EPA United States Environmental Protection Agency

Region 6 Compliance Assurance and Enforcement Division

INSPECTION REPORT

Inspection Date(s):	4/25/2024		
Media:	Water		
Regulatory Program(s)	NPDES		
Company Name:	**Entergy Louisiana, LLC**		
Facility Name:	**Perryville Generating Station (PGP)**		
Facility Physical Location:	11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
(city, state, zip code)	Sterlington, Louisiana 71280		
Mailing address:	Post Office Box 647		
(city, state, zip code)	Sterlington, Louisiana 71280		
County/Parish:	Quachita Parish		
Facility Contact:	Mr. Logan Hamilton	Environmental Analyst	
	(C) 318.393.4424 lhamil2@entergy.com		
FRS Number:	110012217975		
Identification/Permit Number:	LA0113557 (AI No. 85793)		
Media Number:	N/A		
NAICS:	221118		
SIC:	3510		
Personnel participating in inspection:			
Jack Arias	EPA Region-6 ECD-WA	Inspector	214-665-8164
Logan Hamilton	Power Generation Environmental Services	Environmental Analyst	318-393-4424
EPA Lead Inspector Signature/Date	JACK ARIAS Digitally signed by JACK ARIAS Date: 2024.06.24 15:07:30 -05'00'		
	{Jack Arias}		Date
Supervisor Signature/Date	ANTHONY LOSTON Digitally signed by ANTHONY LOSTON Date: 2024.06.24 15:12:48 -05'00'		
	{Anthony Loston}		Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

EPA Region 6 inspector, Jack Arias performed an announced inspection on April 25, 2024, at 9:00 AM. I (Jack Arias) met with the Environmental Analyst, Mr. Logan Hamilton at the opening conference. I presented my credentials to the facility representative, Mr. Hamilton, and informed him that this was an EPA inspection to determine the facility's compliance with the Clean Water Act (CWA) and the National Pollutant Discharge Elimination System (NPDES) water intakes and discharge regulations. The scope of the inspection included a compliance evaluation of the NPDES permit (LA0113557) that includes 316b cooling water intake structures, discharge processes, effluent limitations, monitoring/sampling requirements, equipment/pipes maintenance, 316b biomonitoring requirements, stormwater pollution prevention plan (SWPP3), SPCC plan, BEPS, record keeping requirements, and facility procedures connected to the permit. Following the opening conference, Mr. Hamilton accompanied me for the entirety of the inspection and gave me a tour of the site in a company vehicle. The losing conference was held with Mr. Hamilton where I informed him of the results and observations of the inspection.

FACILITY DESCRIPTION

The Perryville Generating Plant (PGP) operates under LPDES Permit Number LA0113557 (permit), effective December 23, 2020. PGP is located in Ouachita Parish, Louisiana on U.S. Highway 165 approximately 3.3 miles east of Sterlington in Section 52 of Township 18 North, Range 4 East. PGP is bordered by the Louisiana/Missouri Railroad to the east and Highway 165 to the west and operates 24 hours per day. PGP is a 3-unit steam electric generating facility. Unit 1 and Unit 2 are combined cycle units with Heat Recovery Steam Generators and an associated steam generator. Unit 2 is a simple cycle gas turbine. The facility site is approximately 130 acres in size and includes the three units, an administrative building, control room, several storage areas, a cooling tower unit, water plant building, and a transformer/switchyard area. PGP has six permitted outfalls (three external outfalls and three internal outfalls). Three of the six outfalls include the discharge of stormwater (Outfalls 001, 002, and 004). Under LA0113557, discharge limitations and monitoring requirements for Outfalls 001, 002, and 004 include a monthly total organic carbon (TOC) concentration of 50 milligrams per liter (mg/L), a monthly oil & grease concentration of 15 mg/L (minimum) and 20 mg/L (maximum) or have a weekly pH outside of 6.0 (minimum) and 9.0 (maximum) standard unit (S.U.) range. Whole Effluent Toxicity (WET) Testing is also required for Outfall 002 (Part II., pages 12 through 23 of the permit). Runoff leaving the facility that does not meet the effluent requirements is a permit violation. Sampling should be conducted if there is potential that contaminants have contacted storm water (See Photo Nos. 1 – 20 in Appendix 1).

