

**HISTORY OF CONSTRUCTION**  
**40 CFR 257.73 (c)(1)(i)-(xii)**  
**PLANT HAMMOND ASH POND 1 (AP-1)**  
**GEORGIA POWER COMPANY**

***(i) Site Name and Ownership Information:***

Site Name: Plant Hammond

Site Location: Rome, Georgia  
Site Address: 5963 Alabama Highway SW  
Rome, GA 30165

Owner: Georgia Power Company  
Owner Address: 241 Ralph McGill Blvd  
Atlanta, GA 30308

CCR Impoundment Name: Plant Hammond AP-1

NID Identification Number: GA04307

EPA's "Disposal of Coal Combustion Residuals from Electric Utilities" Final Rule (40 C.F.R. Part 257 and Part 261), §257.73(c)(1), requires the owner or operator of an existing CCR surface impoundment to compile a history of construction. To the extent feasible, the following information is provided:

***(ii) Location:***

34°15'10"N, 85°20'30"W  
See Location Map in the Appendix

***(iii) Purpose of CCR Unit:***

Plant Hammond is a four (4) coal fire unit electric generating facility. Plant Hammond has historically utilized four (4) ponds in the management of coal combustion residuals. AP-1 received ash from its commission in 1952 to the construction of AP-2 in 1969. AP-1 has since been utilized as a co-treatment pond to handle return water flows from AP-2, AP-3 and AP-4. Water from AP-1 is recycled for use in plant operations.

***(iv) Watershed Description:***

Plant Hammond AP-1 is located within the Cabin Creek HUC-12 watershed which has a total area of 10,472 acres and the Morton Bend HUC-12 watershed which has a total area of 21,984 acres. AP-1 is located entirely within the Cabin Creek watershed. The entire Plant Hammond property is located

within the Upper Coosa HUC-8 watershed which has a drainage area of 1,025,639 acres. AP-1 receives some surface storm water run-off from the adjacent plant access road area along the north portion of AP-1.

***(v) Description of physical and engineering properties of CCR impoundment foundation/abutments:***

AP-1 was constructed by a process where the dike material was excavated from the impoundment interior and placed as compacted earth fill, creating a combination incised and diked impoundment. Subsurface conditions of the east side of the impoundment, including areas below the fill can be described as stiff to very stiff alluvial silty clays and sandy silty clays. Borings drilled at other locations at the Plant Hammond site indicate that the clayey alluvium extends down to approximate elevation 565 ft to 570 ft, and is underlain by a 5- to 10-ft thick deposit of coarse sand and gravel above rock.

AP-1 is a combination incised and compacted fill impoundment. AP-1 was excavated to Elevation 565 ft, with cut slopes of 2H:1V. Compacted fill was placed above natural ground to the top of dike Elevation 590 ft. Interior slopes for the compacted fill portion of the dike were 2H:1V. The exterior slopes were constructed to 3H:1V. The crest width is 20 ft. The dike was constructed with the excavated silty sandy clays and clayey sands from the upper horizon within AP-1. The borrow operations were limited to above Elevation 565 ft. and not within 15 ft. of the north dike centerline and not within 35 ft. of the west slope crest.

***(vi) Summary of Site Preparation and Construction Activities:***

AP-1 was commissioned in 1952 with a total storage capacity of 1,291,000 cubic yards (CY), a corresponding surface area of 35 acres, and a maximum embankment height of 25 feet. AP-1 has an incised configuration along the northern and western banks; however, the remainder of AP-1 has a diked configuration. Historical borings performed through the dike material indicated stiff to very stiff compacted fill.

