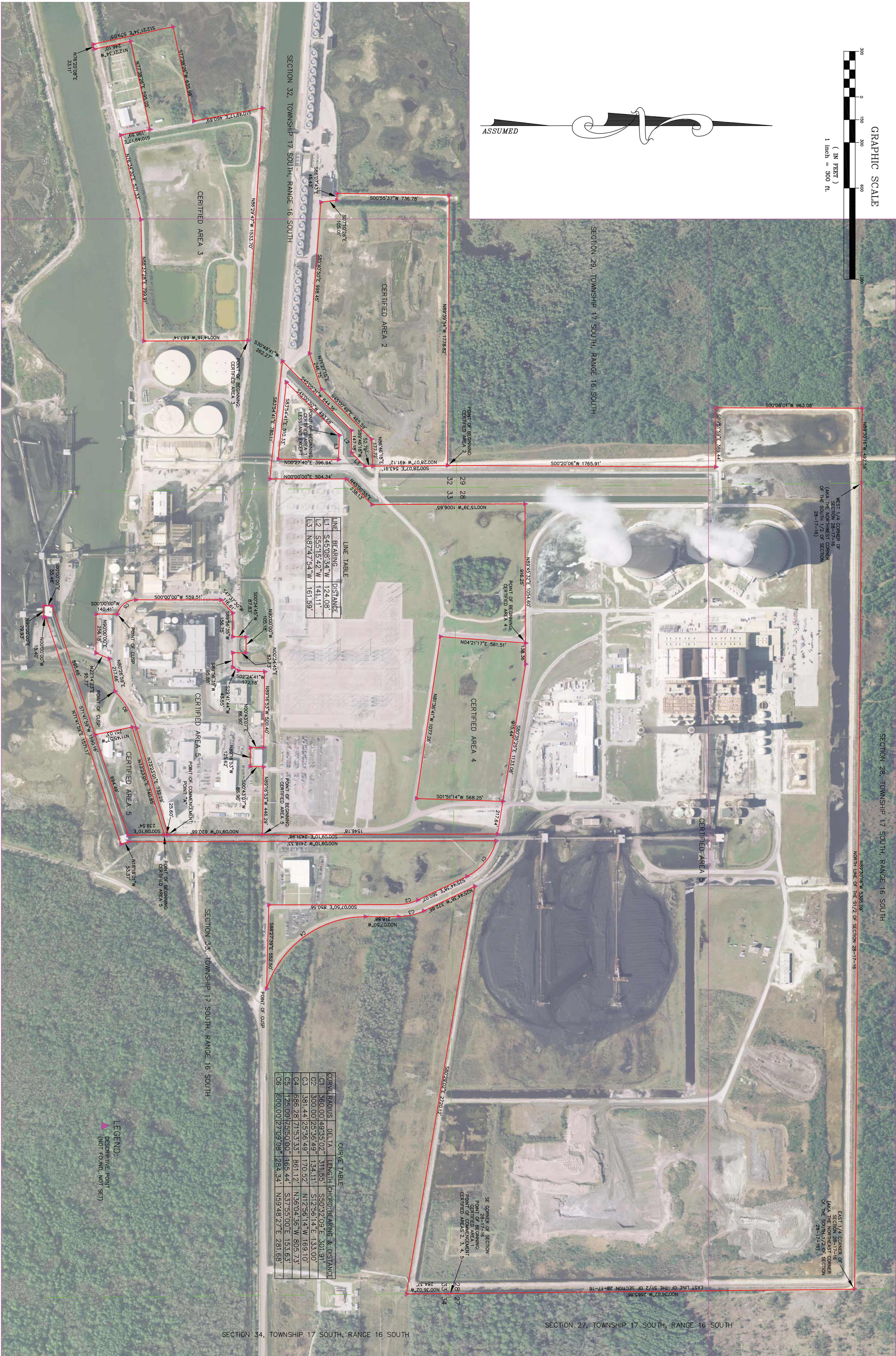
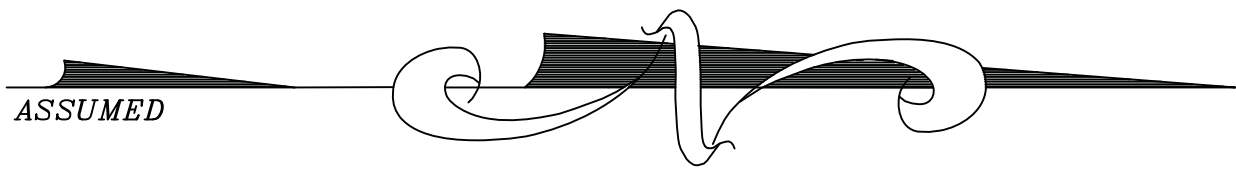
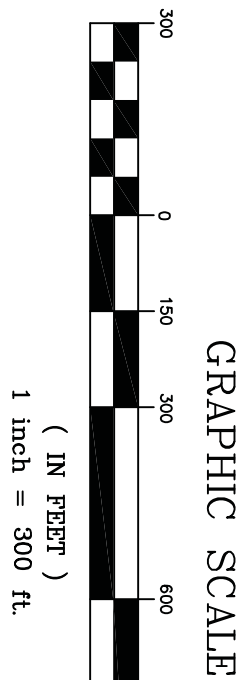


Attachments

Attachment A



LINE	BEARING	DISTANCE
1	S45°08'34\"	124.08
2	S55°19'52\"	141.11
3	N67°47'34\"	161.89

CURVE	RADIUS	DELTA	LENGTH	CHORD	BEARING & DISTANCE
C1	360.00'	49°35'02"	311.85'	S50°32'09"E	301.91'
C2	300.00'	25°35'49"	134.11'	S12°56'14"E	133.00'
C3	381.44'	25°35'49"	170.82'	N12°56'14"W	169.10'
C4	688.28'	21°53'33"	861.12'	N36°04'36"W	805.73'
C5	125.00'	25°50'00"	165.44'	S37°55'00"E	153.63'
C6	600.00'	27°09'08"	284.34'	N59°48'27"E	281.68'

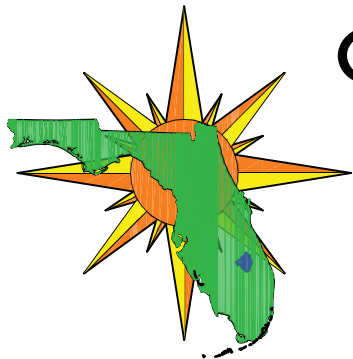
LEGEND:
DESCRIPTION POINT
(NOT FOUND, NOT SET)

NOTE:
SEE SHEET 1 OF 2 FOR LEGAL DESCRIPTIONS,
SURVEYORS NOTES, AND CERTIFICATION. NOT VALID
UNLESS ACCOMPANIED BY SHEET 1 OF 2.

SKETCH AND LEGAL DESCRIPTIONS
FOR PROGRESS ENERGY
CRYSTAL RIVER

CITRUS COUNTY,		FLORIDA
Project No. 10120_A02	Field Book , Page (SEE FILE)	Drawing Date: 01/17/2011
Scale: 1"= 300'	Field Date: N/A	Sheet: 2 of 2

DATE:	REVISION



GulfWest Surveying, Inc.
Professional Surveyors and Mappers
9469 W. Green Bay Lane
Crystal River, Florida 34428
Ph: 352.563.1252 Fax: 352.563.1253

LEGAL DESCRIPTION: (CERTIFIED AREA 1)

A PARCEL OF LAND LYING IN AND BEING A PORTION OF SECTIONS 28, 29, 32, AND 33 OF TOWNSHIP 17 SOUTH, RANGE 16 EAST, CITRUS COUNTY, FLORIDA AND BEING FURTHER DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHEAST CORNER OF SECTION 28, TOWNSHIP 17 SOUTH, RANGE 16 EAST THENCE N00°36'02W AND ALONG THE EAST LINE OF SAID SECTION 28, 2,665.86 FEET TO THE NORTHEAST CORNER OF THE SOUTH 1/2 OF SAID SECTION 28; THENCE N89°30'16"W AND ALONG THE NORTH LINE OF THE SOUTH 1/2 OF SAID SECTION 28, 5,305.09 FEET TO THE NORTHWEST CORNER OF SAID SOUTH 1/2 OF SECTION 28; THENCE CONTINUE N89°30'16"W, 492.58 FEET; THENCE S00°08'01"W, 963.08 FEET; THENCE S89°51'59"E, 389.44 FEET; THENCE S00°20'06"W, 1,765.91 FEET; THENCE S00°28'07"E, 543.91 FEET; THENCE S45°08'34"W, 124.08 FEET; THENCE S89°46'18"W, 147.18 FEET; THENCE S45°05'31"W, 644.36 FEET; THENCE S83°54'41"E, 780.11 FEET; THENCE N00°01'00"E, 504.34 FEET; THENCE N45°00'55"E, 238.13 FEET; THENCE N00°15'39"W, 1,006.65 FEET; THENCE N89°45'32"E, 1,054.60 FEET; THENCE S80°35'25"E, 1133.08 FEET; THENCE S00°09'10"E, 2,431.98 FEET; THENCE S71°41'59"W, 1,580.16 FEET; THENCE S00°00'00"E, 55.48 FEET; THENCE S00°00'00"E, 79.93 FEET; THENCE N00°00'00"W, 15.40 FEET; THENCE S00°00'00"E, 55.48 FEET; THENCE S00°00'00"E, 79.93 FEET; THENCE N00°09'10"W, 2,418.33 FEET TO POINT ON A CURVE; SAID CURVE BEING CONCAVE TO THE SOUTHWESTERLY, HAVING A CENTRAL ANGLE OF 49°35'02" AND A RADUIS OF 360.00 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 311.55 FEET TO A POINT OF TANGENCY (CHORD BEARING AND DISTANCE FOR SAID CURVE BEING S50°32'09"E, 301.91 FEET); THENCE S25°44'18"E, 360.07 FEET TO A POINT OF CURVATURE; SAID CURVE BEING CONCAVE TO THE WESTERLY, HAVING A CENTRAL ANGLE OF 25°36'49" AND A RADUIS OF 300.00 FEET; THENCE SOUTHERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 134.11 FEET TO A POINT OF TANGENCY (CHORD BEARING AND DISTANCE FOR SAID CURVE BEING S12°56'14"E, 133.00 FEET); THENCE S00°07'50"E, 850.56 FEET; THENCE S88°27'39"E, 552.50 FEET; TO A POINT OF CUSP WITH A CURVE CONCAVE NORTHEASTERLY, SAID CURVE HAVING A CENTRAL ANGLE OF 71°53'33" AND A RADUIS OF 866.28 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 861.12 FEET TO A POINT OF TANGENCY (CHORD BEARING AND DISTANCE FOR SAID CURVE BEING N36°04'36"W, 805.73 FEET); THENCE N00°07'50"W, 218.88 FEET TO A POINT OF CURVATURE; SAID CURVE BEING CONCAVE TO THE WESTERLY, HAVING A CENTRAL ANGLE OF 25°36'49" AND A RADUIS OF 381.44 FEET; THENCE NORTHERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 170.52 FEET TO A POINT OF TANGENCY (CHORD BEARING AND DISTANCE FOR SAID CURVE BEING N12°56'14"W, 169.10 FEET); THENCE N25°44'38"W, 372.86 FEET; THENCE S80°29'02"E, 2,720.12 FEET; THENCE N00°36'02"W, 284.37 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT:

COMMENCE AT THE SOUTHEAST CORNER OF SECTION 28, TOWNSHIP 17 SOUTH, RANGE 16 EAST THENCE N00°36'02W AND ALONG THE EAST LINE OF SAID SECTION 28, 2,665.86 FEET TO THE NORTHEAST CORNER OF THE SOUTH 1/2 OF SAID SECTION 28; THENCE N89°30'16"W AND ALONG THE NORTH LINE OF THE SOUTH 1/2 OF SAID SECTION 28, 5,305.09 FEET TO THE NORTHWEST CORNER OF SAID SOUTH 1/2 OF SECTION 28; THENCE CONTINUE N89°30'16"W, 492.58 FEET; THENCE S00°08'01"W, 963.08 FEET; THENCE S89°51'59"E, 389.44 FEET; THENCE S00°20'06"W, 1,765.91 FEET; THENCE S00°28'07"E, 543.91 FEET; THENCE S45°08'34"W, 124.08 FEET; THENCE S5°15'42"W, 141.11 FEET TO THE POINT OF BEGINNING; THENCE S45°00'50"W, 493.68 FEET; THENCE S83°54'41"E, 510.33 FEET; THENCE N00°27'40"E, 396.94 FEET; THENCE N87°47'54"W, 181.59 FEET TO THE POINT OF BEGINNING

LEGAL DESCRIPTION: (CERTIFIED AREA 2)

A PARCEL OF LAND LYING IN AND BEING A PORTION OF SECTION 32, OF TOWNSHIP 17 SOUTH, RANGE 16 EAST, CITRUS COUNTY, FLORIDA AND BEING FURTHER DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF SECTION 28, TOWNSHIP 17 SOUTH, RANGE 16 EAST THENCE N00°36'02W AND ALONG THE EAST LINE OF SAID SECTION 28, 2,665.86 FEET TO THE NORTHEAST CORNER OF THE SOUTH 1/2 OF SAID SECTION 28; THENCE N89°30'16"W AND ALONG THE NORTH LINE OF THE SOUTH 1/2 OF SAID SECTION 28, 5,305.09 FEET TO THE NORTHWEST CORNER OF SAID SOUTH 1/2 OF SECTION 28; THENCE CONTINUE N89°30'16"W, 492.58 FEET; THENCE S00°08'01"W, 963.08 FEET; THENCE S89°51'59"E, 389.44 FEET; THENCE S00°20'06"W, 1,765.91 FEET TO THE POINT OF BEGINNING; THENCE N89°39'34"W, 1,778.62 FEET; THENCE S00°55'37"W, 736.18 FEET; THENCE S88°07'43"E, 45.43 FEET; THENCE S07°10'28"E, 105.01 FEET; THENCE S89°46'30"E, 998.45 FEET; THENCE N17°21'35"E, 246.75 FEET; THENCE N45°00'49"E, 465.39 FEET; THENCE N86°46'18"E, 177.72 FEET; THENCE N00°28'07"W, 491.12 FEET TO THE POINT OF BEGINNING.

LEGAL DESCRIPTION: (CERTIFIED AREA 3)

A PARCEL OF LAND LYING IN AND BEING A PORTION OF SECTION 32, OF TOWNSHIP 17 SOUTH, RANGE 16 EAST, CITRUS COUNTY, FLORIDA AND BEING FURTHER DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHEAST CORNER OF SECTION 28, TOWNSHIP 17 SOUTH, RANGE 16 EAST THENCE N00°36'02W AND ALONG THE EAST LINE OF SAID SECTION 28, 2,665.86 FEET TO THE NORTHEAST CORNER OF THE SOUTH 1/2 OF SAID SECTION 28; THENCE N89°30'16"W AND ALONG THE NORTH LINE OF THE SOUTH 1/2 OF SAID SECTION 28, 5,305.09 FEET TO THE NORTHWEST CORNER OF SAID SOUTH 1/2 OF SECTION 28; THENCE CONTINUE N89°30'16"W, 492.58 FEET; THENCE S00°08'01"W, 963.08 FEET; THENCE S89°51'59"E, 389.44 FEET; THENCE S00°20'06"W, 1,765.91 FEET; THENCE S00°28'07"E, 543.91 FEET; THENCE S45°08'34"W, 124.08 FEET; THENCE S89°46'18"W, 147.18 FEET; THENCE S45°05'31"W, 644.36 FEET; THENCE S30°49'41"W, 262.27 FEET TO THE POINT OF BEGINNING; THENCE N86°29'47"W, 1,533.70 FEET; THENCE S10°49'17"E, 460.69 FEET; THENCE S77°38'26"W, 635.89 FEET; THENCE S12°21'34"E, 539.05 FEET; THENCE N76°20'08"E, 33.11 FEET; THENCE N12°21'34"W, 246.10 FEET; THENCE N77°38'26"E, 595.05 FEET; THENCE S10°49'17"E, 196.59 FEET; THENCE N76°34'30"E, 571.33 FEET; THENCE N88°37'28"E, 799.91 FEET; THENCE N00°14'16"W, 687.14 FEET TO THE POINT OF BEGINNING.

LEGAL DESCRIPTION: (CERTIFIED AREA 4)

A PARCEL OF LAND LYING IN AND BEING A PORTION OF SECTIONS 28, AND 33 OF TOWNSHIP 17 SOUTH, RANGE 16 EAST, CITRUS COUNTY, FLORIDA AND BEING FURTHER DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHEAST CORNER OF SECTION 28, TOWNSHIP 17 SOUTH, RANGE 16 EAST; THENCE N00°36'02W AND ALONG THE EAST LINE OF SAID SECTION 28, 2,665.86 FEET TO THE NORTHEAST CORNER OF THE SOUTH 1/2 OF SAID SECTION 28; THENCE N89°30'16"W AND ALONG THE NORTH LINE OF THE SOUTH 1/2 OF SAID SECTION 28, 5,305.09 FEET TO THE NORTHWEST CORNER OF SAID SOUTH 1/2 OF SECTION 28; THENCE CONTINUE N89°30'16"W, 492.58 FEET; THENCE S00°08'01"W, 963.08 FEET; THENCE S89°51'59"E, 389.44 FEET; THENCE S00°20'06"W, 1,765.91 FEET; THENCE S00°28'07"E, 543.91 FEET; THENCE S45°08'34"W, 124.08 FEET; THENCE S89°46'18"W, 147.18 FEET; THENCE S45°05'31"W, 644.36 FEET; THENCE S83°54'41"E, 780.11 FEET; THENCE N00°01'00"E, 504.34 FEET; THENCE N45°00'55"E, 238.13 FEET; THENCE N00°15'39"W, 1,006.65 FEET; THENCE N89°45'32"E, 1,054.60 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE N89°45'32"E, 136.36 FEET; THENCE S80°35'25"E, 915.44 FEET; THENCE S01°51'14"W, 568.25 FEET; THENCE N81°36'41"W, 1,077.26 FEET; THENCE N04°21'17"E, 561.51 FEET TO THE POINT OF BEGINNING.

LEGAL DESCRIPTION: (CERTIFIED AREA 5)

A PARCEL OF LAND LYING IN AND BEING A PORTION OF SECTION 33 OF TOWNSHIP 17 SOUTH, RANGE 16 EAST, CITRUS COUNTY, FLORIDA AND BEING FURTHER DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHEAST CORNER OF SECTION 28, TOWNSHIP 17 SOUTH, RANGE 16 EAST THENCE N00°36'02W AND ALONG THE EAST LINE OF SAID SECTION 28, 2,665.86 FEET TO THE NORTHEAST CORNER OF THE SOUTH 1/2 OF SAID SECTION 28; THENCE N89°30'16"W AND ALONG THE NORTH LINE OF THE SOUTH 1/2 OF SAID SECTION 28, 5,305.09 FEET TO THE NORTHWEST CORNER OF SAID SOUTH 1/2 OF SECTION 28; THENCE CONTINUE N89°30'16"W, 492.58 FEET; THENCE S00°08'01"W, 963.08 FEET; THENCE S89°51'59"E, 389.44 FEET; THENCE S00°20'06"W, 1,765.91 FEET; THENCE S00°28'07"E, 543.91 FEET; THENCE S45°08'34"W, 124.08 FEET; THENCE S89°46'18"W, 147.18 FEET; THENCE S45°05'31"W, 644.36 FEET; THENCE S83°54'41"E, 780.11 FEET; THENCE N00°00'00"E, 504.34 FEET; THENCE N45°00'55"E, 238.13 FEET; THENCE N00°15'39"W, 1,006.65 FEET; THENCE N89°45'32"E, 1,054.60 FEET; THENCE S80°35'25"E, 1133.08 FEET; THENCE S00°09'10"E, 1,546.18 FEET TO THE POINT OF BEGINNING; THENCE N89°16'53"W, 446.29 FEET; THENCE S00°43'07"W, 86.90 FEET; THENCE N89°16'53"W, 125.62 FEET; THENCE N00°43'07"E, 86.90 FEET; THENCE N89°16'53"W, 500.40 FEET; THENCE S02°24'41"W, 172.18 FEET; THENCE S29°41'44"W, 43.55 FEET; THENCE S89°56'35"W, 95.88 FEET; THENCE N00°34'45"E, 87.73 FEET; THENCE N89°56'35"W, 156.75 FEET; THENCE S47°37'30"W, 116.61 FEET; THENCE S00°00'00"W, 559.51 FEET TO A POINT OF CURVATURE; SAID CURVE BEING CONCAVE TO THE NORTHEASTERLY, HAVING A CENTRAL ANGLE OF 7°50'00" AND A RADUIS OF 125.00 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 165.44 FEET TO A POINT OF CUSP (CHORD BEARING AND DISTANCE FOR SAID CURVE BEING S37°55'00"E, 153.63 FEET); THENCE S00°00'00"W, 140.41 FEET; THENCE N90°00'00"E, 256.18 FEET; THENCE N22°14'23"E, 95.77 FEET; THENCE N80°26'59"E, 217.66 FEET TO A POINT OF CUSP WITH A CURVE, SAID CURVE BEING CONCAVE TO THE SOUTHEASTERLY, HAVING A CENTRAL ANGLE OF 27°09'08" AND A RADUIS OF 600.00 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 284.34 FEET TO A POINT OF TANGENCY (CHORD BEARING AND DISTANCE FOR SAID CURVE BEING N59°48'27"E, 281.68 FEET); THENCE N73°32'01"E, 732.29 FEET TO A POINT HEREINAFTER REFERRED TO AS POINT "A"; THENCE N00°09'10"W, 620.66 FEET TO THE POINT OF BEGINNING.

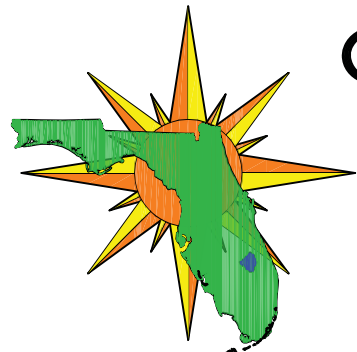
TOGETHER WITH

COMMENCE AT THE ABOVE DESCRIBED POINT "A", THENCE S00°09'10"E, 25.60 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE S00°09'10"E, 239.54 FEET; THENCE S71°41'59"W, 604.49 FEET; THENCE N11°45'57"W, 251.03 FEET; THENCE N73°23'01"E, 740.85 FEET TO THE POINT OF BEGINNING.

SURVEYORS NOTES:

- 1.The bearings shown hereon are based on assumed datum.
- 2.This is not a boundary survey.
- 3.No instrument of record reflecting easements, rights of way and/or ownership were furnished to the surveyor except as shown hereon. No title opinion is expressed or implied.
- 4.The lands shown hereon may be subject to other recorded or unrecorded easements, right of ways, conveyances, restrictions and reservations other than shown hereon.

NOTE:
SEE SHEET 2 OF 2 FOR MAP OF LEGAL DESCRIPTIONS, NOT VALID UNLESS ACCOMPANIED BY SHEET 2 OF 2.



GulfWest Surveying, Inc.

Professional Surveyors and Mappers

9469 W. Green Bay Lane

Crystal River, Florida 34428

Ph: 352.563.1252 Fax: 352.563.1253

SKETCH AND LEGAL DESCRIPTIONS

FOR PROGRESS ENERGY

CRYSTAL RIVER

FLORIDA

CITRUS COUNTY,

Project No. 10120_A02

Field Book , Page (SEE FILE)

Drawing Date: 01/17/2011

Scale: N/A

Field Date: N/A

Sheet: 1 of 2

Wallace L. Higgins, P.S.M. for GulfWest Surveying, Inc.

