mixing zone in the Cape Fear River but applies the temperature standard at new (upstream) outfall 008. This creates a "gap" in the mixing zone between Outfall 008 and Outfall 001. Duke Energy believes that designation of the Lake as a part of the existing mixing zone is consistent with the character of a pond designed, constructed, and operated as a temperature treatment unit.

In accordance with 15A NCAC 02B.0204(b), the mixing zone will not result in acute toxicity, offensive conditions, undesirable aquatic life, or endangerment of the public health and welfare. To the contrary, Duke Energy's maintenance and use of Sutton Lake has provided a diverse, balanced, self-sustaining fish population which has substantial recreational benefit and use to local residents and fisherman. In 1971, the NC General Assembly passed S.L. 1971-462 (attached) which granted the Department of Administration the ability to "authorize the utilization and impoundment... of Catfish Creek ... for the purpose of the development of a reservoir to be used in connection with the generation of electric power for sale and distribution to the public." Duke Energy understands that the State has classified the cooling pond as waters of the State, however, consistent with NC Law, Duke Energy believes it is nevertheless appropriate to continue to use the cooling pond for its intended purpose. Duke Energy has prepared the attached summary of the history of Sutton Lake to further support this request.

4. Discharge from Outfall 001. Duke Energy requests that the description of Outfall 001 be clarified to state: "Outfall 001 – includes discharges from Sutton Lake which may also include treated cooling water (from Outfall 008), groundwater, stormwater and treated wastewater from the ash ponds and landfill. In addition, since a number of different wastewaters are combined for discharge through Outfall 001 the DEQ has only placed a flow limit on the discharge of interstitial water, Duke Energy requests that Section (A)(2) require two types of flow reporting: one for the ash pond (limited at 2.1 MGD) and a second for reporting the total discharge from this outfall.
5. With respect to discharges from 001, the fact sheet goes on to state "The new ash pond can discharge directly to Sutton Lake through Outfall 004 or to Cape Fear River through Outfall 001. The Outfall 001 is discharging through the mixing box that was set-up to concurrently discharge ash pond wastewater and water from Sutton Lake." Duke Energy requests that the fact sheet specifically acknowledge that the compliance point for Outfall 001 is located within the mixing box.
6. The description for section A(3)- Outfall 002 should be corrected to state: "The Permittee is authorized to discharge to Sutton Lake and/or to the 1984 ash pond from Outfall 002".
7. Duke Energy has installed a wastewater treatment system designed to treat interstitial water and landfill leachate. This system has been designed to effectively remove pollutants of concern. Based on the installation of this treatment, Duke Energy requests that the Division remove the restriction on interstitial water discharge through Outfall 004 to Sutton Lake. Based on the NPDES permit monitoring requirements, if Duke Energy were to elect to discharge to Sutton Lake, the discharge would be required to meet water quality standards at the "end of pipe", which is below historic discharge values. Please revise the description of wastewater flows through Outfall 004 to state "During the period beginning on the effective date of the permit and lasting until expiration, the Permittee is authorized to discharge to Sutton Lake and/or to Outfall 001 from Outfall 004 (1984 [New] Ash Pond- ash sluice water, coal pile runoff, low volume waste, groundwater, stormwater, and landfill leachate). Such discharges to Sutton Lake shall be limited and monitored by the Permittee as specified below...".
8. Duke Energy requests that oil and grease limits and TSS limits for internal outfalls 005, 006, and 007 be applied at outfall 008 in accordance with 40 CFR 423.12(b)(13) which states "In the event that wastestreams from various sources are combined for treatment or discharge, the quantity of each pollutant or pollutant property controlled in paragraphs (b)(1) through (b)(12) of this section attributable to each controlled waste source shall not exceed the specified limitations for that waste source."
9. Duke Energy requests that limits at outfall 009 be removed on the basis that the simple cycle combustion turbine is not a generating source regulated by the steam electric effluent guidelines (see 40 CFR 423.10 Applicability).
10. Section A(22). Duke Energy requests that the upstream sample location in the Cape Fear River (referenced in A(22), A(1), and A(2)) be defined as the intake structure on the Cape Fear River.

Duke also requests that the locations described in A(22) as "1000 ft from Outfall 004" be defined as "Bay 8".


11. Duke Energy requests that Section A(16), Biocide Condition be updated for consistency with the draft permit for the Marshall Steam Station, which concludes with the statement "Division approval is not necessary for the introduction of new biocides into outfalls currently tested for whole effluent toxicity."
12. Duke Energy requests that section A(19) Ash Pond Closure be removed from the permit. On June 1, 2016 Judge Paul Ridgeway entered an Order for Partial Summary Judgment requiring Duke Energy to submit a Site Analysis and Removal Plan (a closure plan) for Sutton Plant by December 31, 2016. Therefore Duke Energy believes the NPDES permit requirement is unnecessary, duplicative, and confusing given the numerous state, federal, and court ordered closure requirements.
13. Duke Energy requests that the language in section A(27).2 be corrected to reflect the language in the permit boilerplate Part II.D.1. which states: "All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other wastestream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Permit Issuing Authority [40 CFR 122.41(j)]."

Thank you, in advance for your consideration of the above-requested items. If there are any questions, please contact either:

- Ms. Toya Ogallo, Environmental Specialist at our North Carolina Regional Headquarters, phone (919) 546-6647 or email Letoya.Ogallo@duke-energy.com, or
- Mr. Kent Tyndall, Environmental Professional for the L. V. Sutton Energy Complex Plant; phone (910) 341-4775 or e-mail Kent.Tyndall@duke-energy.com.

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, 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 fines and imprisonment for knowing violations.

Sincerely,



Jesse E. Huntley, II
Station Manager

Enclosures

History, Description, and Use of L.V. Sutton Cooling Reservoir

In 1971, The NC General Assembly enacted Session Law 1971-462 which granted the Department of Administration (DOA) approval to grant Carolina Power & Light Company (CP&L) an easement to develop a reservoir to be used in connection with the generation of electric power for distribution to the public. The easement granted by the State of NC and New Hanover County on June 29, 1971 states:

- a. *The cooling reservoir will impound Catfish Creek, a tidal creek approximately three miles in length and lying entirely within the proposed reservoir;*
- b. *The DOA with the approval of the Governor and Council of State has authorized the closing of Catfish Creek to navigation and the impoundment of the Creek for use in connection with the generation of electric power by the Company;*
- c. *The State does hereby grant to Carolina Power & Light Company, its successors and assigns, the right, privilege and easement to go in, under and upon the waters of Catfish Creek, submerged lands thereunder and any swampland adjacent thereto owned by the State... and to construct, operate and maintain therein cooling water reservoir for the Company's L.V. Sutton Steam Electric Plant.*
- d. *The aforesaid rights, privileges and easements subject to the conditions hereinbefore set forth unto said CP&L Company, its successors and assigns for so long as the same are used in the business of generating, transmitting, and distributing electric power for public use.*

In 1972, CP&L constructed the 1,100 acre cooling pond to provide condenser-cooling water for the three-unit 613-MW coal-fired L. V. Sutton Electric Plant. The cooling pond consists of a 2.36 mile central main dike, which bisects the pond, and six wing dikes (ranging in length from 500 to 2,500 ft.) designed to maximize circulation of water and cooling efficiency (see Figure 1). Heated water from the steam condensation process is released to the effluent channel and flows in a generally counterclockwise direction to the Sutton Plant intake where it is used in plant processes again.

The cooling pond has a mean depth of 6.2 ft. with a normal pool elevation of between 8.5 ft. and 10.5 ft. MSL. The land surrounding the approximately 13.7 mile shoreline is generally undeveloped and primarily forested.

Duke Energy maintains the level of the cooling pond by pumping water from an intake located on the Cape Fear River into the cooling pond as needed. There are no streams or natural surface waters contributing inflow to the cooling reservoir; all of the water within the pond consists of either rainfall, wastewater discharges from the Sutton Plant, or pumped makeup water from the Cape Fear River. Duke Energy manages the intake so as to not accumulate saline water (chlorides) from the tidally influenced lower Cape Fear River. Duke staff also monitors water chemistry including nutrients like phosphorus in the Cape Fear River, so as to understand the sources and risks of nutrient loading in the cooling pond. There have been occasional nuisance algal blooms in the pond, most notably in 1999, 2010 and 2012, which were direct results of the increased phosphorus input from the Cape Fear River intake. Duke Energy continually evaluates the pond for the presence of invasive species such as

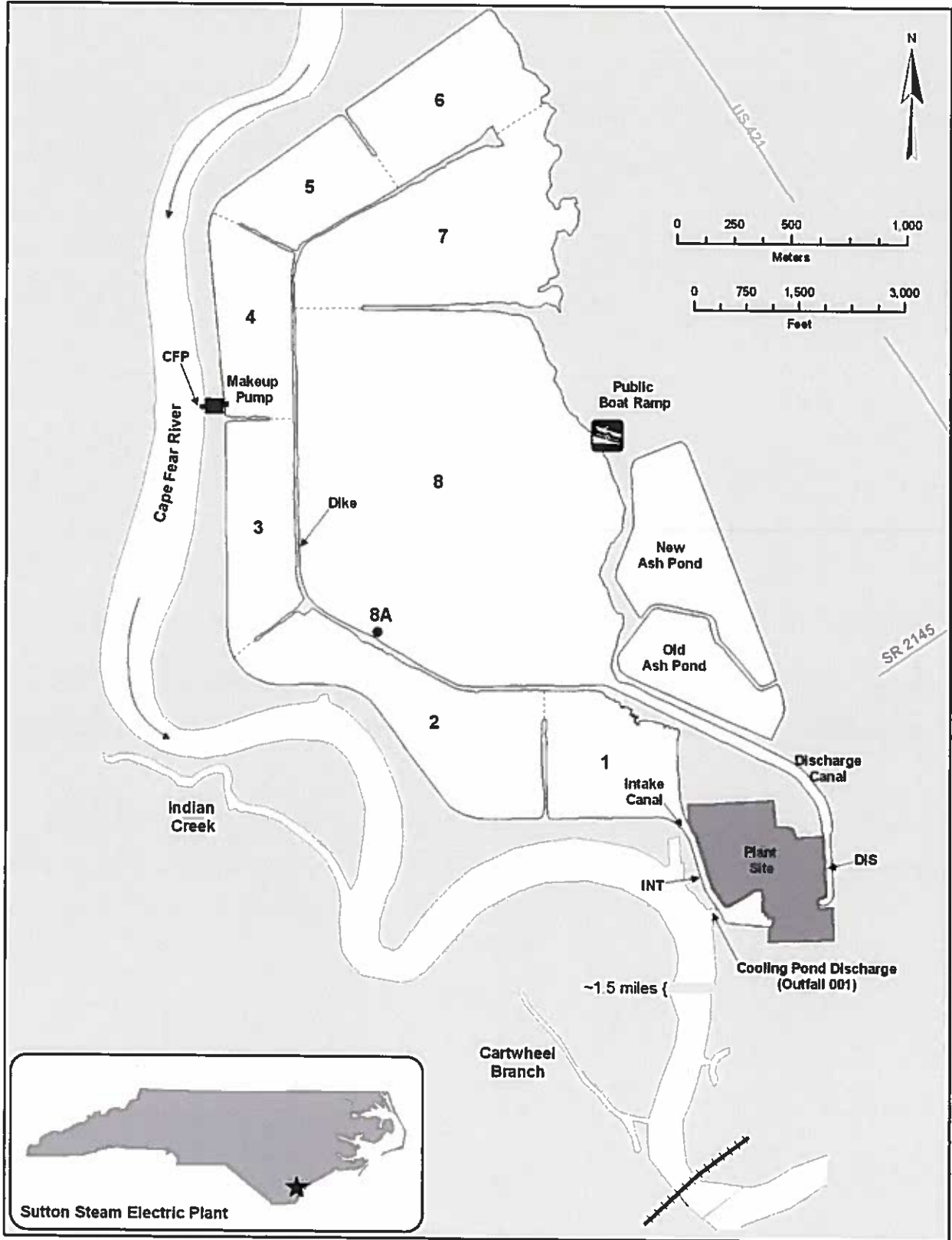


Figure 1- L.V. Sutton Cooling Reservoir

filamentous algae, and regularly applies herbicide as early as possible after detection to prevent nuisance conditions within the cooling pond while minimizing the amount of herbicides needed for control. Duke Energy also regularly stocks grass carp to prevent nuisance conditions within the cooling pond.

There is no discharge of water from the cooling pond into the Cape Fear River other than through NPDES permitted Outfall 001. Duke Energy staff must manually open the discharge gate at Outfall 001 to allow water to flow from the cooling pond into the Cape Fear River.

The temperature in the cooling pond exhibits little to no thermal stratification. Typically, surface water temperatures in Bay 8 (see Figure 1) are approximately 2.7 °C (summer) to 6 °C (winter) higher than upstream temperatures in the Cape Fear River (station CFP). In 2014 the surface water temperature in Bay 8 ranged from 12.7°C-33.3°C while temperatures at CFP in the Cape Fear River ranged from 6.0°C-30.9°C.

A summary of 2015 temperature characteristics are outlined in Table 1. Recirculated cooling water from Sutton Plant travels in a counterclockwise direction: from the circulated water outlet, to Bay 8, then in decreasing numeric order towards Bay 2. Bay locations are graphically noted in Figure 1. As demonstrated in the table, the most significant degree of cooling occurs in the effluent channel, between the outlet and Bay 8. Temperatures throughout the cooling reservoir are regularly and consistently higher than 32°C.

Table 1- 2014 Inlet, Outlet, and Cooling Reservoir Temperatures (°C)

	Sutton Plant Inlet	Circulated Water Outlet	Bay 8	Bay 6	Bay 4	Bay 2
Avg.	21.6	30.4	25	22.8	22.3	22.5
Max	32.8	40.6	34.6	33.8	33.2	33.1
Min	6.0	14.8	16.6	14.4	14	13.1

Based on the discharge of heated water from the plant, through the cooling pond and into the Cape Fear River, the DEQ has previously permitted a temperature mixing zone in the Cape Fear River. The mixing zone extends from 2,700 feet upstream of the Cape Fear discharge to 1.25 miles downstream.

Based on data compiled by the UNCW Lower Cape Fear River Program (Table 2), there is no significant difference between the upstream and downstream water temperature in the Cape Fear River. 2013 and 2014 data have been provided for comparison; the cooling pond regularly discharged heated water to the Cape Fear River in 2013, however there was no discharge in 2014. There does not appear to be a discernable difference between 2013 and 2014 temperature data. The downstream monitoring coalition station is approximately 2.8 miles downstream of Outfall 001.

Table 2- 2012 and 2014 Lower Cape Fear Monitoring Stations (°C)

	2013 Data		2014 Data	
	Upstream	Downstream	Upstream	Downstream
Station #	B903000	B9050025	B9030000	B9050025
Avg.	20.7	20.4	20.1	20.2
Max	28.2	27.9	28.8	29.0
Min	8.6	8.1	6.5	5.4

The cooling reservoir contains a fishery managed by the NC Wildlife Resources Commission (WRC). The WRC manages the fishery and publicizes recreation as a public gameland. Duke Energy's ongoing efforts to maintain the cooling pond as a suitable cooling water source for the Sutton Plant also provides a secondary benefit of keeping the reservoir suitable for recreation purposes.

In conclusion, Duke Energy has maintained and operated the Sutton cooling pond in a manner that has not only provided for its primary intended purpose, which is to support the generation of electric power for public use, but Duke Energy's active management of the pond has also provided a substantial recreational benefit to the community. The cooling pond is currently one of the most popular and productive largemouth bass fishing destinations in the State. If it were not for Duke Energy's continual efforts to manage invasive species, monitor nutrient and water quality levels, and maintain an appropriate normal pool elevation, the pond would quickly succumb to nuisance vegetation and revert to native swamp conditions. Since 1971 the General Assembly, the State of NC, and Duke Energy have recognized the mutual benefit of encouraging public use in a waterbody actively used as a cooling pond and Duke Energy believes that it is both appropriate and beneficial to maintain the status quo so as not to have a detrimental impact on the existing use and function of the resource.

NORTH CAROLINA GENERAL ASSEMBLY
1971 SESSION

CHAPTER 462
SENATE BILL 685

AN ACT TO AUTHORIZE THE DEPARTMENT OF ADMINISTRATION WITH APPROVAL OF THE GOVERNOR AND COUNCIL OF STATE TO GRANT AN EASEMENT PERTAINING TO THE DEVELOPMENT OF A RESERVOIR TO BE USED IN CONNECTION WITH THE GENERATION OF ELECTRIC POWER FOR SALE AND DISTRIBUTION TO THE PUBLIC TO BE LOCATED ADJACENT TO THE CAPE FEAR RIVER AT CATFISH CREEK IN NEW HANOVER COUNTY.

The General Assembly of North Carolina do enact:

Section 1. The Department of Administration with approval of the Governor and Council of State may authorize the utilization and impoundment, including the closing, of Catfish Creek in New Hanover County, for the purpose of the development of a reservoir to be used in connection with the generation of electric power for sale and distribution to the public, and is authorized to grant, upon such conditions as may be deemed proper, including the condition that the fishery management in the reservoir be under the jurisdiction of the North Carolina Wildlife Resources Commission, an easement for such purpose in the lands covered by the waters of the Creek.

Sec. 2. Any easement granted pursuant to this act shall be executed and approved in the manner prescribed in Article 16 of Chapter 146 of the General Statutes of North Carolina.

Sec. 3. This act shall become effective upon its ratification.

In the General Assembly read three times and ratified, this the 28th day of May, 1971.