***(vii) Engineering Diagram:***

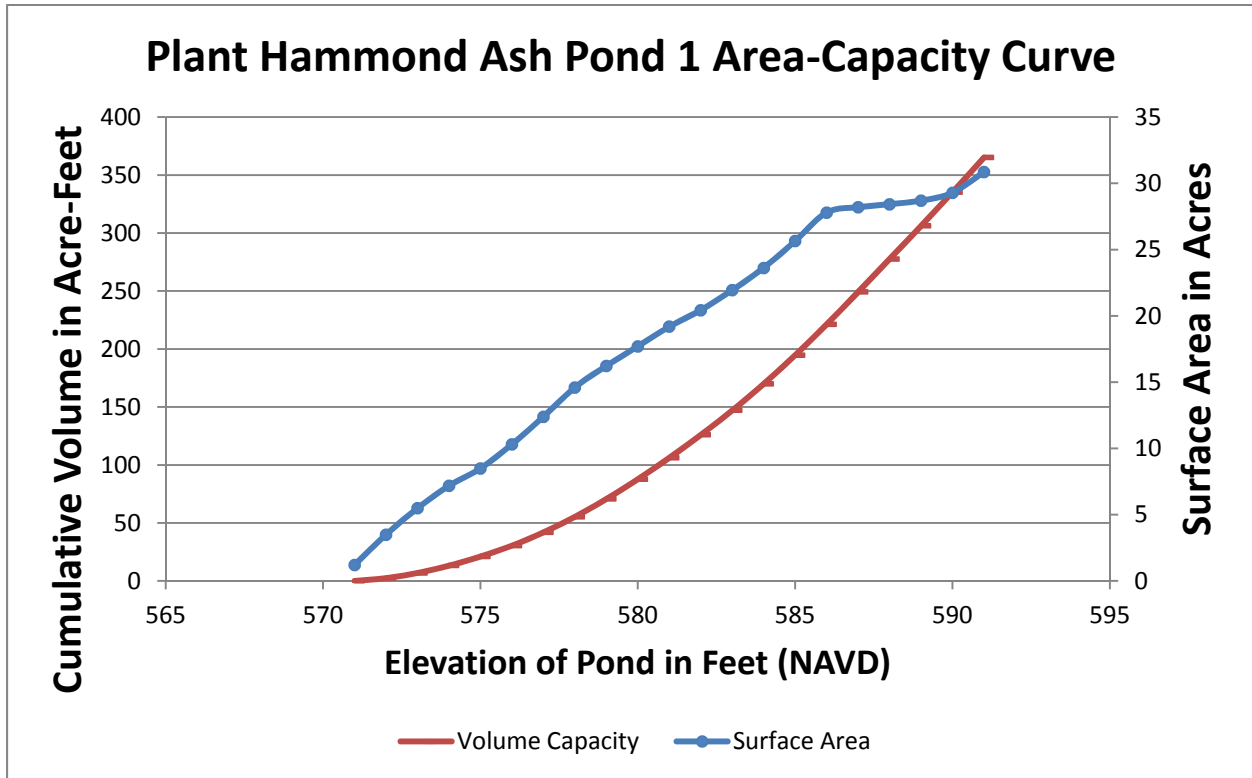
The following drawings reflecting the construction of the Plant Hammond Ash Pond 1 can be found in the Appendix:

- Site Location map
- Georgia Power Company Drawing H-35 – Ash Basin Area Excavation and Drainage
- Georgia Power Company Drawing H-48 – Details of Ash Basin Overflow Piping
- Georgia Power Company Drawing H-138 – Cross Sections of Powerhouse Area
- Georgia Power Company Drawing H-125 – East to West Cross Section & North to South Cross Sect. Across Entire Plant Area
- Georgia Power Company Drawing D-100 – Modifications to Ash Pond No. 1 at Cabin Creek Discharge Structure
- Georgia Power Company Drawing ES1844S1 – Boring Locations and Cross Sections

***(viii) Description of Instrumentation:***

There are 3 piezometers installed along the crest of the eastern embankment of AP-1 used to monitor groundwater levels in the embankment.

***(ix) Area-capacity curves:***



***(x) Spillway/Diversion design features and capacity calculations:***

The normal pool elevation of AP-1 is maintained by a flashboard system with a crest elevation of 590.5 feet. The principal spillway for AP-1 consists of a 36-inch diameter fiberglass reinforced pipe (FRP) with an upstream invert of 581.5 feet. The 36-inch diameter FRP travels approximately 330 feet to a manhole. The outlet invert of the manhole is at elevation 580.4 feet, and the outlet pipe reduces to a 24-inch diameter FRP. From there, flows travel approximately 700 feet to the crown of a discharge tunnel. The outlet conduit then bends 90 degrees to a vertical configuration and terminates at a capped end founded on the invert of the tunnel. The vertical pipe was noted to have 18 holes acting as orifices, three inches in diameter within the pipe.

The original primary discharge structure was located in the northeastern corner of AP-1. The discharge structure consisted of a riser structure set at a top elevation of 587 ft. The discharge pipe was an 18-in diameter reinforced concrete pipe extending to beyond the downstream toe of the dike. This structure was abandoned by grouting in 2001.

The auxiliary outlet is a vertical structure located within the south-western portion of AP-1. The square spillway structure is 18-ft tall, and has sides measuring 3-ft 8-in in length. The riser structure has an open top configuration at elevation 589 ft. There are sixteen 3-ft by 1-ft rectangular openings in the riser structure walls, with two of the sidewalls having eight openings each. The riser structure is connected to a 36-in diameter reinforced concrete pipe. This pipe has a sluice gate on the downstream end that remains closed during normal operating conditions.

The design storm for AP-1 is a 24-hour, 1000-year storm event with a rainfall of 10.6". Assuming no flow leaving the pond from the primary or auxiliary spillway, the pond is capable of handling this storm event with a maximum water surface elevation of 585.2 feet (leaving a freeboard of 5.8 feet below the top of embankment).