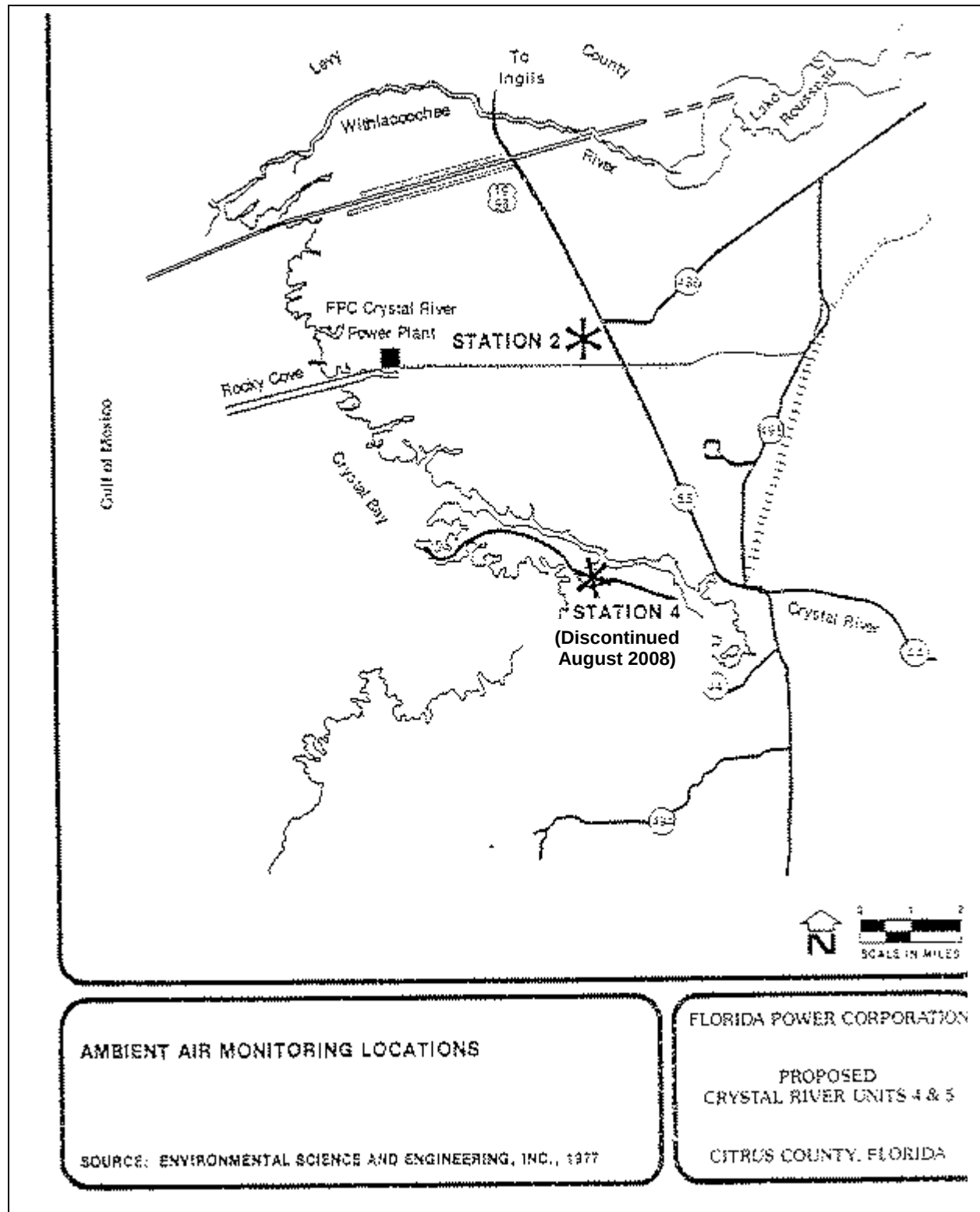
Florida Surveyor and Mapper registration no. 5832

Florida licensed business number 7314

Not valid without the signature and original raised seal of a Florida licensed surveyor and mapper.

Attachment B

Attachment B: Ambient Air Monitoring Locations



Attachment C

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

When Completed mail this report to: Department of Environmental Protection, Southwest District Office, Compliance Assurance Program, Attn: Industrial Wastewater, 13051 Telecom Parkway, Temple Terrace, FL 33637

PERMITTEE NAME:	Progress Energy Florida, Inc	PERMIT NUMBER:	PA 77- 09 (FLA016960)	
MAILING ADDRESS:	15760 West Powerline Street Crystal River, Florida 34428-6708	LIMIT:	Final	REPORT FREQUENCY: Monthly
		CLASS SIZE:	N/A	PROGRAM: Industrial
FACILITY:	Progress Energy Florida - Crystal River	MONITORING GROUP NUMBER:	G-001	
LOCATION:	15760 W Power Line St Crystal River, FL 34428-6708	MONITORING GROUP DESCRIPTION:	Percolation Pond System (Units 1, 2 and 3)	
		RE-SUBMITTED DMR: ☐		
		NO DISCHARGE FROM SITE: ☐		
COUNTY:	Citrus	MONITORING PERIOD	From: _____	To: _____
OFFICE:	Southwest District			

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Flow	Sample Measurement										
PARM Code 50050 1 Mon. Site No. FLW-3	Permit Requirement	0.91 (Mo.Avg.)	Report (Day.Max.)	MGD						Daily	Calculated
Flow	Sample Measurement										
PARM Code 50050 Q Mon. Site No. FLW-1	Permit Requirement		Report (Day.Max.)	MGD						Daily	Meter
Flow	Sample Measurement										
PARM Code 50050 R Mon. Site No. FLW-2	Permit Requirement		Report (Day.Max.)	MGD						Daily	Meter
Water Level Relative to NGVD	Sample Measurement										
PARM Code 82545 P Mon. Site No. OTH-1	Permit Requirement		Report (Day.Max.)	ft						Weekly	In-situ
Water Level Relative to NGVD	Sample Measurement										
PARM Code 82545 Q Mon. Site No. OTH-2	Permit Requirement		Report (Day.Max.)	ft						Weekly	In-situ
Water Level Relative to NGVD	Sample Measurement										
PARM Code 82545 R Mon. Site No. OTH-3	Permit Requirement		Report (Day.Max.)	ft						Weekly	In-situ
Water Level Relative to NGVD	Sample Measurement										
PARM Code 82545 S Mon. Site No. OTH-4	Permit Requirement		Report (Day.Max.)	ft						Weekly	In-situ

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

When Completed mail this report to: Department of Environmental Protection, Southwest District Office, Compliance Assurance Program, Attn: Industrial Wastewater, 13051 Telecom Parkway, Temple Terrace, FL 33637

PERMITTEE NAME: Progress Energy Florida, Inc
MAILING ADDRESS: 15760 West Powerline Street
Crystal River, Florida 34428-6708

PERMIT NUMBER: PA 77- 09 (FLA016960)

LIMIT: Final

REPORT FREQUENCY: Quarterly

FACILITY: Progress Energy Florida - Crystal River
LOCATION: 15760 W Power Line St

CLASS SIZE: N/A
MONITORING GROUP NUMBER: G-001
MONITORING GROUP DESCRIPTION: Percolation Pond System (Units 1, 2 and 3)

PROGRAM: Industrial

Crystal River, FL 34428-6708

RE-SUBMITTED DMR: ☐

NO DISCHARGE FROM SITE: ☐

COUNTY: Citrus
OFFICE: Southwest District

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
pH	Sample Measurement										
PARM Code 00400 1 Mon. Site No. EFF-1	Permit Requirement				Report (Day.Min.)		Report (Day.Max.)	s.u.		Quarterly	In-situ
Solids, Total Dissolved (TDS)	Sample Measurement										
PARM Code 70295 1 Mon. Site No. EFF-1	Permit Requirement						Report (Day.Max.)	mg/L		Quarterly	Grab
Specific Conductance	Sample Measurement										
PARM Code 00095 1 Mon. Site No. EFF-1	Permit Requirement						Report (Day.Max.)	umhos/cm		Quarterly	In-situ
Oil and Grease	Sample Measurement										
PARM Code 00556 1 Mon. Site No. EFF-1	Permit Requirement						Report (Day.Max.)	mg/L		Quarterly	Grab
Nitrogen, Nitrate, Total (as N)	Sample Measurement										
PARM Code 00620 1 Mon. Site No. EFF-1	Permit Requirement						Report (Day.Max.)	mg/L		Quarterly	Grab
Chloride (as Cl)	Sample Measurement										
PARM Code 00940 1 Mon. Site No. EFF-1	Permit Requirement						Report (Day.Max.)	mg/L		Quarterly	Grab

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Progress Energy Florida - Crystal River

MONITORING GROUP G-001

PERMIT NUMBER: PA 77- 09 (FLA016960)

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Cyanide, Total (as CN)	Sample Measurement										
PARM Code 00720 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Antimony, Total Recoverable	Sample Measurement										
PARM Code 01268 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Arsenic, Total Recoverable	Sample Measurement										
PARM Code 00978 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Beryllium, Total Recoverable	Sample Measurement										
PARM Code 00998 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Boron, Total Recoverable	Sample Measurement										
PARM Code 00999 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Cadmium, Total Recoverable	Sample Measurement										
PARM Code 01113 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Copper, Total Recoverable	Sample Measurement										
PARM Code 01119 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Chromium, Total Recoverable	Sample Measurement										
PARM Code 01118 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Progress Energy Florida - Crystal River

MONITORING GROUP G-001

PERMIT NUMBER: PA 77- 09 (FLA016960)

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Iron, Total Recoverable	Sample Measurement										
PARM Code 00980 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Lead, Total Recoverable	Sample Measurement										
PARM Code 01114 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Mercury, Total Recoverable	Sample Measurement										
PARM Code 71901 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Nickel, Total Recoverable	Sample Measurement										
PARM Code 01074 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Selenium, Total Recoverable	Sample Measurement										
PARM Code 00981 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Silver, Total Recoverable	Sample Measurement										
PARM Code 01079 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Sodium, Total Recoverable	Sample Measurement										
PARM Code 00923 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Thallium, Total Recoverable	Sample Measurement										
PARM Code 00982 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Zinc, Total Recoverable	Sample Measurement										
PARM Code 01094 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Molybdenum, Total Recoverable	Sample Measurement										
PARM Code 01129 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Progress Energy Florida - Crystal River

MONITORING GROUP G-001

PERMIT NUMBER: PA 77- 09 (FLA016960)

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Strontium, Total Recoverable	Sample Measurement										
PARM Code 01084 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Vanadium, Total Recoverable	Sample Measurement										
PARM Code 01128 1 Mon. Site No. EFF-1	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
pH	Sample Measurement										
PARM Code 00400 Q Mon. Site No. EFF-2	Permit Requirement				Report (Day.Min.)	Report (Day.Max.)	s.u.			Quarterly	In-situ
Solids, Total Dissolved (TDS)	Sample Measurement										
PARM Code 70295 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Specific Conductance	Sample Measurement										
PARM Code 00095 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	umhos/cm			Quarterly	In-situ
Oil and Grease	Sample Measurement										
PARM Code 00556 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Nitrogen, Nitrate, Total (as N)	Sample Measurement										
PARM Code 00620 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Chloride (as Cl)	Sample Measurement										
PARM Code 00940 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Cyanide, Total (as CN)	Sample Measurement										
PARM Code 00720 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Progress Energy Florida - Crystal River

MONITORING GROUP G-001

PERMIT NUMBER: PA 77- 09 (FLA016960)

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Antimony, Total Recoverable	Sample Measurement										
PARM Code 01268 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Arsenic, Total Recoverable	Sample Measurement										
PARM Code 00978 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Beryllium, Total Recoverable	Sample Measurement										
PARM Code 00998 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Boron, Total Recoverable	Sample Measurement										
PARM Code 00999 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Cadmium, Total Recoverable	Sample Measurement										
PARM Code 01113 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Copper, Total Recoverable	Sample Measurement										
PARM Code 01119 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Chromium, Total Recoverable	Sample Measurement										
PARM Code 01118 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Iron, Total Recoverable	Sample Measurement										
PARM Code 00980 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Lead, Total Recoverable	Sample Measurement										
PARM Code 01114 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Progress Energy Florida - Crystal River

MONITORING GROUP G-001

PERMIT NUMBER: PA 77- 09 (FLA016960)

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Mercury, Total Recoverable	Sample Measurement										
PARM Code 71901 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Nickel, Total Recoverable	Sample Measurement										
PARM Code 01074 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Selenium, Total Recoverable	Sample Measurement										
PARM Code 00981 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Silver, Total Recoverable	Sample Measurement										
PARM Code 01079 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Sodium, Total Recoverable	Sample Measurement										
PARM Code 00923 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Thallium, Total Recoverable	Sample Measurement										
PARM Code 00982 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Zinc, Total Recoverable	Sample Measurement										
PARM Code 01094 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Molybdenum, Total Recoverable	Sample Measurement										
PARM Code 01129 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Strontium, Total Recoverable	Sample Measurement										
PARM Code 01084 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Vanadium, Total Recoverable	Sample Measurement										
PARM Code 01128 Q Mon. Site No. EFF-2	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

When Completed mail this report to: Department of Environmental Protection, Southwest District Office, Compliance Assurance Program, Attn: Industrial Wastewater, 13051 Telecom Parkway, Temple Terrace, FL 33637

PERMITTEE NAME: Progress Energy Florida, Inc
MAILING ADDRESS: 15760 West Powerline Street
Crystal River, Florida 34428-6708

PERMIT NUMBER: PA 77- 09 (FLA016960)

LIMIT: Final

REPORT FREQUENCY: Monthly

FACILITY: Progress Energy Florida - Crystal River
LOCATION: 15760 W Power Line St

CLASS SIZE: N/A
MONITORING GROUP NUMBER: G-002
MONITORING GROUP DESCRIPTION: Percolation Pond (Units 4 and 5)

PROGRAM: Industrial

Crystal River, FL 34428-6708

RE-SUBMITTED DMR: ☐
NO DISCHARGE FROM SITE
☐

COUNTY: Citrus
OFFICE: Southwest District

MONITORING PERIOD From: _____ To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Flow	Sample Measurement										
PARM Code 50050 1 Mon. Site No. FLW-4	Permit Requirement		Report (Day.Max.)	MGD						Daily	Calculated
Water Level Relative to NGVD	Sample Measurement										
PARM Code 82545 P Mon. Site No. OTH-5	Permit Requirement		Report (Day.Max.)	ft						Weekly	In-situ

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

DEPARTMENT OF ENVIRONMENTAL PROTECTION DISCHARGE MONITORING REPORT - PART A

When Completed mail this report to: Department of Environmental Protection, Southwest District Office, Compliance Assurance Program, Attn: Industrial Wastewater, 13051 Telecom Parkway, Temple Terrace, FL 33637

PERMITTEE NAME:	Progress Energy Florida, Inc	PERMIT NUMBER:	PA 77- 09 (FLA016960)		
MAILING ADDRESS:	15760 West Powerline Street Crystal River, Florida 34428-6708	LIMIT:	Final	REPORT FREQUENCY:	Quarterly
FACILITY:	Progress Energy Florida - Crystal River	CLASS SIZE:	N/A	PROGRAM:	Industrial
LOCATION:	15760 W Power Line St Crystal River, FL 34428-6708	MONITORING GROUP NUMBER:	G-002		
		MONITORING GROUP DESCRIPTION:	Percolation Pond (Units 4 and 5)		
		RE-SUBMITTED DMR ☐			
		NO DISCHARGE FROM SITE: ☐			
COUNTY:	Citrus	MONITORING PERIOD			
		From:	_____ To: _____		
OFFICE:	Southwest District				

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
pH	Sample Measurement										
PARM Code 00400 1 Mon. Site No. FLW-4	Permit Requirement				Report (Day.Min.)		Report (Day.Max.)	s.u.		Quarterly	In-situ
Solids, Total Dissolved (TDS)	Sample Measurement										
PARM Code 70295 1 Mon. Site No. EFF-4	Permit Requirement						Report (Day.Max.)	mg/L		Quarterly	Grab
Specific Conductance	Sample Measurement										
PARM Code 00095 1 Mon. Site No. EFF-4	Permit Requirement						Report (Day.Max.)	umhos/cm		Quarterly	In-situ
Oil and Grease	Sample Measurement										
PARM Code 00556 1 Mon. Site No. EFF-4	Permit Requirement						Report (Day.Max.)	mg/L		Quarterly	Grab
Chloride (as Cl)	Sample Measurement										
PARM Code 00940 1 Mon. Site No. EFF-4	Permit Requirement						Report (Day.Max.)	mg/L		Quarterly	Grab
Antimony, Total Recoverable	Sample Measurement										
PARM Code 01268 1 Mon. Site No. EFF-4	Permit Requirement						Report (Day.Max.)	ug/L		Quarterly	Grab

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here):

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY: Progress Energy Florida - Crystal River

MONITORING GROUP G-002

PERMIT NUMBER: PA 77- 09 (FLA016960)

NUMBER:

MONITORING PERIOD

From: _____

To: _____

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Arsenic, Total Recoverable	Sample Measurement										
PARM Code 00978 1 Mon. Site No. EFF-4	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Beryllium, Total Recoverable	Sample Measurement										
PARM Code 00998 1 Mon. Site No. EFF-4	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Boron, Total Recoverable	Sample Measurement										
PARM Code 00999 1 Mon. Site No. EFF-4	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Cadmium, Total Recoverable	Sample Measurement										
PARM Code 01113 1 Mon. Site No. EFF-4	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Copper, Total Recoverable	Sample Measurement										
PARM Code 01119 1 Mon. Site No. EFF-4	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Chromium, Total Recoverable	Sample Measurement										
PARM Code 01118 1 Mon. Site No. EFF-4	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Iron, Total Recoverable	Sample Measurement										
PARM Code 00980 1 Mon. Site No. EFF-4	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Lead, Total Recoverable	Sample Measurement										
PARM Code 01114 1 Mon. Site No. EFF-4	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Mercury, Total Recoverable	Sample Measurement										
PARM Code 71901 1 Mon. Site No. EFF-4	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Nickel, Total Recoverable	Sample Measurement										
PARM Code 01074 1 Mon. Site No. EFF-4	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab

DISCHARGE MONITORING REPORT - PART A (Continued)

FACILITY:Progress Energy Florida - Crystal River

MONITORING GROUP
NUMBER:
MONITORING PERIOD

G-002

From: _____ To: _____

PERMIT NUMBER: PA 77- 09 (FLA016960)

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
Selenium, Total Recoverable	Sample Measurement										
PARM Code 00981 1 Mon. Site No. EFF-4	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Sodium, Total Recoverable	Sample Measurement										
PARM Code 00923 1 Mon. Site No. EFF-4	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
Thallium, Total Recoverable	Sample Measurement										
PARM Code 00982 1 Mon. Site No. EFF-4	Permit Requirement					Report (Day.Max.)	ug/L			Quarterly	Grab
Zinc, Total Recoverable	Sample Measurement										
PARM Code 01094 1 Mon. Site No. EFF-4	Permit Requirement					Report (Day.Max.)	mg/L			Quarterly	Grab
	Sample Measurement										
	Permit Requirement										

DAILY SAMPLE RESULTS - PART B

Permit Number: PA 77- 09 (FLA016960)

Facility: Crystal River Energy Complex

Monitoring Period From: _____ To: _____

	Flow (MGD)	Flow (MGD)	Flow (MGD)	Water Level Relative to NGVD	Water Level Relative to NGVD	Water Level Relative to NGVD	NOTES
Code	50050	50050	50050	82545	82545	82545	
Mon. Site	FLW-1	FLW-2	FLW-3	OTH-1	OTH-2	OTH-3	
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
Total							
Mo. Avg.							

Note: The permittee shall submit Part B, Daily Maximum Flow Discharge Monitoring Report (DMR) quarterly. This DMR shall be kept on the facility's site and made available for review during all Department inspections.

DAILY SAMPLE RESULTS - PART B

Permit Number:
Monitoring Period

PA 77- 09 (FLA016960)

From: _____ To: _____

Facility: Crystal River Energy Complex

	Water Level Relative to NGVD	Flow (MGD)	Water Level Relative to NGVD			
Code	82545	50050	82545			
Mon. Site	OTH-4	FLW-4	OTH-5			NOTES
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
Total						
Mo. Avg.						

Note: The permittee shall submit Part B, Daily Maximum Flow Discharge Monitoring Report (DMR) quarterly. This DMR shall be kept on the facility's site and made available for review during all Department inspections.

GROUNDWATER MONITORING REPORT - PART D

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWB-30R
 Well Type: Background
 Description: Background Well
 (Replaced MWB-30)

Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Copper, Total Recoverable	01119		Report	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		Report	mg/L	Grab	Quarterly				
Iron, Total Recoverable	00980		Report	mg/L	Grab	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		Report	mg/L	Grab	Quarterly				
pH	00400		Report	s.u.	In Situ	Quarterly				
Sodium, Total Recoverable	00923		Report	mg/L	Grab	Quarterly				
Specific Conductance	00095		Report	umhos/cm	In Situ	Quarterly				
Solids, Total Dissolved (TDS)	70295		Report	mg/L	Grab	Quarterly				
Turbidity	00070		Report	NTU	In Situ	Quarterly				
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Antimony, Total Recoverable	01268		Report	ug/L	Grab	Quarterly				
Arsenic, Total Recoverable	00978		Report	ug/L	Grab	Quarterly				
Boron, Total Recoverable	00999		Report	mg/L	Grab	Quarterly				

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D (Continued)

Facility Name: Progress Energy Florida - Crystal River GW
 Permit Number: FLA016960-007-IW1N
 County: Citrus

Monitoring Well ID: MWB-30R
 Well Type: Background
 Description: Background Well
 (Replaced MWB-30)

Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Barium, Total Recoverable	01009		Report	mg/L	Grab	Quarterly				
Beryllium, Total Recoverable	00998		Report	ug/L	Grab	Quarterly				
Cadmium, Total Recoverable	01113		Report	ug/L	Grab	Quarterly				
Mercury, Total Recoverable	71901		Report	ug/L	Grab	Quarterly				
Selenium, Total Recoverable	00981		Report	ug/L	Grab	Quarterly				
Chromium, Total Recoverable	01118		Report	ug/L	Grab	Quarterly				
Lead, Total Recoverable	01114		Report	ug/L	Grab	Quarterly				
Nickel, Total Recoverable	01074		Report	ug/L	Grab	Quarterly				
Thallium, Total Recoverable	00982		Report	ug/L	Grab	Quarterly				
Oxygen, Dissolved (DO)	00300		Report	mg/L	In Situ	Quarterly				
Zinc, Total Recoverable	01094		Report	mg/L	Grab	Quarterly				
Fluoride, Total (as F)	00951		Report	mg/L	Grab	Quarterly				
Cyanide, Free (amen. to chlorination)	00722		Report	mg/L	Grab	Quarterly				
Temperature (F), Water	00011		Report	Deg F	In Situ	Quarterly				
Molybdenum, Total Recoverable	01129		Report	ug/L	Grab	Quarterly				
Silver, Total Recoverable	01079		Report	ug/L	Grab	Quarterly				
Strontium, Total Recoverable	01084		Report	ug/L	Grab	Quarterly				
Vanadium, Total Recoverable	01128		Report	ug/L	Grab	Quarterly				

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-16
 Well Type: Compliance
 Description: Compliance monitoring well.
 Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Copper, Total Recoverable	01119		Report	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		Report	mg/L	Grab	Quarterly				
Iron, Total Recoverable	00980		Report	mg/L	Grab	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
pH	00400		Report	s.u.	In Situ	Quarterly				
Sodium, Total Recoverable	00923		Report	mg/L	Grab	Quarterly				
Specific Conductance	00095		Report	umhos/cm	In Situ	Quarterly				
Solids, Total Dissolved (TDS)	70295		Report	mg/L	Grab	Quarterly				
Turbidity	00070		Report	NTU	In Situ	Quarterly				
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Antimony, Total Recoverable	01268		6.0	ug/L	Grab	Quarterly				
Arsenic, Total Recoverable	00978		10.0	ug/L	Grab	Quarterly				
Boron, Total Recoverable	00999		Report	mg/L	Grab	Quarterly				

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D (Continued)

Facility Name: Progress Energy Florida - Crystal River GW
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-16
 Well Type: Compliance
 Description: Compliance monitoring well.
 Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Barium, Total Recoverable	01009		2.0	mg/L	Grab	Quarterly				
Beryllium, Total Recoverable	00998		4.0	ug/L	Grab	Quarterly				
Cadmium, Total Recoverable	01113		5.0	ug/L	Grab	Quarterly				
Mercury, Total Recoverable	71901		2.0	ug/L	Grab	Quarterly				
Selenium, Total Recoverable	00981		50.0	ug/L	Grab	Quarterly				
Chromium, Total Recoverable	01118		100.0	ug/L	Grab	Quarterly				
Lead, Total Recoverable	01114		15.0	ug/L	Grab	Quarterly				
Nickel, Total Recoverable	01074		100.0	ug/L	Grab	Quarterly				
Thallium, Total Recoverable	00982		2.0	ug/L	Grab	Quarterly				
Oxygen, Dissolved (DO)	00300		Report	mg/L	In Situ	Quarterly				
Zinc, Total Recoverable	01094		Report	mg/L	Grab	Quarterly				
Fluoride, Total (as F)	00951		4.0	mg/L	Grab	Quarterly				
Cyanide, Free (amen. to chlorination)	00722		0.2	mg/L	Grab	Quarterly				
Temperature (F), Water	00011		Report	Deg F	In Situ	Quarterly				
Molybdenum, Total Recoverable	01129		Report	ug/L	Grab	Quarterly				
Silver, Total Recoverable	01079		Report	ug/L	Grab	Quarterly				
Strontium, Total Recoverable	01084		Report	ug/L	Grab	Quarterly				
Vanadium, Total Recoverable	01128		Report	ug/L	Grab	Quarterly				

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-27
 Well Type: Compliance
 Description: Compliance monitoring well.
 Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Copper, Total Recoverable	01119		Report	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		Report	mg/L	Grab	Quarterly				
Iron, Total Recoverable	00980		Report	mg/L	Grab	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
pH	00400		Report	s.u.	In Situ	Quarterly				
Sodium, Total Recoverable	00923		Report	mg/L	Grab	Quarterly				
Specific Conductance	00095		Report	umhos/cm	In Situ	Quarterly				
Solids, Total Dissolved (TDS)	70295		Report	mg/L	Grab	Quarterly				
Turbidity	00070		Report	NTU	In Situ	Quarterly				
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Antimony, Total Recoverable	01268		6.0	ug/L	Grab	Quarterly				
Arsenic, Total Recoverable	00978		10.0	ug/L	Grab	Quarterly				
Boron, Total Recoverable	00999		Report	mg/L	Grab	Quarterly				

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D (Continued)

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-27
 Well Type: Compliance
 Description: Compliance monitoring well.
 Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Barium, Total Recoverable	01009		2.0	mg/L	Grab	Quarterly				
Beryllium, Total Recoverable	00998		4.0	ug/L	Grab	Quarterly				
Cadmium, Total Recoverable	01113		5.0	ug/L	Grab	Quarterly				
Mercury, Total Recoverable	71901		2.0	ug/L	Grab	Quarterly				
Selenium, Total Recoverable	00981		50.0	ug/L	Grab	Quarterly				
Chromium, Total Recoverable	01118		100.0	ug/L	Grab	Quarterly				
Lead, Total Recoverable	01114		15.0	ug/L	Grab	Quarterly				
Nickel, Total Recoverable	01074		100.0	ug/L	Grab	Quarterly				
Thallium, Total Recoverable	00982		2.0	ug/L	Grab	Quarterly				
Oxygen, Dissolved (DO)	00300		Report	mg/L	In Situ	Quarterly				
Zinc, Total Recoverable	01094		Report	mg/L	Grab	Quarterly				
Fluoride, Total (as F)	00951		4.0	mg/L	Grab	Quarterly				
Cyanide, Free (amen. to chlorination)	00722		0.2	mg/L	Grab	Quarterly				
Temperature (F), Water	00011		Report	Deg F	In Situ	Quarterly				
Molybdenum, Total Recoverable	01129		Report	ug/L	Grab	Quarterly				
Silver, Total Recoverable	01079		Report	ug/L	Grab	Quarterly				
Strontium, Total Recoverable	01084		Report	ug/L	Grab	Quarterly				
Vanadium, Total Recoverable	01128		Report	ug/L	Grab	Quarterly				

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-29
 Well Type: Compliance
 Description: Compliance monitoring well.

Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Copper, Total Recoverable	01119		Report	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		Report	mg/L	Grab	Quarterly				
Iron, Total Recoverable	00980		Report	mg/L	Grab	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
pH	00400		Report	s.u.	In Situ	Quarterly				
Sodium, Total Recoverable	00923		Report	mg/L	Grab	Quarterly				
Specific Conductance	00095		Report	umhos/cm	In Situ	Quarterly				
Solids, Total Dissolved (TDS)	70295		Report	mg/L	Grab	Quarterly				
Turbidity	00070		Report	NTU	In Situ	Quarterly				
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Antimony, Total Recoverable	01268		6.0	ug/L	Grab	Quarterly				
Arsenic, Total Recoverable	00978		10.0	ug/L	Grab	Quarterly				
Boron, Total Recoverable	00999		Report	mg/L	Grab	Quarterly				

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D (Continued)

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-29
 Well Type: Compliance
 Description: Compliance monitoring well.
 Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Barium, Total Recoverable	01009		2.0	mg/L	Grab	Quarterly				
Beryllium, Total Recoverable	00998		4.0	ug/L	Grab	Quarterly				
Cadmium, Total Recoverable	01113		5.0	ug/L	Grab	Quarterly				
Mercury, Total Recoverable	71901		2.0	ug/L	Grab	Quarterly				
Selenium, Total Recoverable	00981		50.0	ug/L	Grab	Quarterly				
Chromium, Total Recoverable	01118		100.0	ug/L	Grab	Quarterly				
Lead, Total Recoverable	01114		15.0	ug/L	Grab	Quarterly				
Nickel, Total Recoverable	01074		100.0	ug/L	Grab	Quarterly				
Thallium, Total Recoverable	00982		2.0	ug/L	Grab	Quarterly				
Oxygen, Dissolved (DO)	00300		Report	mg/L	In Situ	Quarterly				
Zinc, Total Recoverable	01094		Report	mg/L	Grab	Quarterly				
Fluoride, Total (as F)	00951		4.0	mg/L	Grab	Quarterly				
Cyanide, Free (amen. to chlorination)	00722		0.2	mg/L	Grab	Quarterly				
Temperature (F), Water	00011		Report	Deg F	In Situ	Quarterly				
Molybdenum, Total Recoverable	01129		Report	ug/L	Grab	Quarterly				
Silver, Total Recoverable	01079		Report	ug/L	Grab	Quarterly				
Strontium, Total Recoverable	01084		Report	ug/L	Grab	Quarterly				
Vanadium, Total Recoverable	01128		Report	ug/L	Grab	Quarterly				

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-31
 Well Type: Compliance
 Description: Compliance
 Monitoring Well

Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Copper, Total Recoverable	01119		Report	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		Report	mg/L	Grab	Quarterly				
Iron, Total Recoverable	00980		Report	mg/L	Grab	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
pH	00400		Report	s.u.	In Situ	Quarterly				
Sodium, Total Recoverable	00923		Report	mg/L	Grab	Quarterly				
Specific Conductance	00095		Report	umhos/cm	In Situ	Quarterly				
Solids, Total Dissolved (TDS)	70295		Report	mg/L	Grab	Quarterly				
Turbidity	00070		Report	NTU	In Situ	Quarterly				
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Antimony, Total Recoverable	01268		6.0	ug/L	Grab	Quarterly				
Arsenic, Total Recoverable	00978		10.0	ug/L	Grab	Quarterly				
Boron, Total Recoverable	00999		Report	mg/L	Grab	Quarterly				

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D (Continued)

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-31
 Well Type: Compliance
 Description: Compliance
 Monitoring Well
 Re-submitted DMR: ☐

Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Barium, Total Recoverable	01009		2.0	mg/L	Grab	Quarterly				
Beryllium, Total Recoverable	00998		4.0	ug/L	Grab	Quarterly				
Cadmium, Total Recoverable	01113		5.0	ug/L	Grab	Quarterly				
Mercury, Total Recoverable	71901		2.0	ug/L	Grab	Quarterly				
Selenium, Total Recoverable	00981		50.0	ug/L	Grab	Quarterly				
Chromium, Total Recoverable	01118		100.0	ug/L	Grab	Quarterly				
Lead, Total Recoverable	01114		15.0	ug/L	Grab	Quarterly				
Nickel, Total Recoverable	01074		100.0	ug/L	Grab	Quarterly				
Thallium, Total Recoverable	00982		2.0	ug/L	Grab	Quarterly				
Oxygen, Dissolved (DO)	00300		Report	mg/L	In Situ	Quarterly				
Zinc, Total Recoverable	01094		Report	mg/L	Grab	Quarterly				
Fluoride, Total (as F)	00951		4.0	mg/L	Grab	Quarterly				
Cyanide, Free (amen. to chlorination)	00722		0.2	mg/L	Grab	Quarterly				
Temperature (F), Water	00011		Report	Deg F	In Situ	Quarterly				
Molybdenum, Total Recoverable	01129		Report	ug/L	Grab	Quarterly				
Silver, Total Recoverable	01079		Report	ug/L	Grab	Quarterly				
Strontium, Total Recoverable	01084		Report	ug/L	Grab	Quarterly				
Vanadium, Total Recoverable	01128		Report	ug/L	Grab	Quarterly				

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-IF2
 Well Type: Compliance
 Description: Compliance monitoring well.
 Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Copper, Total Recoverable	01119		Report	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		Report	mg/L	Grab	Quarterly				
Iron, Total Recoverable	00980		Report	mg/L	Grab	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
pH	00400		Report	s.u.	In Situ	Quarterly				
Sodium, Total Recoverable	00923		Report	mg/L	Grab	Quarterly				
Specific Conductance	00095		Report	umhos/cm	In Situ	Quarterly				
Solids, Total Dissolved (TDS)	70295		Report	mg/L	Grab	Quarterly				
Turbidity	00070		Report	NTU	In Situ	Quarterly				
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Antimony, Total Recoverable	01268		6.0	ug/L	Grab	Quarterly				
Arsenic, Total Recoverable	00978		10.0	ug/L	Grab	Quarterly				
Boron, Total Recoverable	00999		Report	mg/L	Grab	Quarterly				

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D (Continued)

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-IF2
 Well Type: Compliance
 Description: Compliance monitoring well.

Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Re-submitted DMR: ☐

Monitoring Period

From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Barium, Total Recoverable	01009		2.0	mg/L	Grab	Quarterly				
Beryllium, Total Recoverable	00998		4.0	ug/L	Grab	Quarterly				
Cadmium, Total Recoverable	01113		5.0	ug/L	Grab	Quarterly				
Mercury, Total Recoverable	71901		2.0	ug/L	Grab	Quarterly				
Selenium, Total Recoverable	00981		50.0	ug/L	Grab	Quarterly				
Chromium, Total Recoverable	01118		100.0	ug/L	Grab	Quarterly				
Lead, Total Recoverable	01114		15.0	ug/L	Grab	Quarterly				
Nickel, Total Recoverable	01074		100.0	ug/L	Grab	Quarterly				
Thallium, Total Recoverable	00982		2.0	ug/L	Grab	Quarterly				
Oxygen, Dissolved (DO)	00300		Report	mg/L	In Situ	Quarterly				
Zinc, Total Recoverable	01094		Report	mg/L	Grab	Quarterly				
Fluoride, Total (as F)	00951		4.0	mg/L	Grab	Quarterly				
Cyanide, Free (amen. to chlorination)	00722		0.2	mg/L	Grab	Quarterly				
Temperature (F), Water	00011		Report	Deg F	In Situ	Quarterly				
Molybdenum, Total Recoverable	01129		Report	ug/L	Grab	Quarterly				
Silver, Total Recoverable	01079		Report	ug/L	Grab	Quarterly				
Strontium, Total Recoverable	01084		Report	ug/L	Grab	Quarterly				
Vanadium, Total Recoverable	01128		Report	ug/L	Grab	Quarterly				

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-1
 Well Type: Compliance
 Description: Compliance
 Monitoring Well

Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Copper, Total Recoverable	01119		Report	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		Report	mg/L	Grab	Quarterly				
Iron, Total Recoverable	00980		Report	mg/L	Grab	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
pH	00400		Report	s.u.	In Situ	Quarterly				
Sodium, Total Recoverable	00923		Report	mg/L	Grab	Quarterly				
Specific Conductance	00095		Report	umhos/cm	In Situ	Quarterly				
Solids, Total Dissolved (TDS)	70295		Report	mg/L	Grab	Quarterly				
Turbidity	00070		Report	NTU	In Situ	Quarterly				
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Antimony, Total Recoverable	01268		6.0	ug/L	Grab	Quarterly				
Arsenic, Total Recoverable	00978		10.0	ug/L	Grab	Quarterly				
Boron, Total Recoverable	00999		Report	mg/L	Grab	Quarterly				

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D (Continued)

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-1
 Well Type: Compliance
 Description: Compliance
 Monitoring Well
 Re-submitted DMR: ☐

Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Barium, Total Recoverable	01009		2.0	mg/L	Grab	Quarterly				
Beryllium, Total Recoverable	00998		4.0	ug/L	Grab	Quarterly				
Cadmium, Total Recoverable	01113		5.0	ug/L	Grab	Quarterly				
Mercury, Total Recoverable	71901		2.0	ug/L	Grab	Quarterly				
Selenium, Total Recoverable	00981		50.0	ug/L	Grab	Quarterly				
Chromium, Total Recoverable	01118		100.0	ug/L	Grab	Quarterly				
Lead, Total Recoverable	01114		15.0	ug/L	Grab	Quarterly				
Nickel, Total Recoverable	01074		100.0	ug/L	Grab	Quarterly				
Thallium, Total Recoverable	00982		2.0	ug/L	Grab	Quarterly				
Oxygen, Dissolved (DO)	00300		Report	mg/L	In Situ	Quarterly				
Zinc, Total Recoverable	01094		Report	mg/L	Grab	Quarterly				
Fluoride, Total (as F)	00951		4.0	mg/L	Grab	Quarterly				
Cyanide, Free (amen. to chlorination)	00722		0.2	mg/L	Grab	Quarterly				
Temperature (F), Water	00011		Report	Deg F	In Situ	Quarterly				
Molybdenum, Total Recoverable	01129		Report	ug/L	Grab	Quarterly				
Silver, Total Recoverable	01079		Report	ug/L	Grab	Quarterly				
Strontium, Total Recoverable	01084		Report	ug/L	Grab	Quarterly				
Vanadium, Total Recoverable	01128		Report	ug/L	Grab	Quarterly				

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-21R
 Well Type: Compliance
 Description: Compliance monitoring well.

Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Copper, Total Recoverable	01119		Report	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		Report	mg/L	Grab	Quarterly				
Iron, Total Recoverable	00980		Report	mg/L	Grab	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
pH	00400		Report	s.u.	In Situ	Quarterly				
Sodium, Total Recoverable	00923		Report	mg/L	Grab	Quarterly				
Specific Conductance	00095		Report	umhos/cm	In Situ	Quarterly				
Solids, Total Dissolved (TDS)	70295		Report	mg/L	Grab	Quarterly				
Turbidity	00070		Report	NTU	In Situ	Quarterly				
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Antimony, Total Recoverable	01268		6.0	ug/L	Grab	Quarterly				
Arsenic, Total Recoverable	00978		10.0	ug/L	Grab	Quarterly				
Boron, Total Recoverable	00999		Report	mg/L	Grab	Quarterly				

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D (Continued)

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-21R
 Well Type: Compliance
 Description: Compliance monitoring well.
 Re-submitted DMR: ☐

Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Barium, Total Recoverable	01009		2.0	mg/L	Grab	Quarterly				
Beryllium, Total Recoverable	00998		4.0	ug/L	Grab	Quarterly				
Cadmium, Total Recoverable	01113		5.0	ug/L	Grab	Quarterly				
Mercury, Total Recoverable	71901		2.0	ug/L	Grab	Quarterly				
Selenium, Total Recoverable	00981		50.0	ug/L	Grab	Quarterly				
Chromium, Total Recoverable	01118		100.0	ug/L	Grab	Quarterly				
Lead, Total Recoverable	01114		15.0	ug/L	Grab	Quarterly				
Nickel, Total Recoverable	01074		100.0	ug/L	Grab	Quarterly				
Thallium, Total Recoverable	00982		2.0	ug/L	Grab	Quarterly				
Oxygen, Dissolved (DO)	00300		Report	mg/L	In Situ	Quarterly				
Zinc, Total Recoverable	01094		Report	mg/L	Grab	Quarterly				
Fluoride, Total (as F)	00951		4.0	mg/L	Grab	Quarterly				
Cyanide, Free (amen. to chlorination)	00722		0.2	mg/L	Grab	Quarterly				
Temperature (F), Water	00011		Report	Deg F	In Situ	Quarterly				
Molybdenum, Total Recoverable	01129		Report	ug/L	Grab	Quarterly				
Silver, Total Recoverable	01079		Report	ug/L	Grab	Quarterly				
Strontium, Total Recoverable	01084		Report	ug/L	Grab	Quarterly				
Vanadium, Total Recoverable	01128		Report	ug/L	Grab	Quarterly				

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-28
 Well Type: Compliance
 Description: Compliance monitoring well.
 Re-submitted DMR: ☐

Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Copper, Total Recoverable	01119		Report	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		Report	mg/L	Grab	Quarterly				
Iron, Total Recoverable	00980		Report	mg/L	Grab	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
pH	00400		Report	s.u.	In Situ	Quarterly				
Sodium, Total Recoverable	00923		Report	mg/L	Grab	Quarterly				
Specific Conductance	00095		Report	umhos/cm	In Situ	Quarterly				
Solids, Total Dissolved (TDS)	70295		Report	mg/L	Grab	Quarterly				
Turbidity	00070		Report	NTU	In Situ	Quarterly				
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Antimony, Total Recoverable	01268		6.0	ug/L	Grab	Quarterly				
Arsenic, Total Recoverable	00978		10.0	ug/L	Grab	Quarterly				
Boron, Total Recoverable	00999		Report	mg/L	Grab	Quarterly				

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D (Continued)

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-28
 Well Type: Compliance
 Description: Compliance monitoring
 Report Frequency: Quarterly
 Program: Industrial
 Re-submitted DMR: ☐

Office: Southwest District

Monitoring Period From: _____ To: _____
 Date Sample Obtained: _____
 Time Sample Obtained: _____

Was the well purged before sampling? ____ Yes ____ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Barium, Total Recoverable	01009		2.0	mg/L	Grab	Quarterly				
Beryllium, Total Recoverable	00998		4.0	ug/L	Grab	Quarterly				
Cadmium, Total Recoverable	01113		5.0	ug/L	Grab	Quarterly				
Mercury, Total Recoverable	71901		2.0	ug/L	Grab	Quarterly				
Selenium, Total Recoverable	00981		50.0	ug/L	Grab	Quarterly				
Chromium, Total Recoverable	01118		100.0	ug/L	Grab	Quarterly				
Lead, Total Recoverable	01114		15.0	ug/L	Grab	Quarterly				
Nickel, Total Recoverable	01074		100.0	ug/L	Grab	Quarterly				
Thallium, Total Recoverable	00982		2.0	ug/L	Grab	Quarterly				
Oxygen, Dissolved (DO)	00300		Report	mg/L	In Situ	Quarterly				
Zinc, Total Recoverable	01094		Report	mg/L	Grab	Quarterly				
Fluoride, Total (as F)	00951		4.0	mg/L	Grab	Quarterly				
Cyanide, Free (amen. to chlorination)	00722		0.2	mg/L	Grab	Quarterly				
Temperature (F), Water	00011		Report	Deg F	In Situ	Quarterly				
Molybdenum, Total Recoverable	01129		Report	ug/L	Grab	Quarterly				
Silver, Total Recoverable	01079		Report	ug/L	Grab	Quarterly				
Strontium, Total Recoverable	01084		Report	ug/L	Grab	Quarterly				
Vanadium, Total Recoverable	01128		Report	ug/L	Grab	Quarterly				

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-32
 Well Type: Compliance
 Description: Compliance Monitoring Well
 Northern boundary of the property

Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____ Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ___ Yes ___ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Copper, Total Recoverable	01119		Report	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		Report	mg/L	Grab	Quarterly				
Iron, Total Recoverable	00980		Report	mg/L	Grab	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
pH	00400		Report	s.u.	In Situ	Quarterly				
Sodium, Total Recoverable	00923		Report	mg/L	Grab	Quarterly				
Specific Conductance	00095		Report	umhos/cm	In Situ	Quarterly				
Solids, Total Dissolved (TDS)	70295		Report	mg/L	Grab	Quarterly				
Turbidity	00070		Report	NTU	In Situ	Quarterly				
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Antimony, Total Recoverable	01268		6.0	ug/L	Grab	Quarterly				
Arsenic, Total Recoverable*	00978		Report	ug/L	Grab	Quarterly				
Boron, Total Recoverable	00999		Report	mg/L	Grab	Quarterly				

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENTS AND EXPLANATION (Reference all attachments here):

*Interim Limit Approved by Consent Order 09-3463B.

GROUNDWATER MONITORING REPORT - PART D (Continued)

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-32
 Well Type: Compliance
 Description: Compliance
 Monitoring Well
 Northern boundary of
 the property
 Re-submitted DMR: ☐

Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Monitoring Period From: _____ To: _____

Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ___ Yes ___ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Barium, Total Recoverable	01009		2.0	mg/L	Grab	Quarterly				
Beryllium, Total Recoverable	00998		4.0	ug/L	Grab	Quarterly				
Cadmium, Total Recoverable	01113		5.0	ug/L	Grab	Quarterly				
Mercury, Total Recoverable	71901		2.0	ug/L	Grab	Quarterly				
Selenium, Total Recoverable	00981		50.0	ug/L	Grab	Quarterly				
Chromium, Total Recoverable	01118		100.0	ug/L	Grab	Quarterly				
Lead, Total Recoverable	01114		15.0	ug/L	Grab	Quarterly				
Nickel, Total Recoverable	01074		100.0	ug/L	Grab	Quarterly				
Thallium, Total Recoverable	00982		2.0	ug/L	Grab	Quarterly				
Oxygen, Dissolved (DO)	00300		Report	mg/L	In Situ	Quarterly				
Zinc, Total Recoverable	01094		Report	mg/L	Grab	Quarterly				
Fluoride, Total (as F)	00951		4.0	mg/L	Grab	Quarterly				
Cyanide, Free (amen. to chlorination)	00722		0.2	mg/L	Grab	Quarterly				
Temperature (F), Water	00011		Report	Deg F	In Situ	Quarterly				
Molybdenum, Total Recoverable	01129		Report	ug/L	Grab	Quarterly				
Silver, Total Recoverable	01079		Report	ug/L	Grab	Quarterly				
Strontium, Total Recoverable	01084		Report	ug/L	Grab	Quarterly				
Vanadium, Total Recoverable	01128		Report	ug/L	Grab	Quarterly				

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-33
 Well Type: Compliance
 Description: Compliance Monitor
 Well Northern boundary of the property
 Re-submitted DMR: ☐

Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Monitoring Period From: _____ To: _____ Date Sample Obtained: _____
 Time Sample Obtained: _____

Was the well purged before sampling? ___ Yes ___ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Copper, Total Recoverable	01119		Report	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		Report	mg/L	Grab	Quarterly				
Iron, Total Recoverable	00980		Report	mg/L	Grab	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		10	mg/L	Grab	Quarterly				
pH	00400		Report	s.u.	In Situ	Quarterly				
Sodium, Total Recoverable	00923		Report	mg/L	Grab	Quarterly				
Specific Conductance	00095		Report	umhos/cm	In Situ	Quarterly				
Solids, Total Dissolved (TDS)	70295		Report	mg/L	Grab	Quarterly				
Turbidity	00070		Report	NTU	In Situ	Quarterly				
Water Level Relative to NGVD	82545		Report	ft	In Situ	Quarterly				
Antimony, Total Recoverable	01268		6.0	ug/L	Grab	Quarterly				
Arsenic, Total Recoverable	00978		10.0	ug/L	Grab	Quarterly				
Boron, Total Recoverable	00999		Report	mg/L	Grab	Quarterly				

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D (Continued)

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus

Monitoring Well ID: MWC-33
 Well Type: Compliance
 Description: Compliance Monitor
 Well Northern boundary of the property
☐

Report Frequency: Quarterly
 Program: Industrial

Office: Southwest District

Re-submitted DMR: ☐

Monitoring Period From: _____ To: _____ Date Sample Obtained: _____
 Time Sample Obtained: _____

Was the well purged before sampling? ___ Yes ___ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Barium, Total Recoverable	01009		2.0	mg/L	Grab	Quarterly				
Beryllium, Total Recoverable	00998		4.0	ug/L	Grab	Quarterly				
Cadmium, Total Recoverable	01113		5.0	ug/L	Grab	Quarterly				
Mercury, Total Recoverable	71901		2.0	ug/L	Grab	Quarterly				
Selenium, Total Recoverable	00981		50.0	ug/L	Grab	Quarterly				
Chromium, Total Recoverable	01118		100.0	ug/L	Grab	Quarterly				
Lead, Total Recoverable	01114		15.0	ug/L	Grab	Quarterly				
Nickel, Total Recoverable	01074		100.0	ug/L	Grab	Quarterly				
Thallium, Total Recoverable	00982		2.0	ug/L	Grab	Quarterly				
Oxygen, Dissolved (DO)	00300		Report	mg/L	In Situ	Quarterly				
Zinc, Total Recoverable	01094		Report	mg/L	Grab	Quarterly				
Fluoride, Total (as F)	00951		4.0	mg/L	Grab	Quarterly				
Cyanide, Free (amen. to chlorination)	00722		0.2	mg/L	Grab	Quarterly				
Temperature (F), Water	00011		Report	Deg F	In Situ	Quarterly				
Molybdenum, Total Recoverable	01129		Report	ug/L	Grab	Quarterly				
Silver, Total Recoverable	01079		Report	ug/L	Grab	Quarterly				
Strontium, Total Recoverable	01084		Report	ug/L	Grab	Quarterly				
Vanadium, Total Recoverable	01128		Report	ug/L	Grab	Quarterly				

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus
 Office: Southwest District

Monitoring Well ID: MWI-7R
 Well Type: Intermediate
 Description: Intermediate well
 Re-submitted DMR: ☐

Report Frequency: Quarterly
 Program: Industrial

Monitoring Period From: _____ To: _____ Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ___ Yes ___ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Copper, Total Recoverable	01119		Report	mg/L	Grab	Quarterly				
Chloride (as Cl)	00940		Report	mg/L	Grab	Quarterly				
Iron, Total Recoverable	00980		Report	mg/L	Grab	Quarterly				
Nitrogen, Nitrate, Total (as N)	00620		Report	mg/L	Grab	Quarterly				
pH	00400		Report	s.u.	In Situ	Quarterly				
Sodium, Total Recoverable	00923		Report	mg/L	Grab	Quarterly				
Specific Conductance	00095		Report	umhos/cm	In Situ	Quarterly				
Solids, Total Dissolved (TDS)	70295		Report	NTU	In Situ	Quarterly				
Turbidity	00070		Report	ft	In Situ	Quarterly				
Water Level Relative to NGVD	82545		Report	pCi/L	Grab	Quarterly				
Antimony, Total Recoverable	01268		Report	ug/L	Grab	Quarterly				
Arsenic, Total Recoverable	00978		Report	mg/L	Grab	Quarterly				
Boron, Total Recoverable	00999		Report	mg/L	Grab	Quarterly				

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.

