HISTORY OF CONSTRUCTION FOR EXISTING CCR SURFACE IMPOUNDMENT
PLANT YATES ASH POND B' (AP-B')
40 CFR 257.73(c)(1)(i)-(xii)

(i) Site Name and Ownership Information:

Site Name:	Eugene A. Yates Power Plant
Site Location:	Newnan, Georgia
Site Address:	708 Dyer Road Newnan, GA 30263
Owner:	Georgia Power Company
Address:	241 Ralph McGill Boulevard Atlanta, GA 30308
CCR Impoundment Name:	Plant Yates Ash Pond B' (AP-B')
NID ID:	NA

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 of CCR Unit:

33.455884, -84.890724
See Location Map in the Appendix

(iii) Purpose of CCR Impoundment:

The Eugene A. Yates Power Plant (Plant Yates) was once a seven unit, coal fired, power generation facility. Currently Plant Yates Units 1-5 are in the process of demolition and Plant Yates Units 6 and 7 have been converted to natural gas. AP-B' was designed to receive and store coal combustion residuals produced during the electric power generating process at Plant Yates. In 1977, the southern portion of AP-B' began to be used as an ash dewatering facility for coal combustion residuals dredged from Ash Pond 2. Plant Yates ceased burning coal in 2015 and thus ceased using AP-B' for purposes of coal combustion residuals dewatering at that time.

(iv) Watershed Description:

Plant Yates and AP-B' are located within the Acorn Creek-Chattahoochee River HUC 12 watershed which has a total area of 28,284 acres. The Acorn Creek-Chattahoochee River watershed is part of the larger Middle Chattahoochee-Lake Harding HUC 8 watershed which has an area of 1,950,182 acres. The inflow for AP-B' consists solely of the rainfall that falls within the limits of the surface impoundment.

(v) Description of physical and engineering properties of CCR unit foundation/abutments: AP-B' is located in the Piedmont Physiographic Provence of Georgia. The Piedmont is characterized by igneous and metamorphic rocks. According to the *Geologic Map of Georgia, 1976*, Plant Yates is located in an Undifferentiated Granite formation of the Piedmont. The residual soils in the Piedmont are a result of weathering of the underlying bedrock. Piedmont residual soils and alluvial soils (due to its proximity to the Chattahoochee River) are present within the footprint of AP-B'. The alluvial soils consist of firm to very stiff silts and clays which were underlain by partially weathered rock and residual soils. The residual soils consist mainly of silty sands.

Foundation material of AP-B' generally consists of residual soils with alluvial zones below the fill. The alluvial zone is made up of two to three feet of silty sands with some gravel. The residual zone beneath the alluvium ranged from 4 to 39 feet and consists primarily of silty sands at depth with surface zones of sandy silts with some clay content in the higher elevations. Beneath the residual zone, there is a layer of partially weathered rock.

(vi) Summary of Site Preparation and Construction Activities:

AP-B' was constructed in 1976 by AMAX Fly Ash Corporation, who was at the time providing coal ash handling services at Plant Yates. Professional engineers with Lawrence Dabney & Associates designed the pond, which was constructed with a top elevation of 770 ft, a total storage volume of 480,000 cubic yards and a surface area of 29.8 acres. The dam elevation was raised to elevation 780 ft during the summer of 1977. Further construction occurred during October of 1977, when the pond was sub-divided to create areas for ash dewatering. During the 1977 construction, soft embankment soils were undercut and replaced with clayey soils compacted to 95% of the standard Proctor maximum dry density. The geotechnical reports for this work are included in Appendix B.

Starting in 1978, ash dewatered in AP-B' was stored in the adjacent R6 Solid Waste Facility. As part of the 1977 embankment augmentation, a diversion channel was constructed to receive flow from storm culverts north of the pond and to route this flow around the perimeter of AP-B'. At this time, the auxiliary overflow spillway was also constructed. The embankments were raised at a later date to EL 784 ft.

(vii) Engineering Diagrams:

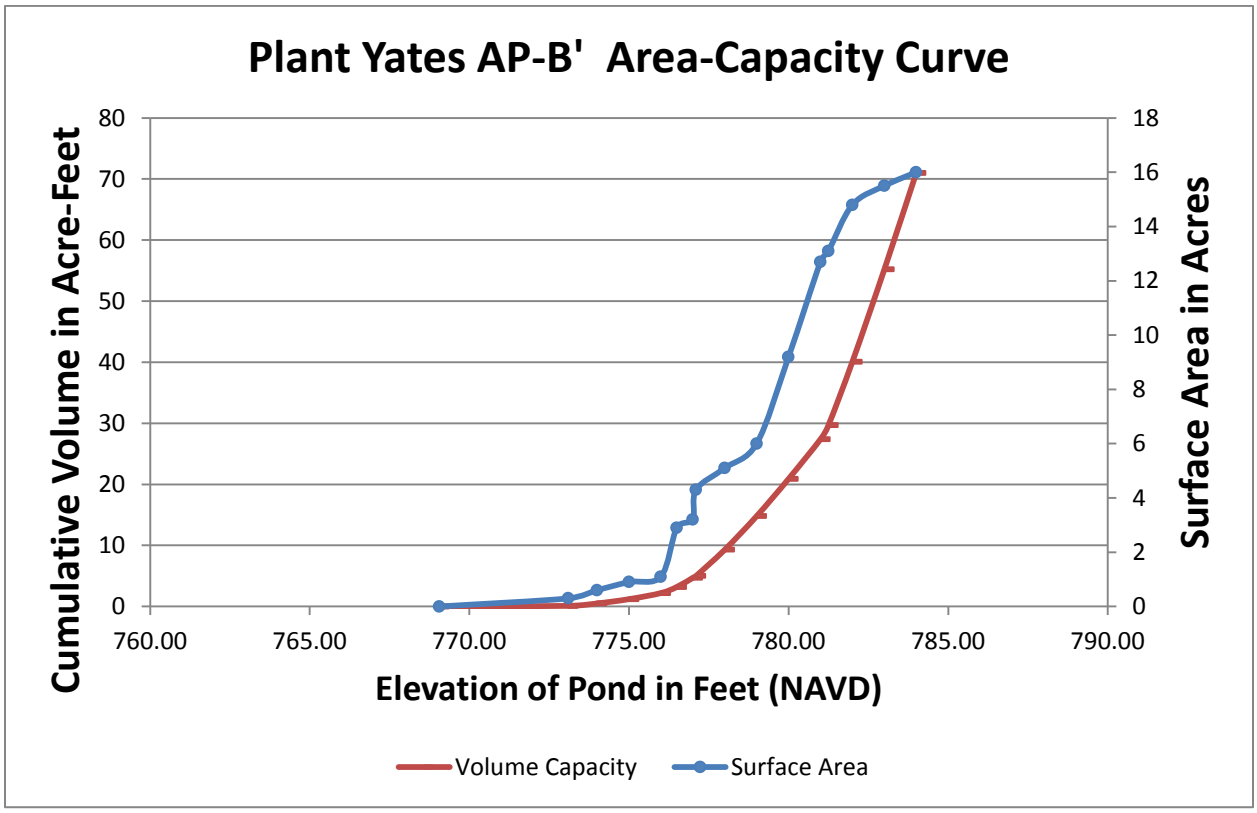
The following engineering diagrams and drawings relevant to the construction, location and topography of AP-B' can be found in the Appendix:

- 1977 Topographic Site Plans, B' Pond Modifications
- 1978 AP-B' dry storage area location and road layout
- 1987 Pond B' Typical Section
- 1987 Ash Handling General Plan
- 1995 Compilation Drawing of Ash Impoundments

(viii) Description of Instrumentation:

There are three piezometers located within the vicinity of AP-B' which are used to monitor water levels around the impoundment.

(ix) Area-capacity curves:



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

Surface water runoff is transported from AP-B' via two primary spillways that discharge into Ash Pond 3 via open channel flow. The pond is divided into a north and a south cell, each having a primary spillway. The north cell spillway is a 24-in diameter CMP culvert with an upstream invert elevation of 773.49 ft and a downstream invert elevation of 772.99 ft. The south cell spillway is a 36-in diameter CMP culvert with an upstream invert elevation of 769.06 ft and a downstream invert elevation of 768.24 ft. The auxiliary spillway for AP-B' consists of an open-channel trapezoidal ditch having a control section width of 70 feet. The crest of the auxiliary spillway is at an elevation of 783.07 ft. During the 100-year design storm, the maximum elevation in the pond is 776.5 ft. At this elevation, the north cell principal spillway carries approximately 14 cubic feet per second (cfs). At the same elevation the south cell principal spillway carries approximately 69 cfs. At an overtopping elevation of 780 ft, the north spillway carries 38 cfs, the south spillway carries 102 cfs, and the auxiliary spillway carries 176 cfs.