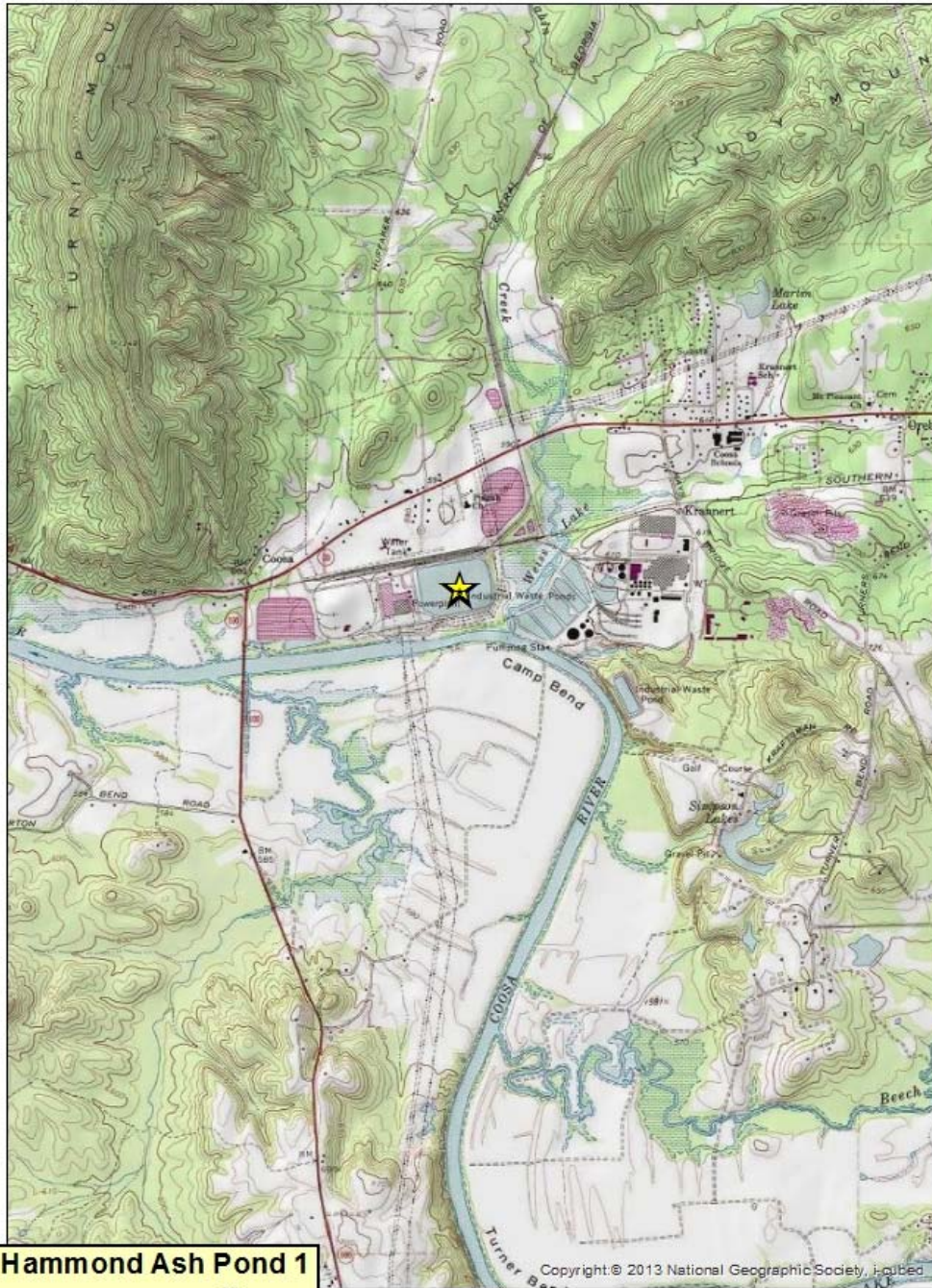
***(xi) Provisions for surveillance, maintenance and repair:***

Inspections of dikes are critical components and are conducted on a regular basis—at least annually by professional dam safety engineers and at least weekly by trained plant personnel. In addition, inspections are performed after significant events such as storms. The inspections provide assurance that structures are sound and that action is taken, as needed, based on the findings. Safety inspections include numerous checklist items. Specific items vary from site to site but may include observations of such things as pond levels, weather conditions, rainfall since the prior inspection, instrument readings, conditions of slopes and drains, erosion, animal damage, ant hills, alignment of retaining structures and more. Dam safety engineers assess instrument readings, inspect any maintenance or remediation performed since the previous inspection, check the status of work recommended at prior inspections, ensure that emergency notification information is current and evaluate any items noted during plant personnel inspections.

***(xii) Known record of structural instability:***

There is no known record of structural instability for AP-1, and there are no major issues or repairs to Plant Hammond AP-1.