NAME/TITLE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE NO	DATE (mm/dd/yyyy)

COMMENTS AND EXPLANATION (Reference all attachments here):

GROUNDWATER MONITORING REPORT - PART D (Continued)

Facility Name: Progress Energy Florida - Crystal River
 Permit Number: PA 77- 09 (FLA016960)
 County: Citrus
 Office: Southwest District

Monitoring Well ID: MWI-7R
 Well Type: Intermediate
 Description: Intermediate well
 Re-submitted DMR: ☐

Report Frequency: Quarterly
 Program: Industrial

Monitoring Period From: _____ To: _____ Date Sample Obtained: _____

Time Sample Obtained: _____

Was the well purged before sampling? ___Yes ___ No

Parameter	PARM Code	Sample Measurement	Permit Requirement	Units	Sample Type	Frequency of Analysis	Detection Limits	Analysis Method	Sampling Equipment Used	Samples Filtered (L/F/N)
Barium, Total Recoverable	01009		Report	mg/L	Grab	Quarterly				
Beryllium, Total Recoverable	00998		Report	ug/L	Grab	Quarterly				
Cadmium, Total Recoverable	01113		Report	ug/L	Grab	Quarterly				
Mercury, Total Recoverable	71901		Report	ug/L	Grab	Quarterly				
Selenium, Total Recoverable	00981		Report	ug/L	Grab	Quarterly				
Chromium, Total Recoverable	01118		Report	ug/L	Grab	Quarterly				
Lead, Total Recoverable	01114		Report	ug/L	Grab	Quarterly				
Nickel, Total Recoverable	01074		Report	ug/L	Grab	Quarterly				
Thallium, Total Recoverable	00982		Report	ug/L	Grab	Quarterly				
Oxygen, Dissolved (DO)	00300		Report	mg/L	In Situ	Quarterly				
Zinc, Total Recoverable	01094		Report	mg/L	Grab	Quarterly				
Fluoride, Total (as F)	00951		Report	mg/L	Grab	Quarterly				
Cyanide, Free (amen. to chlorination)	00722		Report	mg/L	Grab	Quarterly				
Temperature (F), Water	00011		Report	Deg F	In Situ	Quarterly				
Molybdenum, Total Recoverable	01129		Report	ug/L	Grab	Quarterly				
Silver, Total Recoverable	01079		Report	ug/L	Grab	Quarterly				
Strontium, Total Recoverable	01084		Report	ug/L	Grab	Quarterly				
Vanadium, Total Recoverable	01128		Report	ug/L	Grab	Quarterly				

COMMENTS AND EXPLANATION (Reference all attachments here):

INSTRUCTIONS FOR COMPLETING THE WASTEWATER DISCHARGE MONITORING REPORT

Read these instructions before completing the DMR. Hard copies and/or electronic copies of the required parts of the DMR were provided with the permit. All required information shall be completed in full and typed or printed in ink. A signed, original DMR shall be mailed to the address printed on the DMR by the 28th of the month following the monitoring period. The DMR shall not be submitted before the end of the monitoring period.

The DMR consists of three parts--A, B, and D--all of which may or may not be applicable to every facility. Facilities may have one or more Part A's for reporting effluent or reclaimed water data. All domestic wastewater facilities will have a Part B for reporting daily sample results. Part D is used for reporting ground water monitoring well data.

When results are not available, the following codes should be used on parts A and D of the DMR and an explanation provided where appropriate. Note: Codes used on Part B for raw data are different.

CODE	DESCRIPTION/INSTRUCTIONS
ANC	Analysis not conducted.
DRY	Dry Well
FLD	Flood disaster.
IFS	Insufficient flow for sampling.
LS	Lost sample.
MNR	Monitoring not required this period.

CODE	DESCRIPTION/INSTRUCTIONS
NOD	No discharge from/to site.
OPS	Operations were shutdown so no sample could be taken.
OTH	Other. Please enter an explanation of why monitoring data were not available.
SEF	Sampling equipment failure.

When reporting analytical results that fall below a laboratory's reported method detection limits or practical quantification limits, the following instructions should be used:

1. Results greater than or equal to the PQL shall be reported as the measured quantity.
2. Results less than the PQL and greater than or equal to the MDL shall be reported as the laboratory's MDL value. These values shall be deemed equal to the MDL when necessary to calculate an average for that parameter and when determining compliance with permit limits.
3. Results less than the MDL shall be reported by entering a less than sign ("<") followed by the laboratory's MDL value, e.g. < 0.001. A value of one-half the MDL or one-half the effluent limit, whichever is lower, shall be used for that sample when necessary to calculate an average for that parameter. Values less than the MDL are considered to demonstrate compliance with an effluent limitation.

PART A -DISCHARGE MONITORING REPORT (DMR)

Part A of the DMR is comprised of one or more sections, each having its own header information. Facility information is preprinted in the header as well as the monitoring group number, whether the limits and monitoring requirements are interim or final, and the required submittal frequency (e.g. monthly, annually, quarterly, etc.). Submit Part A based on the required reporting frequency in the header and the instructions shown in the permit. The following should be completed by the permittee or authorized representative:

Resubmitted DMR: Check this box if this DMR is being re-submitted because there was information missing from or information that needed correction on a previously submitted DMR. The information that is being revised should be clearly noted on the re-submitted DMR (e.g. highlight, circle, etc.)

No Discharge From Site: Check this box if no discharge occurs and, as a result, there are no data or codes to be entered for all of the parameters on the DMR for the entire monitoring group number; however, if the monitoring group includes other monitoring locations (e.g., influent sampling), the "NOD" code should be used to individually denote those parameters for which there was no discharge.

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.

Sample Measurement: Before filling in sample measurements in the table, check to see that the data collected correspond to the limit indicated on the DMR (i.e. interim or final) and that the data correspond to the monitoring group number in the header. Enter the data or calculated results for each parameter on this row in the non-shaded area above the limit. Be sure the result being entered corresponds to the appropriate statistical base code (e.g. annual average, monthly average, single sample maximum, etc.) and units.

No. Ex.: Enter the number of sample measurements during the monitoring period that exceeded the permit limit for each parameter in the non-shaded area. If none, enter zero.

Frequency of Analysis: The shaded areas in this column contain the minimum number of times the measurement is required to be made according to the permit. Enter the actual number of times the measurement was made in the space above the shaded area.

Sample Type: The shaded areas in this column contain the type of sample (e.g. grab, composite, continuous) required by the permit. Enter the actual sample type that was taken in the space above the shaded area.

Signature: This report must be signed in accordance with Rule 62-620.305, F.A.C. Type or print the name and title of the signing official. Include the telephone number where the official may be reached in the event there are questions concerning this report. Enter the date when the report is signed.

Comment and Explanation of Any Violations: Use this area to explain any exceedances, any upset or by-pass events, or other items which require explanation. If more space is needed, reference all attachments in this area.

PART B - DAILY SAMPLE RESULTS

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.

Daily Monitoring Results: Transfer all analytical data from your facility's laboratory or a contract laboratory's data sheets for all day(s) that samples were collected. Record the data in the units indicated. Table 1 in Chapter 62-160, F.A.C., contains a complete list of all the data qualifier codes that your laboratory may use when reporting analytical results. However, when transferring numerical results onto Part B of the DMR, only the following data qualifier codes should be used and an explanation provided where appropriate.

CODE	DESCRIPTION/INSTRUCTIONS
<	The compound was analyzed for but not detected.
A	Value reported is the mean (average) of two or more determinations.
J	Estimated value, value not accurate.
Q	Sample held beyond the actual holding time.
Y	Laboratory analysis was from an unpreserved or improperly preserved sample.

To calculate the monthly average, add each reported value to get a total. For flow, divide this total by the number of days in the month. For all other parameters, divide the total by the number of observations.

Plant Staffing: List the name, certificate number, and class of all state certified operators operating the facility during the monitoring period. Use additional sheets as necessary.

PART D - GROUND WATER MONITORING REPORT

Monitoring Period: Enter the month, day, and year for the first and last day of the monitoring period (i.e. the month, the quarter, the year, etc.) during which the data on this report were collected and analyzed.

Date Sample Obtained: Enter the date the sample was taken. Also, check whether or not the well was purged before sampling.

Time Sample Obtained: Enter the time the sample was taken.

Sample Measurement: Record the results of the analysis. If the result was below the minimum detection limit, indicate that.

Detection Limits: Record the detection limits of the analytical methods used.

Analysis Method: Indicate the analytical method used. Record the method number from Chapter 62-160 or Chapter 62-601, F.A.C., or from other sources.

Sampling Equipment Used: Indicate the procedure used to collect the sample (e.g. airlift, bucket/bailer, centrifugal pump, etc.)

Samples Filtered: Indicate whether the sample obtained was filtered by laboratory (L), filtered in field (F), or unfiltered (N).

Signature: This report must be signed in accordance with Rule 62-620.305, F.A.C. Type or print the name and title of the signing official. Include the telephone number where the official may be reached in the event there are questions concerning this report. Enter the date when the report is signed.

Comments and Explanation: Use this space to make any comments on or explanations of results that are unexpected. If more space is needed, reference all attachments in this area.

SPECIAL INSTRUCTIONS FOR LIMITED WET WEATHER DISCHARGES

Flow (Limited Wet Weather Discharge): Enter the measured average flow rate during the period of discharge or divide gallons discharged by duration of discharge (converted into days). Record in million gallons per day (MGD).

Flow (Upstream): Enter the average flow rate in the receiving stream upstream from the point of discharge for the period of discharge. The average flow rate can be calculated based on two measurements; one made at the start and one made at the end of the discharge period. Measurements are to be made at the upstream gauging station described in the permit.

Actual Stream Dilution Ratio: To calculate the Actual Stream Dilution Ratio, divide the average upstream flow rate by the average discharge flow rate. Enter the Actual Stream Dilution Ratio accurate to the nearest 0.1.

No. of Days the SDF > Stream Dilution Ratio: For each day of discharge, compare the minimum Stream Dilution Factor (SDF) from the permit to the calculated Stream Dilution Ratio. On Part B of the DMR, enter an asterisk (*) if the SDF is greater than the Stream Dilution Ratio on any day of discharge. On Part A of the DMR, add up the days with an "*" and record the total number of days the Stream Dilution Factor was greater than the Stream Dilution Ratio.

CBOD₅: Enter the average CBOD₅ of the reclaimed water discharged during the period shown in duration of discharge.

TKN: Enter the average TKN of the reclaimed water discharged during the period shown in duration of discharge.

Actual Rainfall: Enter the actual rainfall for each day on Part B. Enter the actual cumulative rainfall to date for this calendar year and the actual total monthly rainfall on Part A. The cumulative rainfall to date for this calendar year is the total amount of rain, in inches, that has been recorded since January 1 of the current year through the month for which this DMR contains data.

Rainfall During Average Rainfall Year: On Part A, enter the total monthly rainfall during the average rainfall year and the cumulative rainfall for the average rainfall year. The cumulative rainfall for the average rainfall year is the amount of rain, in inches, which fell during the average rainfall year from January through the month for which this DMR contains data.

No. of Days LWWD Activated During Calendar Year: Enter the cumulative number of days that the limited wet weather discharge was activated since January 1 of the current year.

Reason for Discharge: Attach to the DMR a brief explanation of the factors contributing to the need to activate the limited wet weather discharge.

Attachment D

Attachment D: Leachate Monitoring and Testing Program

PROGRESS ENERGY FLORIDA CRYSTAL RIVER UNITS 4 AND 5 PROPOSED LEACHATE MONITORING AND TESTING

- I. Computerized and manual literature search with the objective of obtaining an adequate data base from literature.
- II. Pre-operational Water Table Monitoring Program with the objective to acquire 12-month baseline.

Install 12 shallow peizometer well points

Install 2 deep peizometer well points

Monitor water table level

- 1 well-recorder to establish degree of tidal influences - one month

- 13 wells - weekly

Monitor in situ (pH, conductance, redox, dissolved oxygen) - weekly (all wells)

Monitor key water quality indicators (Discontinued August 2008) (4 wells)

Monitor extended water quality indicators quarterly (4 wells)

Monitor rainfall and evaporation - weekly

Develop flow net and water budget

- III. Laboratory screening of ash from low pyritic sulfur coal with the objective of evaluation of leachate formation and attenuation reactions. The program will establish the following:

- Percolation rates of compacted ash (fly and bottom ash)

- Solute release rates

- Limestone neutralization effectiveness

- Clay liner effectiveness

- Correlate extended and key water quality indicators

- Total ash leachate capacity

- Active area vs. Inactive area leachate rates

- Available fractions of solutes

Techniques for screening:

- Shake test (fly, bottom ash)

- Column leaching (6-10 months)

- (1) Compacted fly ash (lifts and liners)

- (2) Alternative lifts of ash and limestone
- (3) Ash with clay liner
- (4) Ash with compacted limerock and fly ash liner

IV. Evaluate leachate attenuation in subsoil and water table aquifer.

- Oxidation - reduction
- Chemical precipitation/solubility/pH/Eh
- Adsorption isotherms
- Ion exchange capacity
- Metals content of limerock

V. Cost-effectiveness evaluation of alternative liners

- Water quality criteria
- Biological effects
- Cost of leachate control and treatment
- Cost of runoff control and treatment

VI. Develop final design for field test cell program defined in paragraph VII below.

VII. Field test cells program with the objective of verifying.

Monitor water budget

- Direct infiltration rates
- Direct runoff
- Direct rainfall
- Water table

Potential test cell configuration

- Ash with compacted fly ash liner only
- Ash with compacted limestone and fly ash liner
- Alternative lifts of ash and limestone with compacted fly ash liner
- Ash with selected clay liner
- Alternative caps and vegetation

Monitor leachate formation and attenuation

- 4 well clusters per cell at three depths
- Weekly water table elevations in situ water quality from all wells (pH, conductance, redox, dissolved oxygen)
- Monthly key indicators from 2 clusters per cell
- Quarterly extended indicators from 2 per cell
- 2 base well points shall be maintained up slope of the active area

VIII. Evaluate leachate management program results and develop final design of ash storage area.

IX. Periodic reports on the progress of this program will be submitted to the Department for its information and review.

X. In situ water quality indicators

pH	Redox
Conductance	Dissolved Oxygen

XI. Key water quality indicators - monthly

Conductance	Cadmium
pH	Zinc
Redox	Copper
Dissolved Oxygen	Nickel
Temperature	Selenium
Color	Chromium
Turbidity	Arsenic
Chloride	Beryllium
Iron	Mercury
Lead	

XII. Extended water quality indicators - quarterly

Key indicators plus:

Total Dissolved Solids	Gross Alpha
Suspended Solids	Aluminum
Barium	Calcium
Magnesium	Sodium
Molybdenum	Vanadium
Cobalt	

Attachment E

Golder Associates Inc.
5100 West Lemon Street
Suite 114
Tampa, FL USA 33609
Telephone: (813) 287-1717
Fax: (813) 287-1716



TECHNICAL MEMORANDUM

To: Michael Shrader and Ron Johnson
Progress Energy Florida, Inc.

From: Kerem H. Esin, P.E.

Date: October 26, 2009

Subject: Stormwater Management System Operation and Maintenance Plan (Rev0)
Crystal River Energy Complex Unit 3
Dry Fuel Storage Facility
Crystal River, Florida

Our Ref.: 093-89554

This Operation and Maintenance (O&M) Plan describes the guidelines and procedures for the proper operation, inspection, and maintenance of the stormwater management system (SWMS) for the referenced project. The continuous and proper operation of the system is vital in preserving the water quality discharged to the environment and preventing flooding at the site during storm events. The O&M obligation is mandatory in order to comply with conditions of the permit issued for this SWMS. As long as the SWMS components were constructed properly and are maintained to function properly, state water quality standards are presumed to be met. The O&M recommendations, restrictions, inspection, and maintenance items are described below.

GENERAL MAINTENANCE

1. Have all stormwater pipes, inlets, catch basins, manholes, flumes, pond inflow and outflow structures (including oil skimmers), and discharge pipes inspected regularly (monthly or quarterly) and after major rainfalls. They should be maintained by removing built-up debris and vegetation and repairing deteriorating structures.
2. Do not throw grass clippings or other yard debris into the stormwater treatment pond. This will deteriorate the water quality and may restrict flow or clog the water-conveyance system.
3. Do not dispose of chemicals, oil, greases, or similar wastes directly into the stormwater facility or through storm sewers. Instead, dispose of these potentially dangerous materials at approved disposal or recycling facilities.

TECHNICAL MEMORANDUM

Stormwater Management System O&M Plan (Rev0)
Progress Energy Florida, Inc.

-2-

October 26, 2009
093-89554

4. Periodically remove sediments that accumulate in the SWMS and dispose of them in a permitted solid waste landfill in accordance with applicable regulations.
5. During any repair or maintenance activity, use care to avoid causing erosion or siltation to adjacent or off-site areas.
6. Alterations (filling, enlarging, etc.) of any part of the SWMS are not permitted without prior approval from all applicable governing agencies.
7. Keep copies of the approved permit and as-built drawings at the plant where they will be readily available for reviewing additional restrictions, instructions, and conditions.

DRY RETENTION AREA & HYDRAULIC CONVEYANCES

1. Mow frequently enough to prevent thatch buildup. Pick up grass clippings after cutting. Limit fertilizer use around the pond, and do not fertilize grass in the pond area.
2. Spraying of herbicide is not allowed. This may harm or kill the grass that protects the bank and slopes from erosion and sediment built-up.
3. Overgrown nuisance vegetation may be occasionally cut down but must be removed and not allowed to decay in the pond.
4. Re-sod any areas (side or bottom) where grass or sod has been removed or eroded.
5. Keep the outfall structure clear of debris and vegetation. Periodically remove sediment accumulated in the discharge control structures and culverts.
6. If pollutant-retardant baffles deteriorate so much with time that they become nonfunctional, replace them.
7. Repair any sinkholes according to the attached plan (Figure 1).
8. Inspect the skimmer on the outfall structure regularly (monthly or quarterly) and after major rainfalls. Maintain it by removing built-up debris and vegetation and repairing deteriorating structures.

INSPECTIONS

The SWMS should be inspected routinely to ensure proper functioning. Inspections should be scheduled monthly or quarterly and following any major rain event. More frequent inspections may be necessary during the rainy season. Each stormwater system and related equipment will be inspected for cracks or structural failures, deterioration of the unit, stains, stressed or overgrown vegetation, and the need for cleaning the unit. Regular inspections of the SWMS should record observations on the following items:

TECHNICAL MEMORANDUM

Stormwater Management System O&M Plan (Rev0)
Progress Energy Florida, Inc.

-3-

October 26, 2009
093-89554

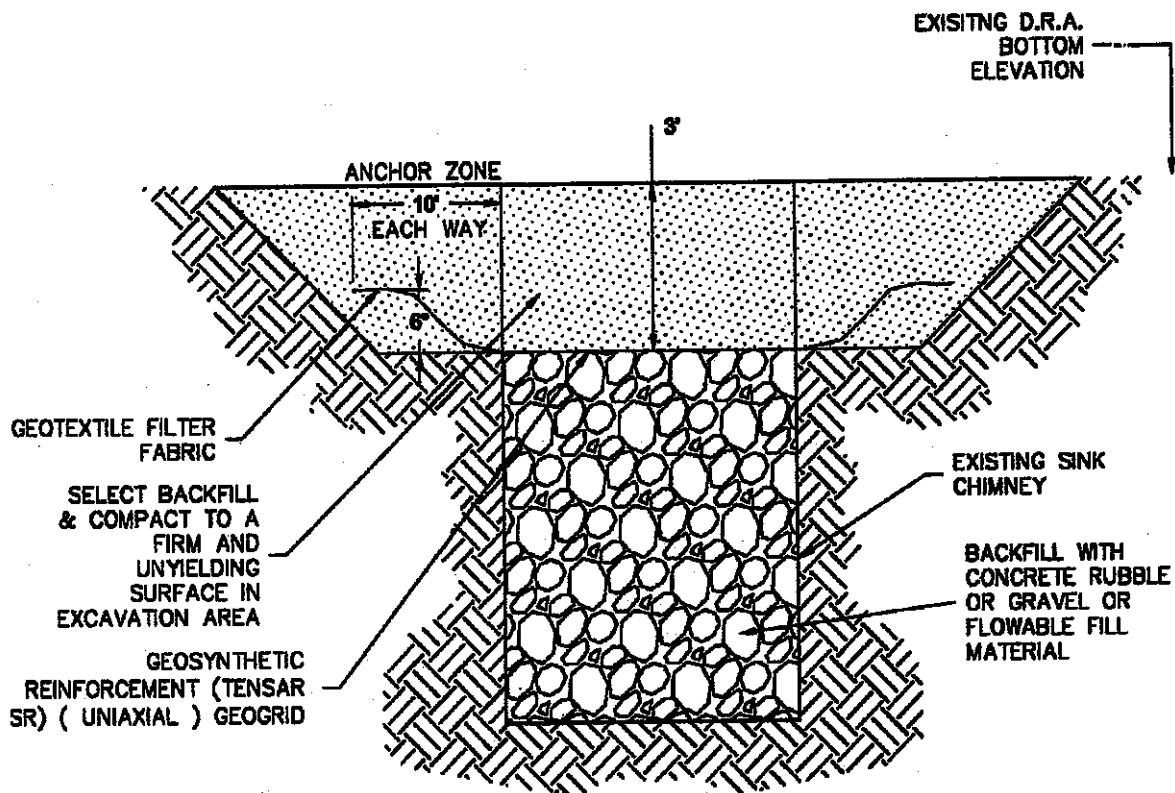
1. Bank stability for any indication of erosion;
2. Evidence of sinkholes;
3. Sod condition and any distress or coloration in vegetation;
4. Presence of wastes, debris, or pollutants; and
5. Cracks or structure failure for discharge control structure, culvert, and/or pollutant-retardant baffles.

Maintenance items identified during routine inspections should be reported and corrective actions should be initiated in a timely manner, but in no case later than seven calendar days following the identification of the problem. Vegetation that is no longer providing erosion control shall be replaced as deemed necessary. Copies of inspection records, including documentation of any required corrective actions, should be kept together with the permit and as-built drawings.