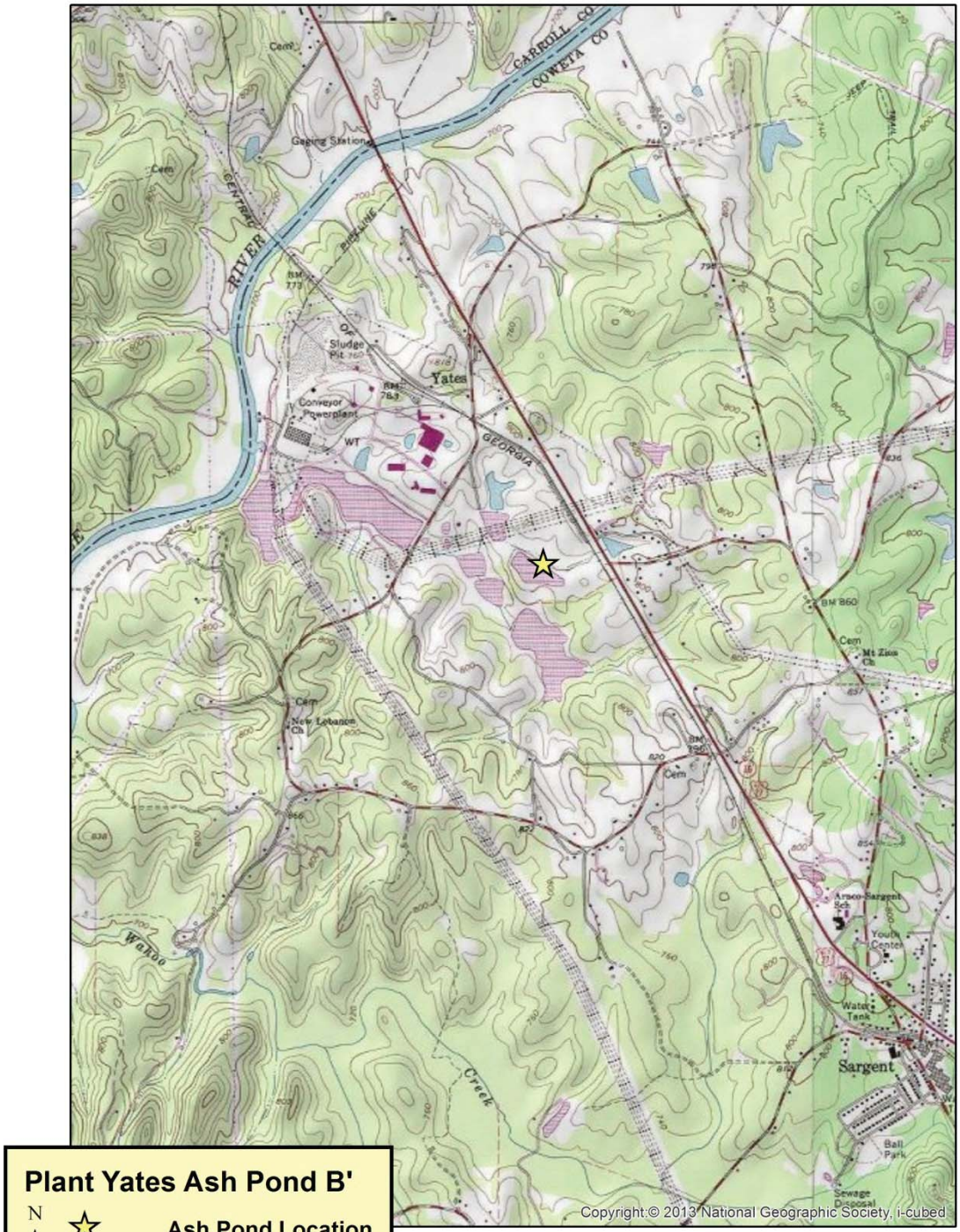
(xi) Provisions for surveillance, maintenance and repair:

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 periods of heavy rainfall and storms. The inspections provide assurance that structures are sound and that action is taken, as needed, based on the findings. Weekly safety inspections include numerous items including pond levels, weather conditions and rainfall since the prior inspection, conditions of slopes and drains, erosion, animal damage, ant hills, alignment of retaining structures and more. During annual inspections, 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 the posting of emergency notification information is up to date and evaluate any items noted during plant personnel inspections.

(xii) Known record of structural instability:

There are no known instances of structural instability at the CCR unit.

Appendix



Plant Yates Ash Pond B'

N

☆ Ash Pond Location

USA Topo Maps

0 0.25 0.5 1 Miles

COUNTY ROAD

PROPERTY LINE

EDGE OF POND

AMAX PLANT SITE

D-4

D-5

D-6

D-7

WEATHER DIRT ROAD

EXISTING MAXIMUM LIMITS OF ASH STORAGE

ALL MAXIMUM LIMITS OF ASH STORAGE

PROPERTY LINE

POND C

SETTLING POND #2

SETTLING POND #1

SETTLING POND #3

POND A

POND B

ROAD TO POND B' DRY STORAGE AREA SEE DETAILS - DWG Nº 811-2

EDGE OF ASH

POND B'