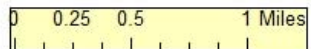
## Appendix



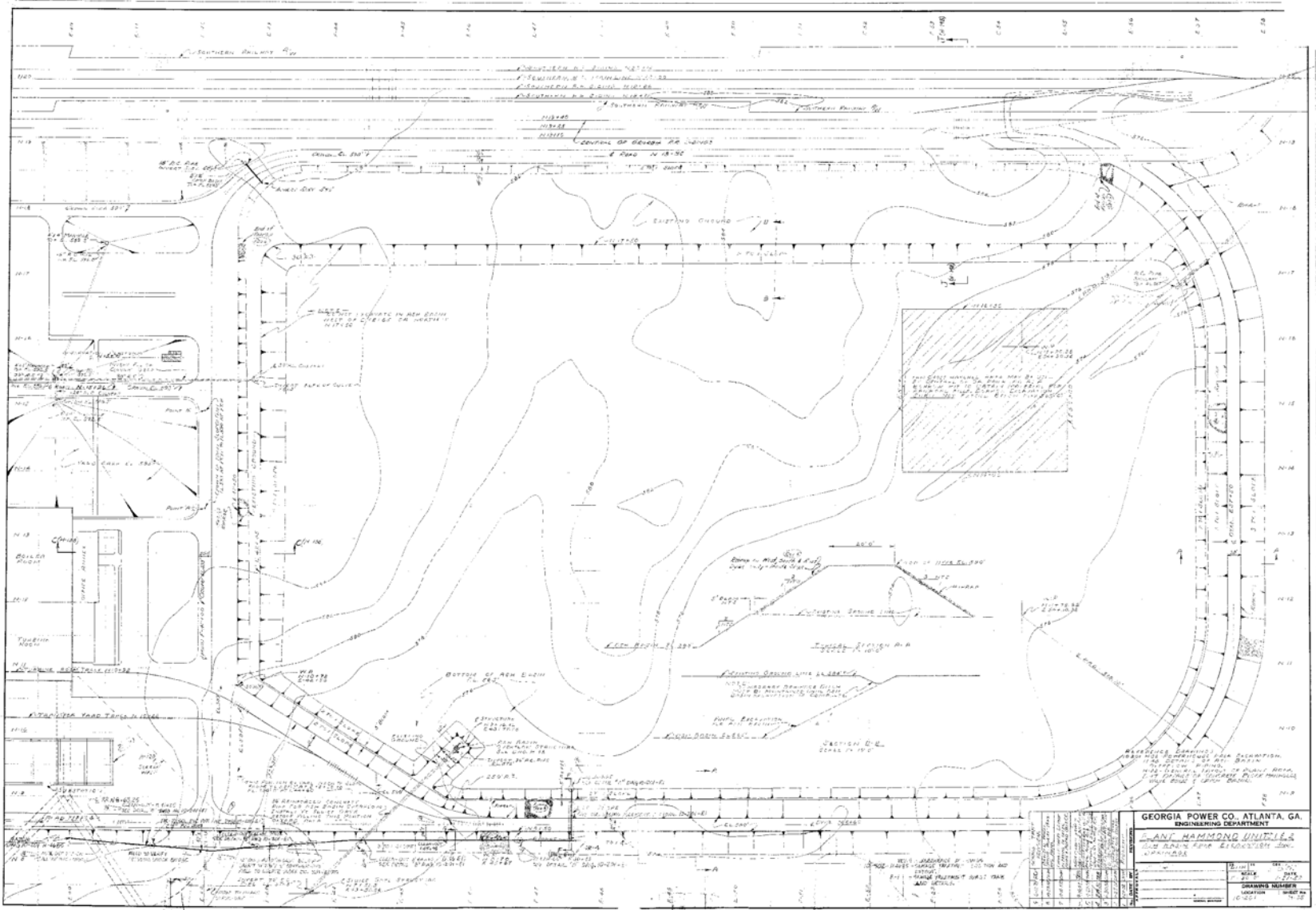
**Plant Hammond Ash Pond 1**

★ Ash Pond Location

USA Topo Maps

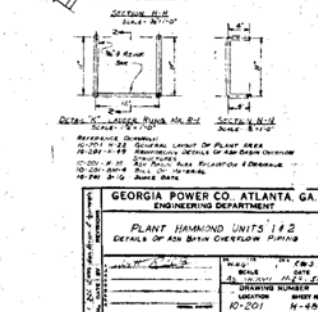
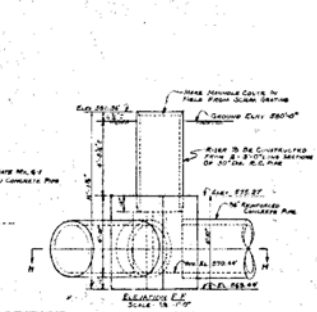
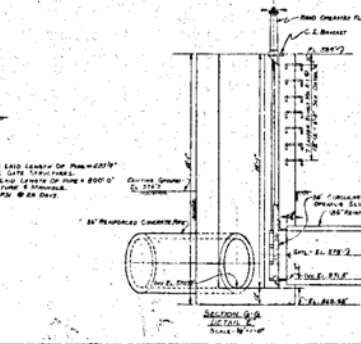
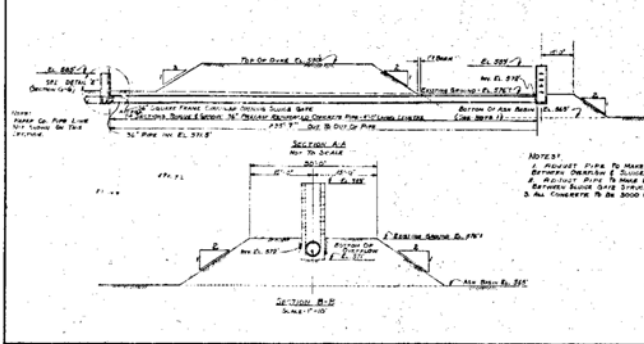
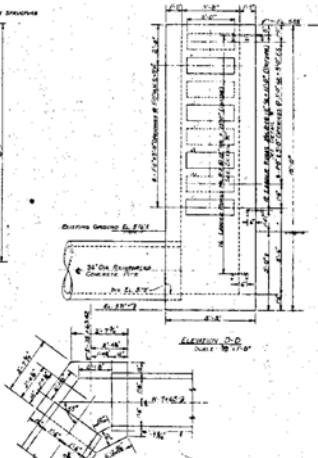
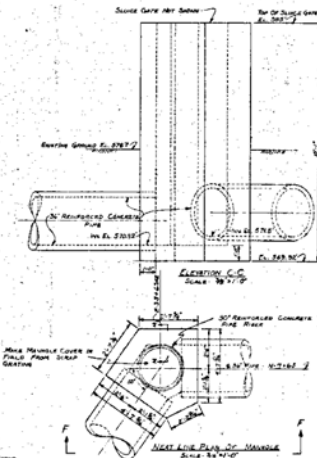
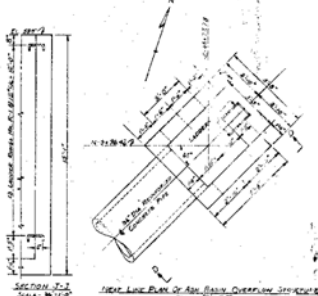