HOUSEKEEPING

Good housekeeping practices shall be implemented for the project area operations to reduce the risk of exposure of materials to stormwater and/or coastal flooding associated with a 100 year flood event. These practices should include the following items:

1. Neat and orderly storage of chemicals, pesticides, fertilizers, fuels, etc. that are being stored at the site.
2. Regular disposal of garbage and construction debris.
3. Elevated storage for certain materials as practical or necessary.
4. Prompt cleanup of any spills.
5. Cleanup of sediments that have been tracked by vehicles or have been transported by wind or stormwater.
6. Curbs or dikes to contain spills within liquid material storage areas.



SINKHOLE REPAIR PLAN

RECOMMENDATION FOR REPAIRING SINKHOLES IN RETENTION PONDS:
BY DEVO SEERGERAM PH.D., P.E.

STEP #1:
IF THE SINKHOLE CONSISTS ONLY OF A SURFACE DEPRESSION (I.E. NO OPEN FISSURE OR EXPOSED CAVERN), PROCEED TO STEP #3.

STEP #2:
IF THE SINKHOLE HAS AN OPEN FISSURE OR EXPOSED CAVERN, FILL THE SINKHOLE TO WITHIN 3 FEET OF PLAN GRADE WITH EITHER: A) CONCRETE RUBBLE OR GRAVEL, OR B) FLOWABLE FILL. IF CONCRETE RUBBLE OR GRAVEL IS USED IT SHOULD CONSIST OF HARD, DURABLE STONE, BROKEN CONCRETE AND/OR BROKEN CONCRETE BLOCK. MATERIAL ACCEPTANCE MAY BE BASED ON VISUAL INSPECTION. THE MOST IMPORTANT MATERIAL CHARACTERISTICS ARE THAT THE CONCRETE/STONE PIECES BE DURABLE (I.E. NOT SOFT AND DISSOLVABLE), SOMEWHAT ANGULAR, AND PREDOMINANTLY COARSER THAN A 1-1/2 INCH SIEVE.

STEP #3:
PLACE TWO LAYERS OF GEOSYNTHETIC REINFORCEMENT, AND ONE LAYER OF GEOTEXTILE FABRIC, IF REQUIRED, AS FOLLOWS:

MATERIAL: THE REINFORCEMENT TO BE USED SHOULD HAVE A MINIMUM TENSILE STRENGTH OF 1,350 LB/FT (ASTM D-4395) AT A STRAIN OF 10% OR LESS. IF THE REINFORCEMENT HAS AN APPARENT OPENING SIZE (AOS) LESS THAN 70, PLACE A LAYER OF TYPE D-3 (FOOT STANDARD INDEX 188) GEOTEXTILE FABRIC WITH AOS >70 OVER THE REINFORCEMENT LAYERS.

EXCAVATION: EXCAVATE TO A DEPTH OF APPROXIMATELY 3 FEET BELOW THE POND BOTTOM, AND TO A PLAN AREA WHICH ALLOWS FOR A REINFORCEMENT/FABRIC INSTALLATION THAT EXTENDS/PROVIDES COVERAGE TO AT LEAST 10 FEET BEYOND THE SURFACE OPENING OF THE SINKHOLE, BUT DOES NOT INTERFERE WITH EXISTING TRAVEL LANES.

PLACEMENT: PLACE THE GEOSYNTHETIC REINFORCEMENT LAYERS 3 FEET BELOW THE POND BOTTOM, WITHIN THE ABOVE DESCRIBED EXCAVATION. IF THE REINFORCEMENT HAS AN AOS LESS THAN 70, PLACE A LAYER OF ABOVE DESCRIBED GEOTEXTILE FABRIC OVER THE REINFORCEMENT LAYERS. ANCHOR THE TWO REINFORCEMENT LAYERS (AND THE FABRIC, IF INSTALLED) AT LEAST 10 FEET BEYOND THE LIMITS OF THE FISSURE/CAVERN OPENING. IN THE 10 FOOT ANCHOR ZONE AREA, THE TWO REINFORCEMENT LAYERS SHOULD BE SEPARATED BY AT LEAST 6 INCHES OF SOIL. IN THE NON-ANCHOR ZONE AREA, THE UPPER REINFORCEMENT LAYER MAY BE LAID DIRECTLY ON THE UNDERLYING LAYER. STAGGER THE TWO REINFORCEMENT LAYERS SO THE JOINTS DO NOT COINCIDE. FILL THE UPPER 3 FEET OF THE EXCAVATION/SINKHOLE TO GRADE USING SELECT BACKFILL, AND COMPACT TO A FIRM AND UNYIELDING SURFACE.

REFERENCE

Sinkhole Repair Plan, Crystal Engineering Corporation, 2008.

PROJECT

PEF DRY FUEL STORAGE FACILITY

TITLE

SINKHOLE REPAIR PLAN



Golder
Associates
Tampa, Florida

PROJECT No.	003-0004
DESIGN	JG 11/02/2009
GS	JG 11/02/2009
CHECK	MS 11/02/2009
REVIEW	KE 11/02/2009

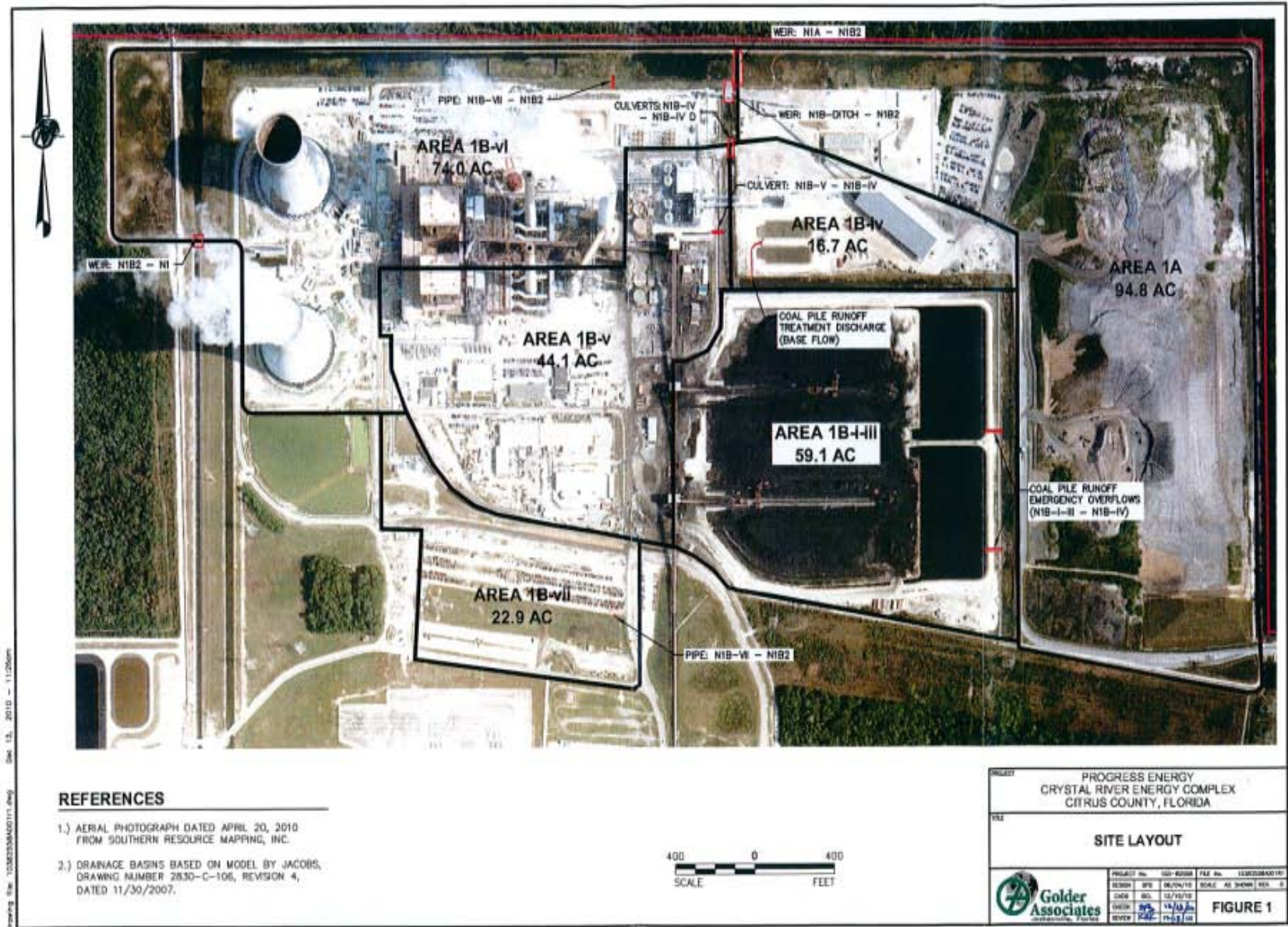
SCALE 1:400

REV. D

FIGURE: 1

Attachment F

Attachment F: Crystal River North Area (CRN) Drainage Basins



Attachment G

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In re:
Petition for a Class G-II Ground Water
Quality Criteria Exemption
Progress Energy Crystal River
Energy Complex
Crystal River, Florida

OGC File No. 10-3490
Citrus County

**FINAL ORDER
GRANTING A WATER QUALITY CRITERIA EXEMPTION**

The Department of Environmental Protection hereby issues a Final Order granting a water quality criteria exemption for sodium, pursuant to Rule 62-520.500, Florida Administrative Code (F.A.C.), to Progress Energy (PE), Inc., Crystal River Energy Complex (CREC), Crystal River, Florida, Citrus County, as set forth below.

BACKGROUND AND FINDING of FACTS

1. On February 22, 2007, the Department received a petition from PE for a water quality criteria exemption associated with permitted industrial wastewater discharge to Class G-II ground water pursuant to Rule 62-520.500, F.A.C. The installation is PE's CREC, which is an existing facility located in Citrus County at 15760 West Powerline Street, Crystal River, Florida. PE has owned and operated the CREC since 1964.

2. The PE petition requests an exemption from the ground water standards contained in Rule 62-520.420(1), F.A.C., which are the same as the drinking water

standards in Rule 62-550.310, F.A.C. Specifically, the petition requests an exemption from the primary drinking water standard for sodium (standard is 160 mg/L). The sodium primary drinking water standard is health based. An alternative ground water concentration for sodium was not requested in the petition and is not being proposed because the sodium levels in the receiving Class III marine surface water are thousands of times greater than the sodium levels in the discharge to ground water at the CREC facility.

3. The CREC property consists of 4750 acres of which 650 acres are developed. The remaining property consists of undisturbed salt marsh, coastal wetlands and uplands. The CREC is bordered on the west by the Class III marine waters of the Gulf of Mexico and coastal wetlands, to the north and south by salt marsh and coastal wetlands and to the east by limestone mining and conservation land.

4. The Department has reviewed the PE petition for a water quality criteria exemption at the CREC, received on February 22, 2007, and determined that the petition meets the six criteria for issuance of an exemption pursuant to Rule 62-520.500(1), F.A.C.

5. The CREC facility is authorized to treat and discharge to ground water industrial wastewater under Permit No. FLA016960. Low volume wastewater effluent is treated and then discharged to ground water via two unlined evaporation/percolation ponds. Ground water is monitored in accordance with the approved ground water monitor plan for the CREC industrial wastewater Permit No. FLA016960.

6. On December 8, 2010, the Department issued an Intent to Grant a ground water quality criteria exemption for sodium to PE under Rule 62-520.500, F.A.C. A copy of the Intent to Grant is attached as Exhibit I.

7. The letter, dated December 9, 2010, with the executed Notice of Intent to Grant notified the petitioner of the Department's proposed agency action and advised it of the right to a hearing pursuant to Sections 120.569 and 120.57, F.S.

8. As required by the Intent to Grant, pursuant to Section 403.815, F.S., and Rule 62-110.106(7) and 62-520.500(3), F.A.C., the petitioner published notice on December 23, 2010, in the *Citrus County Chronicle*, a daily newspaper published in Citrus County, Florida, with general circulation in the facility area. A copy of the newspaper notice and proof of publication is attached as Exhibit II.

9. The Department published notice of the Intent to Grant on December 23, 2010, in the *Florida Administrative Weekly* informing the public of the Department's intended action and offering an opportunity for hearing pursuant to Sections 120.569 and 120.57, F.S. A copy of the notice is attached as Exhibit III.

10. The petitioner and interested parties having been advised of their rights under Chapter 120, F.S., and having failed or declined to file a petition pursuant to Sections 120.569 and 120.57, F.S., are hereby deemed to have waived those rights.

IT IS THEREFORE ORDERED that the PE petition for an exemption from the drinking water standard for sodium set forth in Rule 62-550.310, F. A. C., for the ground waters specified herein is hereby GRANTED, subject to these conditions:

(a) The ground water quality exemption is being granted in part based on the Department's understanding that the petitioner's CREC will not present a danger to the

public health, safety or welfare and will not result in any discernable environmental, social or economic effects.

(b) The ground water quality criteria exemption is granted for a duration of five (5) years from the date the Department signs this final order granting the exemption. Future exemptions must be petitioned for by the applicant through the Siting Coordination Office as a petition for a Modification of Certification for the facility pursuant to the Power Plant Siting Act, Section 403.516(1)(c), F.S. The exemption extends only to ground water elements of the PE industrial wastewater Permit No. FLA016960. The exemption will not affect NPDES discharge under the Clean Water Act to surface waters of the state, nor will it alter any permit conditions related to surface waters.

(c) The exemption provides relief only from the sodium standard contained in Rule 62-550.310, F.A.C., as referenced in Rule 62-520.420, F. A.C. All other ground water quality standards, and the minimum criteria contained in Rule 62-520.400, F. A. C., apply to this project.

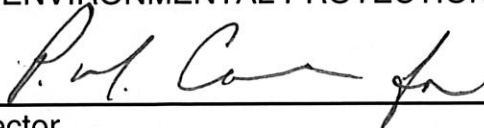
(d) The permittee shall monitor water quality in accordance with the specific conditions of the CREC industrial wastewater Permit No. FLA016960 and the approved ground water monitor plan.

A party to this order has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the

appropriate district court of appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

DONE AND ORDERED this 27th day of JANUARY 2011, in Tallahassee,
Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Director
Division of Water Resource Management
State of Florida Department of
Environmental Protection
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Copies furnished to:

Amanda Bush FDEP Tallahassee
Allen Hubbard FDEP Tallahassee
Mike Halpin FDEP Tallahassee
Jeff Greenwell FDEP Tampa
Yanisa G. Angulo P.E. FDEP Tampa

FILING AND ACKNOWLEDGMENT

FILED ON THIS DATE,
PURSUANT TO §120.52,
FLORIDA STATUTES, WITH
THE DESIGNATED
DEPARTMENT CLERK,
RECEIPT OF WHICH IS
HEREBY ACKNOWLEDGED.

Shirley Shields 01-28-2011
CLERK DATE

Attachment H

ATTACHMENT H

GROUNDWATER MONITORING, OPERATION AND MAINTENANCE REQUIREMENTS

Crystal River Energy Complex
15760 West Power Line Street
Crystal River, FL 34428
Citrus County

Latitude: 28° 57' 27" N Longitude: 82° 42' 36" W

These Groundwater Monitoring, Operation and Monitoring Requirements (GWMOMR) were developed by the Licensee, Progress Energy Florida, Inc., in conjunction with the Florida Department of Environmental Protection Southwest District's Industrial Wastewater (IWW) Section and Solid Waste (SW) Section to incorporate the groundwater (GW) monitoring requirements of Industrial Wastewater Permit, FLA016960, into the Licensee's Conditions of Certification (COC or License). The GWMOMR incorporates Units 4 and 5 IWW percolation pond, Units 1, 2 and 3 percolation pond system, Units 4 and 5 coal storage area, ash landfill, the flue gas desulfurization (FGD) blowdown treatment pond area, and south coal storage area. The Department's Southwest District IWW Section and SW Section are responsible for reviewing and approving all revisions to this document in accordance with Section A, Condition .XX. Procedures for Post-Certification Submittals and Section B, III DEP Facility-Wide Specific Conditions, A. Groundwater Monitoring Requirements of this License.

New sources or deletion of existing sources of wastewater with changes to water quality standards, applications for a new Water quality Criteria exemption pursuant to Rule 62-520.500 F.A.C., and improvements made at a treatment facility to provide for a new or expanded land application system with increase in the permitted capacity are considered modifications to the existing license. The licensee shall submit a petition for modification to the Conditions of Certification to the Department for review and approval in accordance with Section 403.516, F.S. and 62-17.211, F.A.C.

WASTEWATER TREATMENT:

The neutralized wastes are discharged into a percolation pond system consisting of four ponds including the "south Pond Expansion Area" (pond #4). Ponds #1 and #2 are operated in parallel. The ponds act as settling basins and the settled effluent from either pond is routed to Pond #3 which overflows into pond #4 (7.16 acres) for percolation. Pond #4 has the capability to hold the wastewater as well as direct rainfall resulting from a 25-year 24-hour storm in the 13.6-acre pond catchment area. The sources of wastewater include power plant equipment drains, laboratory drains, floor drains, neutralized regeneration wastes from the demineralizer resin beds, boiler blowdown, boiler drains (chemical cleanings), air pre-heater wash drains, sewage treatment plant effluents, stormwater drainage from the transformer area, treated [settling treatment] blowdown from the Units 4 & 5 Flue Gas Desulfurization, precipitator washes, boiler washes, boiler water blowdown, and reverse osmosis/micro filtration concentrate.

Neutralized wastewater generated from Units 4 and 5 are discharged into a percolation pond [pond #5]. The sources of wastewater include low volume wastes (demineralizer regeneration, cooling tower basin cleaning wastes, floor drainage, sample drains and similar wastes), metal cleaning wastes (including preheater and fireside wash) and boiler blowdown.

ASH LANDFILL:

The ash disposal area, which is located in the northeast corner of the Crystal River Energy Complex, was originally certified under the Units 4 and 5 Conditions of Certifications for the disposal of unsalable fly ash and bottom ash from

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

Units 4 and 5 and was subsequently modified to include disposal of unsalable fly ash and bottom ash from Units 1 and 2. The ash disposal area is comprised of separate storage piles for fly ash, high chloride ash, commingled material, Units 1 and 2 bottom ash, and Units 4 and 5 bottom ash.

With Department approval, solid wastes other than the ash materials described in paragraph #1 of this section have been disposed in the ash disposal area. Examples of other solid wastes that have been placed in the ash disposal area following receipt of Department approval include, but are not limited to, the following:

- Non-hazardous sand blast grit
- Sediment/sludge from on-site domestic wastewater infiltration basin
- Sediment/sludge from on-site industrial wastewater infiltration basin
- Intake screenings and sediment from cooling towers
- Non-petroleum contaminated soil
- Percolation pond dredge material
- Cooling tower solids
- Mill scale
- FGD blowdown treatment pond solids*

** On September 18, 2012, the DEP Southwest District Office Solid Waste program reviewed and approved PEF's request to dispose of FGD blowdown solids from the FGD blowdown pond in the ash storage/disposal area pending submittal of a revised CCP/SWM plan and a revision to Attachment H that addresses this disposal activity including where in the ash storage disposal area the FGD solids will be disposed. This disposal activity is addressed in the CCP/SWM plan.*

All future requests for approval to dispose of solid wastes other than the ash materials described in paragraph #1 and the solid wastes described in paragraph #2 of this section shall be submitted to the DEP Southwest District Office Solid Waste program for review and approval, with copies to the Siting Office, in accordance with Section B, Condition I. Department of Environmental Protection E. Solid Waste Management Plan, of the Conditions of Certification.

I. SITE GROUNDWATER MONITORING

A. Construction Requirements

1. New background monitor well. The licensee shall construct a replacement ground water monitoring well for MWB-30 as depicted in the response to request for additional information dated December 17, 2010. The construction shall be completed within 45 days after Modification P is final. The following requirements apply to the construction of the well:

- a. New monitoring well shall be identified as MWB-30R; and
- b. screen depth shall be no deeper than necessary to intercept the seasonal low ground water table; and
- c. screen interval shall be no greater than 10 feet in length; and
- d. the bottom of the monitoring well shall be above the highest tide elevation; and
- e. existing MWB-30 shall be properly plugged and abandoned in accordance with Rule 62-532.500(5), F.A.C.

2. New compliance monitoring wells

a. IWW Wells. The licensee shall construct ground water monitoring well MWC-32 and MWC-33 at the Northern boundary of the property as depicted in the response to request for additional information dated December 17, 2010. The licensee shall submit prior to the installation material specifications for the wells. Construction shall be complete within 180 days after Modification P is final. The following requirements apply to the construction of the wells:

- i. screen depth shall be no deeper than necessary to intercept the seasonal low ground water table; and

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

- ii. screen interval shall be no greater than 10 feet in length; and
 - iii. the bottom of the monitoring well shall be above the highest tide
 - b. SW Wells. No new compliance wells are proposed for the ash disposal area.
- 3. The licensee shall give at least 72-hours notice to the Department's Southwest District Office, prior to the installation of any monitoring wells detailed in this license including the GWMOMR. [62-620.320(6)]
- 4. The QUARTERLY sampling and analysis of all new ground water monitoring wells shall begin upon proper completion of the GWMOMR well system in accordance with condition I.B.1. below. The wells shall be sampled for the parameters identified in Condition I.B.3. below. All field work done in connection with this GWMOMR regarding the collection of ground water samples shall be conducted in accordance with the Standard Operating Procedures (SOPs) described in DEP-SOP-001/01 (revised March 31, 2008, effective December 3, 2008), or as replaced by successor SOPs [Rule 62-160.210(1), F.A.C.]. All laboratory analyses done in connection with this GWMOMR shall be conducted by firms that hold certification from the Department of Health, Environmental Laboratory Certification Program under Chapter 64E-1, F.A.C. [Rule 62-160.300(1), F.A.C.].
- 5. Prior to construction of new ground water monitoring wells, a soil boring shall be made at each new monitoring well location in order to establish the well depth and screen interval. [62-520.900(3)]
- 6. Location Requirements. Within 60 days after completion of construction of new ground water monitoring wells, the following information shall be submitted.
 - a. IWW Wells. A properly scaled figure depicting monitor well locations (active and abandoned) with identification numbers shall be submitted to the Southwest District IWW Section. The figure shall also include (or attach) the monitoring well, top of casing, and ground surface elevations referenced to National Geodetic Vertical Datum (NGVD) of 1929 to the nearest 0.01 foot, along with monitor well location latitude and longitude to the nearest 0.1 second. [62-520.600(6) (i)]
 - b. SW Wells. A surveyed drawing shall be prepared in accordance with Rule 62-701.510 (3)(d)(1), F.A.C., showing the location of all monitor wells and piezometers (active and abandoned), horizontally located in degrees, minutes and seconds of latitude and longitude, and the elevation of the top of the well casing and ground surface by the well casing to the nearest 0.01 foot, using a consistent, nationally recognized datum. The surveyed drawing shall include the monitor well and piezometer identification numbers, locations and elevations of all permanent benchmarks and/or corner monument markers at the site. The survey shall be conducted by a Florida Licensed Professional Surveyor and Mapper and shall be submitted to the Southwest District SW Section.
- 7. Well Construction Detail Requirements. Within 30 days after completion of construction or abandonment of new ground water monitoring wells, the following information shall be submitted.
 - a. For both IWW and SW wells, a copy of the Southwest Florida Water Management District (SWFWMD) State of Florida Permit Application to Construct, Repair, Modify, or Abandon a Well (LEGR.040.01 (June 2010) 40D-3.101(1), F.A.C.) and
 - b. IWW Wells, A copy of the SWFWMD Well Completion Report (LEG-R.005.02 (June 2010) 40D-3.411(1)(a), F.A.C.), SWFWMD Well Completion Report, and DEP Form 62-520.900(3), Monitor Well Completion Report, for each well shall be submitted to the Southwest District IWW Section. The DEP form can be accessed at <http://www.dep.state.fl.us/water/groundwater/forms.htm>. [62-532.410 and 62-520.900(3)]
 - c. SW Wells, SWFWMD Well Completion Report, and DEP Form 62-701.900(30), Monitoring Well Completion Report for each well shall be submitted to the Southwest District SW Section. The DEP form can be accessed at: [http://www.dep.state.fl.us/waste/quick_topics/forms/documents/62-701/62-701.900\(30\).pdf](http://www.dep.state.fl.us/waste/quick_topics/forms/documents/62-701/62-701.900(30).pdf).
- 8. Initial Sampling Requirements. Within 30 days of installation of all new wells within the existing Site boundary depicted in Attachment A of this license, the licensee shall conduct initial ground water sampling events as follow:

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

a. IWW Wells. Sample all new ground water monitoring wells for the Primary Drinking Water parameters included in Rule 62-550, Florida Administrative Code, Public Drinking Water Systems (excluding asbestos, acrylamide, Dioxin, butachlor, epichlorohydrin, pesticides, and PCBs, unless reasonably expected to be a constituent of the discharge or an artifact of the site). In addition, volatile organics and extractable semivolatile organics shall be analyzed. Results of this initial sampling shall be submitted to the Southwest District IWW Section and the SCO within 60 days after sampling. [62-520.600]

b. SW Wells. Sample each new or replacement ground water monitoring well for analysis of the parameters listed in Rules 62-701.510 (8) (a) and (8) (d), F.A.C. Results of this initial sampling shall be submitted to the Southwest District SW Section and the SCO within 60 days after sampling.