MAXIMUM LIMITS OF ASH STORAGE

G.P.C. DAM EFFLUENT PIPE INV. EL. 727.95

WTR. ELEV. 727.0

TOP OF DAM

SPILLWAY EL. 754.4

GA. POWER CO. POND

GEORGIA POWER CO. EARTH DAM. TOP ELEV. 755.4 ±

PROPERTY LINE

P-3

P-4

P-5

NO.	DATE	DESCRIPTION	CHKD.	APPR.
		REVISIONS		

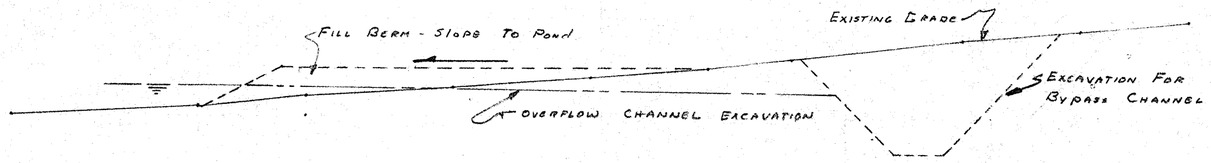
POND B' DRY STORAGE AREA

AMAX
RESOURCE RECOVERY SYSTEMS, INC.
PLANT YATES

HARRY HENDON AND ASSOCIATES, INC.
ENGINEERS
BIRMINGHAM, ALABAMA
ATLANTA, GEORGIA ASHEVILLE, NORTH CAROLINA

DRAWN RPD	SCALE 1" = 100'	SHEET 1 OF 1 SHEETS
CHECKED	APPROVED	811-1
DATE 3-7-78		

FILE CSG 61-H2



SECTION C-C
1" = 20' H&V

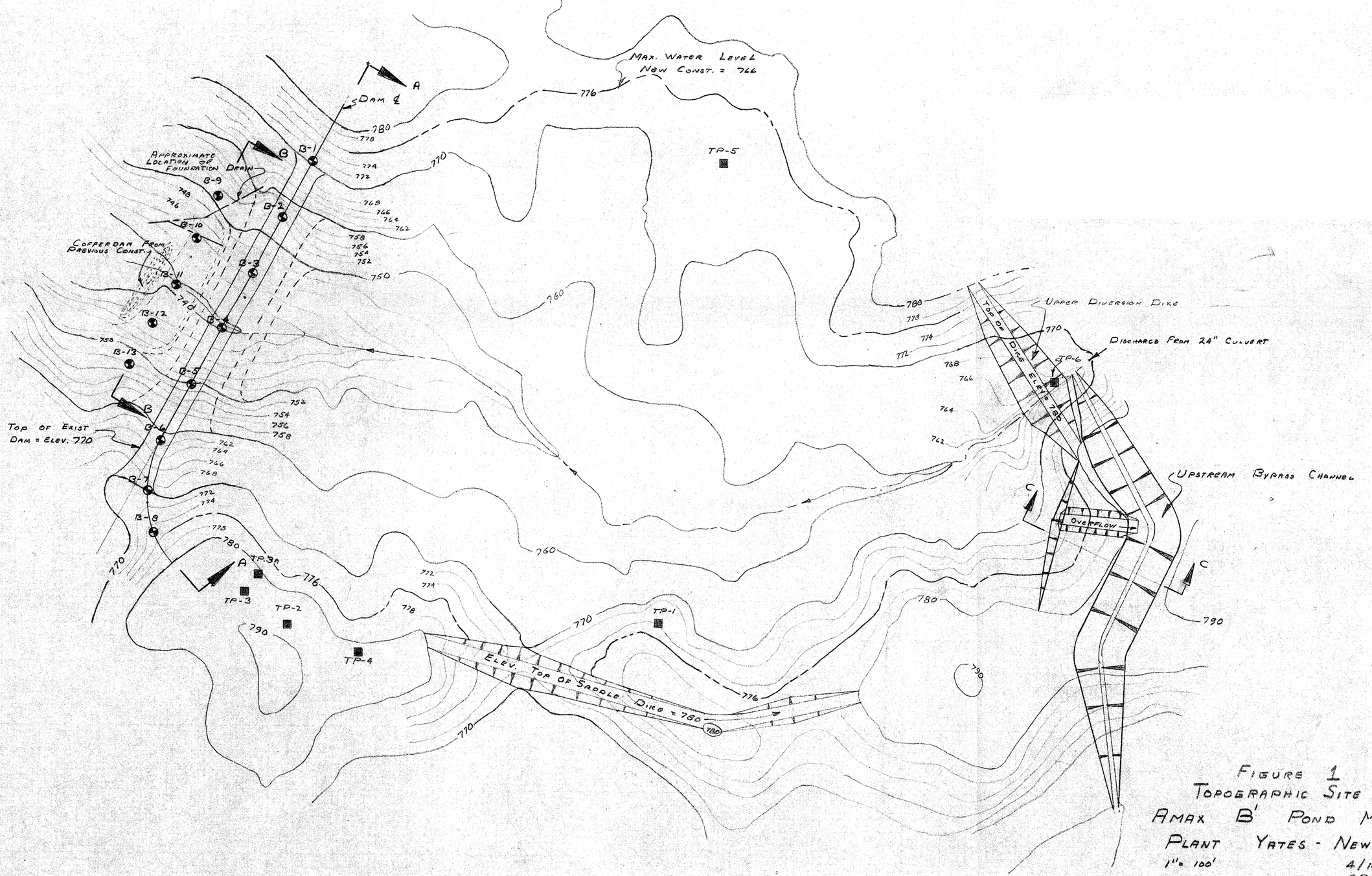