Section II – OBSERVATIONS

Clean Water Act 316b Cooling Water Intake Structures (CWIS):

PGP withdraws water from Bayou Bartholomew through a CWIS located approximately 1.5 miles upstream of the confluence with the Ouachita River and uses at least 25 percent of the water they withdraw exclusively for cooling purposes; and is, therefore, subject to requirements under section 316(b) of the CWA for existing power generating facilities (See Photo Nos. 2 – 4 in Appendix 1).

Bayou Bartholomew is considered a freshwater river system. The CWIS is located approximately three miles northeast of the City of Sterlington (32° 43' 19.27" N: 92° 02' 18. 79'W) and is situated on a shared concrete platform within a man-made embayment extending roughly 315 feet from Bayou Bartholomew. The man-made embayment is approximately 150 feet across at the surface of the Perryville CWIS with a 40-foot width at the channel bottom and 47 feet from the channel bottom to top of bank. Three pumps and two city-owned pumps are situated on the structure. The pump intakes are located at a depth of approximately 43 feet below the surface of the CWIS deck and 4 feet above the channel bottom (See Photo Nos. 2 – 3 in Appendix 1).

PGP consists of two natural gas turbines driving one steam turbine. Unit 1 has a capacity of 535 megawatts (MW) and Unit 2 has a capacity of 156 MW for a total capacity of 691 MW. Unit 1 is supported by a cooling water intake structure (CWIS) located on a man-made embayment extending from Bayou Bartholomew in Morehouse Parish. Unit 2 is a simple cycle unit and does not require a cooling water source. The Perryville design intake flow (DIF) is 8.8 million gallons per day (MGD) based on operation of two of the three raw water pumps (combined capacity of two pumps = 4.4 MGD each with a 3-year AIF of 2.13 MGD). The third pump is redundant and utilized for back-up purposes only.
The CWIS consists of three single-speed vertical industrial turbine circulating pumps each with a pump rate of 3,080 GPM (4.4 MGD). The third pump is redundant and utilized for back-up purposes only. The total pump capacity from the three Entergy pumps at the CWIS is 13.2 MGD, the DIF of 8.8 million gallons per day (MGD) is. During normal operations, the two circulating pumps alternately run 24/7 (excluding outages) under full load. The two active intake pumps operate independently of one another.

Each pump has an 18-inch diameter intake and withdraws water from an embayment connected to Bayou Bartholomew. Each pump has a discharge capacity rated at 3,080 gallons per minute (GPM) or 6.86 cfs. The CWIS is located 90 feet from the shoreline where each ZOI is influenced by the Bayou velocity of 0.39 feet per second. The ZOI was calculated for each Perryville piped intake. The circular ZOI of each active pump with a radius of 1.87 feet.

The pump intakes are set in a screened caisson structure designed to prevent large debris from entering the system with a smaller mesh screened structure inside of it further restricting smaller debris. A manual back-flush system is utilized to clear the screens of debris. At the time of the inspection, we could not see the screened structure (to prevent large debris from entering the system) and the smaller mesh screened structure inside of it (to prevent smaller debris).

The Raw water from the bayou is routed via an onshore manifold adjacent to the intake platform, thence to a common collector pipe, and subsequently to the facility pond and cooling tower to replace the volume utilized for make-up. No traveling screens exist at Perryville CWIS. Instead, the cooling system is comprised of vertical pumps withdrawing source water from the bayou to the pre-approved CCRS technology. Perryville operates a best technology available (BTA), closed-cycle recirculating system (CCRS), that meets the standards for impingement mortality (IM) under 40 CFR §125.94(c)(1). Based on Perryville's actual intake flow (AIF) of less than 125 MGD, Entergy believes (r)(9)-(13) (application requirements pertaining to entrainment BTA) are not applicable to Perryville.