FORM 1 GENERAL		U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION Consolidated Permits Program <i>(Read the "General Instructions" before starting.)</i>	I EPA I.D. NUMBER NCD000830646
LABEL ITEMS I. EPA I.D. NUMBER III. FACILITY NAME V. FACILITY MAILING ADDRESS VI. FACILITY LOCATION		PLEASE PLACE LABEL IN THIS SPACE	GENERAL INSTRUCTIONS If a preprinted label has been provided, affix it in the designated space. Review the information carefully. If any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements, see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	Mark "X"			SPECIFIC QUESTIONS	Mark "X"		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X		X	D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)		X		F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

C	SKIP	L. V. Sutton Energy Complex
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IV. FACILITY CONTACT

C	A. NAME & TITLE (last, first, & title)	B. PHONE (area code & no.)
2	Tyndall, Kent, Environmental Professional	(910) 341-4775

V. FACILITY MAILING ADDRESS

C	A. STREET OR P.O. BOX		
3	801 Sutton Steam Plant Road		
C	B. CITY OR TOWN	C. STATE	D. ZIP CODE
4	Wilmington	NC	28401

VI. FACILITY LOCATION

C	A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER			
5	801 Sutton Steam Plant Road			
C	B. COUNTY NAME			
6	New Hanover			
C	C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE (if known)
6	Wilmington	NC	28401	129

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VII. SIC CODES (4-digit, in order of priority)			
A. FIRST		B. SECOND	
C	T	I	(specify)
7	4	9	11
Electric Power Services			
C. THIRD		D. FOURTH	
C	T	I	(specify)
7			

VIII. OPERATOR INFORMATION	
A. NAME	
C	8 Duke Energy Progress, LLC.
B. Is the name listed in Item VIII-A also the owner? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box: if "Other," specify)		D. PHONE (area code & no.)	
F = FEDERAL	M = PUBLIC (other than federal or state)	P	(specify)
S = STATE	O = OTHER (specify)	Public Utility	
P = PRIVATE		A (910) 341-4775	

E. STREET OR P.O. BOX	
801 Sutton Steam Plant Road	

F. CITY OR TOWN		G. STATE	H. ZIP CODE	IX. INDIAN LAND	
B Wilmington		NC	28401	Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

X. EXISTING ENVIRONMENTAL PERMITS					
A. NPDES (Discharges to Surface Water)			D. PSD (Air Emissions from Proposed Sources)		
C	T	I	C	T	I
9	N	NC0001422	9	P	

B. UIC (Underground Injection of Fluids)			E. OTHER (specify)		
C	T	I	C	T	I
9	U		9		WQ0000020
			NC Ash Utilization		

C. RCRA (Hazardous Wastes)			E. OTHER (specify)		
C	T	I	C	T	I
9	R	NCD000830646	9		165-88
			CAMA Permit for intake structure		

XI. MAP
 Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements. (Attachment 1)

XII. NATURE OF BUSINESS (provide a brief description)
 The L. V. Sutton Plant is an electric generating facility consisting of three simple-cycle internal combustion turbine (CT) units and a natural gas-fired 2x1 Combined Cycle (CC) combustion turbine unit. Until November 2013, the plant also operated three coal-fired electric generating units, however those units have been decommissioned and are currently being demolished.

XIII. CERTIFICATION (see instructions)
 I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print) Jesse E. Huntley, II Station Manager	B. SIGNATURE <i>Jesse E Huntley II</i>	C. DATE SIGNED 6/30/16
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COMMENTS FOR OFFICIAL USE ONLY	
C	

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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) NO (go to Section III)

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

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?
 YES (complete Item III-B) NO (go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?
 YES (complete Item III-C) 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 the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

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

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations 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) NO (go to Item IV-B)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED
NC Coal Ash Management Act	001 002 004	Ash pond Ash pond Ash pond	Required to excavated all ash and close close ash ponds by August 2019.	August 2019	August 2019

B. OPTIONAL: You may 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

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
Retired Coal Units Strontium Uranium Vanadium Zirconium Asbestos	Occasionally found in coal Occasionally found in coal Occasionally found in coal Occasionally found in coal Used in insulation		
CC Block None			

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) NO (go to Item VI-B)

Retired Coal Units
Antimony
Arsenic
Beryllium
Cadmium
Copper
Lead
Mercury
Nickel
Selenium
Silver
Thallium
Zinc

CC Block
None

See Attachment 4 for other substances used during operational processes or at the plant that potentially may be discharged.

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your 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)

NO (go to Section VIII)

24-hour static acute toxicity tests using fathead minnows are conducted monthly (February, May, August, and November) on the wastewater discharge from Outfall 001 and quarterly at 008.

VIII. CONTRACT ANALYSIS INFORMATION

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

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)
Environmental Chemists, Inc.	6602 Windmill Way, Wilmington, NC 28405	(910) 392-0223	All pollutants

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, 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.

<p>A. NAME & OFFICIAL TITLE (type or print)</p> <p>Jesse E. Huntley, II, Plant Manager</p>	<p>B. PHONE NO. (area code & no.)</p> <p>(910) 341-4750</p>
<p>C. SIGNATURE</p> <p><i>Jesse E Huntley II</i></p>	<p>D. DATE SIGNED</p> <p>6/30/2016</p>

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 Item 1 of Form 1)
 NCD000830646

EPA Facility Name:
 L.V. Sutton Electric Plant

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)
 OUTFALL NO. 001

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				3. UNITS			4. INTAKE (optional)		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE		c. LONG TERM AVG. VALUE (if available)	d. NO. OF ANALYSES	a. Concentration	b. Mass	a. LONG TERM AVG. VALUE	
	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass					(1) Concentration	(2) Mass
a. Biochemical Oxygen Demand (BOD)	2	3420				1	mg/l	lb/Day		
b. Chemical Oxygen Demand (COD)	20	3419.8				1	mg/l	lb/Day		
c. Total Organic Carbon (TOC)	5.7	974.6				1	mg/l	lb/Day		
d. Total Suspended Solids (TSS)	10	1709.9	6.25	1050.9	3.99	15	mg/l	lb/Day		
e. Ammonia (as N)	< 0.200	< 34.2				1	mg/l	lb/Day		
f. Flow	VALUE	20.49	VALUE	20.15	19.88	79	MGD	N/A	VALUE	
g. Temperature (winter)	VALUE	22.4	VALUE	18.07	14.58	66	DEGREES CELSIUS		VALUE	
h. Temperature (summer)	VALUE		VALUE				DEGREES CELSIUS		VALUE	
i. pH	MINIMUM	6.47	MINIMUM	8.14	MAXIMUM	18	STANDARD UNITS			

PART B - Mark "X" in column 2a for each pollutant you know or have reason to believe is present. Mark "X" in column 2b 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 your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND GAS NO. (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS			5. INTAKE (optional)		
	a. pre-sent	b. absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE		c. LONG TERM AVG. VALUE (if available)	d. NO. OF ANALYSES	a. Concentration	b. Mass	a. LONG TERM AVG. VALUE	
			(1) Concentration	(2) Mass	(1) Concentration	(2) Mass					(1) Concentration	(2) Mass
a. Bromide (24959-67-9)	X		0.30	51.3			1	mg/l	lb/Day			
b. Chlorine, Total Residual	X		29.00	4958.7			1	ug/L	lb/Day			
c. Color	X		30.00	N/A	N/A		1	Std. Units	N/A		N/A	
d. Fecal Coliform	X		< 5.00	N/A	N/A		1	Colonies /100 ml	N/A		N/A	
e. Fluoride (16984-48-8)	X		0.10	17.1			1	mg/l	lb/Day			
f. Nitrate-Nitrite (as N)	X		0.310	53.0	0.15	25.2	15	mg/l	lb/Day			

EPA ID. NUMBER (copy from Item 1 of Form 1) **NCDD000830646** **001** **OUTFALL NUMBER**

L.V. Sutton Electric Plant

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT		4. UNITS		5. INTAKE (optional)				
	a. pre-ferment	b. ferment	a. MAXIMUM DAILY VALUE		c. LONG TERM AVG. VALUE (if available)		a. LONG TERM AVG. VALUE				
			(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass			
								b. NO. OF ANALYSES			
g. Nitrogen, Total Organic (as N)	X		2.60	444.6	1.65	277.5	0.99	184.2	15	lb/Day	
h. Oil and Grease	X		9.00	1538.9			2.25	373.3	15	lb/Day	
i. Phosphorous (as P), Total (7723-14-0)	X		1.56	266.7	0.93	156.4	0.36	59.7	15	lb/Day	
J. Radioactivity											
(1) Alpha, Total	X		< 3.00	N/A		N/A		N/A	1	pCi/l	N/A
(2) Beta, Total	X		8.10	N/A		N/A		N/A	1	pCi/l	N/A
(3) Radium, Total	X		< 1.0	N/A		N/A		N/A	1	pCi/l	N/A
(4) Radium 226, Total	X		< 1.00	N/A		N/A		N/A	1	pCi/l	N/A
k. Sulfate (as SO4) (14806-79-8)	X		34.00	5813.6					1	mg/l	lb/Day
l. Sulfide (as S)	X		< 0.01	< 1.7					1	mg/l	lb/Day
m. Sulfite (as SO3) (14265-45-3)	X		< 2.00	< 342.0					1	mg/l	lb/Day
n. Surfactants	X		< 0.046	< 7.9					1	mg/l	lb/Day
o. Aluminum, Total (7429-90-5)	X		0.480	82.1	0.199	33.5	0.153	25.4	15	mg/l	lb/Day
p. Barium, Total (7440-39-3)	X		0.042	7.2					1	mg/l	lb/Day
q. Boron, Total (7439-89-6)	X		0.252	43.1					1	mg/l	lb/Day
r. Cobalt, Total (7440-48-4)	X		< 0.010	< 1.7					1	mg/l	lb/Day
s. Iron, Total (7439-89-6)	X		0.600	102.6	0.38	63.9	0.3	49.8	15	mg/l	lb/Day
t. Magnesium, Total (7439-95-4)	X		7.57	1294.4					1	mg/l	lb/Day
u. Molybdenum, Total (7439-98-7)	X		0.0140	2.4					1	mg/l	lb/Day
v. Manganese, Total (7439-96-6)	X		0.012	2.1					1	mg/l	lb/Day
w. Vanadium, Total (7440-31-5)	X		< 0.02	< 3.4					1	mg/l	lb/Day
x. Zinc, Total (7440-32-6)	X		< 0.010	< 1.7					1	mg/l	lb/Day

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 nonrequired 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, you 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 or 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 7 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 NO. (if available)	2. MARK "X"		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		d. NO. OF ANALYSES	
	a. req. (if available)	b. pre-sent	a. MAXIMUM DAILY VALUE (1) Concentration (2) Mass	b. MAXIMUM 30 DAY VALUE (if available) (1) Concentration (2) Mass	c. LONG TERM AVG. VALUE (if available) (1) Concentration (2) Mass	d. NO. OF ANALYSES	a. Concentration	b. Mass		(1) Concentration (2) Mass
METALS, CYANIDE, AND TOTAL PHENOLS										
1M. Arsenic, Total (7440-38-0)	X		< 0.01	< 1.7						
2M. Arsenic, Total (7440-38-2)	X		< 0.01	< 1.7	< 0.01	< 0.00	< 0.01	< 1.66		lb/Day
3M. Beryllium, Total (7440-41-7)	X		< 0.01	< 1.7						mg/L
4M. Cadmium, Total (7440-43-9)	X		< 0.01	< 1.7	< 0.01	< 0.00	< 0.01	< 0.00		mg/L
5M. Chromium, Total (7440-47-3)	X		< 0.01	< 1.7	< 0.01	< 1.68	< 0.01	< 1.66		mg/L
6M. Copper, Total (7440-50-8)	X		< 0.01	< 1.7	< 0.01	< 0.00	< 0.01	< 0.00		mg/L
7M. Lead, Total (7439-92-1)	X		< 0.01	< 1.7	< 0.01	< 0.00	< 0.01	< 0.00		mg/L
8M. Mercury, Total (7439-97-8)	X		4.81	0.00	2.4	0.00	1.89	0.00		ng/L
9M. Nickel, Total (7440-02-0)	X		< 0.01	< 1.7						mg/L
10M. Selenium, Total (7782-49-2)	X		< 0.01	< 1.7	< 0.01	< 0.00	< 0.01	< 0.00		mg/L
11M. Silver, Total (7440-22-4)	X		< 0.01	< 1.7						mg/L
12M. Thallium, Total (7440-28-0)	X		< 0.01	< 1.7						mg/L
13M. Zinc, Total (7440-66-6)	X		0.049	8.38	0.015	2.52	0.004	0.66		mg/L
14M. Cyanide, Total (57-12-5)	X		< 0.005	< 0.85						mg/L
15M. Phenols, Total	X		0.008	1.4						mg/L

DIOXIN										
DESCRIBE RESULTS										
2,3,7,8 Tetrachlorodibenzo P Dioxin (1784-01-6)										X

CONTINUED FROM PAGE V-3

L.V. Sutton Electric Plant

EPA I.D. NUMBER (copy from Item 1 of Form 1) **NCD000830646** OUTFALL NUMBER **001**

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS				5. INTAKE (optional)		
	a. re-quired	b. pre-sent	c. ab-sent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)	c. LONG TERM AVG. VALUE (if available)	d. NO. OF ANALYSES	a. Concentration	b. Mass	(1) Concentration	(2) Mass	d. NO. OF ANALYSES
				(1) Concentration	(2) Mass								
GC/MS FRACTION - VOLATILE COMPOUNDS													
1V Acrolein (107-02-8)	X			< 0.85				1	ug/l	lb/Day			
2V Acrylonitrile (107-13-1)	X			< 0.85				1	ug/l	lb/Day			
3V Benzene (71-43-2)	X			< 0.09				1	ug/l	lb/Day			
4V Bis (Chloromethyl) Ether (542-88-1)			X										
5V Bromoform (75-25-2)	X			< 0.09				1	ug/l	lb/Day			
6V Carbon Tetrachloride (56-23-5)	X			< 0.09				1	ug/l	lb/Day			
7V Chlorobenzene (108-90-7)	X			< 0.09				1	ug/l	lb/Day			
8V Chloroform (124-48-1)	X			< 0.09				1	ug/l	lb/Day			
9V Chloroethane (75-00-3)	X			< 0.09				1	ug/l	lb/Day			
10V 2-Chloroethylethyl Ether (110-75-8)	X							1	ug/l	lb/Day			
11V Chloroform (67-66-3)	X			< 0.09				1	ug/l	lb/Day			
12V Dichlorobromomethane (75-27-4)	X			< 0.09				1	ug/l	lb/Day			
13V Dichlorodifluoromethane (75-71-8)	X			< 0.09				1	ug/l	lb/Day			
14V 1,1-Dichloroethane (75-34-3)	X			< 0.09				1	ug/l	lb/Day			
15V 1,2-Dichloroethane (107-06-2)	X			< 0.09				1	ug/l	lb/Day			
16V 1,1-Dichloroethylene (75-35-4)	X			< 0.09				1	ug/l	lb/Day			
17V 1,2-Dichloropropane (78-87-5)	X			< 0.09				1	ug/l	lb/Day			
18V 1,3-Dichloropropane (542-75-6)	X			< 0.09				1	ug/l	lb/Day			
19V Ethylbenzene (100-41-4)	X			< 0.09				1	ug/l	lb/Day			
20V Methyl Bromide (74-83-9)	X			0.52				1	ug/l	lb/Day			
21V Methyl Chloride (74-87-3)	X			< 0.09				1	ug/l	lb/Day			

CONTINUED FROM PAGE V-4

3. EFFLUENT

4. UNITS

5. INTAKE (optional)

L.V. Sutton Electric Plant

EPA ID. NUMBER (copy from Item 1 of Form 1) **NC:D0000830646**

OUTFALL NUMBER **001**

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X" a. re-quired	b. MAXIMUM DAILY VALUE (if available)	c. LONG TERM AVG. VALUE (if available)		d. NO. OF ANALYSES	4. UNITS		5. INTAKE (optional)
			(1) Concentration	(2) Mass		a. Concentration	b. Mass	
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)								
22V Methylene Chloride (75-09-2)	X	< 0.09			1	ug/l	lb/Day	
23V 1,1,2,2-Tetrachloroethane (79-34-5)	X	< 0.09			1	ug/l	lb/Day	
24V Tetrachloroethylene (127-18-4)	X	< 0.09			1	ug/l	lb/Day	
25V Toluene (108-88-3)	X	< 0.09			1	ug/l	lb/Day	
26V 1,2-Trans-Dichloroethylene (156-60-5)	X	< 0.09			1	ug/l	lb/Day	
27V 1,1,1-Trichloroethane (71-55-6)	X	< 0.09			1	ug/l	lb/Day	
28V 1,1,2-Trichloroethane (79-00-5)	X	< 0.09			1	ug/l	lb/Day	
29V Trichloroethylene (79-01-6)	X	< 0.09			1	ug/l	lb/Day	
30V Trichlorofluoromethane (75-69-4)	X	< 0.09			1	ug/l	lb/Day	
31V Vinyl Chloride (75-01-4)	X	< 0.09			1	ug/l	lb/Day	
GC/MS FRACTION - ACID COMPOUNDS								
1A. 2-Chlorophenol (95-57-8)	X	< 6.37	< 1.09		1	ug/l	lb/Day	
2A. 2,4-Dichlorophenol (120-83-2)	X	< 6.37	< 1.09		1	ug/l	lb/Day	
3A. 2,4-Dimethylphenol (105-67-8)	X	< 6.37	< 1.09		1	ug/l	lb/Day	
4A. 4,6-Dinitro-Cresol (534-52-1)	X	< 31.8	< 5.44		1	ug/l	lb/Day	
5A. 2,4-Dinitrophenol (51-28-5)	X	< 31.8	< 5.44		1	ug/l	lb/Day	
6A. 2-Nitrophenol (88-75-5)	X	< 31.8	< 5.44		1	ug/l	lb/Day	
7A. 4-Nitrophenol (100-02-7)	X	< 31.8	< 5.44		1	ug/l	lb/Day	
8A. P-Chloro-M-Cresol (59-50-7)	X	< 6.37	< 1.09		1	ug/l	lb/Day	
9A. Pentachlorophenol (87-86-5)	X	< 31.8	< 5.44		1	ug/l	lb/Day	
10A. Phenol (108-95-2)	X	< 6.37	< 1.09		1	ug/l	lb/Day	
11A. 2,4,6-Trichlorophenol (88-06-2)	X	< 6.37	< 1.09		1	ug/l	lb/Day	

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L.V. Sutton Electric Plant

EPA I.D. NUMBER (copy from Item 1 of Form 1) **NCD000830846** OUTFALL NUMBER **001**