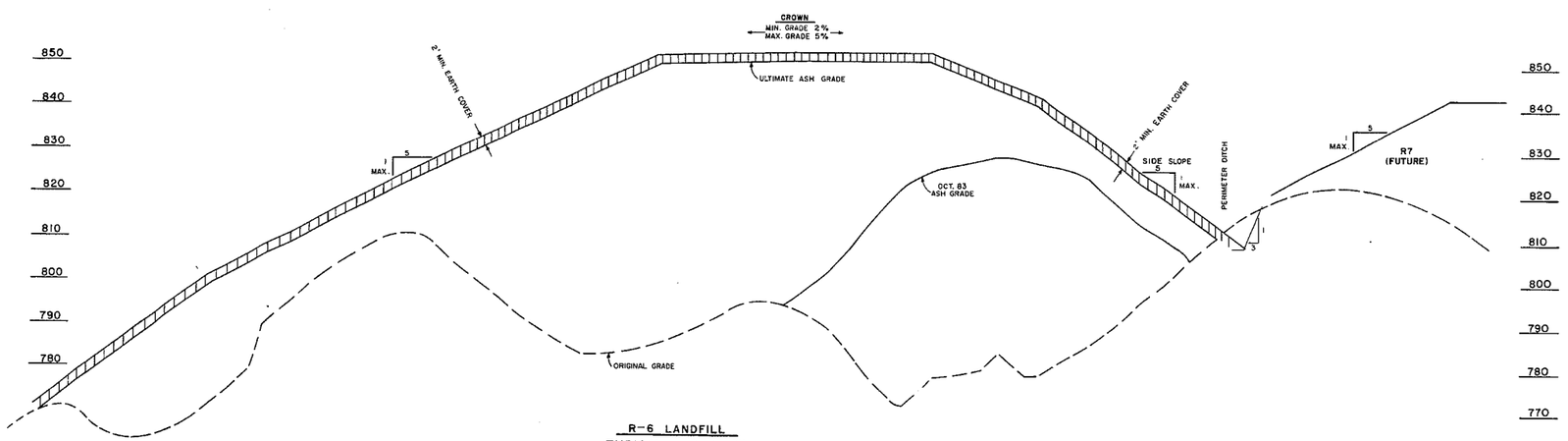


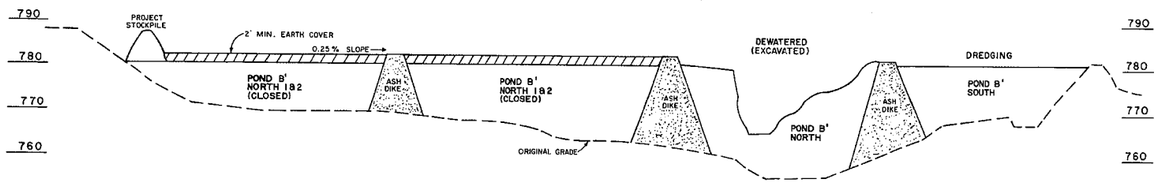
FIGURE 1
TOPOGRAPHIC SITE PLAN
AMAX B' POND MODIFICATIONS
PLANT YATES - NEWNAN, GA.
1" = 100'
4/15/77
ADD

Date: 4/30/2010

Time : 11:14:56 AM



R-6 LANDFILL
TYPICAL SECTION
ASH STOCKPILE
SCALE : 1"= 10' Vert.
1"=50' Horiz.



TYPICAL SECTION
POND B'
SCALE 1"= 10' Vert.
1"= 50' Horiz.

NOTES

1. All landfill 86 activity is to be performed in accordance with Georgia EPD Solid Waste Operating Permit No. 038-0130(L)(1).
2. Landfill activity at R7 and/or other future sites will be planned by the disposal Contractor, subject to the approval of the Plant Yates Manager.