Bayou Bartholomew is the longest bayou in the world and one of the most bio-diverse streams in North America. The bayou flows approximately 284 miles from Pine Bluff, Arkansas before joining the Ouachita River in Sterlington, Louisiana (Thomas 1976). Major tributaries include Deep Bayou, Cousart Bayou, Ables Creek, Cutoff Creek, Bearhouse Creek, Chemin-a-Haut Creek, and Overflow Creek. The watershed contains over one-million acres and meanders through Jefferson, Lincoln, Drew, Ashley, Desha, and Chicot Counties in Arkansas and Morehouse Parish in Louisiana. The USGS collects flow data at USGS 07364200 near Jones, Louisiana, approximately 65 miles upstream from the Perryville CWIS. Bayou Bartholomew has a mean annual flow of approximately 1,372 cubic feet per second (cfs) (886.7 MGD) near Jones, Louisiana. It is estimated the facility withdraws 0.99% of the mean river flow when pumping at maximum capacity.

Raw Water Supply Pond:
Raw water from the bayou is routed via an onshore manifold adjacent to the intake platform, thence to a common collector pipe, and subsequently to the facility raw water pond. At the time of the inspection, I did not observe any deficiencies on the intake, transfer, and discharge of the water to a water supply pond (See Photo Nos. 5 – 7 in Appendix 1).

Water Sand Filtration System:
The purpose of the water sand filtration system is to remove solids from the river water (water intake procedure from Bayou Bartholomew connected to Quachita River) through sand filtration procedures. These procedures consist of filtration treatments through sand and pipe systems. These treatments improve the removal of solids from the river water. At the time of the inspection, I did not observe any deficiencies on the intake, filtration, and transfer of the water to a water supply tank system (See Photo Nos. 8 – 9 in Appendix 1).

Raw Water Supply Tank:
The facility water supply tank is approximately 1.00 MM gallon capacity holding reservoir. Its purpose is to provide capacity water to maintain facility operations for specific period of times. At the time of the inspection, I did not observe leaks on the tank and over other structures that form part of the supply tank (See Photo No. 9 in Appendix 1).

Cooling Towers Closed-Cycle Recirculating System:
The Cooling Water Systems (GPI) operates several cooling tower systems. They are evaporative cooling designs, fan-induced upward draft with water falling over high surface area poly/fiberglass fill. The water is cooled in tower and circulated to the surface condensers, inter coolers, and after coolers on evaporator trains and concentrators. Water is then returned to the cooling tower. The water is recirculated for multiple cycles for water conservation. Water make-up is added, as needed, to account for blowdown and evaporation. There was not a problem or malfunctions on the recirculating system. However, I observed an overflow of foam material potentially because of built up and low flow of material at the corner of the cooling water system (See Photo Nos. 10 - 12 in Appendix 1).

Internal Outfall 102:
This outfall includes a continues discharge of cooling tower blowdown, (including RO reject and backwash from the microfiltration units and HRSG blowdown). Outfall 102 discharges into outfall 001, thence to unnamed tributary and little Bayou Boeuf. There was flow and discharge at the time of the inspection and the water was brown tint (See Photo No. 13 in Appendix 1).

Internal Outfall 202:
This outfall includes an intermittent discharge of low volume wastewaters and miscellaneous non-process Wastewaters. Outfall 202 is in the southeast corner of the site, near Outfall 101. Outfall 202 discharges into outfall 002, thence to unnamed tributary, and little Bayou Boeuf. There was flow and discharge at the time of the inspection and the water was clear (See Photo No. 14 in Appendix 1).

Internal Outfall 101:
This outfall includes an intermittent discharge of oily wastewater and hydrostatic test water. Outfall 101 discharges into outfall 002, thence to unnamed tributary and little Bayou Boeuf. There was flow and discharge at the time of the inspection and the water was clear (See Photo Nos. 15 - 16 in Appendix 1).