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		d. NO. OF ANALYSES
	a. reported	b. pre-ferred	a. MAXIMUM DAILY VALUE (1) Concentration (2) Mass	b. MAXIMUM 30 DAY VALUE (1) Concentration (2) Mass	c. LONG TERM AVG. VALUE (if available) (1) Concentration (2) Mass	a. Concentration	b. Mass	a. LONG TERM AVG. VALUE (1) Concentration (2) Mass	
GC/MS FRACTION - BASE NEUTRAL COMPOUNDS									
1B. Acenaphthene (83-32-9)		X					ug/l	lb/Day	
2B. Acenaphthylene (208-96-8)		X					ug/l	lb/Day	
3B. Anthracene (120-12-7)		X					ug/l	lb/Day	
4B. Benzofuran (92-87-5)		X					ug/l	lb/Day	
5B. Benzo (a)		X					ug/l	lb/Day	
Anthracene (85-53-3)		X					ug/l	lb/Day	
8B. Benzo (a)		X					ug/l	lb/Day	
Pyrene (50-32-8)		X					ug/l	lb/Day	
7B. 3,4-Benzofluoranthene (205-99-2)		X					ug/l	lb/Day	
8B. Benzo (ghi)		X					ug/l	lb/Day	
Perylene (191-24-2)		X					ug/l	lb/Day	
9B. Benzo (k)		X					ug/l	lb/Day	
Fluoranthene (207-08-9)		X					ug/l	lb/Day	
10B. Bis (2-Chloroethoxy) Methane (111-91-1)		X					ug/l	lb/Day	
11B. Bis (2-Chloroethyl) Ether (111-44-4)		X					ug/l	lb/Day	
12B. Bis (2-Chloropropyl) Ether (108-60-1)		X					ug/l	lb/Day	
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)		X					ug/l	lb/Day	
14B. 4-Bromophenyl Phenyl Ether (101-55-3)		X					ug/l	lb/Day	
15B. Butyl Benzyl Phthalate (85-58-7)		X					ug/l	lb/Day	
16B. 2-Chloronaphthalene (91-58-7)		X					ug/l	lb/Day	
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)		X					ug/l	lb/Day	
18B. Chrysene (218-01-9)		X					ug/l	lb/Day	
19B. Dibenz (a,h) Anthracene (53-70-3)		X					ug/l	lb/Day	
20B. 1,2-Dichlorobenzene (95-50-1)		X					ug/l	lb/Day	
21B. 1,3-Dichlorobenzene (541-73-1)		X					ug/l	lb/Day	

EPA ID. NUMBER (copy from Item 1 of Form 1) **NCJUUU83U646** **UU1** **OUTFALL NUMBER**

L. V. Sutton Electric Plant

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1. POLLUTANT AND CAS NO. (if available)	2. MARK "X" a. required b. pre-empt c. absent	3. EFFLUENT		4. UNITS		5. INTAKE (optional)			
		a. MAXIMUM DAILY VALUE (1) Concentration (2) Mass	b. MAXIMUM 30 DAY VALUE (if available) (1) Concentration (2) Mass	c. LONG TERM AVG. VALUE (if available) (1) Concentration (2) Mass	d. NO. OF ANALYSES	a. Concentration	b. Mass	a. LONG TERM AVG. VALUE (1) Concentration (2) Mass	d. NO. OF ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)									
22B. 1,4-Dichlorobenzene (106-46-7)	X								
23B. 3,3-Dichlorobenzidine (91-94-1)	X								
24B. Diethyl Phthalate (84-66-2)	X								
25B. Dimethyl Phthalate (131-11-3)	X								
26B. Di-N-Butyl Phthalate (64-74-2)	X								
27B. 2,4-Dinitrotoluene (121-14-2)	X								
28B. 2,6-Dinitrotoluene (866-20-2)	X								
29B. Di-N-Octyl Phthalate (117-84-0)	X								
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	X								
31B. Fluoranthene (208-44-0)	X								
32B. Fluorene (86-73-7)	X								
33B. Hexachlorobenzene (118-74-1)	X								
34B. Hexachlorobiphenyl (87-68-3)	X								
35B. Hexachlorocyclopentadiene (77-47-4)	X								
36B. Hexachloroethane (67-72-1)	X								
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X								
38B. Isophorone (76-59-1)	X								
39B. Naphthalene (81-20-3)	X								
40B. Nitrobenzene (98-95-3)	X								
41B. N-Nitrosodimethylamine (62-75-9)	X								
42B. N-Nitrosodipropylamine (621-64-7)	X								

CONTINUED FROM PAGE V-7

L.V. Sutton Electric Plant

EPA I.D. NUMBER (copy from Item 1 of Form 1) **NCDD000830646** **001** **001**
 OUTFALL NUMBER

1. POLLUTANT AND GAS NO. (if available)	2. MARK "X"		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
	a. no. quired	b. Believed pre-sert	a. MAXIMUM DAILY VALUE		a. Concentration	b. Mass	a. LONG TERM AVG. VALUE		
			(1) Concentration	(2) Mass			(1) Concentration	(2) Mass	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)									
43B N-Nitrosodiphenylamine (86-30-6)		X				lb/Day			
44B Phenanthrene (85-01-8)		X				lb/Day			
45B Pyrene (129-00-0)		X				lb/Day			
46B 1,2,4-Trichlorobenzene (129-82-1)		X				lb/Day			
GC/MS FRACTION - PESTICIDES									
1P Atraz (309-00-2)		X	< 0.2	< 0.034		ug/L			1
2P alpha-BHC (319-84-6)		X	< 0.01	< 0.002		ug/L			1
3P beta-BHC (315-85-7)		X	< 0.01	< 0.002		ug/L			1
4P gamma-BHC (58-89-9)		X	< 0.01	< 0.002		ug/L			1
5P delta-BHC (319-86-8)		X	< 0.01	< 0.002		ug/L			1
6P Chlordane (57-74-9)		X	< 1	< 0.171		ug/L			1
7P 4,4'-DDT (50-29-3)		X	< 0.01	< 0.002		ug/L			1
8P 4,4'-DDE (72-55-9)		X	< 0.01	< 0.002		ug/L			1
9P 4,4'-DDD (72-54-8)		X	< 0.01	< 0.002		ug/L			1
10P Dieldrin (60-57-1)		X	< 0.2	< 0.034		ug/L			1
11P alpha-Endosulfan (115-25-7)		X	< 0.01	< 0.002		ug/L			1
12P beta-Endosulfan (115-28-7)		X	< 0.01	< 0.002		ug/L			1
13P Endosulfan Sulfate (1031-07-8)		X	< 0.01	< 0.002		ug/L			1
14P Endrin (72-20-8)		X	< 0.1	< 0.017		ug/L			1
15P Endrin Aldehyde (7421-83-4)		X	< 0.01	< 0.002		ug/L			1
16P Heptachlor (76-44-9)		X	< 0.04	< 0.007		ug/L			1

CONTINUED FROM PAGE V-8

L.V. Sutton Electric Plant

EPA I.D. NUMBER (copy from Item 1 of Form 1) **NCD000830646** OUTFALL NUMBER **001**

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"			3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
	a. re-quired	b. pre-ferred	c. ab-sent	a. MAXIMUM DAILY VALUE (1) Concentration	b. MAXIMUM 30 DAY VALUE (if available) (2) Mass	a. Concen-tration	b. Mass	a. LONG TERM AVG. VALUE (1) Concentration	d. NO. OF ANALYSES (2) Mass	
GC/MS FRACTION - PESTICIDES (continued)										
17P Heptachlor Epoxide (1024-57-3)			X	< 0.02	< 0.003				1	ug/L
18P PCB-1242 (53469-21-9)			X	< 0.5	< 0.085				1	ug/L
19P PCB-1254 (11987-69-1)			X	< 0.5	< 0.085				1	ug/L
20P PCB-1221 (11104-28-2)			X	< 0.5	< 0.085				1	ug/L
21P PCB-1232 (11141-16-5)			X	< 0.5	< 0.085				1	ug/L
22P PCB-1248 (12872-29-6)			X	< 0.5	< 0.085				1	ug/L
23P PCB-1260 (11096-82-5)			X	< 0.5	< 0.085				1	ug/L
24P PCB-1016 (12874-11-2)			X	< 0.5	< 0.085				1	ug/L
25P Toxaphene (8001-35-2)			X	< 1	< 0.171				1	ug/L

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 ID NUMBER (copy from Item 1 of Form 1)

NCD000830646

EPA Facility Name:
L.V. Sutton Electric Plant

OUTFALL NO. 008

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

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				3. UNITS				4. INTAKE (optional)		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE		c. LONG TERM AVG. VALUE		d. NO. OF ANALYSES	a. Concentration	b. Mass	a. LONG TERM AVG. VALUE	
	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass
a. Biochemical Oxygen Demand (BOD)	< 2	< 4806.7	< 2	< 3521.6	< 2	< 3521.6	2	mg/l	lb/Day		
b. Chemical Oxygen Demand (COD)	< 20	< 48067.2	< 20	< 35215.9	< 20	< 35215.9	2	mg/l	lb/Day		
c. Total Organic Carbon (TOC)	5.9	14179.8	5.7	10036.5	5.7	10036.5	2	mg/l	lb/Day		
d. Total Suspended Solids (TSS)	< 5	< 12016.8	< 5	< 8804.0	< 5	< 8804.0	6	mg/l	lb/Day		
e. Ammonia (as N)	< 0.200	< 480.7	< 0.2	< 352.2	< 0.2	< 352.2	2	mg/l	lb/Day		
f. Flow	VALUE	288	VALUE	211	VALUE	211	81	MGD	N/A	VALUE	
g. Temperature (winter)	VALUE	36.5	VALUE	28.5	VALUE	28.5	81	DEGREES CELSIUS		VALUE	
h. Temperature (summer)	VALUE		VALUE		VALUE		0	DEGREES CELSIUS		VALUE	
i. pH	MINIMUM	7.71	MINIMUM		MINIMUM		81	STANDARD UNITS			

PART B - Mark "X" in column 2a for each pollutant you know or have reason to believe is present. Mark "X" in column 2b 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 your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS				5. INTAKE (optional)		
	a. Present	b. Absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE		c. LONG TERM AVG. VALUE		d. NO. OF ANALYSES	a. Concentration	b. Mass	a. LONG TERM AVG. VALUE	
			(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass
a. Bromide (24950-67-9)	X		0.16	384.5			0.155	272.9	2	mg/l	lb/Day		
b. Chlorine	X		39.00	93.7					1	ug/L	lb/Day		
Total Residual Chlorine	X		15.00	N/A				N/A	1	Std. Units	N/A		
c. Color	X			N/A				N/A	1	Colories /100 ml	N/A		
d. Fecal Coliform	X		0.17	408.6			0.14	246.5	2	mg/l	lb/Day		
e. Fluoride (16984-46-9)	X		0.060	144.2			0.047	62.8	2	mg/l	lb/Day		
f. Nitrate-Nitrite (as N)	X								2	mg/l	lb/Day		

1. POLLUTANT (if available)	2. MARK "X"		a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE		c. LONG TERM AVG. VALUE		d. NO. OF ANALYSES		a. LONG TERM AVG. VALUE		b. NO OF ANALYSES
	a. pre- sent	b. ab- sent	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	
g. Nitrogen, Total/Organic (as N)	X		1.06	2547.6			0.8	1408.6	5		mg/l	lb/Day	
h. Oil and Grease	X		< 5.00	< 12016.8	< 5	< 12016.8	< 5	< 8804.0	6		mg/l	lb/Day	
i. Phosphorous (as P), Total (7723-14-0)	X		1.20	2884.0			0.645	1135.7	6		mg/l	lb/Day	
J. Radioactivity													
(1) Alpha, Total	X		0.76	N/A		N/A		N/A	1		pCi/l	N/A	N/A
(2) Beta, Total	X		-0.66	N/A		N/A		N/A	1		pCi/l	N/A	N/A
(3) Radium, Total	X		0.32	N/A		N/A		N/A	1		pCi/l	N/A	N/A
(4) Radium 226, Total	X		0.34	N/A		N/A		N/A	1		pCi/l	N/A	N/A
k. Sulfide (as S04) (14608-79-8)	X		33.0	79310.9			30.5	53704.2	2		mg/l	lb/Day	
l. Sulfide (as S)	X		< 1.00	< 2403.4			< 1	< 1760.8	2		mg/l	lb/Day	
m. Sulfide (as S03) (14265-45-3)	X		< 2.00	< 4806.7			< 2	< 3521.6	2		mg/l	lb/Day	
n. Surfactants	X		< 0.050	< 120.2			< 0.05	< 88.0	2		mg/l	lb/Day	
o. Aluminum, Total (7429-90-5)	X		0.052	125.0			0.043	75.7	2		mg/l	lb/Day	
p. Barium, Total (7440-39-3)	X		0.041	98.5			0.039	68.7	2		mg/l	lb/Day	
q. Boron, Total (7440-42-8)	X		0.205	492.7			0.1945	342.5	2		mg/l	lb/Day	
r. Cobalt, Total (7440-48-4)	X		< 0.010	< 24.0			< 0.01	< 17.6	2		mg/l	lb/Day	
s. Iron, Total (7439-89-6)	X		0.114	274.0			0.1005	177.0	2		mg/l	lb/Day	
t. Magnesium, Total (7439-95-4)	X		4.50	10815.1			4.48	7888.4	2		mg/l	lb/Day	
u. Molybdenum, Total (7439-98-7)	X		0.0120	28.8			0.01175	20.7	2		mg/l	lb/Day	
v. Manganese, Total (7439-96-5)	X		< 0.010	< 24.0			< 0.01	< 17.6	2		mg/l	lb/Day	
w. Van, Total (7440-31-5)	X		< 0.02	< 48.1			< 0.02	< 35.2	2		mg/l	lb/Day	
x. Zirconium, Total (7440-32-6)	X		< 0.010	< 24.0			< 0.01	< 17.6	2		mg/l	lb/Day	

EPA I.D. NUMBER (copy from Item 1 of Form 1) **NCDD00830546** OUTFALL NUMBER **008**

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 nonrequired 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, you must provide the results of at least one analysis for that pollutant. If you mark column 2c for any pollutant, 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 7 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 NO. (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		d. NO. OF ANALYSES		
	a. Required	b. Believed absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE		c. LONG TERM AVG. VALUE (if available)	d. NO. OF ANALYSES	a. Concentration	b. Mass		a. LONG TERM AVG. VALUE	
			(1) Concentration	(2) Mass	(1) Concentration	(2) Mass						(1) Concentration	(2) Mass
METALS, CYANIDE, AND TOTAL PHENOLS													
1M. Antimony, Total (7440-38-0)	X		< 0.01	< 24.03			< 0.01	< 17.61	2	mg/L	lb/Day		
2M. Arsenic, Total (7440-38-2)	X		< 0.01	< 24.03			< 0.01	< 17.61	4	mg/L	lb/Day		
3M. Beryllium, Total (7440-41-7)	X		< 0.01	< 24.03			< 0.01	< 17.61	2	mg/L	lb/Day		
4M. Cadmium, Total (7440-43-9)	X		< 0.01	< 24.03			< 0.01	< 17.61	2	mg/L	lb/Day		
5M. Chromium, Total (7440-47-3)	X		< 0.01	< 24.03			< 0.01	< 17.61	2	mg/L	lb/Day		
6M. Copper, Total (7440-50-8)	X		0.009	21.63			< 0.01	< 17.61	4	mg/L	lb/Day		
7M. Lead, Total (7439-92-1)	X		< 0.01	< 24.03			< 0.01	< 17.61	2	mg/L	lb/Day		
8M. Mercury, Total (7439-97-6)	X		2.96	0.01			1.74	0.00	5	ng/L	lb/Day		
9M. Nickel, Total (7440-02-0)	X		< 0.01	< 24.03			< 0.01	< 17.61	2	mg/L	lb/Day		
10M. Selenium, Total (7782-49-2)	X		< 0.01	< 24.03			< 0.01	< 17.61	4	mg/L	lb/Day		
11M. Silver, Total (7440-22-4)	X		< 0.01	< 24.03			< 0.01	< 17.61	2	mg/L	lb/Day		
12M. Thallium, Total (7440-28-0)	X		< 0.01	< 24.0			< 0.01	< 17.6	2	mg/L	lb/Day		
13M. Zinc, Total (7440-66-6)	X		< 0.01	< 24.03			< 0.01	< 17.61	4	mg/L	lb/Day		
14M. Cyanide, Total (57-12-5)	X		< 0.01	< 24.03			< 0.01	< 17.61	2	mg/l	lb/Day		
15M. Phenols, Total	X		0.014	33.6			< 0.0105	< 18.5	2	mg/l	lb/Day		
DIOXIN													
2,3,7,8 Tetrachlorodibenzo P Dioxin (1764-01-6)		X											

DESCRIBE RESULTS

EPA I.D. NUMBER (copy from Item 1 of Form 1) **NCD000830646** OUTFALL NUMBER **008**

1. POLLUTANT AND GAS NO. (if available)	2. MARK "X"			3. EFFLUENT			4. UNITS			5. INTAKE (optional)			
	Believed to be present	Believed to be absent	Not tested	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE	c. LONG TERM AVG. VALUE		d. NO. OF ANALYSES	a. Concentration	b. Mass	5. INTAKE (optional)	
				(1) Concentration	(2) Mass		(1) Concentration	(2) Mass				(1) Concentration	(2) Mass
GCMS FRACTION - VOLATILE COMPOUNDS													
1V Acrolein (107-02-8)	X			< 5	< 12.02		< 5	< 8.80	2	ug/l	lb/Day		
2V Acrylonitrile (107-13-1)	X			< 5	< 12.02		< 5	< 8.80	2	ug/l	lb/Day		
3V Benzene (71-43-2)	X			< 2	< 4.81		< 1.25	< 2.20	2	ug/l	lb/Day		
4V Bis (Chloromethyl) Ether (542-98-1)		X											
5V Bromoform (75-25-2)	X			< 2	< 4.81		< 1.25	< 2.20	2	ug/l	lb/Day		
6V Carbon Tetrachloride (56-23-5)	X			< 2	< 4.81		< 1.25	< 2.20	2	ug/l	lb/Day		
7V Chlorobenzene (108-90-7)	X			< 2	< 4.81		< 1.25	< 2.20	2	ug/l	lb/Day		
8V Chlorobromomethane (124-48-1)	X			< 2	< 4.81		< 1.25	< 2.20	2	ug/l	lb/Day		
9V Chloroethane (75-06-3)	X			< 2	< 4.81		< 1.25	< 2.20	2	ug/l	lb/Day		
10V 2-Chloroethylmethyl Ether (110-75-8)	X			< 2	< 4.81				1	ug/l	lb/Day		
11V Chloroform (67-66-3)	X			< 2	< 4.81		< 1.25	< 2.20	2	ug/l	lb/Day		
12V Dichlorobromomethane (75-27-4)	X			< 2	< 4.81		< 1.25	< 2.20	2	ug/l	lb/Day		
13V Dichlorodifluoromethane (75-71-6)	X			< 2	< 4.81		< 1.25	< 2.20	2	ug/l	lb/Day		
14V 1,1-Dichloroethane (75-34-3)	X			< 2	< 4.81		< 1.25	< 2.20	2	ug/l	lb/Day		
15V 1,2-Dichloroethane (107-06-2)	X			< 2	< 4.81		< 1.25	< 2.20	2	ug/l	lb/Day		
16V 1,1-Dichloroethylene (75-35-4)	X			< 2	< 4.81		< 1.25	< 2.20	2	ug/l	lb/Day		
17V 1,2-Dichloropropane (78-87-5)	X			< 2	< 4.81		< 1.25	< 2.20	2	ug/l	lb/Day		
18V 1,3-Dichloropropane (542-75-6)	X			< 2	< 4.81		< 1.25	< 2.20	2	ug/l	lb/Day		
19V Ethylbenzene (100-41-4)	X			< 2	< 4.81		< 1.25	< 2.20	2	ug/l	lb/Day		
20V Methyl Bromide (74-83-9)	X			< 2	< 4.81		< 1.31	< 2.31	2	ug/l	lb/Day		
21V Methyl Chloride (74-87-3)	X			< 0.5	< 1.20		< 1.25	< 2.20	2	ug/l	lb/Day		