9. All piezometers and monitoring wells not part of this GWMOMR are to be plugged and abandoned in accordance with Rule 62-532.500(5), F.A.C., unless future use is intended. [62-532.500(5)]

B. Operational Requirements

1. During the period of operation authorized by this Certification the licensee shall continue to sample ground water at the monitoring wells identified in item.IB.2 below, in accordance with the COC and GWMOMR prepared in accordance with Rule 62-520.600, F.A.C.

2. The following monitoring wells shall be sampled for Groundwater Monitoring requirements:

Monitoring Well ID	Alternate Well Name and/or Description of Monitoring Location	Depth (Feet)	Aquifer Monitored	New or Existing	Unit Monitored
MWB-30R	Background Well (replaced MWB-30)	20	Upper Floridan	New	Site background well
MWC-1	Compliance Monitoring Well	20	Upper Floridan	Existing	IWW well Unit 4 &5
MWI-7R	Intermediate Monitor Well (Relocated)	20	Upper Floridan	Existing	IWW well
MWC-16	Compliance Monitor Well	21.1	Upper Floridan	Existing	IWW well FGD pond
MWC-21R	Compliance Monitor Well	20	Upper Floridan	Existing	IWW well
MWC-27	Compliance Monitor Well	33	Upper Floridan	Existing	IWW well ponds units 1, 2 &3
MWC-28	Compliance Monitor Well	20	Upper Floridan	Existing	IWW well
MWC-29	Compliance Monitor Well	20	Upper Floridan	Existing	IWW well South coal
MWC-IF2	Compliance Monitor Well	14	Upper Floridan	Existing	IWW well ponds units 1, 2 &3
MWC-31	Compliance Monitor Well	20	Upper Floridan	Existing	IWW well FGD pond
MWC-32	Compliance Monitor Well Northern boundary of the property	20	Upper Floridan	New	IWW well
MWC-33	Compliance Monitor Well Northern boundary of the property	20	Upper Floridan	New	IWW well
MWI-2R2	Intermediate Monitor Well	20	Upper Floridan	Existing	SW well Ash landfill

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

Monitoring Well ID	Alternate Well Name and/or Description of Monitoring Location	Depth (Feet)	Aquifer Monitored	New or Existing	Unit Monitored
MWC-12R	Compliance Monitor Well (For Primary Drinking Water Standards Only)	20	Upper Floridan	Existing	SW well Ash landfill
TWI-1R	Intermediate Monitor Well	22	Upper Floridan	Existing	SW well Ash Landfill
TWI-2R	Piezometer	24	Upper Floridan	Existing	SW well Ash Landfill
TWI-3	Intermediate Monitor Well	20	Upper Floridan	Existing	SW well Ash Landfill
TWI-4	Intermediate Monitor Well	20	Upper Floridan	Existing	SW well Ash Landfill
TWI-5	Intermediate Monitor Well	19.5	Upper Floridan	Existing	SW well Ash Landfill

3. The monitor wells specified in Condition.I.B.2 above shall be sampled for the parameters listed below:

Parameter Name	Compliance Well Limit	Units	Sample Type	Monitoring Frequency
Copper, Total Recoverable	Report	MG/L	Grab	Quarterly
Chloride (as Cl)	Report	MG/L	Grab	Quarterly
Iron, Total Recoverable	Report	MG/L	Grab	Quarterly
Nitrogen, Nitrate, Total (as N)	10.0	MG/L	Grab	Quarterly
pH*	Report	SU	In-situ	Quarterly
Sodium, Total Recoverable	Report	MG/L	Grab	Quarterly
Solids, Total Dissolved (TDS)	Report	MG/L	Grab	Quarterly
Specific Conductance*	Report	MMHOS/CM	In-situ	Quarterly
Turbidity*	Report	NTU	In-situ	Quarterly
Water Level Relative to NGVD	Report	FEET	In-situ	Quarterly
Antimony, Total Recoverable	6.0	UG/L	Grab	Quarterly
Arsenic, Total Recoverable	10.0	UG/L	Grab	Quarterly
Boron, Total Recoverable (GCTL Guidance concentration per 62-777F.A.C.)	Report	MG/L	Grab	Quarterly
Barium, Total Recoverable	2.0	MG/L	Grab	Quarterly
Beryllium, Total Recoverable	4.0	UG/L	Grab	Quarterly
Cadmium, Total Recoverable	5.0	UG/L	Grab	Quarterly
Mercury, Total Recoverable	2.0	UG/L	Grab	Quarterly
Selenium, Total Recoverable	50.0	UG/L	Grab	Quarterly
Chromium, Total Recoverable	100.0	UG/L	Grab	Quarterly
Lead, Total Recoverable	15.0	UG/L	Grab	Quarterly
Nickel, Total Recoverable	100.0	UG/L	Grab	Quarterly
Thallium, Total Recoverable	2.0	UG/L	Grab	Quarterly
Oxygen, Dissolved (DO)*	Report	MG/L	In-situ	Quarterly
Zinc, Total Recoverable	Report	MG/L	Grab	Quarterly
Fluoride, Total (as F)	4	MG/L	Grab	Quarterly
Cyanide, free	0.2	MG/L	Grab	Quarterly
Temperature, Water*	Report	°F	In-situ	Quarterly

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

Parameter Name	Compliance Well Limit	Units	Sample Type	Monitoring Frequency
Sulfate, Total	Report**	MG/L	Grab	Quarterly
Aluminum, Total Recoverable	Report**	UG/L	Grab	Quarterly
Manganese, Total Recoverable	Report**	UG/L	Grab	Quarterly
Molybdenum, Total Recoverable	Report	UG/L	Grab	Quarterly
Silver, Total Recoverable	Report	UG/L	Grab	Quarterly
Strontium, Total Recoverable	Report	UG/L	Grab	Quarterly
Vanadium, Total Recoverable	Report	UG/L	Grab	Quarterly

* The field parameters shall be sampled per DEP–SOP-001/01, FS 2200 Ground Water Sampling, Figure FS 2200-2 Ground Water Purging Procedure (<http://www.dep.state.fl.us/water/sas/sop/sops.htm>) and recorded on Form FD 9000-24, Ground Water Sampling Log (<http://www.dep.state.fl.us/water/sas/qa/forms.htm>). For the IWW wells, the sampling logs shall be submitted with each ground water Part D DMR. For the SW wells, the sampling logs shall be submitted with each ground water report submitted in accordance with Condition #VI.B., below. The field parameters to be included in the ground water reports for the IWW wells and the SW wells shall be the last sample recorded on FD 9000-24.

Guidance Concentration or Secondary parameters are report only result on the DMR.

** Applicable to the SW wells associated with Ash Storage Area only – (MWB-30R, MWI – 2R2, MWC-12R, TWI-1R, TWI-3, TWI-4, and TWI-5)

4. Ground water quality criteria of chapter 62-520, F.A.C., shall be met at the edge of the zone of discharge (ZOD). Progress Energy Florida Crystal River Energy Complex is an existing installation as defined by Rule 62-520.200(10), F.A.C., thus the ZOD has been established per the discretion of the Department in consideration of the property extent and site-specific hydrology [62-520.465, F.A.C.]. Accordingly, the ZOD is defined by the downgradient terminus of the upland ground water regime prior to transition to a surface water regime. This ground water, surface water ZOD boundary is delineated by the location of facility compliance monitor wells. The vertical limit of the ZOD as defined by Rule 62-520.200(27), F.A.C., is the base of the Floridan aquifer.

5. Water levels shall be recorded prior to evacuating the well for sample collection. Elevation references shall include the top of the well casing and land surface at each well site (NGVD allowable) at a precision of plus or minus 0.01 feet. [62-520.600(11)(c)]

6. Ground water monitoring wells shall be purged prior to sampling to obtain a representative sample. [62-160.210]

7. Analyses shall be conducted on un-filtered samples, unless filtered samples have been approved by the Department as being more representative of ground water conditions. [62-520.310(5)]

8. If any monitoring well becomes inoperable or damaged to the extent that sampling or well integrity may be affected, the licensee shall notify the Department's SWD office within two business days from discovery, and a detailed written report shall follow within ten days after notification to the Department. The written report shall detail what problem has occurred and remedial measures that have been taken to prevent recurrence or request approval for replacement of the monitoring well. All monitoring well design and replacement shall be approved by the Department before installation. [62-520.600(6)(l)]

9. Every 5 years upon issuance of the Modification P COC, the licensee shall submit a proposal identifying the IWW wells in the Department-approved monitoring requirements that will be sampled for the Primary drinking water parameters included in Chapter 62-550, F.A.C., (excluding asbestos, acrylamide, Dioxin, butachlor, epichlorohydrin, pesticides, and PCBs, unless reasonably expected to be a constituent of the discharge or an artifact of the site). The selection of the wells should include at least one background well and one intermediate well, if they are available. Compliance well selections should be based on recent groundwater conditions. Sampling results should be submitted sixty days [60] upon Department's approval of the well proposal sampling. [62-520.600(5)(b)]

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

10. Ground water monitoring test results for the IWW wells shall be submitted on Part D of DEP Form 62-620.910(10) (attached) and shall be submitted as required under Section II C below. Ground water monitoring results for the SW wells shall be submitted as required under Section VI.B., below.

II. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS:

Land Application Systems

A. Land Application:

Units 1, 2 & 3. An existing 0.91 MGD monthly average daily flow (MADF) land application system (G-001) consists of four [4] percolation ponds (Ponds 1-4). Land application system G-001 is located approximately at latitude 28° 57' 27" N, longitude 82° 42' 22" W.

Unit 4 & 5. An existing land application system (G-002) consists of one [1] percolation pond. Land application system G-002 is located approximately at latitude 28° 57' 52.6" N, longitude 82° 42' 00.9" W.

1. Water levels in ponds 1, 2, 3, 4 & 5 shall be recoded weekly on the part B DMRs. The part B DMRs shall be submitted quarterly in accordance to the schedule in Section II C below.

2. The licensee is authorized to discharge process wastewater, non-process wastewater, power plant equipment drains, laboratory drains, floor drains, neutralized regeneration wastes from the demineralizer resin beds, boiler blowdown, boiler drains (chemical cleanings), air pre-heater wash drains, sewage treatment plant effluents, stormwater drainage from the transformer area, treated blowdown from the Units 4 & 5 Flue Gas Desulfurization, precipitator washes, boiler washes, boiler water blowdown, and reverse osmosis/micro filtration concentrate to Land Application System G-001 [Units 1, 2 & 3], a percolation pond system. Such discharge shall be limited and monitored by the Licensee as specified below and reported in accordance with specific condition Section II C below.

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Monthly Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	0.91	Report See Cond. II.A.6	--	Daily	Calculated	FLW-3
Flow (MGD)	--	Report See Cond. II.A.6	--	Daily	Meter	FLW-1
Flow (MGD)	--	Report See Cond. II.A.6	--	Daily	Meter	FLW-2
Water Level Relative to NGVD	--	Report See Cond. II.A.1	--	Weekly	In-situ	OTH-1
Water Level Relative to NGVD	--	Report See Cond. II.A.1	--	Weekly	In-situ	OTH-2
Water Level Relative to NGVD	--	Report See Cond. II.A.1	--	Weekly	In-situ	OTH-3

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Monthly Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Water Level Relative to NGVD	--	Report See Cond. II. A.1	--	Weekly	In-situ	OTH-4
pH (SU)	--	Report	Report	Quarterly	In-situ	EFF-1 EFF-2
Solids, Total Dissolved (TDS) (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Specific Conductance (UMHO/CM)	--	Report	--	Quarterly	In-situ	EFF-1 EFF-2
Oil and Grease (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Nitrogen, Nitrate, Total (as N) (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Chloride (as Cl) (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Cyanide, Total (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Antimony, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Arsenic, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Beryllium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Boron, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Cadmium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Copper, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Chromium, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Iron, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Lead, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Mercury, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Nickel, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Selenium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Silver, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Sodium, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Thallium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Zinc, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-1 EFF-2
Molybdenum, Total Recoverable		Report	--	Quarterly	Grab	EFF-1 EFF-2
Strontium, Total Recoverable		Report	--	Quarterly	Grab	EFF-1 EFF-2
Vanadium, Total Recoverable		Report	--	Quarterly	Grab	EFF-1 EFF-2

3. Effluent samples shall be taken at the monitoring site locations as described below:

Sample Point	Description of Monitoring Location
FLW-3	The sum of FLW-1 and FLW-2
FLW-1	The sum of all flows to percolation pond system not including the FGD blows down.
FLW-2	Flow from the FGD blow down into evaporation/percolation pond #3

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

Sample Point	Description of Monitoring Location
EFF-2	Effluent from the FGD treatment system. At discharge pipe into evaporation/percolation pond #3
EFF-1	At discharge pipe into the active pond, either the East Pond or West Pond. Ponds will be rotated on a yearly basis, or as necessary.
OTH-1	Staff gauge located in Pond#1.
OTH-2	Staff gauge located in Pond#2.
OTH-3	Staff gauge located in Pond#3.
OTH-4	Staff gauge located in Pond #4

4. The Licensee shall contact and request authorizations from the Department's Southwest District Office, prior to placing into service any backup/ emergency treatment system for the FGD blow down. (i.e. Filter press). The request shall provide details and specification for the proposed system and operational details along with the expected duration.

5. All flow measurement devices shall be calibrated at least once every 12 months or based on the manufacturer requirements.

6. The Licensee is required to measure flow from the FGD blowdown to the CR 1, 2 & 3 Percolation Pond System at the locations identified as FLW-1, FLW-2, and FLW-3 in the DMRs of the GWMOMR required by this license. The Licensee shall record flow rates on the DMRs. Flow rate results shall be submitted with the DMR for each scheduled month and reported in accordance with Section II C below:

7. The licensee is authorized to discharge plant process wastewater, non-process wastewater, plant equipment drains, laboratory drains, floor drains, non-hazardous boiler chemical cleaning wastewater, low volume wastes (demineralizer regeneration, cooling tower basin cleaning wastes, floor drainage, sample drains and similar wastes), metal cleaning wastes (including preheater and fireside wash) and boiler blowdown to Land Application System G-002 (Units 4 & 5), a percolation pond [pond #5]. Such discharge shall be limited and monitored by the Licensee as specified below and reported in accordance with Section II C below.

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Flow (MGD)	--	Report See Cond II.A.9 & 10	--	Daily	Calculated	FLW-4
Water Level Relative to NGVD	--	Report See Cond. II.A.1	--	Weekly	In-situ	OTH-5
pH (SU)	--	Report	Report	Quarterly	In-situ	EFF-4
Solids, Total Dissolved (TDS) (MG/L)	--	Report	--	Quarterly	Grab	EFF-4

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

	Discharge Limitations			Monitoring Requirements		
Parameters (units)	Monthly Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Specific Conductance (UMHO/CM)	--	Report	--	Quarterly	In-situ	EFF-4
Oil and Grease (MG/L)	--	Report	--	Quarterly	Grab	EFF-4
Chloride (as Cl) (MG/L)	--	Report	--	Quarterly	Grab	EFF-4
Antimony, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4
Arsenic, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4
Beryllium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4
Boron, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-4
Cadmium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4
Copper, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-4
Chromium, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-4
Iron, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-4
Lead, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4
Mercury, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4
Nickel, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4
Selenium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

Parameters (units)	Discharge Limitations			Monitoring Requirements		
	Monthly Average	Daily Maximum	Daily Minimum	Monitoring Frequency	Sample Type	Sample Point
Sodium, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-4
Thallium, Total Recoverable (UG/L)	--	Report	--	Quarterly	Grab	EFF-4
Zinc, Total Recoverable (MG/L)	--	Report	--	Quarterly	Grab	EFF-4

8. Effluent samples shall be taken at the monitoring site locations listed in this attachment, condition II.A.7 and as described below:

Sample Point	Description of Monitoring Location
FLW-4	Flow measurement at evaporation/percolation pond #5
EFF-4	Representative location from Evaporation/percolation pond #5 in the vicinity of the IWW discharge structures.
OTH-5	Staff gauge located in Pond#5

9. The total flows from Units 4 & 5 IWW to percolation pond #5 shall be calculated. Flows measurement could be obtained by meters or determined by an alternative method approved by the Department. Flow meters shall be installed, if needed within 240 days of the issuance of Mod P COC. An extension of time may be granted by the Department for good cause. This submittal is subject to the Post Certification Requirements in Section A.XX

10. The Licensee is required to measure flow at the discharge pipe from Units 4 & 5 to Percolation Pond System at the locations identified as FLW-4 in the DMRs of the GWMOMR required by this license. The Licensee shall record flow rates on the DMRs. Flow rate results shall be submitted with the DMR for each scheduled month and reported in accordance with Section II C below:

B. Other Methods of Disposal or Recycling

There shall be no discharge of industrial wastewater from this facility to ground or surface waters, except as authorized by the COC including this GWMOMR or by NPDES Permit No.s FL0000159 and FL036366.

C. Monitoring and Reporting Requirements – Industrial Wastewater Components

Monitoring requirements under this attachment are effective on the first day of the second month following issuance of the Modification P COC. Until such time, the licensee shall continue to monitor and report in accordance with previously administratively continued permit FLA016960 requirements, if any. During the period of operation authorized by the Condition of Certification, the Licensee shall complete and submit to the Southwest District IWW Section Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e., monthly, toxicity, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to this license. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below.

REPORT Type on DMR	Monitoring Period	Mail or Electronically Submit by
Monthly or Toxicity	first day of month – last day of month	28 th day of following month

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

REPORT Type on DMR	Monitoring Period	Mail or Electronically Submit by
Quarterly	January 1 - March 31 April 1 – June 30 July 1 – September 30 October 1 – December 31	April 28 July 28 October 28 January 28
Semiannual	January 1 – June 30 July 1 – December 31	July 28 January 28
Annual	January 1 – December 31	January 28

DMRs shall be submitted for each required monitoring period including months of no discharge. The licensee may submit either paper or electronic DMR forms. If submitting paper DMR forms, the licensee shall make copies of the attached DMR forms, without altering the original format or content unless approved by the Department, and shall mail the completed DMR forms to the Department's Southwest District Office at the address specified below by the twenty-eighth (28th) of the month following the month of operation.

Florida Department of Environmental Protection
Industrial Wastewater Program
Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, Florida 33637-0926

If submitting electronic DMR forms, the licensee shall use the electronic DMR system(s) approved in writing by the Department and shall electronically submit the completed DMR forms to the Department by the twenty-eighth (28th) of the month following the month of operation. Data submitted in electronic format is equivalent to data submitted on signed and certified paper DMR forms. [62-620.610(18)]

Unless specified otherwise in this GWMOMR, all reports and notifications required by this GWMOMR, including twenty-four hour notifications, shall be submitted to or reported to the Southwest District Office at the address specified below:

Southwest District Office
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

Phone Number - (813) 632-7600
FAX Number - (813) 632-7662
Email – swd_dw@dep.state.fl.us

An Electronic copy of all submittals required by this Plan shall also be sent to the Siting Coordination Office by email to SCO@dep.state.fl.us. If electronic copies are not available, copies can be mailed to:

Siting Coordination Office
3900 Commonwealth Boulevard
Tallahassee, FL 32399

Phone Number- (850) 245-2002
Fax Number-(850) 245-2020

[62-620.610(18)][62-601.300(1),(2), and (3)]

D. Other Limitations

1. All reports and other information shall be signed in accordance with requirements of Rule 62-620.305, F.A.C.

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

2. The Licensee shall provide safe access points for obtaining representative samples which are required by this attachment.

3. If there is no discharge from the facility on a day scheduled for sampling, the sample shall be collected on the day of the next discharge.

4. Any bypass of the treatment facility which is not included in the monitoring specified in Sections I.B.3, and II.A.2&7 above, is to be monitored for flow and all other required parameters. For parameters other than flow, at least one grab sample per day shall be monitored. Daily flow shall be monitored or estimated, as appropriate, to obtain reportable data. All monitoring results shall be reported on the appropriate DMR

III. INDUSTRIAL SLUDGE/SOLIDS

A. Additional Land Application Requirements.

1. Routine aquatic weed control and regular maintenance of storage pond embankments and access areas are required. [62-620.320(6)]

2. The bottoms for the settling basins and percolation basins shall be cleaned out periodically, or when necessary, to remove the excess buildup of sediments, and to ensure continuous percolation capability for the percolation basins. Solids and sludges from this system shall be recovered and either disposed at a Class I landfill site authorized by the Department to accept solid waste under Chapter 62-701, F.A.C. or, in the on-site ash storage/disposal area if authorized in the plant's coal combustion product/solid waste materials management plan mentioned in VI.A. below.

3. During normal plant operation, the freeboard of the percolation basins shall not be less than three feet except after rainfall events exceeding the 25-year, 24-hour storm event.

4. The licensee shall not discharge water from the percolation basins to surface waters of the State.

IV. DESIGN, CONSTRUCTION, OPERATION AND MAINTENANCE OF WASTEWATER FACILITIES REQUIREMENTS

A. General Operation and Maintenance Requirements

1. During the period of operation authorized by this license, the wastewater facilities shall be operated under the supervision of a person who is qualified by formal training and/or practical experience in the field of water pollution control. [62-620.320(6)]

2. The licensee shall maintain the following records and make them available for inspection on the site of the licensed facility.

a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;

b. Copies of all reports required by the license for at least three years from the date the report was prepared;

c. Records of all data, including reports and documents, used to complete the application for at least three years from the date the application was filed;

d. A copy of the current license;

e. A copy of any required record drawings; and

f. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date of the logs or schedules.

[62-620.350]

B. Impoundment Operation and Maintenance

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

1. All impoundments used to hold or treat wastewater and other associated wastes shall be operated and maintained to prevent the discharge of pollutants to waters of the State, except as authorized under NPDES Permit Numbers FL0000159 and FL0036366.

2. Operation and maintenance of any impoundment shall be in accordance with all applicable State regulations. When practicable, piezometers or other instrumentation shall be used as a means to aid monitoring of impoundment integrity.

C. Impoundment Integrity Inspections

1. No later than 180 days following issuance of the Mod P COC, and annually thereafter, all impoundments shall be inspected by qualified personnel with knowledge and training in impoundment integrity. Annual inspections shall include observations of dike and toe areas for erosion, cracks or bulges, seepage, wet or soft soil, changes in geometry, the depth and elevation of the impounded water, sediment or slurry, freeboard, changes in vegetation such as overly lush, dead or unnaturally tilted vegetation, and any other changes which may indicate a potential compromise to impoundment integrity.

2. Within 30 days after the annual inspection, a qualified, responsible officer shall certify to the Department that no breaches or structural defects resulting in the discharges to surface waters of the State and that no changes were observed which may indicate a potential compromise to impoundment integrity during the previous calendar year.

3. The certification shall also include a statement that the impoundments provides the necessary minimum wet weather detention volume to contain the combined volume for all direct rainfall and all rainfall runoff to the pond resulting from the 10-year, 24-hour rainfall event and maximum dry weather plant waste flows which could occur during a 24-hour period.

4. The licensee shall conduct follow-up inspections within 7 days after large or extended rain events (i.e., 25-year, 24-hour precipitation event).

5. In the event that the impoundment integrity is compromised and may result in a potential discharge to surface waters of the State, the licensee shall notify the Department within twenty-four (24) hours of becoming aware of the situation and provide a proposed course of corrective action and implementation schedule within fifteen (15) days after notifying the Department. Observed changes such as significant increases in seepage or seepage carrying sediment may be signs of imminent impoundment failure and should be addressed immediately.

D. Reporting and Recordkeeping Requirements for Impoundments

1. The summarized findings of all monitoring activities, inspections, and corrective actions pertaining to the impoundment integrity, and operation and maintenance of all impoundments shall be documented and kept on-site in accordance with Condition V.A. below, and made available to Department inspectors upon request.