Outfall 001:
This outfall includes intermittent discharge of stormwater runoff from the cooling tower area and the area south of the facility power block, de minimus amounts of maintenance wastewaters, and previously monitored hydrostatic test water from Outfall 003. Outfall 001 discharges to an unnamed tributary and thence little Bayou Boeuf. There was flow and discharge at the time of the inspection and the water had a brown tint (See Photo No. 13 in Appendix 1).

Outfall 002:
This outfall receives and includes continuous discharge of stormwater runoff from the facility power block area, previously monitored wastewaters from Outfalls 102, 202, and 003, and de minimus amounts of maintenance wastewaters. Outfall 002 is in the northeast portion of the property prior to discharge into unnamed tributary thence little Bayou Boeuf. I observed outfall 002 where there was flow and discharge at the time of the inspection and the water had a brown tint (See Photo Nos. 17 - 18 in Appendix 1).

Outfall 004:
This outfall includes intermittent discharge of stormwater runoff from the glycol scrubber area and the western area of the facility power block, previously monitored wastewater from Outfall 003, and de minimus amounts of maintenance wastewaters. Outfall 004 is centrally located within the facility and discharges into unnamed tributary, thence little Bayou Boeuf. I observed outfall 004 where there was not flow or discharge at the time of the inspection and the water had a green-brown tint (See Photo No. 19 in Appendix 1).

Outfall 005:
This outfall includes intermittent discharge of water from the raw water pond. I observed outfall 005 did not have an identification tag and there was no flow or discharge at the time of the inspection. (See Photo No. 20 in Appendix 1).

Section III – AREAS OF CONCERN

The following Areas of Concern were observed during the Inspection and follow-up conversations discussed with the facility:

1. Facility should provide more information about the manual back-flush system to clear the screens of debris, the screened structure (to prevent large debris from entering the system) and the smaller mesh screened structure inside of it (to prevent smaller debris) at the pumps intake area.
2. Facility needs to correct the overflow of foam material because of built up and low flow of material at the corner of the cooling water system.
3. Facility will update and provide a photo of missing label of outfall 005.
4. Facility will provide updates about SWPPP and SPCC plans.

Section IV – FOLLOW UP

- EPA will provide a copy of the inspection report and hold different meetings to discuss inspection report results, observations, and potential corrective actions.
- Facility will provide and discus information connected with areas of concern.

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – 20 photos taken 4/25/2024.
Appendix 2 – Three PGP diagrams photographed on 4/25/2024.

Appendix 1

Photograph Log and

Significant Photo Locations

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	EntryFacility.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.692274 -92.020441
Orientation:	N
Map Datum:	WGS-84
Time of Photo:	09:00 AM
Photographer:	Jack Arias
Description:	This image shows the name and entrance of the facility.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	IntakeArea.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.72202 -92.038601
Orientation:	N
Map Datum:	WGS-84
Time of Photo:	9:30 AM
Photographer:	Jack Arias
Description:	This image shows the Water Intake Structure that intake fresh water from Bayou Bartholomew for the cooling and industrial processes at the facility. The facility actual intake inflow and withdraws from a freshwater river (Bayou Bartholomew) is 8.8 MGD.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	PumpsIntake.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.72202 -92.038601
Orientation:	N
Map Datum:	WGS-84
Time of Photo:	9:36 AM
Photographer:	Jack Arias
Description:	This image shows the water pumps that are used to intake fresh water from Bayou Bartholomew for the cooling and industrial processes at the facility. The water passes through intake units through vertical pumps withdrawing source water from the bayou.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	IntakePipes.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.721977 -92.038891
Orientation:	N
Map Datum:	WGS-84
Time of Photo:	9:41 AM
Photographer:	Jack Arias
Description:	This image shows the intake pipe system. The water passes through the intake pipes because of the vertical pumps withdrawing source water from the bayou.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