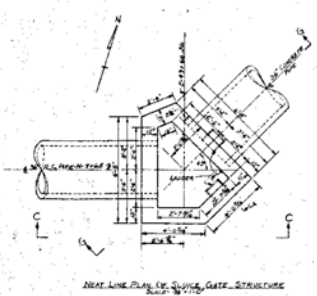
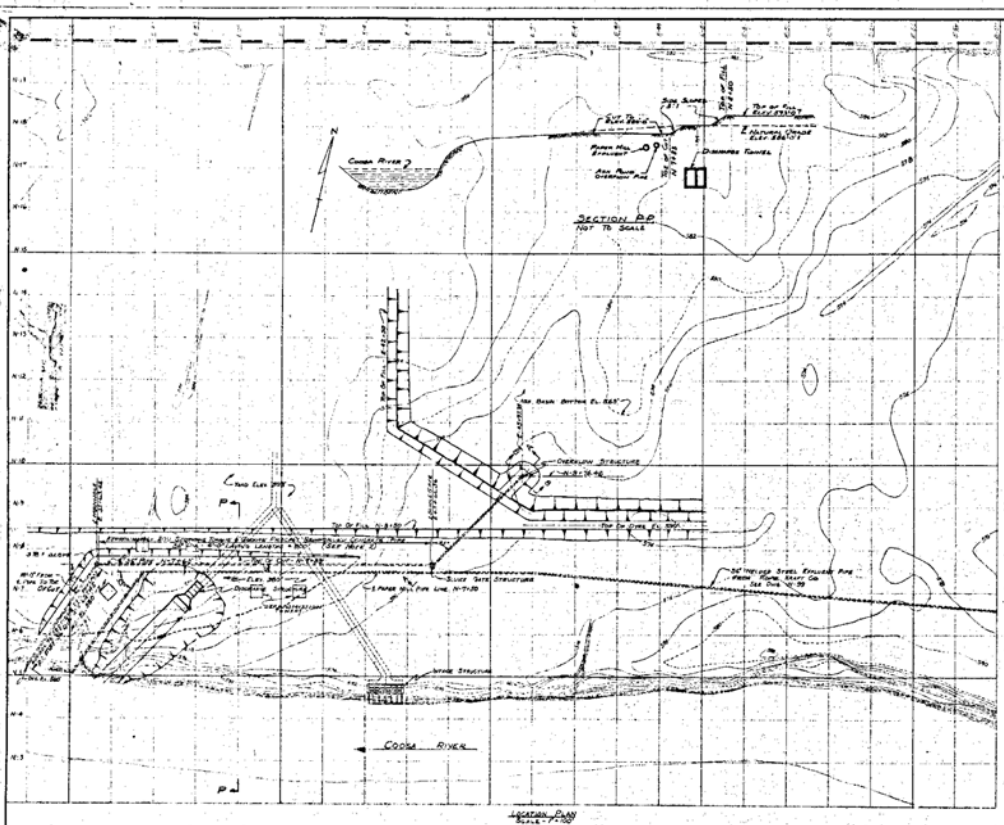


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<b>GEORGIA POWER CO., ATLANTA, GA</b> ENGINEERING DEPARTMENT	
<b>PLANT HAMMONG UNIT 2</b> DAM AND POWERHOUSE	
DRAWING NUMBER 10-201	DATE 1954
PROJECT NUMBER 10-201	SHEET NUMBER 10-201
DRAWN BY J. H. HARRIS	CHECKED BY J. H. HARRIS
DESIGNED BY J. H. HARRIS	APPROVED BY J. H. HARRIS