2. Starting with the issuance of the Modification P COC., all pertinent impoundment permits, design, construction, operation, and maintenance information, including but not limited to: plans, geotechnical and structural integrity studies, copies of permits, associated certifications by qualified, Florida-registered professional engineer, and regulatory approvals, shall be kept on site in accordance with Condition IV.A. above and made available to Department inspectors upon request.

V. OTHER SPECIFIC CONDITIONS

A. Specific Conditions Applicable

1. Drawings, plans, documents or specifications submitted by the licensee, not attached hereto, but retained on file at the Southwest District Office, are made a part hereof.

2. Where required by Chapter 471 (P.E.) or Chapter 492 (P.G.) F.S., applicable portions of reports to be submitted as required by this GWMOMR shall be signed and sealed by the professional(s) who prepared them.

VI. SOLID WASTE MANAGEMENT

A. Coal Combustion Product and Non-Coal Combustion Products

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

According to the September 14, 2010 Coal Combustion Product (CCP)/Solid Waste Materials Management Plan, prepared by Golder Associates, received December 20, 2010, materials generated at Crystal River Energy Complex (CREC) Units 1, 2, 4, and 5 have been grouped into Coal Combustion Products (CCPs), Non-Coal Combustion Products (Non-CCPs), and Miscellaneous Solid Wastes, as follow:

1. CCPs: fly ash (all units), Bottom Ash – pyrite free (Units 1 and 2), Bottom Ash (Units 4 & 5), Flue Gas Desulfurization Products (Gypsum) (Units 4 and 5).
2. Non-CCPs: Pyrite Mill Reject (Units 1 and 2), Cooling Tower Solids (Units 4 and 5, Helper Cooling Tower Solids), Dredge Materials (intake/discharge canals, ditch cleanings, IWW ponds), Truck Wash Solids.
3. Miscellaneous Solid Wastes: Units 4 and 5 Coal Yard Soil and Impacted Soils (site-wide).
4. See Table 1 “Summary of Coal Combustion Product and Non-Coal Combustion Product Manual” of the CCP/Solid Waste Materials Management Plan for the Department-approved disposition of CCPs and Non-CCPs (i.e., off-site disposal, beneficial use off-site, on-site disposal, etc.).

B. Monitoring and Reporting Requirements – Solid Waste Components

1. Ground Water Monitor Well Locations. The ground water monitoring network for the ash landfill (i.e., the “SW wells”) are located on the figure (Attachment I) prepared by PEF, as follow:

<u>Well #</u>	<u>Scheduling Notes</u>	<u>WACS Testsite #</u>	<u>Aquifer Monitored</u>	<u>Well Designation</u>	<u>Location</u>
MWI-2R2	A	28398	Floridan	Intermediate	See figure
MWC-12R	A	28399	Floridan	Compliance	See figure
TWI-1R	A, B	28400	Floridan	Intermediate	See figure
TWI-3	A, B	28401	Floridan	Intermediate	See figure
TWI-4	A, B	28402	Floridan	Intermediate	See figure
TWI-5	A, B	28403	Floridan	Intermediate	See figure
TWI-2R	A, B	28404	Floridan	Piezometer	See figure
MWB-30R	B	28738	Floridan	Background	See figure

Scheduling Notes:

A = existing well/piezometer; construction details previously submitted.

B = Department form #62-701.900(30), Monitoring Well Completion Report shall be submitted to the Southwest District SW Section by the licensee within 60 days of final approval of Modification P of this license, the form referenced in Condition #I.A.7.c., above.

All monitor wells and piezometers are to be clearly labeled and easily visible at all times. Bollards or other devices shall be installed to protect the monitor wells located in areas of high traffic flow within the facility. The permittee shall keep all monitor wells locked to minimize unauthorized access. [62-701.510(3)(d)5, F.A.C.]

2. Water Quality Reporting Requirements. The results of each ground water sampling event conducted at the ash landfill of the Crystal River Energy Complex to comply with the conditions presented herein shall be included in Electronic Data Deliverable (EDD) reports that provide:

- a. Required water quality monitoring reports and all analytical results shall be submitted electronically. Water quality monitoring reports shall be submitted in Adobe pdf file format. The water quality monitoring EDD reports shall be provided to the Department in an electronic format consistent with requirements for importing the data into the Department's databases as summarized on the Department's web site at:

<http://www.dep.state.fl.us/waste/categories/shw/pages/ADaPT.htm>.

Water quality monitoring reports shall provide the following information:

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

- i. Cover letter;
- ii. Chain of custody forms;
- iii. Water levels;
- iv. Appropriate sampling information on Form FD 9000-24 (DEP-SOP-001/01); and,
- v. Laboratory and Field data and error logs, as applicable. [In addition to the Adobe pdf file format, this data and associated error logs shall be submitted in an ADaPT-compatible, comma separated text file format.

In addition to the above water quality reports, PEF will provide ground water contour maps and ground water flow analysis utilizing existing groundwater monitoring well data from TWI-1R, TWI-2R (piezometer water level measurements), TWI-3, TWI-4, TWI-5, MWI-2R2, and MWC-12R).. Contour map information will be collected from the aforementioned groundwater wells on a semi-annual basis and will be summarized and submitted in an annual report provided to the Department within 90 days following the second semi-annual groundwater contour data collection effort. The annual summary report containing contour maps and ground water flow analysis shall be generated, signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations.

The report of results shall be submitted to:

Department of Environmental Protection, Southwest District Office, Solid Waste Section,
13051 North Telecom Parkway, Temple Terrace, FL 33637-0926; and,

Department of Environmental Protection, Solid Waste Section 2600 Blair Stone Road,
MS 4565, Tallahassee, FL 32399-2400.

b. The Licensee shall submit to the Southwest District SW Section the results of analyses reported for each sampling event conducted at the “SW wells” identified in #I.B.2. above, by the following due dates:

- i. Condition #I.A.8.b. above – results of ground water initial sampling at SW wells shall be submitted within 60 days after sampling.
- ii. Condition #I.B.3. above – results of ground water routine, quarterly sampling at the site background wells and all SW wells shall be submitted by April 28, July 28, October 28, and January 28 of each year for the periods January 1-March 31, April 1-June 30, July 1-September 30, and October 1-December 31, respectively.

VII. FACILITY-WIDE GENERAL CONDITIONS

A. This license does not relieve the licensee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this license source; nor does it allow the licensee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The licensee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this license which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a licensee in an enforcement action that it would have been necessary to halt or reduce the licensee activity in order to maintain compliance with the conditions of this license. [62-620.610(5)]

B. The licensee shall report to the Department's Southwest District Office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the licensee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the licensee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

1. The following shall be included as information which must be reported within 24 hours under this condition:

- a. Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,
- b. Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
- c. Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
- d. Any unauthorized discharge to surface or ground waters.

2. Oral reports as required by this subsection shall be provided as follows:

a. For unauthorized releases or spills of untreated or treated wastewater reported pursuant to subparagraph B.1.d that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WARNING POINT TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Warning Point:

- iii. Name, address, and telephone number of person reporting;
- iv. Name, address, and telephone number of permittee or responsible person for the discharge;
- v. Date and time of the discharge and status of discharge (ongoing or ceased);
- vi. Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);
- vii. Estimated amount of the discharge;
- viii. Location or address of the discharge;
- ix. Source and cause of the discharge;
- x. Whether the discharge was contained on-site, and cleanup actions taken to date;

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

- xi. Description of area affected by the discharge, including name of water body affected, if any; and
- xii. Other persons or agencies contacted.

b. Oral reports, not otherwise required to be provided pursuant to subparagraph b.1 above, shall be provided to Department's Southwest District Office within 24 hours from the time the permittee becomes aware of the circumstances.

3. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department's Southwest District Office shall waive the written report. [62-620.610(20)]

C. Bypass Provisions.

1. Bypass" means the intentional diversion of waste streams from any portion of a treatment works.

2. Bypass is prohibited, and the Department may take enforcement action against a Licensee for bypass, unless the licensee affirmatively demonstrates that:

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. The Licensee submitted notices as required under facility-wide General Condition VII.C.3. of this Attachment H.

3. If the licensee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The licensee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as under Facility-Wide General Condition VII.B of this Attachment H. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

4. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Facility-Wide General Condition. C2. a through c of this Attachment H.

5. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Facility-Wide General Condition. C. 2 through 4 of this Attachment H.

D. Upset Provisions

1. A licensee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the licensee can identify the cause(s) of the upset;

b. The licensed facility was at the time being properly operated;

c. The licensee submitted notice of the upset as required in Facility-Wide General Condition B of this Attachment H; and

Progress Energy Florida, Crystal River Energy Complex, PA 77-09P
COC Attachment H — Groundwater Monitoring, Operation and Monitoring Requirements

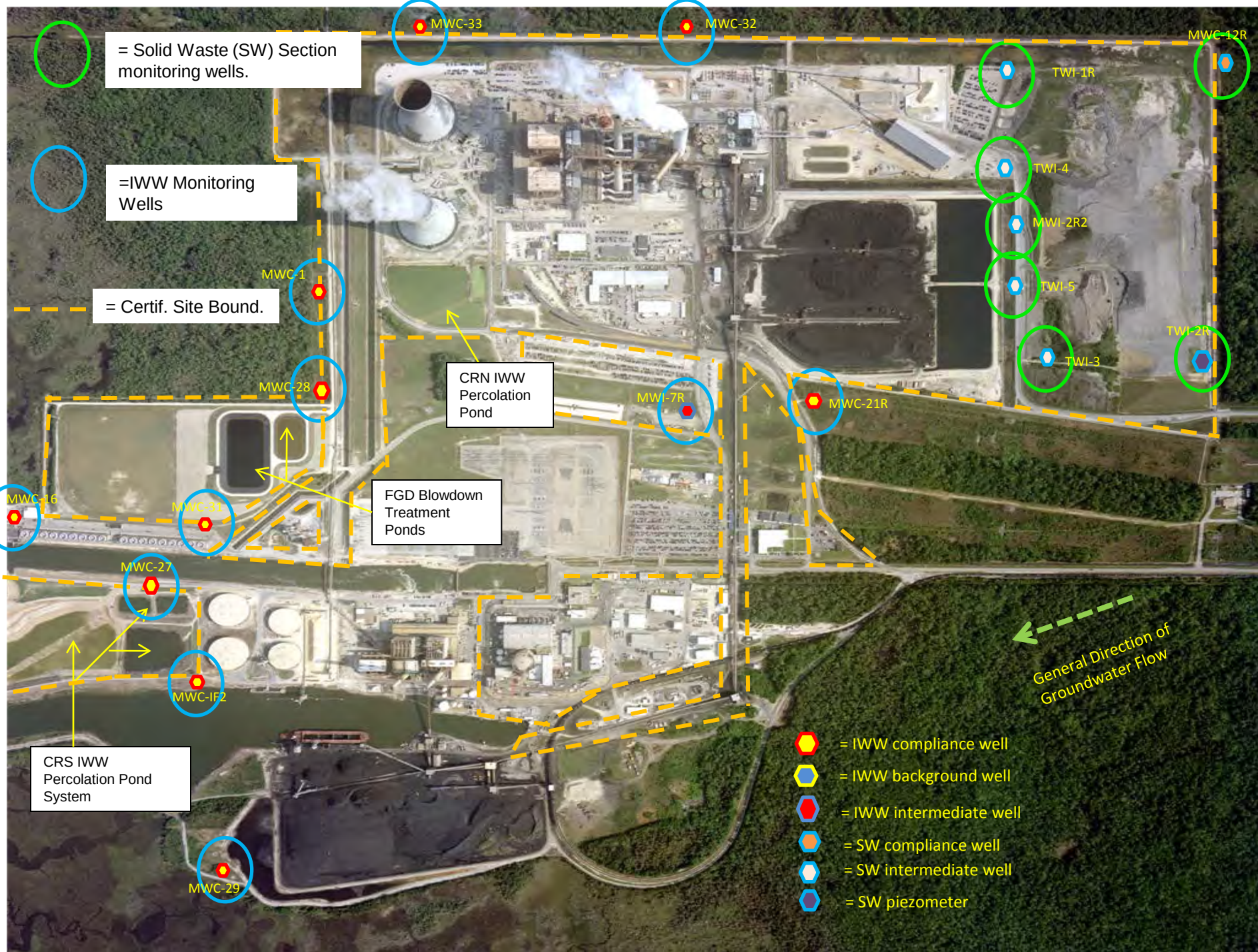
d. The licensee complied with any remedial measures required in Facility-Wide General condition A of this Attachment H.

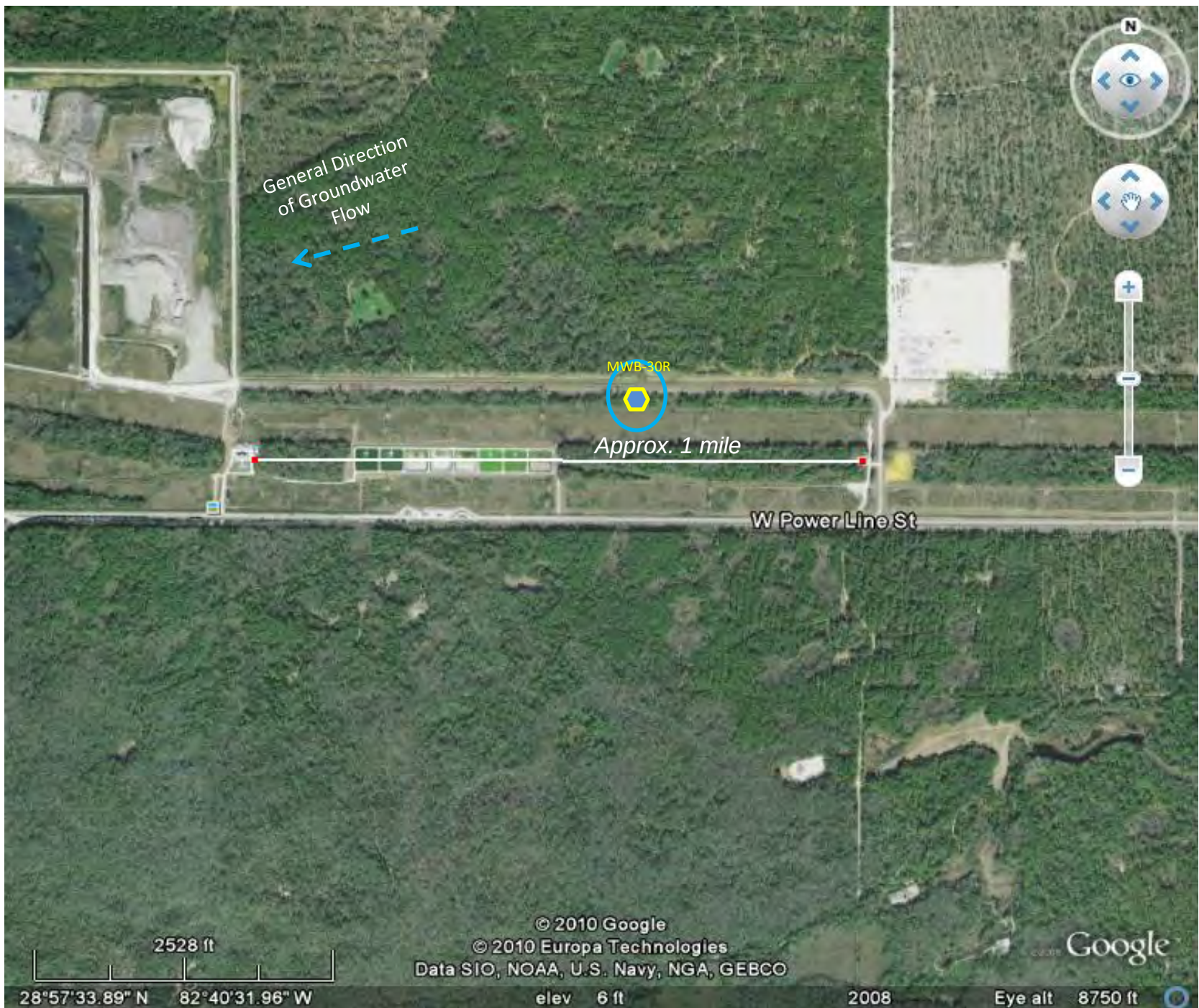
2. In any enforcement proceeding, the burden of proof for establishing the occurrence of an upset rests with the licensee.

3. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.

[62-620.610(23), F.A.C.]

Attachment I





Attachment J

ATTACHMENT “J”

**SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
WATER SUPPLY PLAN & SPECIFIC CONDITIONS**

**Crystal River Energy Complex – Units
1, 2, 3, 4 & 5 (CREC) & Citrus
Combined Cycle Facility (Citrus CC) –
Units 1 and 2
15760 West Powerline Street
Crystal River, FL 34428
Citrus County**

CREC -	Latitude: 28° 57' 27" N	Longitude: 82° 42' 36" W
Citrus CC -	Latitude: 28° 58' 6" N	Longitude: 82° 40' 16" W

These SWFWMD requirements were developed by the Licensee in conjunction with the SWFWMD's Water Use Permit Bureau to incorporate water use requirements into the Licensee's Conditions of Certification. This attachment incorporates requirements related to Crystal River Energy Complex (CREC) Units 1, 2, 3, 4 and 5 withdrawals, and the new Citrus Combined Cycle (CCC) Units 1 and 2 withdrawals. The SWFWMD is responsible for reviewing and approving all revisions to this document in accordance with its Conditions of Certification.

The following Specific Conditions shall apply facility-wide. Compliance with these Specific Conditions shall be the responsibility of the Licensee.

The Licensee is authorized to withdraw up to 5.309 million gallons per day (mgd) (annual average) and 5.809 mgd (peak demand) of groundwater for construction, operation, maintenance, decommissioning, and/or demolition of CREC Units 1, 2, 3, 4, and 5, and CCC Units 1 and 2, unless reduced by the SWFWMD based on the annual Water Use Summary Report submitted by the Licensee for SWFWMD review and approval, pursuant to Condition VIII.A.2.

District Identification (DID) Nos. 1 through 7, and 14 through 16 shown in Table 1 below were associated with tracking WUP No. 20003672.001 previously issued for CREC Units 3, 4 and 5, while DID Nos. 18 through 22 shown below are transferred from WUP No. 20004695.004 previously issued for CREC Units 1, 2 and 3. These withdrawals are hereby combined and henceforth tracked under WUP No. 20003672.002 issued for CREC Units 1, 2, 3, 4 and 5, and the new CCC Units 1 and 2.

A. Withdrawal Quantities and Facilities

Table 1

District ID / Licensee ID	Diameter (In.)	Total Depth (ft. bls)	Cased Depth (ft. bls)	Water Allocation	
				Annual Average Gallons per Day *	Peak Month
1 / PW-1	10	200	35	430,900	430,900
2 / PW-2	10	200	47	430,900	430,900
3 / PW-3	10	200	60	430,900	430,900
4 / PW-4	10	200	41	430,900	430,900
5 / PW-5	10	200	35	430,900	430,900
6 / PW-6	10	200	50	430,900	430,900
7 / PW-7	10	200	50	430,900	430,900
14 / PW-8	12	220	84.5	430,900	430,900
15 / PW-9a	12	200	58.5	430,900	430,900
16 / PW-10a	12	200	58.5	430,900	430,900
18 / PW1A	5	42	42	25,000	37,500
19 / PW1B	8	42	42	25,000	37,500
20 / SPW3	10	90	36	380,000	570,000
21 / SPW4	10	125	37	285,000	427,500
22 / SPW5	10	72	UNK	285,000	427,500
Total =				5,309,000 *	5,809,000**

* Measured on a rolling annual average daily flow (RAADF) basis.

** Based on a 1.500 MGD peak month value allowed for Licensee ID Nos. PW1A, PW1B, SPW3, SPW4 and SPW5.

B. *Submit Reports/Data*

All reports and data required by condition(s) shall be submitted to the District according to the due date(s) contained in the specific condition. If the condition specifies that a District-supplied form is to be used, the Licensee should use that form in order for its submission to be acknowledged in a timely manner. The Licensee may use the District Permit Information Center (www.swfwmd.state.fl.us/permits/epermitting/) to submit data, plans or reports online. There are instructions at the District website on how to register to set up an account to do so. If the report or data are received on or before the tenth day of the month following data collection, it shall be deemed to be a timely submittal.

All mailed reports and data are to be sent to:
Southwest Florida Water Management District
Tampa Regulation Department, Water Use Permit Bureau
7601 U.S. Hwy. 301 North
Tampa, Florida 33637-6759

Submission of plans and reports: Unless submitted online or otherwise indicated in the COC, the original and two copies of each plan and report, such as conservation plans, environmental analyses, aquifer test results, per capita annual reports, etc. are required.

Submission of data: Unless otherwise indicated in the COC, an original (no copies) is required for data submittals such as crop report forms, meter readings and/or pumpage, rainfall, water level evapotranspiration, or water quality data. (499)

C. *Distribution Flexibility*

The annual average daily, peak month, and maximum daily, if applicable, quantities shown in the withdrawal point quantity table (Table 1) are estimates based on historic and/or projected distribution of pumpage, and are for water use inventory and impact analysis purposes only. The quantities listed for these individual sources are not intended to dictate the distribution of pumpage from the withdrawal sources. The Licensee may make adjustments in pumpage distribution as necessary up to **125 percent** on a rolling annual average daily flow basis, so long as adverse environmental impacts do not result and the Licensee complies with all other conditions of this certification. In all cases, the total average annual daily withdrawal and the total peak monthly daily withdrawal are limited to the quantities set forth above. (221)

D. *Environmental Impacts, Monitoring, and Mitigation: Environmental Assessment*

1. *Environmental Monitoring Plan*

Licensee shall maintain the District-approved Environmental Monitoring Plan. This monitoring plan, at a minimum utilizes the SWFWMD's Wetland Assessment Procedure to evaluate the relative condition of surface waters and wetlands in areas affected by water withdrawals of Licensee from the wells listed in Table 1 above. Monitoring reports associated with the plan shall be provided in the annual monitoring report required by Item 6 below. After two years of monitoring following groundwater use rising to more than 5 million gallons per day (average annual daily withdrawal quantity) from all the wells included in this site certification, the Licensee may request the SWFWMD release the Licensee from monitoring. If the SWFWMD concurs with the request, this Appendix will be revised accordingly.

2. Data Collection:

Licensee shall maintain and monitor the environmental monitoring sites included in the approved monitoring plan. Water levels for monitor wells and staff gauges for the sites included in the monitoring plan shall be referenced to National Geodetic Vertical Datum (NGVD) and reported in a form acceptable to the SWFWMD by the 10th day of each month for the preceding month. The time and date that the elevation is taken shall be included. Any changes to the methods or frequency of monitoring for any of these data collection programs must be approved by the SWFWMD.

3. Staff Gauges:

Licensee shall install and thereafter maintain SWFWMD-approved staff gauges and shall report measurements of water levels, as indicated in the monitoring plan. Water levels shall be recorded and reported to the SWFWMD on or before the tenth day of the following month. To the maximum extent possible, water levels shall be recorded as indicated in the monitoring plan. The frequency of recording may be modified by the SWFWMD as necessary to ensure protection of the resource.

4. Rain Gauges:

Licensee shall maintain a continuous recording rain gauge (District ID No. 17, Licensee ID No. 17) within the area. Total daily rainfall shall be recorded at this station and submitted to the SWFWMD (on SWFWMD forms or on line) on or before the tenth day of the following month. The reporting period for these data shall begin on the first day of each month and end on the last day of each month.

5. Data Handling:

Licensee shall monitor water levels in the monitor wells and piezometers as specified in the monitoring plan. Reports of the data shall be submitted to the SWFWMD in a form acceptable to the SWFWMD. All data shall be referenced to NGVD. The frequency of water-level recording may be modified by the SWFWMD as necessary to ensure the protection of the resource.