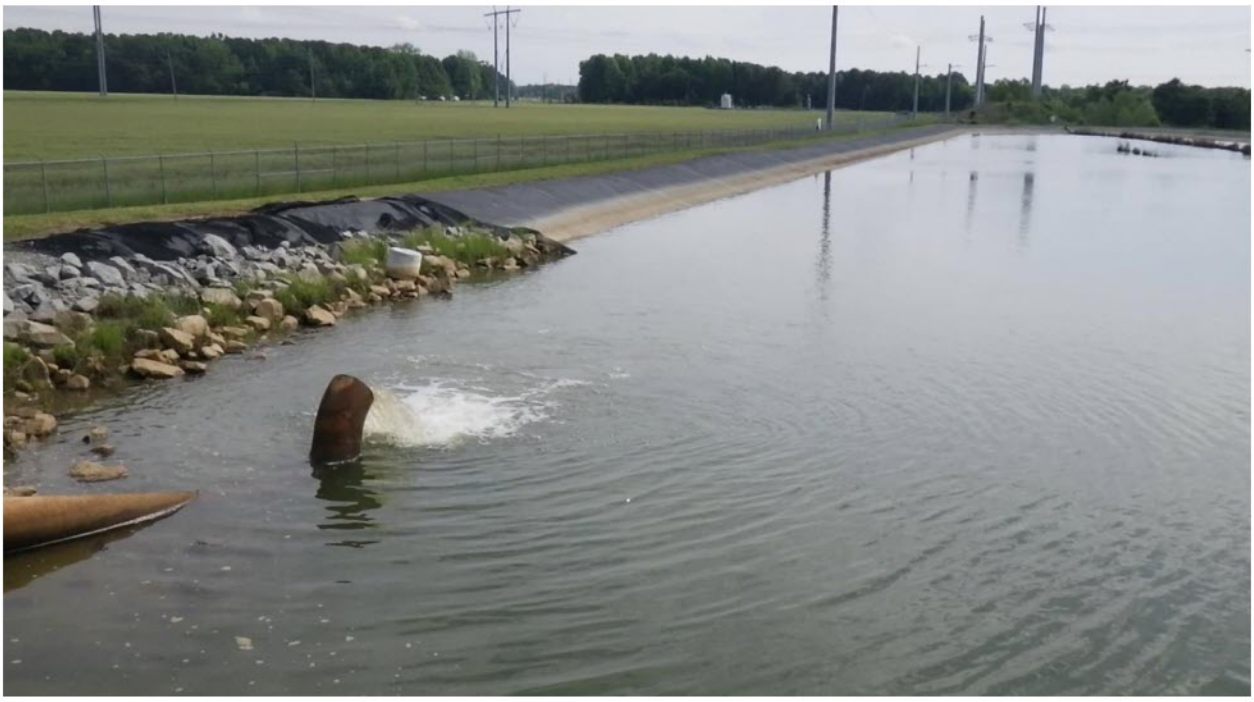
Photograph File Name:	RawWaterPond.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.693941 -92.021102
Orientation:	NW
Map Datum:	WGS-84
Time of Photo:	10:01 AM
Photographer:	Jack Arias
Description:	This image shows the raw water pond receiving raw water from the bayou. The water is routed by pumps via an onshore manifold adjacent to the intake platform at the bayou, thence to a common collector intake pipe, and subsequently to the facility pond.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 6

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name:	IntakePipe.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.693941 -92.021102
Orientation:	NW
Map Datum:	WGS-84
Time of Photo:	10:06 AM
Photographer:	Jack Arias
Description:	This image shows the intake pipe discharging raw water from the bayou at the facility pond. The water is routed by pumps via an onshore manifold adjacent to the intake platform at the bayou, thence to a common collector intake pipe, and subsequently to the facility pond.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 7

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	RecirculatingPumps.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.693941 -92.021102
Orientation:	SW
Map Datum:	WGS-84
Time of Photo:	10:11 AM
Photographer:	Jack Arias
Description:	This image shows three single-speed vertical industrial turbine circulating pumps (each with a pump rate of 3,080 GPM = 4.4 MGD). The third pump is redundant and utilized for back-up purposes only.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 8

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	SandFilter.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.690174 -92.01887
Orientation:	SW
Map Datum:	WGS-84
Time of Photo:	10:24 AM
Photographer:	Jack Arias
Description:	This image shows the water sand filtration system that remove solids from the river water through sand filtration procedures.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 9