REFERENCE DRAWING
10-202 E 00005: PLANT YATES
ASH HANDLING
GENERAL PLAN

REVISION	DATE	BY	CHK'D	APPR.1	APPR.2	APPR.3	APPR.4	APPR.5
REVISION 0	DATE 11-24-87	AWM						

ISSUED FOR INQUIRY

GEORGIA POWER CO., ATLANTA GA.
ENGRG. AND CONSTR. SERVICES DEPT.

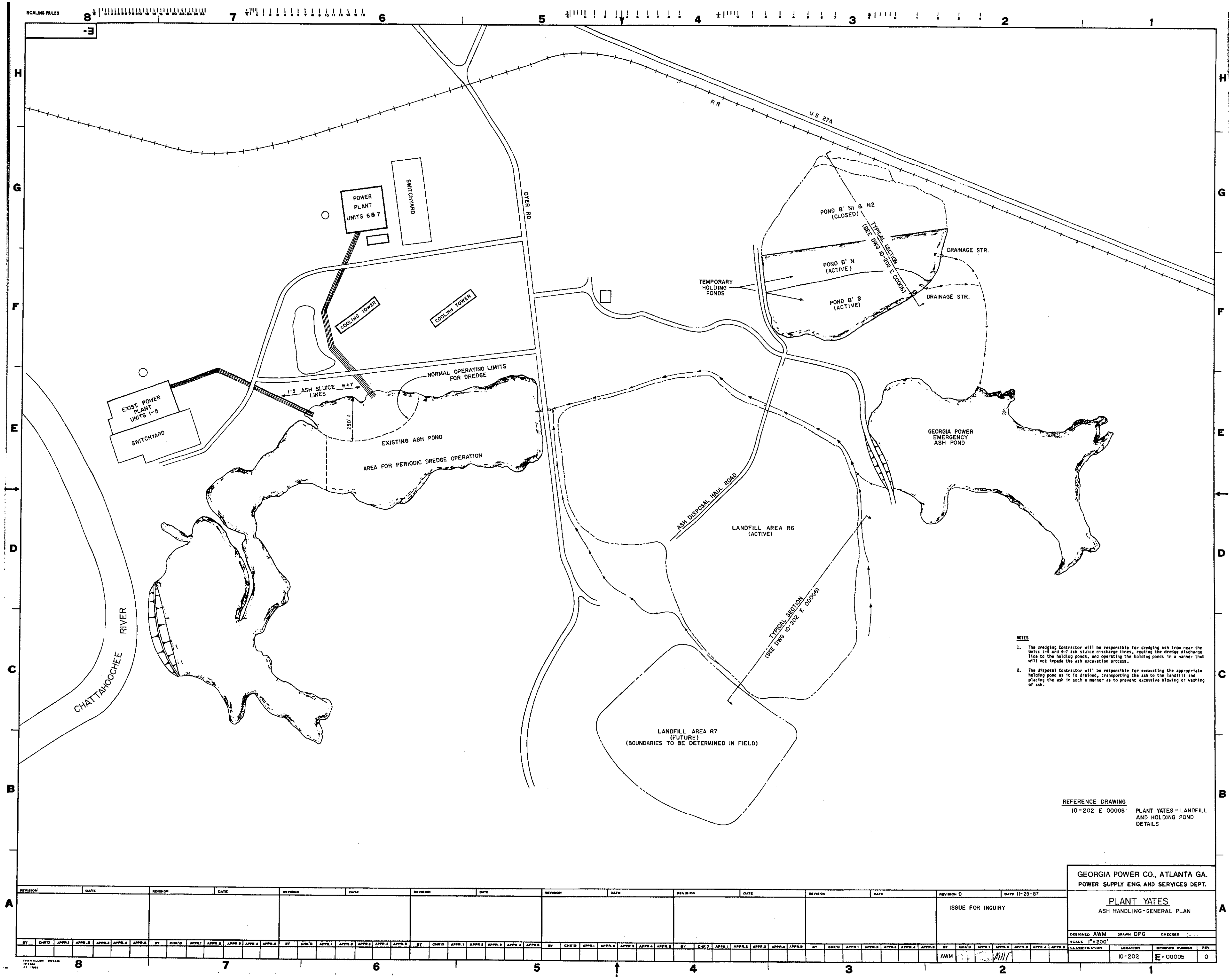
PLANT YATES