L.V. Sutton Electric Plant

EPA I.D. NUMBER (copy from Item 1 of Form 1)
 NCD000830646

OUTFALL NUMBER
 008

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	is reported	Believed to be present	a. MAXIMUM DAILY VALUE (1) Concentration (2) Mass	b. MAXIMUM 30 DAY VALUE (if available) (1) Concentration (2) Mass	c. LONG TERM AVG. VALUE (if available) (1) Concentration (2) Mass	d. NO. OF ANALYSES	a. Concentration	b. Mass	a. LONG TERM AVG. VALUE (1) Concentration (2) Mass	d. NO. OF ANALYSES
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)										
22V Methylene Chloride (75-09-2)	X		< 2	< 4.81	< 1.25	2	ug/l	lb/Day		
23V 1,1,2,2-Tetrachloroethane (78-34-5)	X		< 2	< 4.81	< 1.25	2	ug/l	lb/Day		
24V Tetrachloroethylene (127-18-4)	X		< 2	< 4.81	< 1.25	2	ug/l	lb/Day		
25V Toluene (108-88-3)	X		< 2	< 4.81	< 1.25	2	ug/l	lb/Day		
26V 1,2-Trans-Dichloroethylene (156-60-5)	X		< 2	< 4.81	< 1.25	2	ug/l	lb/Day		
27V 1,1,1-Trichloroethane (71-55-6)	X		< 2	< 4.81	< 1.25	2	ug/l	lb/Day		
28V 1,1,2-Trichloroethane (78-00-5)	X		< 2	< 4.81	< 1.25	2	ug/l	lb/Day		
29V Trichloroethylene (79-01-6)	X		< 2	< 4.81	< 1.25	2	ug/l	lb/Day		
30V Trichlorofluoromethane (75-69-4)	X		< 2	< 4.81	< 1.25	2	ug/l	lb/Day		
31V Vinyl Chloride (75-01-4)	X		< 2	< 4.81	< 1.25	2	ug/l	lb/Day		
GC/MS FRACTION - ACID COMPOUNDS										
1A. 2-Chlorophenol (95-57-8)	X		< 10	< 24.03	< 7.87	2	ug/l	lb/Day		
2A. 2,4-Dichlorophenol (120-83-2)	X		< 10	< 24.03	< 7.87	2	ug/l	lb/Day		
3A. 2,4-Dinitrophenol (105-67-8)	X		< 10	< 24.03	< 7.87	2	ug/l	lb/Day		
4A. 4,6-Dinitro-Cresol (534-52-1)	X		< 28.7	< 68.98	< 19.35	2	ug/l	lb/Day		
5A. 2,4-Dinitrophenol (51-28-5)	X		< 50	< 120.17	< 39.35	2	ug/l	lb/Day		
6A. 2-Nitrophenol (88-75-5)	X		< 28.7	< 68.98	< 19.35	2	ug/l	lb/Day		
7A. 4-Nitrophenol (100-02-7)	X		< 28.7	< 68.98	< 19.35	2	ug/l	lb/Day		
8A. P-Chloro-N-Cresol (99-50-7)	X		< 10	< 24.03	< 7.87	2	ug/l	lb/Day		
9A. Pentachlorophenol (87-86-5)	X		< 28.7	< 68.98	< 19.35	2	ug/l	lb/Day		
10A. Phenol (108-95-2)	X		< 10	< 24.03	< 7.87	2	ug/l	lb/Day		
11A. 2,4,6-Trichlorophenol (68-06-2)	X		< 10	< 24.03	< 7.87	2	ug/l	lb/Day		

CONTINUED FROM PAGE V-5

3. EFFLUENT

4. UNITS

5. INTAKE (optional)

L.V. Sutfon Electric Plant

EPA ID. NUMBER (copy from Item 1 of Form 1)

OUTFALL NUMBER

NCDD000830646

008

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	a re-quired	b pre-sent	a. MAXIMUM DAILY VALUE (1) Concentration	(2) Mass	b. MAXIMUM 30 DAY VALUE (1) Concentration	(2) Mass	a. LONG TERM AVG. VALUE (1) Concentration	(2) Mass
GC/MS FRACTION - BASE NEUTRAL COMPOUNDS								
1B. Acenaphthene (83-32-9)		X					ug/l	lb/Day
2B. Acenaphthylene (208-96-8)		X					ug/l	lb/Day
3B. Anthracene (120-12-7)		X					ug/l	lb/Day
4B. Benzidine (92-87-5)		X					ug/l	lb/Day
5B. Benzo (b) Anthracene (56-55-3)		X					ug/l	lb/Day
6B. Benzo (a) Pyrene (50-32-8)		X					ug/l	lb/Day
7B. 3,4-Benzofluoranthene (205-99-2)		X					ug/l	lb/Day
8B. Benzo (ghi) Perylene (191-24-2)		X					ug/l	lb/Day
9B. Benzo (h) Fluoranthene (207-08-9)		X					ug/l	lb/Day
10B. Bis (2-Chloroethoxy) Methane (111-91-1)		X					ug/l	lb/Day
11B. Bis (2-Chloroethyl) Ether (111-44-4)		X					ug/l	lb/Day
12B. Bis (2-Chloroisopropyl) Ether (108-60-1)		X					ug/l	lb/Day
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)		X					ug/l	lb/Day
14B. 4-Bromophenyl Phenyl Ether (101-55-3)		X					ug/l	lb/Day
15B. Butyl Benzyl Phthalate (85-68-7)		X					ug/l	lb/Day
16B. 2-Chloronaphthalene (81-58-7)		X					ug/l	lb/Day
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)		X					ug/l	lb/Day
18B. Chrysene (218-01-8)		X					ug/l	lb/Day
19B. Dibenzo (a,h) Anthracene (53-70-3)		X					ug/l	lb/Day
20B. 1,2-Dichlorobenzene (95-50-1)		X					ug/l	lb/Day
21B. 1,3-Dichlorobenzene (541-73-1)		X					ug/l	lb/Day

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
	a. re-quired	b. pre-sert	a. MAXIMUM DAILY VALUE (1) Concentration	b. MAXIMUM 30 DAY VALUE (2) Mass	a. NO. OF ANALYSES	b. Mass	a. LONG TERM AVG. VALUE (1) Concentration	d. NO. OF ANALYSES	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)									
228 1,4-Dichloro-benzene (106-46-7)		X				ug/l	lb/Day		
238 3,3-Dichloro-benzidine (81-94-1)		X				ug/l	lb/Day		
248 Diethyl Phthalate (84-66-2)		X				ug/l	lb/Day		
258 Dimethyl Phthalate (131-11-3)		X				ug/l	lb/Day		
268 Di-N-Butyl Phthalate (84-74-2)		X				ug/l	lb/Day		
278 2,4-Dinitro-toluene (121-14-2)		X				ug/l	lb/Day		
288 2,6-Dinitro-toluene (808-20-2)		X				ug/l	lb/Day		
298 Di-N-Octyl Phthalate (117-84-0)		X				ug/l	lb/Day		
308 1,2-Diphenyl-hydrazine (as Azobenzene) (122-86-7)		X				ug/l	lb/Day		
318 Fluoranthene (206-44-0)		X				ug/l	lb/Day		
328 Fluorene (66-73-7)		X				ug/l	lb/Day		
338 Hexachloro-benzene (118-74-1)		X				ug/l	lb/Day		
348 Hexachlorobenzene (87-68-3)		X				ug/l	lb/Day		
358 Hexachloro-cyclopentadiene (77-47-4)		X				ug/l	lb/Day		
368 Hexachloro-sulfane (87-72-1)		X				ug/l	lb/Day		
378 Indeno (1,2,3-cd) Pyrene (183-39-5)		X				ug/l	lb/Day		
388 Isophorone (76-59-1)		X				ug/l	lb/Day		
398 Naphthalene (91-20-3)		X				ug/l	lb/Day		
408 Nitrobenzene (98-95-3)		X				ug/l	lb/Day		
418 N-Nitrosodimethylamine (62-75-8)		X				ug/l	lb/Day		
428 N-Nitrosod-N-Propylamine (621-54-7)		X				ug/l	lb/Day		

CONTINUED FROM PAGE V-7

L.V. Sutton Electric Plant

EPA ID. NUMBER (copy from Item 1 of Form 1) **NCDD000830646** OUTFALL NUMBER **008**

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	Required	Believed to be present	a. MAXIMUM DAILY VALUE	b. MAXIMUM 30 DAY VALUE (if available)	c. LONG TERM AVG. VALUE (if available)	d. NO. OF ANALYSES	a. Concentration	b. Mass	a. LONG TERM AVG. VALUE	d. NO. OF ANALYSES
			(1) Concentration (2) Mass	(1) Concentration (2) Mass	(1) Concentration (2) Mass		(1) Concentration (2) Mass	(1) Concentration (2) Mass	(1) Concentration (2) Mass	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)										
43B N-Nitrosodiphenylamine (86-30-6)		X								
44B Phenanthrene (85-01-8)		X								
45B Pyrene (129-00-0)		X								
46B 1,2,4-Trichlorobenzene (123-82-1)		X								
GC/MS FRACTION - PESTICIDES										
1P Aldrin (309-00-2)		X	< 0.0002	< 0.48					mg/L	lb/Day
2P alpha-BHC (319-84-6)		X	< 0.00001	< 0.02					mg/L	lb/Day
3P beta-BHC (315-85-7)		X	< 0.00001	< 0.02					mg/L	lb/Day
4P gamma-BHC (58-99-9)		X	< 0.00001	< 0.02					mg/L	lb/Day
5P delta-BHC (319-86-8)		X	< 0.00001	< 0.02					mg/L	lb/Day
6P Chlordane (57-74-9)		X	< 0.001	< 2.40					mg/L	lb/Day
7P 4,4'-DDT (50-29-3)		X	< 0.00001	< 0.02					mg/L	lb/Day
8P 4,4'-DDE (72-55-9)		X	< 0.00001	< 0.02					mg/L	lb/Day
9P 4,4'-DDB (72-54-8)		X	< 0.00001	< 0.02					mg/L	lb/Day
10P Dieldrin (60-57-1)		X	< 0.0002	< 0.48					mg/L	lb/Day
11P alpha-Endosulfan (115-29-7)		X	< 0.00001	< 0.02					mg/L	lb/Day
12P beta-Endosulfan (115-29-7)		X	< 0.00001	< 0.02					mg/L	lb/Day
13P Endosulfan Sulfate (1031-07-8)		X	< 0.00001	< 0.02					mg/L	lb/Day
14P Endrin (72-20-8)		X	< 0.0001	< 0.24					mg/L	lb/Day
15P Endrin Aldehyde (7421-83-4)		X	< 0.00001	< 0.02					mg/L	lb/Day
16P Heptachlor (76-44-8)		X	< 0.00004	< 0.10					mg/L	lb/Day

CONTINUED FROM PAGE V.8

L. V. Sutton Electric Plant

EPA ID. NUMBER (copy from Item 1 of Form 1) **NC D000830646** OUTFALL NUMBER **008**

1. POLLUTANT AND GAS NO. (if available)	2. MARK "X"		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		d. NO. OF ANALYSES
	a. required	b. Believed to pre-sent.	a. MAXIMUM DAILY VALUE (1) Concentration	b. MAXIMUM 30 DAY VALUE (if available) (2) Mass	c. LONG TERM AVG. VALUE (if available) (1) Concentration	d. NO. OF ANALYSES	a. LONG TERM AVG. VALUE (1) Concentration	b. Mass (2) Mass	
GCMS FRACTION - PESTICIDES (continued)									
17P Heptachlor Epoxide (1024-57-3)		X	< 0.00025	< 0.60	< 0.000135	2	mg/L	lb/Day	
18P PCB-1242 (53469-21-9)		X	< 0.0005	< 1.20	< 0.000375	2	mg/L	lb/Day	
19P PCB-1254 (11097-69-1)		X	< 0.0005	< 1.20	< 0.000375	2	mg/L	lb/Day	
20P PCB-1221 (11104-28-2)		X	< 0.0005	< 1.20	< 0.000375	2	mg/L	lb/Day	
21P PCB-1232 (11141-16-5)		X	< 0.0005	< 1.20	< 0.000375	2	mg/L	lb/Day	
22P PCB-1248 (12672-29-6)		X	< 0.0005	< 1.20	< 0.000375	2	mg/L	lb/Day	
23P PCB-1260 (11098-82-5)		X	< 0.0005	< 1.20	< 0.000375	2	mg/L	lb/Day	
24P PCB-1016 (12674-11-2)		X	< 0.0005	< 1.20	< 0.000375	2	mg/L	lb/Day	
25P Toxaphene (8001-35-2)		X	< 0.001	< 2.40		1	mg/L	lb/Day	

OUTFALLS 002 AND 004 HAVE NOT DISCHARGED SINCE 2013. GRAB SAMPLES WERE COLLECTED FROM WITHIN THE BASIN AND ARE PROVIDED FOR INFORMATIONAL PURPOSES
 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 Facility Name:
L.V. Sutton Electric Plant

EPA I.D. NUMBER (copy from Item 1 of Form 1)
NCD000830646

OUTFALL NO. **002**

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

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				3. UNITS			4. INTAKE (optional)		b. NO. OF ANALYSES		
	a. MAXIMUM DAILY VALUE		D. MAXIMUM 30 DAY VALUE		C. LONG TERM AVG. VALUE		d. NO OF ANALYSES	a. Concentration	b. Mass		a. LONG TERM AVG. VALUE	
	(1) Concentration	(2) Mass	(if available) (1) Concentration	(2) Mass	(if available) (1) Concentration	(2) Mass					(1) Concentration	(2) Mass
a. Biochemical Oxygen Demand (BOD)	<	2*					1	mg/l	lb/Day			
b. Chemical Oxygen Demand (COD)		21					1	mg/l	lb/Day			
c. Total Organic Carbon (TOC)		7.1					1	mg/l	lb/Day			
d. Total Suspended Solids (TSS)		32*					1	mg/l	lb/Day			
e. Ammonia (as N)		0.142					1	mg/l	lb/Day			
f. Flow	VALUE	no flow	VALUE	VALUE	VALUE	MGD			N/A	VALUE		
g. Temperature (winter)	VALUE		VALUE	VALUE	VALUE	DEGREES CELSIUS				VALUE		
h. Temperature (summer)	VALUE	17.2	VALUE	VALUE	VALUE	DEGREES CELSIUS				VALUE		
i. pH	MINIMUM	6.8	MINIMUM	MAXIMUM	MAXIMUM	STANDARD UNITS				VALUE		

PART B - Mark "X" in column 2a for each pollutant you know or have reason to believe is present. Mark "X" in column 2b for each pollutant you believe to be absent. 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 your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS			5. INTAKE (optional)		b. NO. OF ANALYSES		
	a. pre-sent	b. absent	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE		c. LONG TERM AVG. VALUE		d. NO. OF ANALYSES	a. Concentration	b. Mass		a. LONG TERM AVG. VALUE	
			(1) Concentration	(2) Mass	(if available) (1) Concentration	(2) Mass	(if available) (1) Concentration	(2) Mass					(1) Concentration	(2) Mass
a. Bromide (24959-87-9)	X			0.26					1	mg/l	lb/Day			
b. Chlorine, Total Residual	X									mg/l	lb/Day			
c. Color	X			120*	N/A	N/A	N/A	N/A	1	Std. Units	N/A		N/A	
d. Fecal Coliform	X				N/A	N/A	N/A	N/A	1	Colonies /100 ml	N/A		N/A	
e. Fluoride (16984-48-8)	X			0.10					1	mg/l	lb/Day			
f. Nitrate-Nitrite (as N)	X			0.171					1	mg/l	lb/Day			

* Sample was received above temperature required for preservation or sample was analyzed outside of hold time.