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	WaterSupplyTank.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.689786 -92.018688
Orientation:	SW
Map Datum:	WGS-84
Time of Photo:	10:30 PM
Photographer:	Jack Arias
Description:	This image shows the water supply tank. Its purpose is to provide capacity water to maintain facility operations for specific period of times.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 10

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	Canal.JPG	
Date of Photograph:	04/25/2024	
Latitude and Longitud:	32.689569	-92.017883
Orientation:	SW	
Map Datum:	WGS-84	
Time of Photo:	10:40 AM	
Photographer:	Jack Arias	
Description:	This image shows a canal near the cooling water system.	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 11

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	OverflowFoam.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.688937 -92.018291
Orientation:	SW
Map Datum:	WGS-84
Time of Photo:	10:45 PM
Photographer:	Jack Arias
Description:	This image shows overflow of foam material because of built up and low flow at the corner of the cooling water system.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 12

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	CombustionSystem.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.691122 -92.017733
Orientation:	SW
Map Datum:	WGS-84
Time of Photo:	11:04 AM
Photographer:	Jack Arias
Description:	This image shows the combustion system.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 13

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	IntOutfall102.JPG
Date of Photograph:	04/23/2024
Latitude and Longitud:	32.690878 -92.016975
Orientation:	SE
Map Datum:	WGS-84
Time of Photo:	11:20 AM
Photographer:	Jack Arias
Description:	This image shows the internal outfall 102. This outfall includes a continues discharge of cooling tower blowdown, RO reject, and backwash from the microfiltration units and blowdown system.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 14

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	InternalOutfall202.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.692154 -92.018361
Orientation:	SE
Map Datum:	WGS-84
Time of Photo:	11:30 AM
Photographer:	Jack Arias
Description:	This image shows the internal outfall 202 with an intermittent discharge of low volume wastewaters and miscellaneous non-process wastewaters.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 15

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	InternalOutfall101.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.692154 -92.018361
Orientation:	SE
Map Datum:	WGS-84
Time of Photo:	11:35 AM
Photographer:	Jack Arias
Description:	This image shows the internal outfall 101 with an intermittent discharge of oily wastewaters and hydrostatic test water.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 16

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	IntOutfalls.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.692399 -92.018928
Orientation:	NE
Map Datum:	WGS-84
Time of Photo:	11:45 AM
Photographer:	Jack Arias
Description:	This image shows the wastewater flow coming from internal outfalls 202 and 101.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 17

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	Outfall002.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.692639 -92.019312
Orientation:	NE
Map Datum:	WGS-84
Time of Photo:	12:20 PM
Photographer:	Jack Arias
Description:	This image shows the outfall 002. This outfall is receiving continuous discharge of stormwater runoff from the facility power block area, wastewaters from Outfalls 102, 202, and 003, and maintenance wastewaters.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 18

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	UpstreamOutfall002.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.692668 -92.019553
Orientation:	NE
Map Datum:	WGS-84
Time of Photo:	12:25 PM
Photographer:	Jack Arias
Description:	This image shows upstream of outfall 002. This stream receives discharge of stormwater runoff from the external areas around the facility.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 19

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	Outfall004.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.691999 -92.020071
Orientation:	NE
Map Datum:	WGS-84
Time of Photo:	12:40 PM
Photographer:	Jack Arias
Description:	This image shows outfall 004. This outfall includes intermittent discharge of stormwater runoff from the glycol scrubber area and the western area of the facility power block, wastewater from Outfall 003, and de minimus amounts of maintenance wastewaters.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 20

11140 Highway 165 N Sterlington, Quachita Parish (32.692274, -92.020441)		
Sterlington	County: Quachita Parish	State: Louisiana

Photograph File Name:	Outfall005.JPG
Date of Photograph:	04/25/2024
Latitude and Longitud:	32.693495 -92.021497
Orientation:	N
Map Datum:	WGS-84
Time of Photo:	1:20 PM
Photographer:	Jack Arias
Description:	This image shows the Outfall 005 (near the pond area). This is an intermittent discharge of water from the raw water pond.