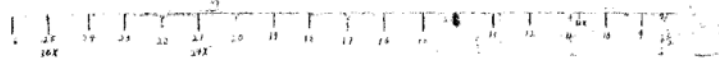
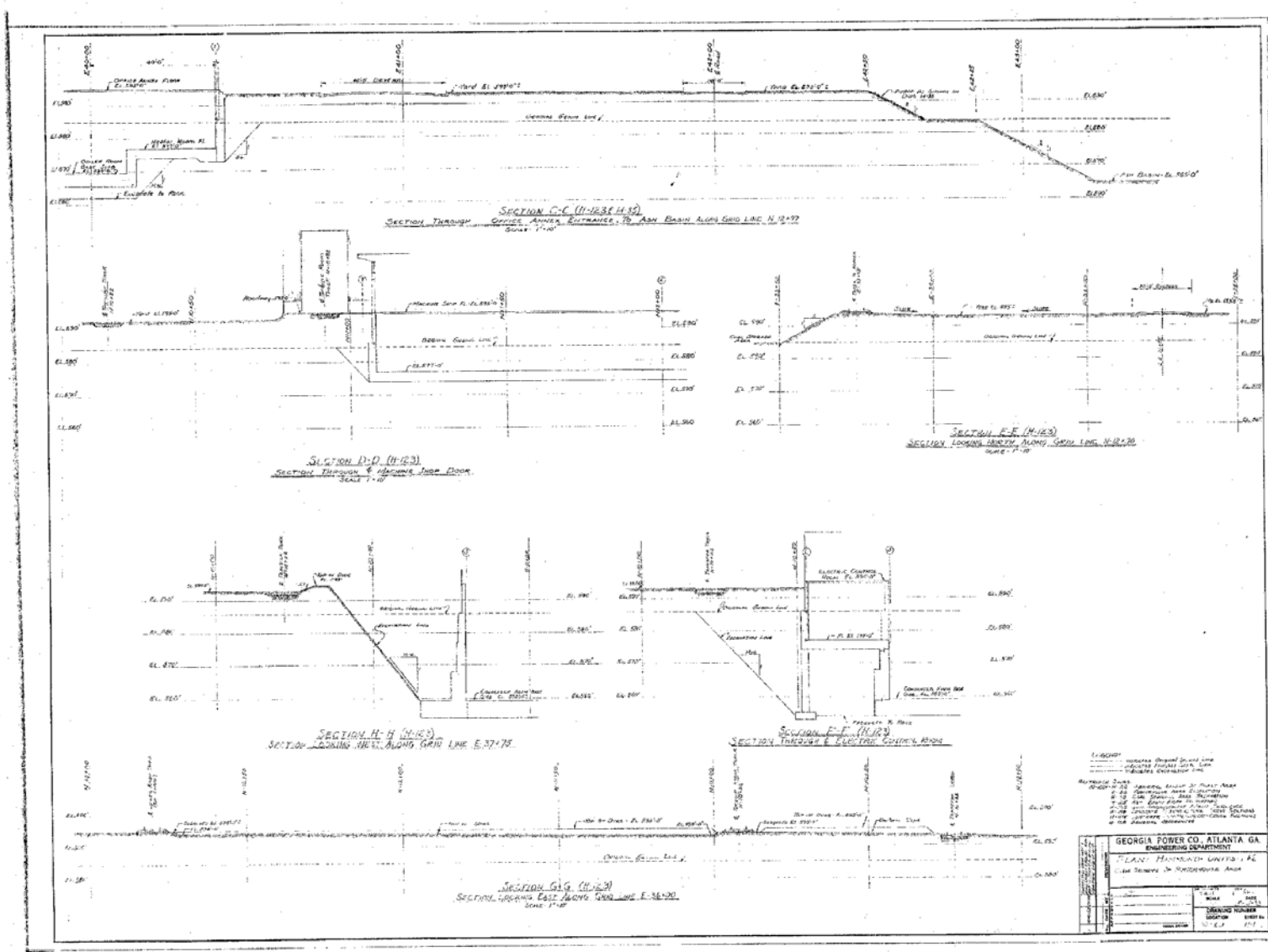