OUTFALLS 002 AND 004 HAVE NOT DISCHARGED SINCE 2013. GRAB SAMPLES WERE COLLECTED FROM WITHIN THE BASIN AND ARE PROVIDED FOR INFORMATIONAL PURPOSES

ITEM V.B. CONTINUED FROM FRONT		EPA ID. NUMBER (copy from Item 1 of Form 1)		OUTFALL NUMBER		L. V. Sutton Electric Plant	
1. POLLUTANT AND CAS NO. (if available)		3. EFFLUENT		002		5. INTAKE (optional)	
a. MAXIMUM DAILY VALUE	b. MAXIMUM 30 DAY VALUE	c. LONG TERM AVG. VALUE	d. NO. OF ANALYSES	4. UNITS		a. LONG TERM AVG. VALUE	b. NO. OF ANALYSES
				(1) Concentration	(2) Mass		
(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	a. Concentration	b. Mass	(1) Concentration	(2) Mass
g. Nitrogen, Total Organic (as N)				mg/l	lb/Day		
h. Oil and Grease	< 5.00		1	mg/l	lb/Day		
i. Phosphorous (as P), Total (7723-14-0)	0.038		1	mg/l	lb/Day		
J. Radioactivity							
(1) Alpha, Total	N/A	N/A	1	pCi/l	N/A	N/A	
(2) Beta, Total	6.81	N/A	1	pCi/l	N/A	N/A	
(3) Radium, Total	0.43	N/A	1	pCi/l	N/A	N/A	
(4) Radium 226, Total	0.22	N/A	1	pCi/l	N/A	N/A	
k. Sulfate (as SO4) (14808-78-8)	61.00		1	mg/l	lb/Day		
l. Sulfide (as S)	< 1.0*		1	mg/l	lb/Day		
m. Sulfite (as SO3) (14285-45-3)	< 2.0*		1	mg/l	lb/Day		
n. Surfactants	< 0.05*		1	mg/l	lb/Day		
o. Aluminum, Total (7429-90-5)	0.738		1	mg/l	lb/Day		
p. Barium, Total (7440-39-3)	0.043		1	mg/l	lb/Day		
q. Boron, Total (7439-89-6)	0.344		1	mg/l	lb/Day		
r. Cobalt, Total (7440-42-8)	< 1.000		1	ug/L	lb/Day		
s. Iron, Total (7439-89-6)	2.780		1	mg/l	lb/Day		
t. Magnesium, Total (7439-85-4)	6.87		1	mg/l	lb/Day		
u. Molybdenum, Total (7439-98-7)	31.7000		1	ug/L	lb/Day		
v. Manganese, Total (7439-96-5)	0.059		1	mg/l	lb/Day		
w. Tin, Total (7440-31-5)	< 0.01		1	mg/l	lb/Day		
x. Titanium, Total (7440-32-8)	0.013		1	mg/l	lb/Day		

No Discharge

* Sample was received above temperature required for preservation or sample was analyzed outside of hold time.

CONTINUED FROM PAGE 3 OF FORM 2-C

L.V. Sutton Electric Plant

EPA ID. NUMBER (copy from Item 1 of Form 1) **NCDD00830646** OUTFALL NUMBER **002**

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"	3. EFFLUENT		4. UNITS		5. INTAKE (optional)		d. NO. OF ANALYSES
		a. MAXIMUM DAILY VALUE (1) Concentration (2) Mass	b. MAXIMUM 30 DAY VALUE (if available) (1) Concentration (2) Mass	c. LONG TERM AVG. VALUE (if available) (1) Concentration (2) Mass	d. NO. OF ANALYSES	a. Concentration	b. Mass	
METALS, CYANIDE, AND TOTAL PHENOLS								
1M. Arsenic, Total (7440-38-0)	X	<	<	<	ug/l	lb/Day		1
2M. Arsenic, Total (7440-38-2)	X	11.3			ug/l	lb/Day		1
3M. Beryllium, Total (7440-41-7)	X	<	<	<	ug/l	lb/Day		1
4M. Cadmium, Total (7440-43-9)	X	0.1			ug/l	lb/Day		1
5M. Chromium, Total (7440-47-3)	X	1.32			ug/l	lb/Day		1
6M. Copper, Total (7440-50-8)	X	0.005			mg/l	lb/Day		1
7M. Lead, Total (7439-92-1)	X	1.81			ug/l	lb/Day		1
8M. Mercury, Total (7439-97-6)	X	13.6			ng/L	lb/Day		1
9M. Nickel, Total (7440-02-0)	X	4.28			ug/l	lb/Day		1
10M. Selenium, Total (7782-49-2)	X	<	<	<	ug/l	lb/Day		1
11M. Silver, Total (7440-22-4)	X	<	<	<	ug/l	lb/Day		1
12M. Thallium, Total (7440-28-0)	X	0.263			ug/L	lb/Day		1
13M. Zinc, Total (7440-66-8)	X	0.012			mg/l	lb/Day		1
14M. Cyanide, Total (57-12-5)	X	0.01*			mg/l	lb/Day		1
15M. Phenols, Total	X	<	<	<	mg/l	lb/Day		1
DIOXIN								
2,3,7,8 Tetra chlorodibenzo P Dioxin (1764-01-6)	X							

No Discharge

DESCRIPTIVE RESULTS

EPA Form 3510-2C (Rev 2-85)

OUTFALLS 002 AND 004 HAVE NOT DISCHARGED SINCE 2013. GRAB SAMPLES WERE COLLECTED FROM WITHIN THE BASIN AND ARE PROVIDED FOR INFORMATIONAL PURPOSES

L.V. Sutton Electric Plant

EPA I.D. NUMBER (copy from Item 1 of Form 1) **NCD000830646** OUTFALL NUMBER **002**

CONTINUED FROM PAGE V-3

1. POLLUTANT AND GAS NO. (if available)	2. MARK "X"		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	a re-qualified	b Believed sent	a. MAXIMUM DAILY VALUE (1) Concentration (2) Mass	b. MAXIMUM 30 DAY VALUE (if available) (1) Concentration (2) Mass	a. Concentration	b. Mass	(1) Concentration	(2) Mass
GC/MS FRACTION - VOLATILE COMPOUNDS			d. NO. OF ANALYSES	d. NO. OF ANALYSES				
1V Acrolein (107-02-8)	X		< 5*		ug/l	lb/Day		
2V Acrylonitrile (107-13-1)	X		< 5*		ug/l	lb/Day		
3V Benzene (71-43-2)	X		< 2*		ug/l	lb/Day		
4V Bis (Chloromethyl) Ether (542-58-1)		X						
5V Bromoform (75-25-2)	X		< 2*		ug/l	lb/Day		
6V Carbon Tetrachloride (58-23-5)	X		< 2*		ug/l	lb/Day		
7V Chlorobenzene (108-90-7)	X		< 2*		ug/l	lb/Day		
8V Chlorobromomethane (124-48-1)	X		< 2*		ug/l	lb/Day		
9V Chloroethane (75-00-3)	X		< 2*		ug/l	lb/Day		
10V 2-Chloroethyl Vinyl Ether (110-75-8)	X		< 2*		ug/l	lb/Day		
11V Chloroform (67-66-3)	X		< 2*		ug/l	lb/Day		
12V Dichlorobromomethane (75-27-4)	X		< 2*		ug/l	lb/Day		
13V Dichlorodifluoromethane (75-71-8)	X		< 2*		ug/l	lb/Day		
14V 1,1-Dichloroethane (75-34-3)	X		< 2*		ug/l	lb/Day		
15V 1,2-Dichloroethane (107-06-2)	X		< 2*		ug/l	lb/Day		
16V 1,1-Dichloroethylene (75-35-4)	X		< 2*		ug/l	lb/Day		
17V 1,2-Dichloropropane (78-87-5)	X		< 2*		ug/l	lb/Day		
18V 1,3-Dichloropropane (542-75-6)	X		< 2*		ug/l	lb/Day		
19V Ethylbenzene (100-11-4)	X		< 2*		ug/l	lb/Day		
20V Methyl Bromide (74-83-9)	X		< 2*		ug/l	lb/Day		
21V Methyl Chloride (74-87-3)	X		< 2*		ug/l	lb/Day		

No Discharge

* Sample was received above temperature required for preservation or sample was analyzed outside of hold time.

CONTINUED FROM PAGE V-4

L. V. Suttton Electric Plant

EPA ID. NUMBER (copy from Item 1 of Form 1) **NC D0000830646** OUTFALL NUMBER **002**

1. POLLUTANT AND CAS NO (if available)	2. MARK "X"			3. EFFLUENT		4. UNITS		5. INTAKE (optional)			
	a. required	b. pre-sent	c. ab-sent	a. MAXIMUM DAILY VALUE (if available)	b. MAXIMUM 30 DAY VALUE (if available)	c. LONG TERM AVG. VALUE (if available)	d. NO. OF ANALYSES	a. Concentration	b. Mass	a. LONG TERM AVG. VALUE (1) Concentration (2) Mass	d. NO. OF ANALYSES
GCMS FRACTION - VOLATILE COMPOUNDS (continued)											
23V Methylene Chloride (75-09-2)	X			< 2*			1	ug/l	lb/Day		
23V 1,1,2,2-Tetrachloroethane (79-34-5)	X			< 2*			1	ug/l	lb/Day		
24V Trichlorobenzene (127-18-4)	X			< 2*			1	ug/l	lb/Day		
25V Toluene (108-88-3)	X			< 2*			1	ug/l	lb/Day		
26V 1,2-Trans-Dichloroethylene (156-60-5)	X			< 2*			1	ug/l	lb/Day		
27V 1,1-Trichloroethane (71-55-6)	X			< 2*			1	ug/l	lb/Day		
28V 1,1,2-Trichloroethane (79-00-5)	X			< 2*			1	ug/l	lb/Day		
29V Trichlorobenzene (79-01-6)	X			< 2*			1	ug/l	lb/Day		
30V Trichlorofluoromethane (75-69-4)	X			< 2*			1	ug/l	lb/Day		
31V Vinyl Chloride (75-01-4)	X			< 2*			1	ug/l	lb/Day		
GCMS FRACTION - ACID COMPOUNDS											
1A. 2-Chlorophenol (95-57-8)	X			< 10			1	ug/l	lb/Day		
2A. 2,4-Dichlorophenol (120-83-2)	X			< 10			1	ug/l	lb/Day		
3A. 2,4-Dimethylphenol (105-67-8)	X			< 10			1	ug/l	lb/Day		
4A. 4-8-Dinitro-O-Cresol (634-52-1)	X			< 10			1	ug/l	lb/Day		
5A. 2,4-Dinitrophenol (51-28-5)	X			< 10			1	ug/l	lb/Day		
6A. 2-Nitrophenol (88-75-5)	X			< 10			1	ug/l	lb/Day		
7A. 4-Nitrophenol (100-02-7)	X			< 10			1	ug/l	lb/Day		
8A. P-Chloro-M-Cresol (89-56-7)	X			< 10			1	ug/l	lb/Day		
9A. Pentachlorophenol (87-86-5)	X			< 10			1	ug/l	lb/Day		
10A. Phenol (108-95-2)	X			< 10			1	ug/l	lb/Day		
11A. 2,4,6-Trichlorophenol (88-06-2)	X			< 10			1	ug/l	lb/Day		

No Discharge

* Sample was received above temperature required for preservation or sample was analyzed outside of hold time.

OUTFALLS 002 AND 004 HAVE NOT DISCHARGED SINCE 2013. GRAB SAMPLES WERE COLLECTED FROM WITHIN THE BASIN AND ARE PROVIDED FOR INFORMATIONAL PURPOSES

EPA I.D. NUMBER (copy from Item 1 of Form 1) **NCD0000830646** OUTFALL NUMBER **002**

L.V. Sutton Electric Plant

CONTINUED FROM PAGE V-5

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
	a. re-queried	b. pre-sent	a. MAXIMUM DAILY VALUE (if available)	b. MAXIMUM 30 DAY VALUE (if available)	c. LONG TERM AVG. VALUE (if available)	d. NO. OF ANALYSES	a. LONG TERM AVG. VALUE (1) Concentration	(2) Mass	d. NO. OF ANALYSES
GCMS FRACTION - BASE NEUTRAL COMPOUNDS									
1B. Acenaphthene (83-32-9)		X					ug/l	lb/Day	
2B. Acenaphthylene (208-96-8)		X					ug/l	lb/Day	
3B. Anthracene (120-12-7)		X					ug/l	lb/Day	
4B. Benzidine (92-87-5)		X					ug/l	lb/Day	
5B. Benzo (a)		X					ug/l	lb/Day	
Anthracene (56-55-3)		X					ug/l	lb/Day	
6B. Benzo (a)		X					ug/l	lb/Day	
Pyrene (50-32-8)		X					ug/l	lb/Day	
7B. 3,4-Benzofluoranthene (205-99-2)		X					ug/l	lb/Day	
8B. Benzo (ghi) Perylene (191-24-2)		X					ug/l	lb/Day	
9B. Benzo (k) Fluoranthene (207-08-9)		X					ug/l	lb/Day	
10B. Bis (2-Chloroethoxy) Methane (111-91-1)		X					ug/l	lb/Day	
11B. Bis (2-Chloroethyl) Ether (111-44-4)		X					ug/l	lb/Day	
12B. Bis (2-Chloroisopropyl) Ether (108-60-1)		X					ug/l	lb/Day	
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)		X					ug/l	lb/Day	
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)		X					ug/l	lb/Day	
15B. Butyl Benzyl Phthalate (85-68-7)		X					ug/l	lb/Day	
16B. 2-Chloronaphthalene (91-58-7)		X					ug/l	lb/Day	
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)		X					ug/l	lb/Day	
18B. Chrysene (218-01-9)		X					ug/l	lb/Day	
Anthracene (53-70-3)		X					ug/l	lb/Day	
19B. Dibenzo (a,h)		X					ug/l	lb/Day	
20B. 1,2-Dichlorobenzene (95-50-1)		X					ug/l	lb/Day	
21B. 1,3-Dichlorobenzene (541-73-1)		X					ug/l	lb/Day	

No Discharge

OUTFALLS 002 AND 004 HAVE NOT DISCHARGED SINCE 2013. GRAB SAMPLES WERE COLLECTED FROM WITHIN THE BASIN AND ARE PROVIDED FOR INFORMATIONAL PURPOSES

CONTINUED FROM PAGE V-6

L. V. Sutton Electric Plant

EPA ID. NUMBER (copy from Item 1 of Form 1) NCUJUUU83U646

OUTFALL NUMBER UUZ

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X" a. required b. pre-sent c. ab-sent	3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
		a. MAXIMUM DAILY VALUE (1) Concentration (2) Mass	b. MAXIMUM 30 DAY VALUE (if available) (1) Concentration (2) Mass	a. Concentration b. Mass	a. LONG TERM AVG. VALUE (1) Concentration (2) Mass	d. NO. OF ANALYSES	d. NO. OF ANALYSES	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)								
27B 1,4-Dichlorobenzene (108-46-7)	X							
27B 3,3-Dichlorobenzidine (91-94-1)	X							
27B Diethyl Phthalate (84-68-2)	X							
27B Dimethyl Phthalate (131-11-3)	X							
26B Di-N-Butyl Phthalate (84-74-2)	X							
27B 2,4-Dinitrotoluene (121-14-2)	X							
26B 2,6-Dinitrotoluene (86-20-2)	X							
27B Di-N-Octyl Phthalate (117-84-0)	X							
30B 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	X							
31B Fluoranthene (206-14-0)	X							
32B Fluorene (66-73-7)	X							
33B Hexachlorobenzene (118-74-1)	X							
34B Hexachlorobenzene (87-68-3)	X							
35B Hexachlorocyclopentadiene (77-47-4)	X							
36B Hexachlorobutane (67-72-1)	X							
37B Indeno (1,2,3-cd) Pyrene (193-39-5)	X							
38B Isophorone (76-59-1)	X							
39B Naphthalene (91-20-3)	X							
40B Nitrobenzene (98-95-3)	X							
41B N-Nitrosodimethylaniline (82-75-9)	X							
42B N-Nitrosodipropylamine (821-54-7)	X							

No Discharge

OUTFALLS 002 AND 004 HAVE NOT DISCHARGED SINCE 2013. GRAB SAMPLES WERE COLLECTED FROM WITHIN THE BASIN AND ARE PROVIDED FOR INFORMATIONAL PURPOSES

CONTINUED FROM PAGE V-7

L.V. Sutton Electric Plant

EPA ID. NUMBER (copy from Item 1 of Form 1) NCD000830646

OUTFALL NUMBER 002

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		d. NO. OF ANALYSES
	a. required	b. present	a. MAXIMUM DAILY VALUE (1) Concentration (2) Mass	b. MAXIMUM 30 DAY VALUE (1) Concentration (2) Mass	c. LONG TERM AVG. VALUE (if available) (1) Concentration (2) Mass	a. Concentration	b. Mass	a. LONG TERM AVG. VALUE (1) Concentration (2) Mass	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)									
43B. N-Nitroiodophenylamine (66-30-6)		X				ug/l	lb/Day		
44B. Phenanthrene (85-01-8)		X				ug/l	lb/Day		
45B. Pyrene (129-00-0)		X				ug/l	lb/Day		
46B. 1,2,4-Trichlorobenzene (120-82-1)		X				ug/l	lb/Day		
GC/MS FRACTION - PESTICIDES									
1P. Aldrin (309-00-2)		X							
2P. alpha-BHC (319-84-8)		X							
3P. beta-BHC (315-85-7)		X							
4P. gamma-BHC (58-89-8)		X							
5P. delta-BHC (319-86-8)		X							
6P. Chlordane (57-74-8)		X							
7P. 4,4'-DDT (50-29-3)		X							
8P. 4,4'-DDE (72-55-8)		X							
9P. 4,4'-DDD (72-54-8)		X							
10P. Dieldrin (60-57-1)		X							
11P. alpha-Endosulfan (115-29-7)		X							
12P. beta-Endosulfan (115-29-7)		X							
13P. Endosulfan Sulfate (1031-07-8)		X							
14P. Endrin (72-20-8)		X							
15P. Endrin Aldehyde (7421-83-4)		X							
16P. Heptachlor (76-44-8)		X							

No Discharge

OUTFALLS 002 AND 004 HAVE NOT DISCHARGED SINCE 2013. GRAB SAMPLES WERE COLLECTED FROM WITHIN THE BASIN AND ARE PROVIDED FOR INFORMATIONAL PURPOSES

EPA I.D. NUMBER (copy from Item 1 of Form 1) **NCD000830646** OUTFALL NUMBER **002**

L.V. Sutton Electric Plant

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
	a. re-quir-ed	b. pre-fer-ent	a. MAXIMUM DAILY VALUE		c. LONG TERM AVG. VALUE (if available)	d. NO. OF ANALYSES	a. LONG TERM AVG. VALUE	d. NO. OF ANALYSES	
			(1) Concentration	(2) Mass					(1) Concentration
GC/MS FRACTION - PESTICIDES (continued)									
17P. Heptachlor Epoxide (1024-57-3)			X						
18P. PCB-1242 (53465-21-9)			X	< 0.25*					
18P. PCB-1254 (11097-69-1)			X	< 0.25*					
20P. PCB-1221 (11104-28-2)			X	< 0.25*					
21P. PCB-1232 (11141-16-5)			X	< 0.25*					
22P. PCB-1248 (12672-29-6)			X	< 0.25*					
23P. PCB-1260 (11098-82-5)			X	< 0.25*					
24P. PCB-1016 (12674-11-2)			X	< 0.25*					
25P. Toxaphene (8001-35-2)			X						

No Discharge

EPA Form 35 (0-2C) (Rev. 2-85)

* Sample was received above temperature requirement for preservation of BOD. Sample was analyzed out of hours.