Appendix 2

Photo No. 1
Wastewater Flow Diagram

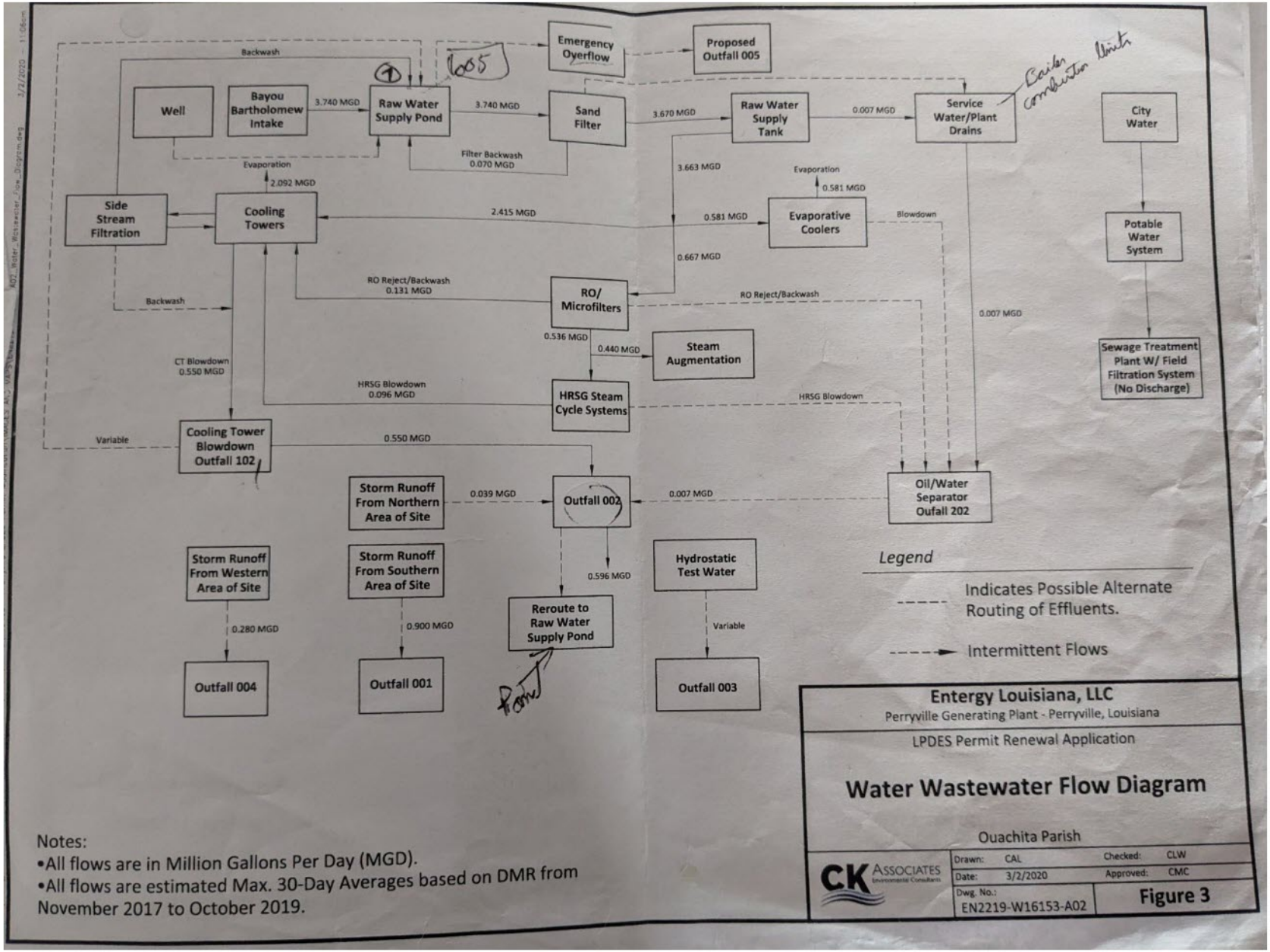