LANDFILL AND HOLDING POND DETAILS

DESIGNED AWM DRAWN DPG CHECKED

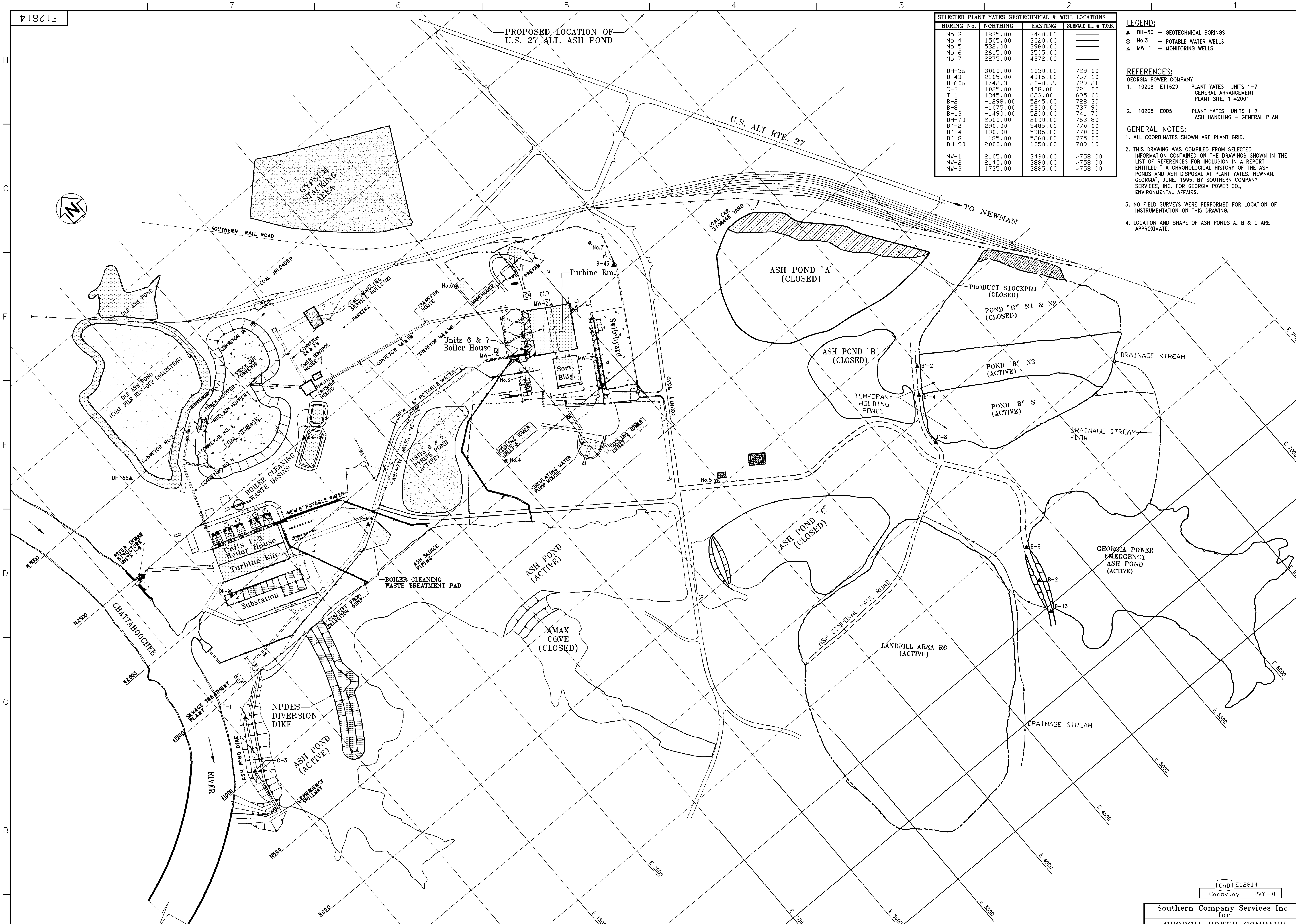
SCALE AS SHOWN

CLASSIFICATION	LOCATION	DRAWING NUMBER	REV
	10-202	E-00006	0

SCS Engineering\Technical Services\Earth Sciences and Environmental Engineering\ESEE MAJOR PROJECTS\PROJECTS\YATES\Yates 2010\EPA ASH POND INSPECTIC