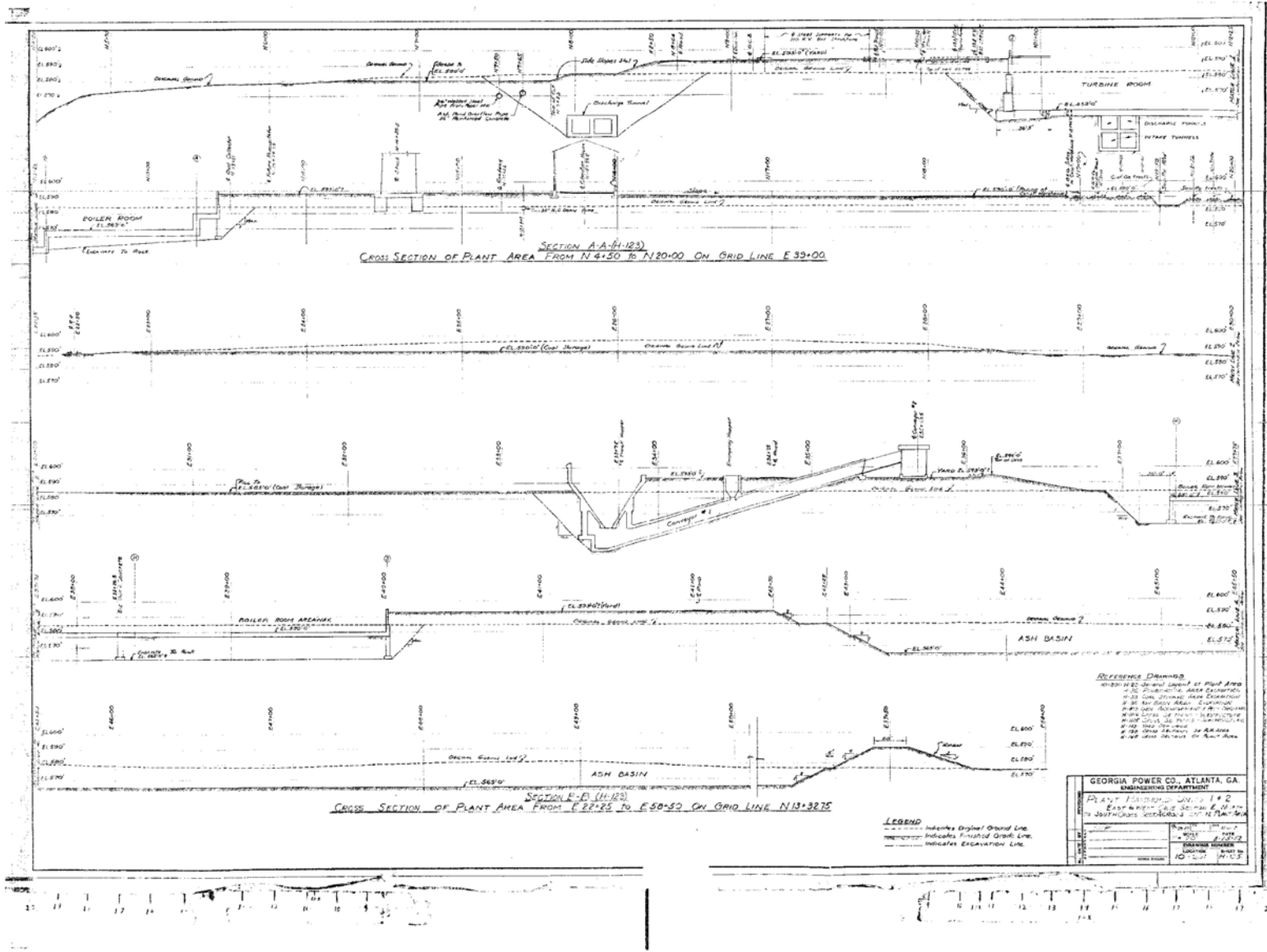


NOTES:  
 1. RECAST PILES TO MAKE END CORNER OF FOUNDATION  
 BETWEEN DAM AND SPILLWAY GATE STRUCTURE.  
 2. RECAST PILES TO MAKE END CORNER OF PILE 4800'  
 BETWEEN SPILLWAY GATE STRUCTURE & DAM.  
 3. ALL CONCRETE TO BE 3000 PSI GRADE 4000.

GEORGIA POWER CO. ATLANTA, GA. ENGINEERING DEPARTMENT	
PLANT HAMMOND UNITS 1 & 2 DETAILS OF ASH BATH OVERFLOW PIPING	
DRAWING NUMBER 10-501	SHEET NO. 14-65







SECTION A-A (11-123)  
 CROSS SECTION OF PLANT AREA FROM N 4+50 TO N 20+00 ON GRID LINE E 39+00

SECTION E-E (11-123)  
 CROSS SECTION OF PLANT AREA FROM E 22+25 TO E 50+50 ON GRID LINE N 13+3275

- Reference Drawings**
- 10-10-123-1000 General Layout of Plant Area
  - 10-10-123-1001 Plant Area Elevation
  - 10-10-123-1002 Core Structure and Excavation
  - 10-10-123-1003 Boiler Room Area Elevation
  - 10-10-123-1004 Turbine Room Area Elevation
  - 10-10-123-1005 Ash Basin Area Elevation
  - 10-10-123-1006 Foundation and Excavation
  - 10-10-123-1007 Core Structure and Excavation
  - 10-10-123-1008 Core Structure and Excavation
  - 10-10-123-1009 Core Structure and Excavation
  - 10-10-123-1010 Core Structure and Excavation

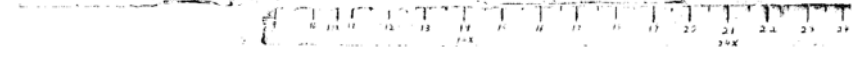
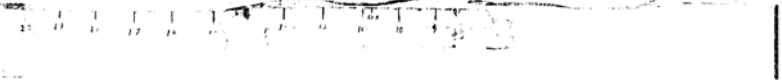
**LEGEND**