Photo No. 2
Site Map

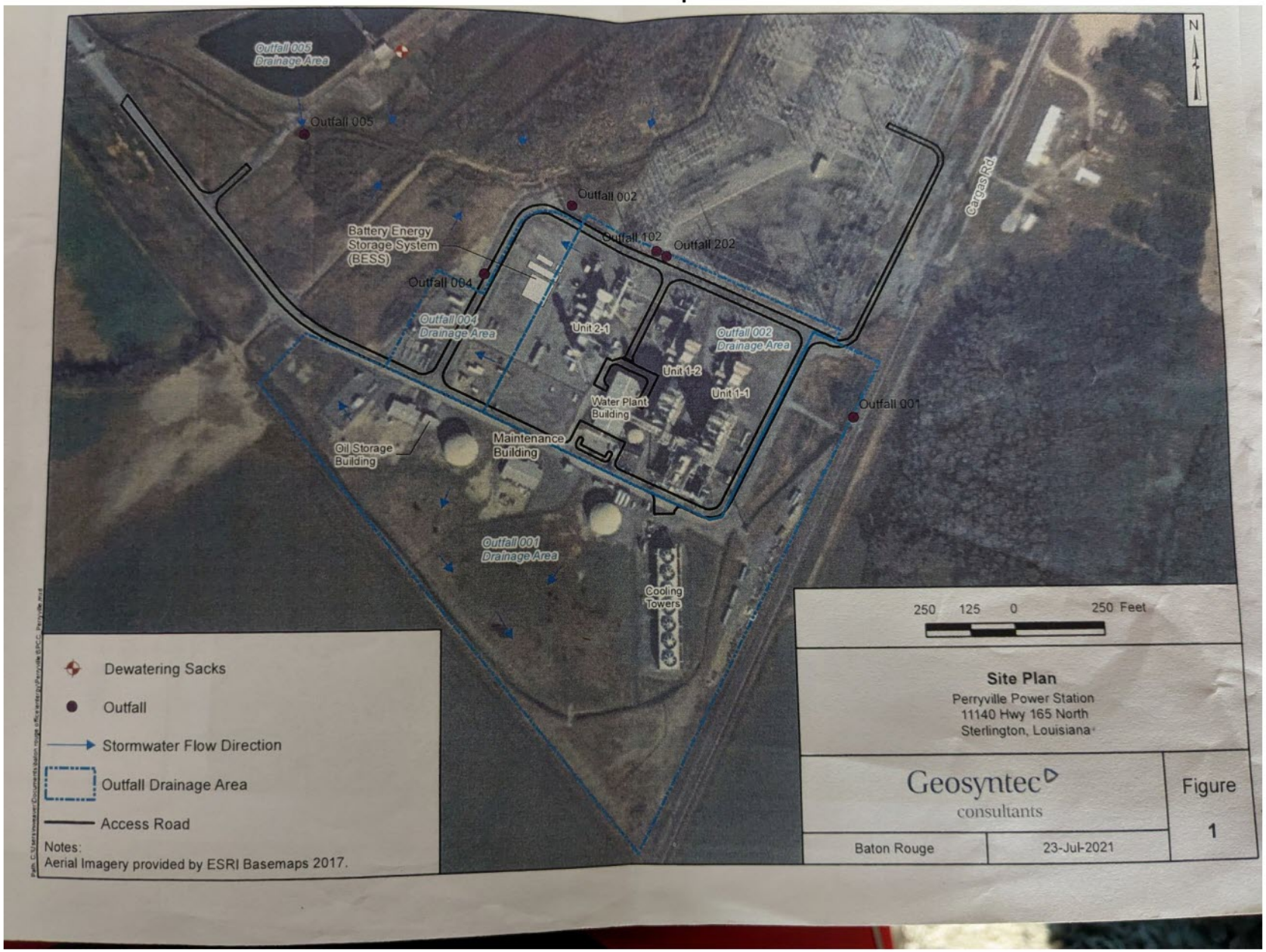


Photo No. 3
Storm Water Map