EPA ID. NUMBER (copy from Item 1 of Form 1) **NCD000830646** EPA Facility Name **L.V. Sutton Electric Plant**
 OUTFALL NO. **004**

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

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	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE		c. LONG TERM AVG. VALUE		3. UNITS		4. INTAKE (optional)	
	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	a. Concentration	b. Mass	(1) Concentration	(2) Mass
a. Biochemical Oxygen Demand (BOD)	<	<	<	<			mg/l	lb/Day		
b. Chemical Oxygen Demand (COD)	<	<	20	<			mg/l	lb/Day		
c. Total Organic Carbon (TOC)	<	<	2.5	<			mg/l	lb/Day		
d. Total Suspended Solids (TSS)	<	<	5*	<			mg/l	lb/Day		
e. Ammonia (as N)			0.094				mg/l	lb/Day		
f. Flow	VALUE	no flow	VALUE	VALUE	VALUE	VALUE	MGD	N/A	VALUE	VALUE
g. Temperature (winter)	VALUE	VALUE	VALUE	VALUE	VALUE	VALUE	DEGREES CELSIUS		VALUE	VALUE
h. Temperature (summer)	VALUE	VALUE	VALUE	VALUE	VALUE	VALUE	DEGREES CELSIUS		VALUE	VALUE
i. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	STANDARD UNITS		VALUE	VALUE

PART B - Mark "X" in column 2a for each pollutant you know or have reason to believe is present. Mark "X" in column 2b for each pollutant you believe to be absent. 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 your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE		c. LONG TERM AVG. VALUE		4. UNITS		5. INTAKE (optional)	
	a. pre-sent	b. ab-sent	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	a. Concentration	b. Mass	(1) Concentration	(2) Mass
a. Bromide (24959-87-9)	X		0.14						mg/l	lb/Day		
b. Chlorine	X								mg/l	lb/Day		
Total Residual Chlorine	X		10*		N/A		N/A		Std Units	N/A		
f. Fecal Coliform	X				N/A		N/A		Colonies /100 ml	N/A		
g. Fluoride (16984-48-8)	X		0.28						mg/l	lb/Day		
i. Nitrate-Nitrite (as N)	X		<	0.010					mg/l	lb/Day		

OUTFALLS 002 AND 004 HAVE NOT DISCHARGED SINCE 2013. GRAB SAMPLES WERE COLLECTED FROM WITHIN THE BASIN AND ARE PROVIDED FOR INFORMATIONAL PURPOSES

EPA I.D. NUMBER (copy from Item 1 of Form 1) **0004** OUTFALL NUMBER **0004**

ITEM V-B CONTINUED FROM FRONT **L.V. Sutton Electric Plant**

1. POLLUTANT (if available)	2. MARK 'X' a. PRESENT		3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available)		4. UNITS		b. NO. OF ANALYSES
	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	a. Concentration	b. Mass	
g. Nitrogen, Total Organic (as N)	X				1	lb/Day	
h. Oil and Grease	X	< 5.00			1	lb/Day	
i. Phosphorus (as P), Total (7439-14-0)	X	0.008			1	lb/Day	
j. Radioactivity							
(1) Alpha, Total	X	0.76	N/A		1	N/A	N/A
(2) Beta, Total	X	4.49	N/A		1	N/A	N/A
(3) Radium, Total	X	0.61	N/A		1	N/A	N/A
(4) Radium 226, Total	X	0.52	N/A		1	N/A	N/A
k. Sulfate (as SO4) (14808-79-8)	X	63.00			1	lb/Day	
l. Sulfide (as S)	X	< 1.0*			1	lb/Day	
m. Sulfide (as SO3) (14765-45-3)	X	< 2.0*			1	lb/Day	
n. Surfactants	X	< 0.05*			1	lb/Day	
o. Aluminum, Total (7429-90-5)	X	0.091			1	lb/Day	
p. Barium, Total (7440-39-3)	X	0.122			1	lb/Day	
q. Boron, Total (7440-42-0)	X	0.383			1	lb/Day	
r. Cobalt, Total (7440-48-4)	X	4.950			1	lb/Day	
s. Iron, Total (7439-89-6)	X	0.019			1	lb/Day	
t. Magnesium, Total (7439-95-4)	X	4.75			1	lb/Day	
u. Manganese, Total (7439-96-5)	X	129.0000			1	lb/Day	
v. Manganese, Total (7439-96-5)	X	< 0.005			1	lb/Day	
w. Tin, Total (7440-31-5)	X	< 0.01			1	lb/Day	
x. Vanadium, Total (7440-32-6)	X	< 0.005			1	lb/Day	

No Discharge

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA ID NUMBER (copy from Item 1 of Form 1) NCD000830646

OUTFALL NUMBER 004

L.V. Sutton Electric Plant

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 nonrequired 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, you 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 or greater. If you mark column 2c 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 7 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 NO. (if available)	2. MARK "X"	3. EFFLUENT		4. UNITS		5. INTAKE (optional)		d. NO. OF ANALYSES	d. NO. OF ANALYSES
		a. MAXIMUM DAILY VALUE (1) Concentration (2) Mass	b. MAXIMUM 30 DAY VALUE (if available) (1) Concentration (2) Mass	c. LONG TERM AVG. VALUE (if available) (1) Concentration (2) Mass	a. Concentration	b. Mass	a. LONG TERM AVG. VALUE (1) Concentration (2) Mass		
METALS, CYANIDE, AND TOTAL PHENOLS									
1M. Arsenic, Total (7440-38-2)	X	9.21			ug/l	lb/Day		1	
2M. Arsenic, Total (7440-38-2)	X	19.4			ug/l	lb/Day		1	
3M. Beryllium, Total (7440-41-7)	X	<			ug/l	lb/Day		1	
4M. Cadmium, Total (7440-43-8)	X	0.125			ug/l	lb/Day		1	
5M. Chromium, Total (7440-47-3)	X	<			ug/l	lb/Day		1	
6M. Copper, Total (7440-50-8)	X	0.005			mg/l	lb/Day		1	
7M. Lead, Total (7439-92-1)	X	<			ug/l	lb/Day		1	
8M. Mercury, Total (7439-97-6)	X	0.5			ng/L	lb/Day		1	
9M. Nickel, Total (7440-02-0)	X	8.58			ug/l	lb/Day		1	
10M. Selenium, Total (7782-49-2)	X	65.3			ug/l	lb/Day		1	
11M. Silver, Total (7440-22-4)	X	<			ug/l	lb/Day		1	
12M. Thallium, Total (7440-28-0)	X	1.38			ug/L	lb/Day		1	
13M. Zinc, Total (7440-66-6)	X	0.007			mg/l	lb/Day		1	
14M. Cyanide, Total (57-12-5)	X	<			mg/l	lb/Day		1	
15M. Phenols, Total	X	0.0051*			mg/l	lb/Day		1	
DIOXIN									
2,3,7,8 Tetrachlorodibenzo P Dioxin (1784-01-6)	X								

DESCRIBE RESULTS	
2,3,7,8 Tetrachlorodibenzo P Dioxin (1784-01-6)	X

* Sample was received above temperature required for preservation or sample was analyzed outside of hold time.

OUTFALLS 002 AND 004 HAVE NOT DISCHARGED SINCE 2013. GRAB SAMPLES WERE COLLECTED FROM WITHIN THE BASIN AND ARE PROVIDED FOR INFORMATIONAL PURPOSES

CONTINUED FROM PAGE V-3		EPA ID. NUMBER (copy from Item 1 of Form 1)		OUTFALL NUMBER		L.V. Sutton Electric Plant			
1. POLLUTANT AND CAS NO. (if available)	2. MARK "X" a. required b. pre-sent c. absent	3. EFFLUENT		4. UNITS		5. INTAKE (optional)		d. NO. OF ANALYSES	
		a. MAXIMUM DAILY VALUE (1) Concentration (2) Mass	b. MAXIMUM 30 DAY VALUE (if available) (1) Concentration (2) Mass	c. LONG TERM AVG. VALUE (if available) (1) Concentration (2) Mass	a. Concentration	b. Mass	(1) Concentration (2) Mass		
GC/MS FRACTION - VOLATILE COMPOUNDS									
1V Acrolein (107-02-8)	X	< 5*				ug/l	lb/Day		1
2V Acrylonitrile (107-13-1)	X	< 5*				ug/l	lb/Day		1
3V Benzene (71-43-2)	X	< 2*				ug/l	lb/Day		1
4V Bis (Chloromethyl) Ether (542-88-1)	X								
5V Bromoform (75-25-2)	X	< 2*				ug/l	lb/Day		1
6V Carbon Tetrachloride (58-23-5)	X	< 2*				ug/l	lb/Day		1
7V Chlorobenzene (108-90-7)	X	< 2*				ug/l	lb/Day		1
8V Chlorodibromomethane (124-48-1)	X	< 2*				ug/l	lb/Day		1
9V Chloroethane (75-00-3)	X	< 2*				ug/l	lb/Day		1
10V 2 Chloroethylmethyl Ether (110-75-9)	X	< 2*				ug/l	lb/Day		1
11V Chloroform (67-68-3)	X	< 2*				ug/l	lb/Day		1
12V Dichlorobromomethane (75-27-4)	X	< 2*				ug/l	lb/Day		1
13V Dichlorodibromomethane (75-71-8)	X	< 2*				ug/l	lb/Day		1
14V 1,1-Dichloroethane (75-34-3)	X	< 2*				ug/l	lb/Day		1
15V 1,2-Dichloroethane (107-06-2)	X	< 2*				ug/l	lb/Day		1
16V 1,1-Dichloroethylene (75-35-4)	X	< 2*				ug/l	lb/Day		1
17V 1,2-Dichloropropane (78-87-5)	X	< 2*				ug/l	lb/Day		1
18V 1,3-Dichloropropane (542-75-6)	X	< 2*				ug/l	lb/Day		1
19V Ethylbenzene (100-41-4)	X	< 2*				ug/l	lb/Day		1
20V Methyl Bromide (74-83-9)	X	< 2*				ug/l	lb/Day		1
21V Methyl Chloride (74-87-3)	X	< 2*				ug/l	lb/Day		1

No Discharge

* Sample was received above temperature required for preservation or sample was analyzed outside of hold time.

OUTFALLS 002 AND 004 HAVE NOT DISCHARGED SINCE 2013. GRAB SAMPLES WERE COLLECTED FROM WITHIN THE BASIN AND ARE PROVIDED FOR INFORMATIONAL PURPOSES

CONTINUED FROM PAGE V-4		EPA I.D. NUMBER (copy from Item 1 of Form 1)		OUTFALL NUMBER		L.V. Sutton Electric Plant				
1. POLLUTANT AND GAS NO. (if available)		2. MARK "X"		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
		a. re-quired	b. Believed	a. MAXIMUM DAILY VALUE	b. MAXIMUM 30 DAY VALUE (if available)	c. LONG TERM AVG. VALUE (if available)	d. NO. OF ANALYSES	a. Concentration	b. Mass	
		sed	sed	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)										
27V Methylene Chloride (75-09-2)	X			< 2*			1	ug/l	lb/Day	
23V 1,1,2,2-Tetrachloroethane (78-34-5)	X			< 2*			1	ug/l	lb/Day	
24V Tetrachloroethylene (127-18-4)	X			< 2*			1	ug/l	lb/Day	
25V Toluene (108-88-3)	X			< 2*			1	ug/l	lb/Day	
26V 1,2-Trans-Dichloroethylene (156-60-5)	X			< 2*			1	ug/l	lb/Day	
27V 1,1-Trichloroethane (71-55-8)	X			< 2*			1	ug/l	lb/Day	
28V 1,1,2-Trichloroethane (79-00-5)	X			< 2*			1	ug/l	lb/Day	
29V Trichloroethylene (79-01-6)	X			< 2*			1	ug/l	lb/Day	
30V Trichlorofluoromethane (75-89-4)	X			< 2*			1	ug/l	lb/Day	
31V Vinyl Chloride (75-01-4)	X			< 2*			1	ug/l	lb/Day	
GC/MS FRACTION - ACID COMPOUNDS										
1A. 2-Chlorophenol (95-57-8)	X			< 10			1	ug/l	lb/Day	
2A. 2,4-Dichlorophenol (120-83-2)	X			< 10			1	ug/l	lb/Day	
3A. 2,4-Dinitrophenol (105-67-9)	X			< 10			1	ug/l	lb/Day	
4A. 2,6-Dinitro-Cresol (534-52-1)	X			< 10			1	ug/l	lb/Day	
5A. 2,4-Dinitrophenol (51-28-5)	X			< 10			1	ug/l	lb/Day	
6A. 2-Nitrophenol (88-75-5)	X			< 10			1	ug/l	lb/Day	
7A. 4-Nitrophenol (100-02-7)	X			< 10			1	ug/l	lb/Day	
8A. P-Chloro-M-Cresol (59-50-7)	X			< 10			1	ug/l	lb/Day	
9A. Pentachlorophenol (87-86-5)	X			< 10			1	ug/l	lb/Day	
10A. Phenol (108-95-2)	X			< 10			1	ug/l	lb/Day	
11A. 2,4,6-Trichlorophenol (88-06-2)	X			< 10			1	ug/l	lb/Day	

No Discharge

* Sample was received above temperature required for preservation or sample was analyzed outside of hold time.

OUTFALLS 002 AND 004 HAVE NOT DISCHARGED SINCE 2013. GRAB SAMPLES WERE COLLECTED FROM WITHIN THE BASIN AND ARE PROVIDED FOR INFORMATIONAL PURPOSES

EPA ID NUMBER (copy from Item 1 of Form 1) **004** OUTFALL NUMBER **004**

L.V. Sutton Electric Plant

CONTINUED FROM PAGE V-5

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		
	a re-quir-ed	b re-quir-ed	a. MAXIMUM DAILY VALUE (1) Concentration	b. MAXIMUM 30 DAY VALUE (2) Mass	c. LONG TERM AVG. VALUE (if available) (1) Concentration	d. NO. OF ANALYSES (2) Mass	a. LONG TERM AVG. VALUE (1) Concentration	b. Mass (2) Mass	
GC/MS FRACTION - BASE NEUTRAL COMPOUNDS									
1B Acenaphthene (83-32-9)		X							
2B Acenaphthylene (209-96-8)		X							
3B Anthracene (120-12-7)		X							
4B Benzidine (152-87-5)		X							
5B Benzo (e) 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 (207-09-9)		X							
10B Bis (2-Chloroethoxy) Methane (111-91-1)		X							
11B Bis (2-Chloroethyl) Ether (111-44-4)		X							
12B Bis (2-Chloroisopropyl) Ether (108-69-1)		X							
13B Bis (2-Ethylhexyl) Phthalate (117-91-7)		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 (718-01-8)		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							

No Discharge

OUTFALLS 002 AND 004 HAVE NOT DISCHARGED SINCE 2013. GRAB SAMPLES WERE COLLECTED FROM WITHIN THE BASIN AND ARE PROVIDED FOR INFORMATIONAL PURPOSES

CONTINUED FROM PAGE V-6

L.V. Sutton Electric Plant

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT		4. UNITS		5. INTAKE (optional)	
	a. re-qualified	b. pre-sent	a. MAXIMUM DAILY VALUE (1) Concentration	b. MAXIMUM 30 DAY VALUE (if available) (2) Mass	a. CONCENTRATION	b. MASS	(1) Concentration	(2) Mass
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)								
228. 1,4-Dichlorobenzene (106-46-7)		X				ug/l	lb/Day	
238. 3,3-Dichlorobenzidine		X				ug/l	lb/Day	
248. Diethyl Phthalate (84-66-2)		X				ug/l	lb/Day	
258. Dimethyl Phthalate (131-11-3)		X				ug/l	lb/Day	
268. Di-N-Butyl Phthalate (84-74-2)		X				ug/l	lb/Day	
278. 2,4-Dinitrotoluene (321-14-2)		X				ug/l	lb/Day	
288. 2,6-Dinitrotoluene (605-20-2)		X				ug/l	lb/Day	
298. Di-N-Octyl Phthalate (117-84-0)		X				ug/l	lb/Day	
308. 1,2-Diphenylhydrazine (as Acobenzene) (122-66-7)		X				ug/l	lb/Day	
318. Fluoranthene (206-44-0)		X				ug/l	lb/Day	
328. Fluorene (86-73-7)		X				ug/l	lb/Day	
338. Hexachlorobenzene (118-74-1)		X				ug/l	lb/Day	
348. Hexachlorobiphenyl (87-55-3)		X				ug/l	lb/Day	
358. Hexachlorocyclopentadiene (77-47-4)		X				ug/l	lb/Day	
368. Hexachloroethane (67-72-1)		X				ug/l	lb/Day	
378. Indeno (1,2,3-cd) Pyrene (183-39-5)		X				ug/l	lb/Day	
388. Isophorone (78-59-1)		X				ug/l	lb/Day	
398. Naphthalene (81-20-3)		X				ug/l	lb/Day	
408. Nitrobenzene (98-95-3)		X				ug/l	lb/Day	
418. N-Nitrosodimethylamine (62-75-9)		X				ug/l	lb/Day	
428. N-Nitrosodipropylamine (621-64-7)		X				ug/l	lb/Day	

No Discharge

OUTFALLS 002 AND 004 HAVE NOT DISCHARGED SINCE 2013. GRAB SAMPLES WERE COLLECTED FROM WITHIN THE BASIN AND ARE PROVIDED FOR INFORMATIONAL PURPOSES

EPA ID. NUMBER (copy from Item 1 of Form 1) **NCD0000830646** OUTFALL NUMBER **004**

L.V. Suttton Electric Plant

CONTINUED FROM PAGE V-7

1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT		4. UNITS		5. INTAKE (optional)		d. NO. OF ANALYSES
	a. re-quired	b. Believed to be present	a. MAXIMUM DAILY VALUE (1) Concentration (2) Mass	b. MAXIMUM 30 DAY VALUE (if available) (1) Concentration (2) Mass	a. Concentration	b. Mass	a. LONG TERM AVG. VALUE (1) Concentration (2) Mass		
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)									
43B. N-Nitro-iodophenylamine (66-30-6)		X				ug/l	lb/Day		
44B. Phenanthrene (85-01-8)		X				ug/l	lb/Day		
45B. Pyrene (129-00-0)		X				ug/l	lb/Day		
46B. 1,2,4-Trichlorobenzene (120-82-1)		X				ug/l	lb/Day		
GC/MS FRACTION - PESTICIDES									
1P. Aldrin (309-00-2)		X							
2P. alpha-BHC (319-84-6)		X							
3P. beta-BHC (315-85-7)		X							
4P. gamma-BHC (58-59-9)		X							
5P. delta-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. alpha-Endosulfen (115-28-7)		X							
12P. beta-Endosulfen (115-29-7)		X							
13P. Endosulfen Sulfate (1031-07-8)		X							
14P. Endrin (72-20-8)		X							
15P. Endrin Aldehyde (7421-93-4)		X							
16P. Heptachlor (76-44-8)		X							

No Discharge

* Sample was received above temperature required for preservation or sample was analyzed outside of hold time.