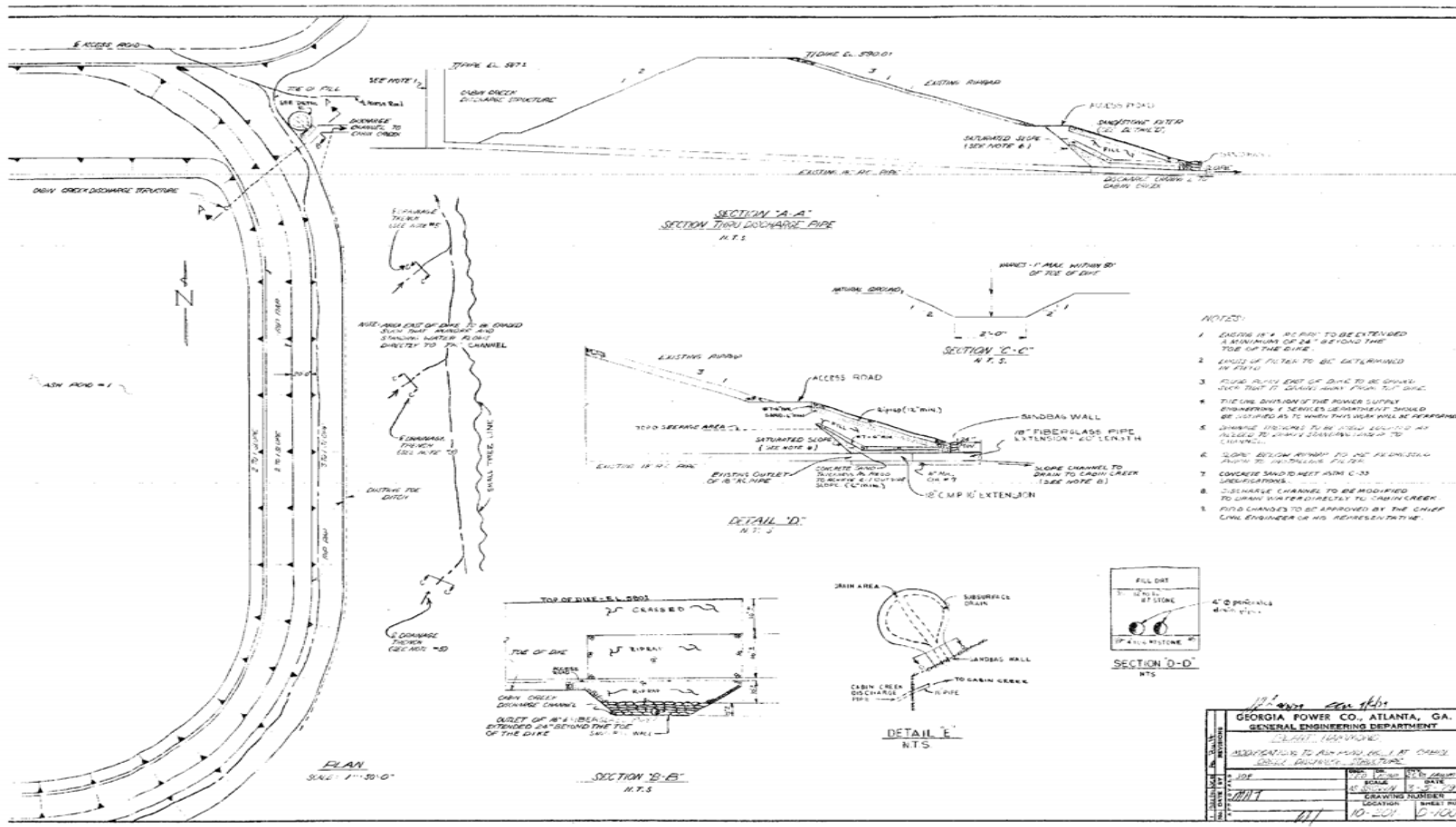
- Indicates Original Ground Line
- - - - - Indicates Finished Grade Line
- Indicates Excavation Line

GEORGIA POWER CO., ATLANTA, GA.  
 ENGINEERING DEPARTMENT

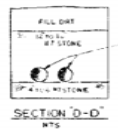
PLANT ELEVATION NO. 142  
 EAST-WEST SECTION E-11-123  
 NORTH-SOUTH SECTION A-A (11-123)

DATE	11-12-52
BY	J. W. B. / J. W. B.
CHECKED	J. W. B. / J. W. B.
APPROVED	J. W. B. / J. W. B.





- NOTES:
- SECTION A-A, 10' DIA. TO BE EXTENDED A MINIMUM OF 24' BEYOND THE TOP OF THE DIKE.
  - LENGTH OF FILTER TO BE DETERMINED BY FIELD.
  - SLICE ABOVE TOP OF DIKE TO BE CONCRETE OVER THAT TO BE CONCRETE FROM TOP DIKE.
  - THE LOW DIVISION OF THE POWER SUPPLY ENGINEERING SERVICES DEPARTMENT SHOULD BE ADVISED AS TO WHEN THIS WORK WILL BE PERFORMED.
  - WHENEVER STRUCTURES ARE TO BE EXTENDED OR INCREASED TO EXCEED THE LENGTH OF 75' CHANNEL.
  - SLOPE BELOW SHOULD TO BE PROPOSED ABOVE TO BE PROPOSED FILTER.
  - CONCRETE SAND TO MEET ASTM C-33 SPECIFICATIONS.
  - CHANNEL CHANNEL TO BE MODIFIED TO DRAIN DIRECTLY TO CABIN CREEK TO DRAIN DIRECTLY TO CABIN CREEK.
  - FIELD CHANGES TO BE APPROVED BY THE CHIEF CIVIL ENGINEER OR HIS REPRESENTATIVE.



11-20-52 100-100

GEORGIA POWER CO., ATLANTA, GA.  
GENERAL ENGINEERING DEPARTMENT

DESIGN: 100-100-100  
MODIFICATION TO 100-100-100, 100-100-100, 100-100-100

DATE	BY	CHKD.	APP'D.
11-20-52	100-100-100	100-100-100	100-100-100
11-20-52	100-100-100	100-100-100	100-100-100
11-20-52	100-100-100	100-100-100	100-100-100

100-100-100