U S 27A
R R
DYER RD
POWER PLANT UNITS 6 & 7
SWITCHYARD
COOLING TOWER
COOLING TOWER
EXIST. POWER PLANT UNITS 1-5
SWITCHYARD
1-5 ASH SLUICE 6+7 LINES
NORMAL OPERATING LIMITS FOR DREDGE
EXISTING ASH POND
AREA FOR PERIODIC DREDGE OPERATION
CHATTAHOOCHEE RIVER
POND B' N1 & N2 (CLOSED)
TYPICAL SECTION (SEE DWG 10-202 E 00006)
POND B' N (ACTIVE)
POND B' S (ACTIVE)
TEMPORARY HOLDING PONDS
DRAINAGE STR.
DRAINAGE STR.
GEORGIA POWER EMERGENCY ASH POND
ASH DISPOSAL HAUL ROAD
LANDFILL AREA R6 (ACTIVE)
TYPICAL SECTION (SEE DWG 10-202 E 00006)
LANDFILL AREA R7 (FUTURE) (BOUNDARIES TO BE DETERMINED IN FIELD)
NOTES
1. The dredging Contractor will be responsible for dredging ash from near the Units 1-5 and 6-7 ash sluice discharge lines, routing the dredge discharge line to the holding ponds, and operating the holding ponds in a manner that will not impede the ash excavation process.
2. The disposal Contractor will be responsible for excavating the appropriate holding pond as it is drained, transporting the ash to the landfill and placing the ash in such a manner as to prevent excessive blowing or washing of ash.
REFERENCE DRAWING
10-202 E 00006 PLANT YATES - LANDFILL AND HOLDING POND DETAILS
GEORGIA POWER CO., ATLANTA GA.
POWER SUPPLY ENG. AND SERVICES DEPT.
PLANT YATES
ASH HANDLING-GENERAL PLAN
REVISION 0 DATE 11-25-87
ISSUE FOR INQUIRY
DESIGNED AWM DRAWN DPG CHECKED
SCALE 1" = 200'
BY AWM
LOCATION 10-202
DRAWING NUMBER E-00005
REV. 0

E12814



SELECTED PLANT YATES GEOTECHNICAL & WELL LOCATIONS			
BORING No.	NORTHING	EASTING	SURFACE EL. @ T.O.B.
No.3	1835.00	3440.00	———
No.4	1505.00	3020.00	———
No.5	532.00	3960.00	———
No.6	2615.00	3505.00	———
No.7	2275.00	4372.00	———
DH-56	3000.00	1050.00	729.00
B-43	2105.00	4315.00	767.10
B-606	1742.31	2040.99	729.21
C-3	1025.00	408.00	721.00
T-1	1345.00	623.00	695.00
B-2	-1298.00	5245.00	728.30
B-8	-1075.00	5300.00	737.90
B-13	-1490.00	5200.00	741.70
DH-70	2500.00	2100.00	763.80
B'-2	290.00	5485.00	770.00
B'-4	130.00	5385.00	770.00
B'-8	-185.00	5260.00	775.00
DH-90	2000.00	1050.00	709.10
MW-1	2105.00	3430.00	~758.00
MW-2	2140.00	3880.00	~758.00
MW-3	1735.00	3885.00	~758.00

LEGEND:

▲ DH-56 — GEOTECHNICAL BORINGS
⊙ No.3 — POTABLE WATER WELLS
△ MW-1 — MONITORING WELLS

REFERENCES:

GEORGIA POWER COMPANY

1. 10208 E11629 PLANT YATES UNITS 1-7 GENERAL ARRANGEMENT PLANT SITE, 1"=200'
2. 10208 E005 PLANT YATES UNITS 1-7 ASH HANDLING – GENERAL PLAN

GENERAL NOTES:

1. ALL COORDINATES SHOWN ARE PLANT GRID.
2. THIS DRAWING WAS COMPILED FROM SELECTED INFORMATION CONTAINED ON THE DRAWINGS SHOWN IN THE LIST OF REFERENCES FOR INCLUSION IN A REPORT ENTITLED " A CHRONOLOGICAL HISTORY OF THE ASH PONDS AND ASH DISPOSAL AT PLANT YATES, NEWNAN, GEORGIA", JUNE, 1995, BY SOUTHERN COMPANY SERVICES, INC. FOR GEORGIA POWER CO., ENVIRONMENTAL AFFAIRS.
3. NO FIELD SURVEYS WERE PERFORMED FOR LOCATION OF INSTRUMENTATION ON THIS DRAWING.
4. LOCATION AND SHAPE OF ASH PONDS A, B & C ARE APPROXIMATE.

CAD E12814
Cadovlay | RVY-0

REVISION 0 DATE 6-5-95
ISSUED FOR RECORD SUMMARY
REA #: EN95005 EWO: 3490ET

BY	CHK'D	APPR.1	APPR.2	APPR.3	APPR.4	APPR.5
RY	RDW	FOR APPVL'S–SEE EDRF 9506063				

Southern Company Services Inc.
for
GEORGIA POWER COMPANY

PLANT YATES

COMPILATION OF ASH POND,
ASH STORAGE, MONITORING WELLS and
BOILER CLEANING WASTE BASINS LOCATIONS

DESIGNED R.WOOD DRAWN RVYOUNG CHECKED RDW

SCALE	LOCATION	DRAWING NUMBER	REV.
1"=200'	10202	E12814	0

06-05-95 2:29p

34 x 44