OUTFALLS 002 AND 004 HAVE NOT DISCHARGED SINCE 2013. GRAB SAMPLES WERE COLLECTED FROM WITHIN THE BASIN AND ARE PROVIDED FOR INFORMATIONAL PURPOSES

EPA I.D. NUMBER (copy from Item 1 of Form 1) **NCDD000830646** OUTFALL NUMBER **004**

CONTINUED FROM PAGE V-8

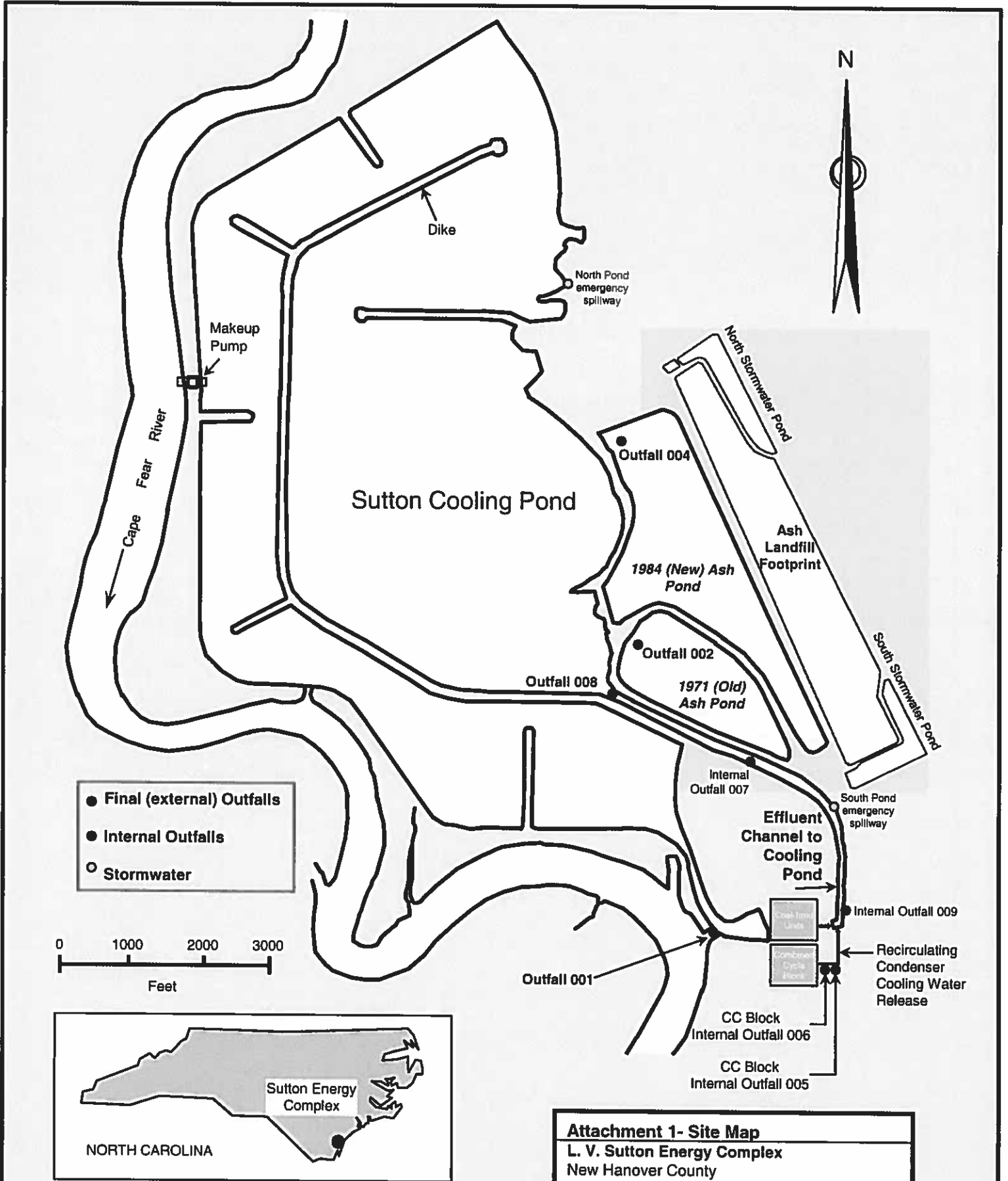
L.V. Sutton Electric Plant

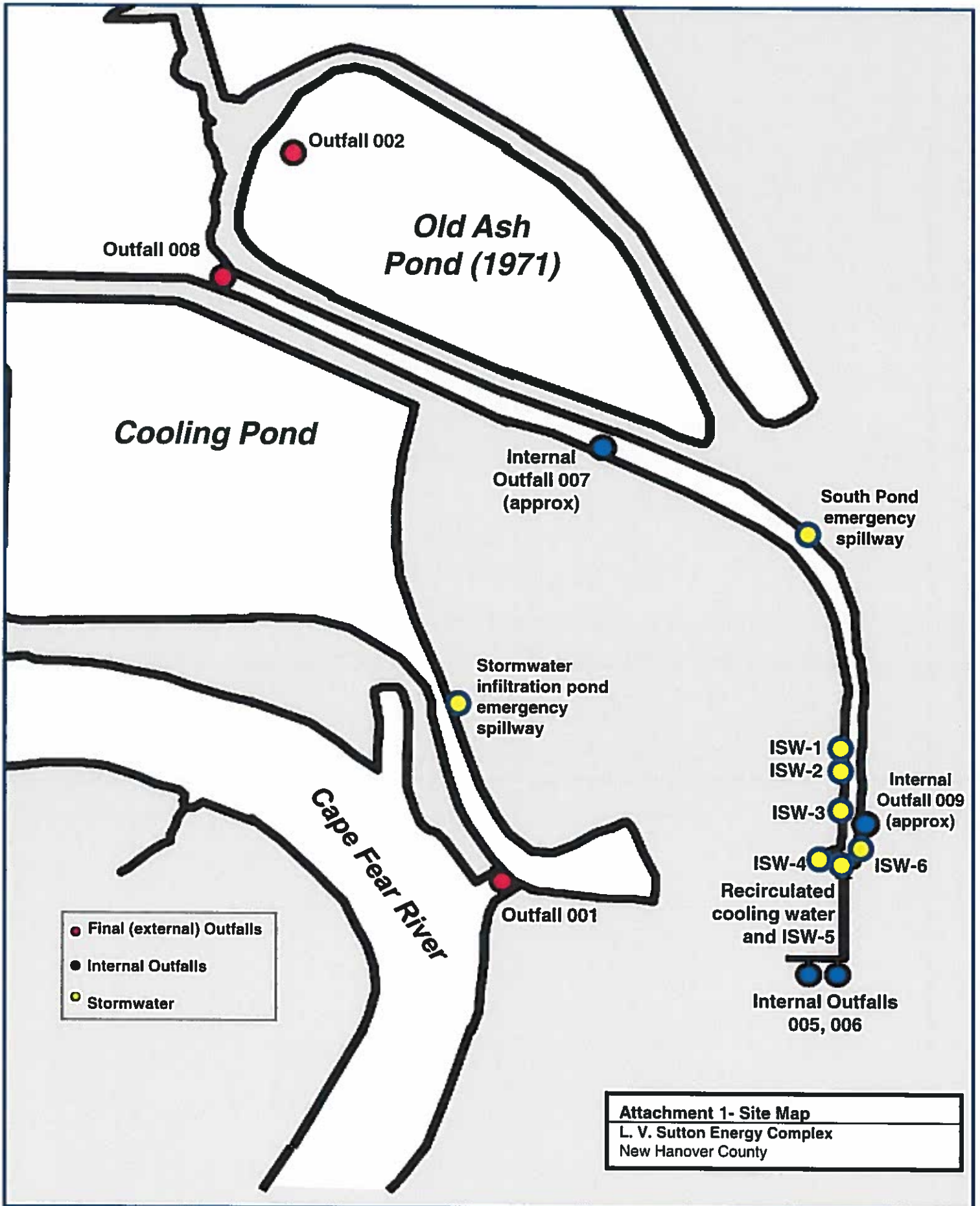
1. POLLUTANT AND CAS NO. (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	a. required	b. present	a. MAXIMUM DAILY VALUE (1) Concentration	b. MAXIMUM 30 DAY VALUE (1) Concentration	c. LONG TERM AVG. VALUE (if available) (1) Concentration	d. NO. OF ANALYSES	a. Concentration	b. Mass	a. LONG TERM AVG. VALUE (1) Concentration	d. NO. OF ANALYSES
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 (11096-87-5)		X	<	<	<					
24P. PCB-1016 (12674-11-2)		X	<	<	<					
25P. Toxaphene (8001-35-2)		X	<	<	<					

No Discharge

EPA Form 3510-2C (Rev. 2-85)

* Sample was received above temperature required for preservation or sample was analyzed outside of hold time





Attachment 2

Form 2C - Item II-A Flow, Sources of Pollution, and Treatment Technologies

Water Path¹	Average Flow² (MGD)	Flow Comments
A	72	Maximum river water makeup to cooling pond (intermittent)
B	-	Flow path eliminated
C	0.011 – 0.1	Landfill leachate (flow range from 11,000 to > 100,000 depending on landfill phase)
D	0.3	Est low volume wastes and stormwater return from ash pond WWTP to 1984 ash pond.
E	2.1	Outfall 004 —Ash sluice water from New (1984) Ash pond to cooling pond (optionally routed to Outfall 001)
F	1.0	Interstitial water from 1984 ash pond to ash pond WWTP
G	0	Outfall 002 —Discharge from Old (1971) ash pond to cooling pond
H	-	Flow path eliminated
I	2.0	Groundwater Extraction Well system
J	0.72	Discharge from WWTP to 1984 pond discharge structure
K	-	Flow path eliminated
L	-	Flow path eliminated
M	0.18	Internal Outfall 007 - Maximum flow from the west retention basin . This waste stream is expected to be re-routed from the old (1971) ash pond in July 2016.
N	0	Bulk water discharge from 1984 ash pond (bulk dewatering was completed in March 2016)
O	-	Flow path eliminated
P	-	Flow path eliminated
Q	-	Flow path eliminated
R	-	Flow path eliminated
S	20.42	Discharge from cooling pond to the Cape Fear River. Standard practice creates a release of 19.7 MGD, plus wastewater flows.
T	0.002	County water for potable water and sanitary systems
AA	0.67	Supply well water withdrawal for the combined cycle power block
BB	0.07	Water treatment filter backwash to Internal Outfall 005 via low volume waste collection sump
CC	0.29	Service water to the Closed Cooling Water Cooler (CCWC)

Water Path ¹	Average Flow ² (MGD)	Flow Comments
DD	0.14	Closed cooling water cooler blowdown discharge to Internal Outfall 005 via low volume waste collection sump
EE	0.14	Closed cooling water cooler evaporation and drift losses
FF	0.007	Service water for combined cycle power block plant systems
GG	0.11	Service water to blowdown tanks
HH	0.130	Internal Outfall 006 —Heat recovery steam generators blowdown tank discharge to the cooling pond (actual monthly avg since Nov 2013)
II	0.033	Blowdown tank flash evaporation
JJ	0.12	Demineralized water to Heat Recovery Steam Generators (HRSGs)
KK	0.088	Heat recovery steam generators blowdown
LL	variable	Heat recovery steam generators cleaning wastes
MM	0.023	Heat recovery steam generators vent losses
NN	0-0.02	Auxiliary boiler blowdown
OO	0.3	Oil/water separator discharge to Internal Outfall 005 via low volume waste collection sump
PP	0.25	Demineralized water to Combined Turbine Generator (CTG) NOx injection system
QQ	0.003	Combustion turbine generator wash water and false start losses
RR	0.25	Combustion turbine generator NOx injection system water losses
SS	0.127	Reverse Osmosis (RO) and Electrodeionization (EDI) water treatment system reject water to Internal Outfall 005 via low volume waste collection sump
TT	288	Combined cycle power block recirculated condenser cooling water withdrawal from the cooling pond
UU	288	Outfall 008 - Combined cycle power block recirculated condenser heated water discharge with comingled wastestreams (to the effluent channel)
VV	0.64	Internal Outfall 005 —Combined cycle power block wastewater discharge to the cooling pond (actual monthly avg since Nov 2013)
WW	-	Flow path eliminated
XX	.0072	CT oil water separator (plant drains)
YY	.078	CT reverse osmosis system reject
ZZ	.085	Discharge from CT low volume waste sump.

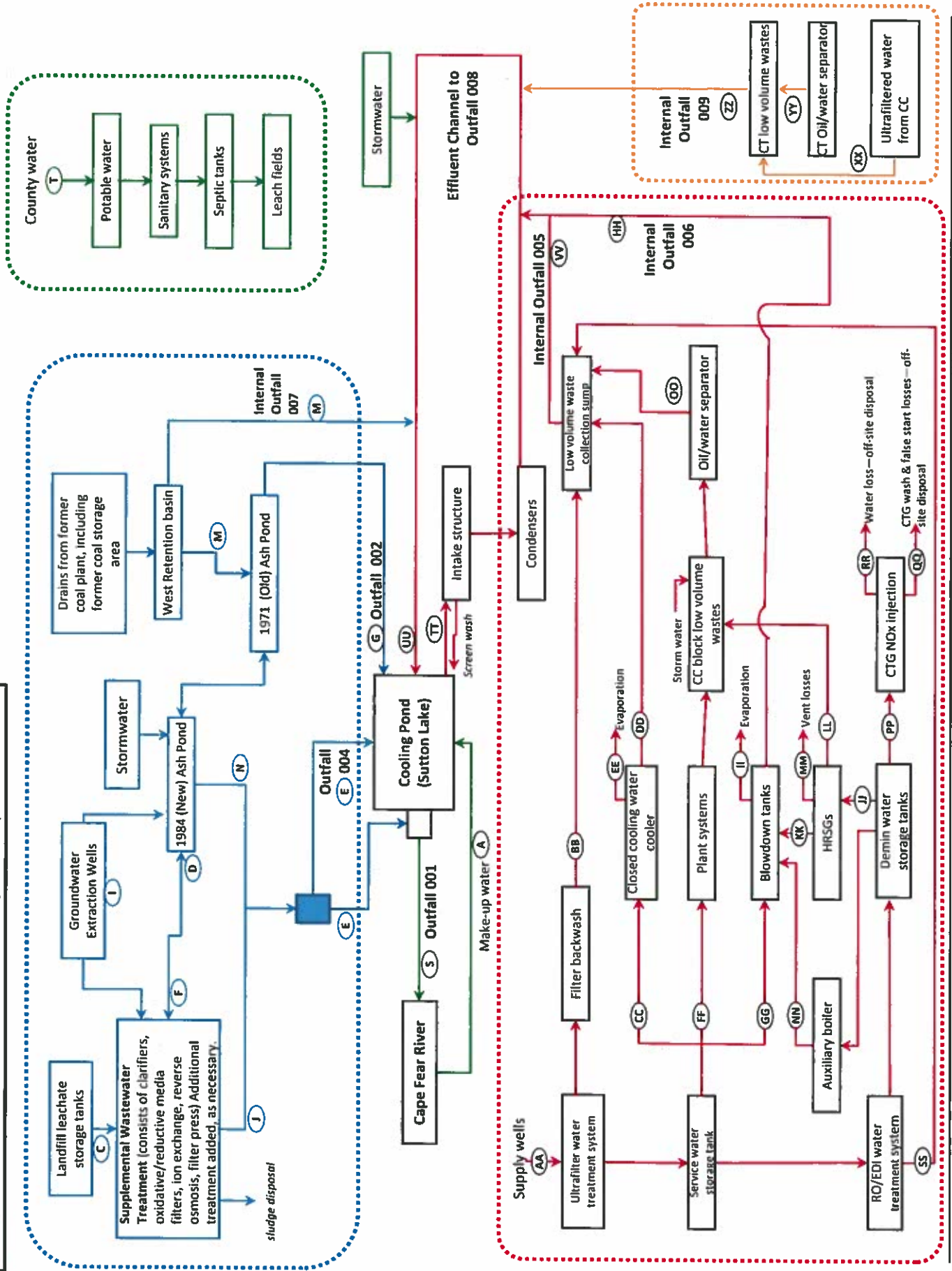
¹Water path color indication:

- Blue = Coal-fired units water paths
- Red = Combined cycle power block water paths
- Green = Conjoined systems water paths

Duke Energy Progress, LLC.
L. V. Sutton Electric Plant

NPDES Permit NC0001422
2016 Permit Application Update

- Coal-fired units water paths
- Fast Start CT units water paths
- Combined cycle water paths
- Combined units water paths



Attachment 3

Form 2C - Item II-B Flow, Sources of Pollution, and Treatment Technologies

The L. V. Sutton Electric Plant has three simple-cycle Internal Combustion (IC) turbine units and a natural gas-fired 2x1 Combined Cycle (CC) combustion turbine. The existing IC units will be replaced with two "black start" combustion turbine engines in 2017. Prior to November 2013, the plant operated three coal-fired generating units. These units were retired once the CC block came online and are currently being demolished. The plant has a 1,110-acre (6,900 acre-ft) wastewater cooling pond on the east side of the Cape Fear River approximately ten river miles upstream of Wilmington, North Carolina. Water is withdrawn from the Cape Fear River, as required, to makeup evaporative and blowdown losses from the cooling pond. Sutton Plant is also constructing a lined coal-ash landfill. The landfill is expected to be constructed in 2016 with an expected operational date of January 2017.

Chemical constituents contained in the discharge from the permitted outfall will, in part, be representative of the naturally-occurring chemical quality and quantity of the intake water and will also have chemical constituents of such quality associated with similar discharges for fossil generating facilities of this size, type, and in this geographical location. Either all or part of the elements in the Periodic Table, either singularly or in any combination, may from time to time be contained in the discharge.

Prior to 2015, the Sutton Plant had one external permitted outfall to the Cape Fear River. This outfall was a discharge from the cooling pond (Outfall 001) which received all combined wastewaters from the plant (including several internal outfalls).

In 2015, Duke Energy provided an updated permit application, upon request of the Division of Water Resources, to support the characterization of the Cooling Pond as Waters of the State. Based on that classification, the site has the following external outfalls:

- Outfall 001 discharging from the New (1984) Ash Pond through the diverter structure to the Cape Fear River.
- Outfall 002 (formerly an internal outfall). This outfall discharges wastewater from the Old (1971) Ash Pond to the Cooling Pond.
- Outfall 004 (formerly an internal outfall). This outfall discharges from the New (1984) Ash Pond through the diverter structure to the Cooling Pond.
- Outfall 008. This new outfall primarily consists of recirculated cooling water from the CC generating unit. The outfall is located at a compliance point at the end of the effluent channel into the Cooling Pond. Internal outfalls 005, 006, 007 and 009 (as well as internal stormwater outfalls) discharge into the effluent channel and contribute to flows at Outfall 008.

The waste streams contributing to these outfalls are described in further detail below.

Historic Cooling Pond Discharge

Historically Sutton Plant's discharge of recirculated cooling water from the Cooling Pond to the Cape Fear River was considered a regulated NPDES outfall. However, due to NCDEQ's reclassification of the cooling pond, the only plant waste stream that will be discharged through Outfall 001 is the diverted ash pond discharge (see description below). Under current site operations, the cooling pond is not expected to discharge without a concurrent ash pond discharge except for maintenance purposes or in anticipation of an extreme weather event, such as a hurricane, when additional freeboard is needed to prevent overtopping of the pond dikes. These discharges to alter the level of water in the cooling pond would not be regulated under the NPDES permit.

Outfall 001 and Outfall 004- 1984 (New) Ash Pond

Effluent from the new ash pond can be discharged to either the cooling pond (to Outfall 004) or to the Cape Fear River (to Outfall 001). Historic practice was to route a minimum of 4.0 MGD to the cooling pond before additional effluent routed to the Cape Fear River. The ash ponds have not discharged through Outfall 004 to the cooling pond since November 2013. In the future, the 1984 ash pond is only expected to discharge through Outfall 004 as a result of an extreme weather event.

Bulk water has been decanted from the ash pond through Outfall 001 to the Cape Fear River. Additional wastewater equipment has been brought onsite to dewater the interstitial water within the ash. The additional wastewater treatment consists of:

- Ballasted flocculation;
- Catalytic oxidation media filters;
- Coagulant, polymer, and additive feed systems;
- Ion exchange resin;
- Reverse osmosis system;
- Filter press trailers and sludge holding tanks

Low volume wastes from the wastewater treatment system (WTS) as well as stormwater from the WTS pad area are recycled back to the ash pond. Sludge is removed from the system. The WTS will only discharge through Outfall 001.

Ash contact wastewater is routed from the 1971 (Old) ash pond and other site ash storage areas (such as ash loadout areas), to the new ash pond for additional treatment and discharge. Due to future ash excavation activities, contact stormwater from other ash storage areas (including the LOLA) may also be routed to the 1971 or 1984 ash ponds. As excavation activities progress, additional wastewater treatment equipment may be brought onsite to ensure compliance with the NPDES permit..

Historically the plant's routine practice has been to facilitate diverted ash pond discharges (through 001) by concurrently releasing water from the cooling pond. When ash pond releases were being diverted to the Cape Fear River, the cooling pond was drawn down by an estimated 19.7 MGD. This operating practice continues for discharges through Outfall 001.

Landfill Leachate

In early 2017, Duke Energy plans to discharge wastewater from an onsite coal ash landfill. Landfill leachate from the lined landfill will be collected in two 500,000 gallon tanks and routed to the WTS for additional treatment and discharge through Outfall 001. Non contact stormwater will be collected in two retention ponds (North and South Ponds) and permitted initially as construction stormwater under the NC construction general permit NCG120000. Once the landfill is capped, non contact water will also be routed along the ground surface to the retention ponds. The ponds are infiltration ponds that are designed to capture the 25 year, 24-hour storm with an additional 1 foot of freeboard. The emergency spillway for the North Stormwater Basin is located north of the landfill area and would discharge to the cooling pond. The emergency spillway for the South Stormwater Basin would discharge to the effluent channel.

Groundwater Extraction Well System

Duke Energy is currently designing an extraction well system to provide accelerated groundwater remediation. The groundwater will be treated prior to discharge through outfall 001. Treatment of the discharge may be provided by introducing the groundwater as a waste stream to the ash

ponds (for treatment through the WTS), direct treatment through the WTS, or direct treatment through a dedicated groundwater treatment system.

Outfall 002- Old (1971) Ash Pond

Former Coal Pile Runoff

Storm water runoff from the coal pile is routed to the old ash pond, which provides neutralization and sedimentation treatment. This waste stream is expected to cease in July 2016 since all material has been removed from the coal pile. The stormwater flows from the former coal pile area will be routed through internal outfall 007.

West Retention Basin Flows

The coal-fired units were decommissioned in November 2013 and have been undergoing demolition since then. Upon retirement of the coal fired units, waste streams from processes which historically went to the ash pond are no longer generated. Stormwater, dust suppression waters, and wash waters from closure activities associated with demolition of the coal-fired unit may be sent to the retention basin until closure is complete. These waste streams could include wash waters from various components that would be expected to contain coal-combustion residuals.

Outfall 008- Effluent Channel

Recirculated Condenser Cooling Water

The condenser cooling water for the CC block is withdrawn from and discharged to the cooling pond. The heated discharge is routed around baffle dikes within the cooling pond to achieve maximum surface cooling efficiency and before being recirculated through the condenser cooling water intake structure. Evaporation, which is estimated to consume approximately 1.5 MGD above natural evaporation rates during times of full operation, effectively cools the heated water discharge. Biological fouling control agents are used on heat exchanger surfaces.

Non-contact Cooling Water

Non-contact cooling water is also withdrawn from and returned to the cooling pond. This water provides indirect cooling for various equipment by absorbing heat as it passes through a heat exchanger. No direct contact is made with any other equipment or process.

Stormwater

Historically, stormwater generated onsite that may have had contact with industrial activity or materials was routed to the old ash pond while exempt stormwater from parking lots or other areas was routed to the effluent channel. In 2015, all site stormwater was routed to the effluent channel to support ash pond closure activities. There are several discrete stormwater conveyances to the effluent channel including two discharges from stormwater basins (the South Wet Detention Basin and the North Infiltration Basin). As described in the section on outfall 001, a new retention pond will be constructed to capture non-contact stormwater runoff from the landfill area. This pond is designed to capture the 25-year, 24-hour design storm with an additional 1 foot of freeboard. The emergency spillway for this basin will also be routed to the effluent channel.

The discrete stormwater outfalls contributing flows to the effluent channel are as follows:

- Internal SW-1: Stormwater drainage from parking lot/laydown area
- Internal SW-2: Stormwater drainage from existing CT unit yard drainage
- Internal SW-3: Stormwater drainage from parking lot
- Internal SW-4: Stormwater drainage from switchyard area
- Internal SW-6: Spillway overflow from SW infiltration basin

During certain extreme storm events (e.g., 25-year, 24-hour), storm water may inundate areas around the plant site and accumulate beyond design capacity. Storm water collected during these conditions may be pumped directly to the cooling pond or to the surrounding landscape.

Internal Outfall 007

In 2016 the discharge from the west retention basin will be routed directly to the effluent channel (see section on Outfall 002 for more details on flows to the west retention basin).

Internal Outfall 005

Drains from the CC block which may contain oil and grease are routed to an oil/water separator before discharging into the cooling pond via Internal Outfall 005. Incidental leaks associated with the operation of the HRSG, Combustion Turbine Generators (CTGs), RO/EDI system, and infrequent draining and cleaning of various processes may generate wastewater that is captured by Internal Outfall 005. During the initial startup phase, HRSG blowdown of up to 1.5 MGD may be released to Outfall 006 for several days.

Wastewater from routine HRSG cleaning, fuel oil/water condensate, and equipment drains potentially containing oil is directed to plant drains which are treated by the oil/water separator. The combustion turbine false start drains, NOx injection, and compressor waste water is directed to a holding tank and transported off-site. HRSG chemical metal cleaning wastes may also be generated and hauled offsite. For a more extensive cleaning, the HRSGs may require flushing with a large volume of water. The wastewater from this flushing would be discharged via Internal Outfall 005 to the cooling pond or taken off-site.

Various equipment, including fuel oil storage tanks, transformers, lube oil filters, etc. have containment areas for spills. Storm water collected in these areas is visually inspected for the presence of oil prior to release to the ground or released to plant drains which flow to the oil/water separator. Laboratory processes produce small amounts of wastewater which are routed to plant drains.

Internal Outfall 006

Process wastewaters generated in the natural gas combined cycle block will be discharged to the cooling pond via two new internal outfalls. Low volume wastewaters including the ultrafilter water treatment system filter backwash, Closed Cooling Water Cooler (CCWC) blowdown, Reverse Osmosis/Electrodeionization (RO/EDI) system reject wastewater, and other wastewaters entering the oil/water separator are directed to the low volume waste collection sump for discharge to the cooling pond via Internal Outfall 005. Low volume wastewaters including the Heat Recovery Steam Generator (HRSG) blowdown and auxiliary boiler blowdown will be discharged to the cooling pond via Internal Outfall 006.

Other Site Wastewaters

During maintenance activities, sludge removed from basins, sumps, etc. will be transported off-site for proper disposal.

Internal Outfall 009

The three existing simple-cycle combustion turbine (CT) units (total 61 MW) are scheduled for replacement in 2017. The two replacement "Fast Start CTs" will have a total generation of 80-90 MW. To support the operation of those units, supporting low-volume waste treatment will be installed. Specifically, the site will install a new oil-water separator to treat service water drains and a reverse osmosis water treatment system. These low volume wastes will be combined in a new low volume waste sump and discharged through a new outfall 009 to the effluent channel.

Other Site Wastes

Domestic Wastes

Sanitary wastes are treated by an onsite septic tank and drainage field that is permitted by the New Hanover County Health Department. The septage is exempt from the 40 CFR 503 standards. Duke Energy will submit appropriate information to the EPA if required. Wash/rinse wastewater from an on-site washing machine is also routed to the septic system.

Low-Volume Wastes

All waste streams not identified above are categorized as low-volume wastes. These wastes include plant drains, which convey miscellaneous equipment leakage, equipment drainage for maintenance, equipment washdown water, sampling streams, service water system blowdown, and water treatment wastes. Any of the chemical additives disclosed in Attachment 4 may be present in Low Volume Wastes.

Chemical Metal Cleaning Wastes

Chemical metal cleaning wastes were formerly generated during chemical boiler cleaning every 5 to 10 years. The cleaning solution and rinses were stored on site for disposal by evaporation in the boilers. If chemical metal cleaning wastes were not evaporated, they were either treated by neutralization and precipitation in retention basin prior to discharge to the ash ponds, or disposed of off-site. These wastes will no longer be generated with the retirement of the coal-fired units..

Fire Water System

Several plant heat exchangers are cooled by the fire water system. Fire water is withdrawn from the cooling pond.

Intake Screen Backwash

The intake structure from the cooling pond to the former coal generating site will be removed during coal-site demolition. The combined cycle power block has a separate intake structure with an automatic intake screen backwash system that will remain operational.

Ash Reclamation

In the event a practicable market becomes available, Duke Energy, may exercise the option of reclaiming ash from the ash ponds. However, due to the limited scope of such an operation no additional discharges would be expected.

Inactive Hazardous Waste Sites List Areas

A former ash disposal area and the old ash pond were listed on the State's Inactive Hazardous Waste Sites List.

Pesticide Usage in Sutton Cooling Pond

Herbicides are used when needed to control nuisance aquatic vegetation. These herbicides are applied by licensed applicators, or persons under the immediate supervision of a licensed applicator, in accordance with the manufacturer's instructions. Pesticides are used when needed to perform biological assessments of fish populations. These pesticides are applied by licensed applicators, or persons under the immediate supervision of a licensed applicator, in accordance with the manufacturer's instructions.

Attachment 4

Form 2C - Item VI Potential Discharges Not Covered by Analysis

Chemical	Estimated Quantity (per year)	Frequency	Purpose
Coal-fired Units			
<i>Many of the Listed chemicals for the coal-fired units are no longer being utilized for the purposes identified below. However, they were used during historic operations and trace amounts have the potential to be discharged during plant demolition.</i>			
Hydrazine	Trace	Not actively used	Oxygen scavenger in boiler
Ammonia	Trace	Not actively used	pH control in boiler
Phosphate	Trace	Not actively used	pH control in boiler
Sodium hydroxide (50%)	Trace	Not actively used	Demineralizer regeneration
Sodium hydroxide (50%)	Trace	Not actively used	Ash pond pH control
Sulfuric acid (93%)	Trace	Not actively used	Ash pond pH control
Alum	Trace	Not actively used	Ash pond total suspended solids control
EcoGreen Barrier	Trace	As needed	Ash pond fugitive dust suppressant
BioCover	Trace	As needed	Ash pond fugitive dust suppressant
Gorilla Snot	Trace	As needed	Ash pond fugitive dust suppressant
Sulfuric acid (93%)	Trace	Not actively used	Demineralizer regeneration
Sodium chloride	Trace	Not actively used	Water softener regeneration
Bromine/Chlorine [Biotrol 88P (1-bromo-3-chloro-5,5-dimethylhydantoin)]	Trace	Not actively used	Control of biofouling on heat exchangers
Sodium hypochlorite	Trace	Not actively used	Control of biofouling on heat exchangers
Sodium molybdate and sodium nitrate	Trace	Not actively used	Corrosion control in cooling water system
Cleaner (sodium hydroxide, metasilicate, and ethylenediaminetetraacetic acid)	Trace	Not actively used	Cleaner
Ethylene glycol	Trace	Not actively used	Equipment freeze protection
Urea	Trace	Not actively used	NO _x Control
Citric Acid (50%)	Trace	Not actively used	Boiler cleaning
Ammonium hydroxide	Trace	Not actively used	Boiler cleaning
Cronex Inhibitor	Trace	Not actively used	Boiler cleaning

Chemical	Estimated Quantity (per year)	Frequency	Purpose
Sodium nitrite	Trace	Not actively used	Boiler cleaning
Ammonium bicarbonate	Trace	Not actively used	Boiler cleaning
Citric Acid – dry	Trace	Not actively used	Boiler cleaning
Tetraammonium ethylenediaminetetraacetic (EDTA), and ammonium hydroxide	Trace	Not actively used	Boiler cleaning
AP 1000	Trace	Not actively used	Boiler cleaning
Low hazard corrosion inhibitor	Trace	Not actively used	Boiler cleaning
Silicone antifoam agent	Trace	Not actively used	Boiler cleaning
Antifoam agent	Trace	Not actively used	Boiler cleaning
Liquid oxygen	Trace	Not actively used	Boiler cleaning
Powerback Premix with anti-foam agent	Trace	Not actively used	IC unit cleaning
Freeze control products (i.e., varying solutions of glycol, calcium chloride, glycerin, diethylene, etc.)	Trace	Not actively used	Coal freeze conditioning agent
<i>Combined Cycle Power Block</i>			
Hydrazine	< 8000 gallons	Not actively used	Steam cycle oxygen scavenger
Amine/ammonia	< 8000 gallons	Continuous	Steam cycle pH control
Phosphate	< 8000 gallons	Continuous	Steam cycle scale and pH control
Corrosion inhibitor	< 8000 gallons	Continuous	Cooling water system corrosion inhibitor
Sodium hypochlorite or sodium bromide	< 25,000 gallons	Continuous	Cooling water system biofouling control
Mineral dispersant	< 8000 gallons	Continuous	Cooling water system scale inhibitor
Sulfuric acid	< 8000 gallons	Continuous	Cooling water system pH control
Citric acid	< 8000 gallons	Continuous	Water treatment system low pH reagent
Sodium hydroxide (50%)	< 8000 gallons	Continuous	Water treatment system high pH reagent
Sodium hypochlorite	< 8000 gallons	Continuous	Inlet water oxidation and filter backwash reagent
Potassium permanganate	< 8000 gallons	Continuous	Filter inlet water chemical
Sodium bisulfite	< 8000 gallons	TBD	Plant systems process water dechlorination

Chemical	Estimated Quantity (per year)	Frequency	Purpose
Sodium bisulfite	< 8000 gallons	TBD	Reverse osmosis water system inlet water dechlorination
Sodium hydroxide (50%)	< 8000 gallons	Continuous	Reverse osmosis water system chemical
Anti-scalant	< 8000 gallons	Continuous	Reverse osmosis water system scale prevention
Bromine antimicrobial (sodium hypochlorite, sodium bromide, sodium hydroxide)	< 8000 gallons	TBD	
Antifoam agent	Trace	As needed	Agent may be used in emergency response cleanup.
APS 710	Trace	As needed	Granular flocculent
<i>Cooling Pond Vegetation Control</i>			
Liquid copper-based herbicide (15.9% Copper Carbonate)	As needed, According to manufacturer directions	Twice/year	Lyngbia vegetation control
Fluridone-based herbicide (5% fluridone)	As needed, According to manufacturer directions	Seasonal	Macrophyte vegetation control
<i>Ash Pond Water Wastewater Treatment System</i>			
Chlorine Dioxide	< 500 gallons	As needed	Biofouling control
Sulfuric Acid (98%)	< 500 gallons	As needed	Membrane cleaning
ChemTreat P860E Polymer	<1000 gallons	Continuous	Polymer
Ferric Chloride	30,000 gallons	Continuous	Wastewater treatment additive
Sodium Hypochlorite	30,000 gallons	Continuous	Wastewater treatment additive
Sodium Bisulfite	2,000 gallons	Continuous	Wastewater treatment additive
ChemTreat RL9004	<1000 gallons	As needed	Antiscalant
Sodium Hydroxide	<10,000 gallons	Continuous	Wastewater treatment additive

Note: Polymers from DEQ's Approved PAMS/Flocculants List may also be used to enhance sediment and TSS control. Small amounts of these flocculants may pass through NPDES discharge points. .

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