6. Annual Environmental Monitoring Reports

Licensee shall submit an annual environmental monitoring data summary by April 1st of each year for the preceding water year (January 1 – December 31). The Annual Monitoring Report shall include all raw data, essential graphs, tables, and text. Monitoring progress at each site shall be summarized in the Annual Monitoring Report, as specified below. Licensee shall submit three copies of the Annual Monitoring Report each year. Interpretive reports of wellfield environmental conditions shall incorporate all environmental monitoring sites used. The Annual Monitoring Report shall assess relationships between water level fluctuations, well pumpage, atmospheric conditions, and drainage factors related to the environmental condition of the wetlands and surface waters in the vicinity of the conditions of certification area. Pumpage data, wetland, water level data collected from the aquifer and for the region, and environmental parameters collected at the wellfield and in the region shall be used for the report results. Statistical trend analysis, such as double-mass curve analysis, multiple linear regression, time series analysis and/or factor analysis shall be performed to analyze the interactions of rainfall and pumpage on surficial water levels, potentiometric levels in the semi- confined aquifers, surface waters, and wetland water levels, rate of soil subsidence, and evidence of vegetational succession. Data shall be obtained through field measurements and aerial photo interpretation. A brief summary of any recommended changes to the monitoring requirements shall be provided.

E. Compliance Reporting

The Licensee shall submit a compliance report beginning January 28, 2018 and at 10 year intervals thereafter. The report must contain sufficient information to demonstrate reasonable assurance that the withdrawals and use of water authorized by these conditions of certification continue to meet the substantive requirements set forth in Chapter 40D-2, F.A.C., and SWFWMD's Water Use Permit Information Manual Part B, Basis of Review. The compliance report must include:

1. Information documenting water demands and updated demand projections demonstrating that allocations from all sources in the conditions of certification will continue to be needed for the remainder of the conditions of certification duration;
2. Documentation verifying that the sources are capable of supplying the needs authorized by these conditions of certification without causing harm to water and water-related resources;
3. Documentation verifying that the use of water is efficient and that the Licensee is implementing all feasible water conservation measures;
4. An updated groundwater modeling analysis and data analysis demonstrating that the use of groundwater does not interfere with legal uses existing at the time of issuance of this modification of the conditions of certification;
5. An updated groundwater modeling analysis, along with statistical analyses of water-level and wetland monitoring data, demonstrating that the use does not cause adverse impacts to wetlands, and surface waters, or violations of MFLs;
6. Documentation that groundwater withdrawals by the Licensee are not causing or contributing to significant saltwater intrusion, including but not limited to review and statistical analyses of groundwater level and water quality data collected by the Licensee under these conditions of certification;
7. Information demonstrating that the lowest quality source of water is being used to meet the water demands.

Following review of this report, SWFWMD may seek modification of the conditions of certification or this Appendix to ensure that the use continues to meet the substantive conditions for the consumptive use of water as set forth in Section 373.223, F.S., and Chapter 40D-2, F.A.C.

F. Pumpage Reporting

The withdrawal facilities listed in Table 1 above shall continue to be maintained and operated with existing, non-resettable, totalizing flow meter(s) or other measuring device(s) as approved by the SWFWMD Water Use Permit Bureau Chief. Monthly meter reading and reporting, as well as meter accuracy checks every five years shall be in accordance with instructions in Exhibit A, Metering Instructions, attached to and made part of this Attachment. (719)

G. Water Quality Sampling

Water quality samples from the withdrawal points listed below in Table 2 shall be collected after pumping the withdrawal point at its normal rate for a pumping time specified below, or to a constant temperature, pH, and conductivity. The frequency of sampling per water quality parameter is listed in the table according to the withdrawal point. The recording and reporting shall begin according to the first sample date for existing wells and shall begin within 90 days of completion of any proposed wells. Samples shall be collected whether or not the well is being used unless infeasible. If sampling is infeasible, the Permittee shall indicate the reason for not sampling on the water quality data form or in the space for comments in the WUP Portal for data submissions. For sampling, analysis and submittal

requirements see Exhibit A, Water Quality Sampling Instructions, attached to and made part of this Attachment. (752)

Table 2

District ID No.	Licensee ID No.	Minimum Pumping Time (min.)	Parameter	Sampling Frequency
			Chlorides, Sulfates and TDS	February, May, August, and November
1	PW-1	20		
2	PW-2	20		
3	PW-3	20		
4	PW-4	20		
5	PW-5	20		
6	PW-6	20		
7	PW-7	20		
14	PW-8	20		
15	PW-9a	20		
16	PW-10a	20		
21	SPW4	20		

2. Water quality samples from the monitor sites listed below in Table 3 shall be collected and analyzed for the parameter(s) specified at the frequency indicated. For sampling, analysis and submittal requirements see Exhibit A, Water Quality Sampling Instructions, attached to and made part of this Attachment. (750)

Table 3

District ID No.	Licensee ID No.	Parameter	Sample Frequency
8	MZ-2I	Chlorides,	May, September
9	MZ-2D	Sulfates, and TDS	
10	MZ-2S		
11	MZ-1S		
12	MZ-1I		
13	MZ-1D		

3. The SWFWMD reserves the right to set chloride, sulfate or TDS concentration limits on any production well in the future, based on data collected and after a sufficient data base has been established to determine limits. These limits shall be required after discussions with the Licensee. At such time as the concentration in any water sample reaches or exceeds the designated concentration limits, the Licensee shall take appropriate action to reduce concentrations to below those

set for the particular well. If the SWFWMD determines that long-term upward trends or other significant water quality changes are occurring, the SWFWMD may reconsider the quantities included in these conditions of certification. (276)

4. The Licensee shall continue to maintain the monitor well(s) or piezometer(s) listed below in Table 4 and report them to the District at the frequency listed. Water levels shall be recorded relative to National Geodetic Vertical Datum (NGVD), and to the maximum extent possible, recorded on a regular schedule: same time each day, same day each week, same week each month as appropriate to the frequency noted. The readings shall be reported online via the WUP Portal at the District website (www.watermatters.org) or mailed in hardcopy on District-provided forms to the Water Use Permit Bureau, on or before the tenth day of the following month. The frequency of recording may be modified by the SWFWMD Water Use Permit Bureau Chief, as necessary to ensure the protection of the resource. (756)

Table 4

SWFWMD ID. No	Licensee ID No.	Frequency
8	MZ-2I	Monthly
9	MZ-2D	Monthly
10	MZ-2S	Monthly
11	MZ-1S	Monthly
12	MZ-1I	Monthly
13	MZ-1D	Monthly
23	MONW	Monthly

H. Vertical Datum Conversion

Before January 1, 2016, the Permittee shall submit a plan where the existing water level monitoring sites, District ID Nos. 8, 9, 10, 11, 12, 13, and 23, Licensee ID Nos. MZ-2I, MZ-2D, MZ-2S, MZ-1S, MZ-1I, MZ-1D and MONW shall be re-surveyed to North American Vertical Datum 1988. The plan shall specify which monitor sites will be re-surveyed and when it will be done. Following District approval, the plan shall be implemented and a copy of each certified resurvey will be submitted to the District according to the schedule. (850)

I. Standard Conditions

1. With advance notice to the Licensee, SWFWMD staff with proper identification shall have permission to enter, inspect, collect samples, take measurements, observe permitted and related facilities and collect any information deemed necessary to protect the water resources of the area and to determine compliance with the approved plans, specifications and conditions of this permit. The Licensee shall either accompany SWFWMD staff onto the property or make provision for access onto

the property. The SWFWMD may require the Licensee to submit water samples when the SWFWMD determines there is a potential for adverse impacts to water quality. (265)

2. All permits or other water use authorizations are contingent upon continued ownership or legal control of all property on which pumps, wells, diversions or other water withdrawal facilities are located. (266)

3. When necessary to analyze impacts to the water resource or existing users, the SWFWMD shall require the Licensee to install flow metering or other measuring devices to record withdrawal quantities and submit the data to the District. (269)

4. The SWFWMD shall collect water samples from any withdrawal point listed in the permit or shall require the permittee to submit water samples when the SWFWMD determines there is a potential for adverse impacts to water quality. (271)

5. A SWFWMD identification tag shall be prominently displayed at each withdrawal point that is required by the SWFWMD to be metered or for which withdrawal quantities are required to be reported to the SWFWMD, by permanently affixing the tag to the withdrawal facility. (277)

6. The Licensee shall mitigate any adverse impact to environmental features or offsite land uses as a result of withdrawals. When adverse impacts occur or are imminent, the SWFWMD shall require the Licensee to mitigate the impacts. Examples of adverse impacts include the following:

- A. Significant reduction in levels or flows in water bodies such as lakes, impoundments, wetlands, springs, streams or other watercourses; or
- B. Damage to crops and other vegetation causing financial harm to the owner; and
- C. Damage to the habitat of endangered or threatened species. (361)

7. The Licensee shall mitigate any adverse impact to existing legal uses caused by withdrawals. When adverse impacts occur or are imminent, the SWFWMD may require the Licensee to mitigate the impacts. Adverse impacts include:

- A. A reduction in water levels which impairs the ability of a well to produce water;
- B. Significant reduction in levels or flows in water bodies such as lakes, impoundments, wetlands, springs, streams or other watercourses; or
- C. Significant inducement of natural or manmade contaminants into a water supply or into a usable portion of an aquifer or water body. (362)

8. Licensee shall notify the SWFWMD in writing within 30 days of any sale, transfer, or conveyance of ownership or any other loss of permitted legal control of the site and / or related facilities from which the permitted consumptive use is made. Where Licensee's control of the land subject to the certification was demonstrated through a lease, the Licensee must either submit documentation showing that it continues to have legal control or transfer control of the permitted system / project to the new landowner or new lessee. All transfers of ownership are subject to the requirements of Rule 40D-1.6105, F.A.C. Alternatively, the Licensee may surrender the consumptive use permit to the SWFWMD, thereby relinquishing the right to conduct any activities under the permit. (382)

9. All consumptive uses authorized by the COCs shall be implemented as set forth in the conditions, including any documents incorporated by reference in a specific condition. The SWFWMD may request that DEP revoke this certification, in whole or in part, or take enforcement action, pursuant to sections 373.136 or 373.243, F.S., unless a modification has been obtained. (403)

10. Water use authorized under the SWFWMD's conditions do not convey to the Licensee any

property rights or privileges other than those specified herein, nor relieve the Licensee from complying with any applicable local government, state, or federal law, rule, or ordinance. (404)

11. The Licensee shall cease or reduce surface water withdrawal as directed by the SWFWMD if water levels in lakes fall below the applicable minimum water level established in Chapter 40D-8, F.A.C., or rates of flow in streams fall below the minimum levels established in Chapter 40D-8, F.A.C. (409)

12. The Licensee shall cease or reduce withdrawal as directed by the SWFWMD if water levels in aquifers fall below the minimum levels established by the SWFWMD. (410)

13. The Licensee is advised that the substantive provisions of section 373.239, F.S., and Rule 40D-2.331, F.A.C., are applicable to modifications relating to SWFWMD conditions for water use. (412)

14. The Licensee shall practice water conservation to increase the efficiency of transport, application, and use, as well as to decrease waste and to minimize runoff from the property. At such time as the SWFWMD adopts specific conservation requirements for the Licensee's water use classification, these conditions shall be subject to those requirements upon notice and after a reasonable period for compliance. (556)

15. The SWFWMD may establish special regulations for Water-Use Caution Areas. At such time as the SWFWMD adopts such provisions, this permit shall be subject to them upon notice and after a reasonable period for compliance. (564)

16. Nothing in these conditions should be construed to limit the authority of the SWFWMD to declare a water shortage and issue orders pursuant to chapter 373, F.S. In the event of a declared water shortage, the Licensee must adhere to the water shortage restrictions, as specified by the SWFWMD. The Licensee is advised that during a water shortage, reports shall be submitted as required by SWFWMD rule or order. (565)

17. The SWFWMD-related conditions of certification are based on information provided by the Licensee demonstrating that the use of water is reasonable and beneficial, consistent with the public interest, and will not interfere with any existing legal use of water. If, during the term of the certification, it is determined by the SWFWMD that a statement in the application and in the supporting data are found to be untrue and inaccurate, the use is not reasonable and beneficial, in the public interest, or does impact an existing legal use of water, the SWFWMD shall seek modification of this COCs The Licensee shall immediately notify the SWFWMD in writing of any previously submitted information that is later discovered to be inaccurate. (566)

Attachment J
Exhibit A - Instructions

METERING INSTRUCTIONS

The Licensee shall meter withdrawals from surface waters and/or the ground water resources, and meter readings from each withdrawal facility shall be recorded on a monthly basis within the last week of the month. The meter reading(s) shall be reported to the SWFWMD Water Use Permit Bureau on or before the tenth day of the following month for monthly reporting frequencies. For bi-annual reporting, the data shall be recorded on a monthly basis and reported on or before the tenth day of the month following the sixth month of recorded data. The Licensee shall submit meter readings online using the Permit Information Center at <http://www.swfwmd.state.fl.us/permits/> or on District-supplied scanning forms unless another arrangement for submission of this data has been approved by the SWFWMD. Submission of such data by any other unauthorized form or mechanism may result in loss of data and subsequent delinquency notifications. Call the Water Use Permit Bureau in Tampa at (813) 985-7481 if difficulty is encountered.

The meters shall adhere to the following descriptions and shall be installed or maintained as follows:

1. The meter(s) shall be non-resettable, totalizing flow meter(s) that have a totalizer of sufficient magnitude to retain total gallon data for a minimum of the three highest consecutive months permitted quantities. If other measuring device(s) are proposed, prior to installation, approval shall be obtained in writing from the Water Use Permit Bureau Chief.
2. The Licensee shall report non-use on all metered standby withdrawal facilities on the scanning form or approved alternative reporting method.
3. If a metered withdrawal facility is not used during any given month, the meter report shall be submitted to the SWFWMD indicating the same meter reading as was submitted the previous month.
4. The flow meter(s) or other approved device(s) shall have and maintain an accuracy within five percent of the actual flow as installed.
5. Meter accuracy testing requirements:
 - A. For newly metered withdrawal points, the flow meter installation shall be designed for inline field access for meter accuracy testing.
 - B. The meter shall be tested for accuracy on-site, as installed according to the Flow Meter Accuracy Test Instructions in this Exhibit A, every five years in the assigned month for the county, beginning from the date of its installation for new meters or from the date of initial issuance of this permit containing the metering condition with an accuracy test requirement for existing meters.
 - C. The testing frequency will be decreased if the Permittee demonstrates to the satisfaction of the District that a longer period of time for testing is warranted.
 - D. The test will be accepted by the District only if performed by a person knowledgeable in the testing equipment used.
 - E. If the actual flow is found to be greater than 5% different from the measured flow, within 30 days, the Permittee shall have the meter re-calibrated, repaired, or replaced, whichever is necessary. Documentation of the test and a certificate of re-calibration, if applicable, shall be submitted within 30 days of each test or re-calibration.
6. The meter shall be installed according to the manufacturer's instructions for achieving accurate flow to the specifications above, or it shall be installed in a straight length of pipe where there is at least an upstream length equal to ten (10) times the outside pipe diameter and a downstream length equal to two

(2) times the outside pipe diameter. Where there is not at least a length of ten diameters upstream available, flow straightening vanes shall be used in the upstream line.

7. Broken or malfunctioning meter:

A. If the meter or other flow measuring device malfunctions or breaks, the Permittee shall notify the District within 15 days of discovering the malfunction or breakage.

B. The meter must be replaced with a repaired or new meter, subject to the same specifications given above, within 30 days of the discovery.

C. If the meter is removed from the withdrawal point for any other reason, it shall be replaced with another meter having the same specifications given above, or the meter shall be reinstalled within 30 days of its removal from the withdrawal. In either event, a fully functioning meter shall not be off the withdrawal point for more than 60 consecutive days.

8. While the meter is not functioning correctly, the Licensee shall keep track of the total amount of time the withdrawal point was used for each month and multiply those minutes times the pump capacity (in gallons per minute) for total gallons. The estimate of the number of gallons used each month during that period shall be submitted on SWFWMD scanning forms and noted as estimated per instructions on the form. If the data is submitted by another approved method, the fact that it is estimated must be indicated. The reason for the necessity to estimate pumpage shall be reported with the estimate.

9. In the event a new meter is installed to replace a broken meter, it and its installation shall meet the specifications of this condition. The permittee shall notify the SWFWMD of the replacement with the first submittal of meter readings from the new meter.

FLOW METER ACCURACY TEST INSTRUCTIONS

1. Accuracy Test Due Dates - The Licensee is to schedule their accuracy test according to the following schedule:

A. For existing metered withdrawal points, add five years to the previous test year, and make the test in the month assigned to your county.

B. For withdrawal points for which metering is added for the first time, the test is to be scheduled five years from the issue year in the month assigned to your county.

C. For proposed withdrawal points, the test date is five years from the completion date of the withdrawal point in the month assigned to your county.

D. For the Licensee's convenience, if there are multiple due-years for meter accuracy testing because of the timing of the installation and/or previous accuracy tests of meters, the Licensee can submit a request in writing to the Water Use Permit Bureau Chief for one specific year to be assigned as the due date year for meter testing. If Licensee has many meters to test it may also request the tests to be grouped into one year or spread out evenly over two to three years.

E. The months for accuracy testing of meters are assigned by county. The Licensee is requested but not required to have their testing done in the month assigned to their county. This is to have sufficient SWFWMD staff available for assistance.

January	Hillsborough
February	Manatee, Pasco
March	Polk (for odd numbered permits)*
April	Polk (for even numbered permits)*
May	Highlands
June	Hardee, Charlotte
July	None or Special Request
August	None or Special Request
September	DeSoto, Sarasota

October	Citrus, Levy, Lake
November	Hernando, Sumter, Marion
December	Pinellas

* The Licensee may request their multiple permits be tested in the same month.

2. Accuracy Test Requirements: The Licensee shall test the accuracy of flow meters on permitted withdrawal points as follows:

A. The equipment water temperature shall be set to 72 degrees Fahrenheit for ground water, and to the measured water temperature for other water sources.

B. A minimum of two separate timed tests shall be performed for each meter. Each timed test shall consist of measuring flow using the test meter and the installed meter for a minimum of four minutes duration. If the two tests do not yield consistent results, additional tests shall be performed for a minimum of eight minutes or longer per test until consistent results are obtained.

C. If the installed meter has a rate of flow, or large multiplier that does not allow for consistent results to be obtained with four- or eight-minute tests, the duration of the test shall be increased as necessary to obtain accurate and consistent results with respect to the type of flow meter installed.

D. The results of two consistent tests shall be averaged, and the result will be considered the test result for the meter being tested. This result shall be expressed as a plus or minus percent (rounded to the nearest one-tenth percent) accuracy of the installed meter relative to the test meter. The percent accuracy indicates the deviation (if any), of the meter being tested from the test meter.

3. Accuracy Test Report: The Licensee shall demonstrate that the results of the meter test(s) are accurate by submitting the following information within 30 days of the test:

A. A completed Flow Meter Accuracy Verification Form, Form LEG-R.014.00 for each flow meter tested. This form can be obtained from the District's website (<http://www.swfwmd.state.fl.us/>) under "Permits and Rules" for Water Use Permits.

B. A printout of data that was input into the test equipment if the test equipment is capable of creating such a printout;

C. A statement attesting that the manufacturer of the test equipment, or an entity approved or authorized by the manufacturer, has trained the operator to use the specific model test equipment used for testing;

D. The date of the test equipment's most recent calibration that demonstrates that it was calibrated within the previous twelve months, and the test lab's National Institute of Standards and Testing (N.I.S.T.) traceability reference number.

E. A diagram showing the precise location on the pipe where the testing equipment was mounted shall be supplied with the form. This diagram shall also show the pump, installed meter, the configuration (with all valves, tees, elbows, and any other possible flow disturbing devices) that exists between the pump and the test location clearly noted with measurements. If flow straightening vanes are utilized, their location(s) shall also be included in the diagram.

F. A picture of the test location, including the pump, installed flow meter, and the measuring device, or for sites where the picture does not include all of the items listed above, a picture of the test site with a notation of distances to these items.

WATER QUALITY INSTRUCTIONS

The Licensee shall perform water quality sampling, analysis and reporting as follows:

1. The sampling method(s) from both monitor wells and surface water bodies shall be designed to collect water samples that are chemically representative of the zone of the aquifer or the depth or area of the water body.

2. Water quality samples from monitor wells shall be taken after pumping the well for the minimum

time specified (if specified) or after the water reaches a constant temperature, pH, and conductivity.

3. The first submittal to the SWFWMD shall include a copy of the laboratory's analytical and chain of custody procedures. If the laboratory used by the Licensee is changed, the first submittal of data analyzed at the new laboratory shall include a copy of the laboratory's analytical and chain of custody procedures.

4. Any variance in sampling and/or analytical methods shall have prior approval of the SWFWMD Water Use Permit Bureau Chief.

5. The Licensee's sampling procedure shall follow the handling and chain of custody procedures designated by the certified laboratory which will undertake the analysis.

6. Water quality samples shall be analyzed by a laboratory certified by the Florida Department of Health utilizing the standards and methods applicable to the parameters analyzed and to the water use pursuant to Chapter 64E-1, Florida Administrative Code, "Certification of Environmental Testing Laboratories."

7. Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association-American Water Works Association-Water Pollution Control Federation (APHA-AWWA-WPCF) or Methods for Chemical Analyses of Water and Wastes by the U.S. Environmental Protection Agency (EPA).

8. Unless other reporting arrangements have been approved by the SWFWMD Water Use Permit Bureau Chief, reports of the analyses shall be submitted to the SWFWMD Water Use Permit Bureau, online at the SWFWMD WUP Portal or mailed in hardcopy on or before the tenth day of the following month. The online submittal shall include a scanned upload of the original laboratory report. The hardcopy submittal shall be a copy of the laboratory's analysis form. If for some reason, a sample cannot be taken when required, the Permittee shall indicate so and give the reason in the space for comments at the WUP Portal or shall submit the reason in writing on the regular due date.

9. Water quality samples shall be collected based on the following timetable for the frequency listed in the special condition:

10. The parameters and frequency of sampling and analysis may be modified by the SWFWMD as necessary to ensure the protection of the resource.

Frequency Timetable

Weekly Same Day of each week Monthly Same week of each month

Quarterly Same week of February, May, August, November

Semi-annually Same week of May, November

Attachment K

Mitigation Plan—Attachment K

History and Project Description

Duke Energy Florida (DEF) filed its site certification application for the proposed construction and operation of new electrical generating facilities and associated facilities in Citrus County, Florida, on August 1, 2014. The electrical generating facilities will be located on an approximately 400-acre Site adjacent to the eastern boundary of DEF's existing Crystal River Energy Complex. The Project includes two natural gas-fired combined cycle units and several on- and off-Site associated linear facilities, including 230- and 500-kilovolt (kV) electrical transmission lines and several water pipelines. The off-Site portions of these linear facilities will be located within a corridor wholly contained within DEF-owned CREC property.

This mitigation plan applies only to the Citrus Combined Cycle Project. Any future activities at CREC or on the CCC Site, outside of those certified as proposed in the CCC site certification application, will require modification of this plan. Changes or modifications to the plan will be tracked by the table in Item 2 below.

DEF shall comply with the following conditions prior to commencement of any construction activities:

1. Submittals required herein shall include the Licensee's name and Siting Certification Tracking Number PA77-09A3 and SWD tracking number, and shall be directed by e-mail to SW_ERP@dep.state.fl.us with a subject line of permitting/compliance PA No. 77-09A3/SWD tracking number, or by mail to:

Department of Environmental Protection
Southwest District
Submerged Lands and Environmental Resource Program
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

2. Wetland Impacts and Mitigation

Project Phase	Date	Siting Office #	SWD Tracking #	Wetland Impacts	Mitigation
Initial Construction	9/2015	PA77-09A3	09-270612-030	3.84 acres of permanent forested and non-forested wetland impacts 7.78 acres of permanent conversion of forested wetland to non-forested wetlands 11.02 acres of temporary impacts of non-forested wetlands	Purchase 3.388 forested credits and 0.325 herbaceous credits from the Upper Coastal Wetland Mitigation Bank or Old Florida Mitigation Bank. Prior to any construction or impacts authorized by the certification, DEF shall provide the Department with documentation that the credits have been

					deducted from the credit ledger(s) of the Upper Coastal Wetland Mitigation Bank, SWFWMD ERP No. 43031543.001 or Old Florida Mitigation Bank, SWFWMD ERP No. 4341425.001

DEF shall comply with the following prior to construction of the Citrus Combined Cycle associated linear facilities within the linear facilities corridor:

3. No later than 180 days prior to construction of associated linear facilities within the linear facilities corridor, DEF shall provide to FDEP SCO and the SWD:
 - a. Detailed construction drawings depicting the location of each typical pipeline trench cross-section, pipe elevations, and existing grade elevations; and
 - b. Detailed construction drawings depicting the location and impact footprint of any new transmission line support structures that were not provided in the site certification application or during the site certification hearing. If these drawings include fill or substantial structure impacts, DEF shall provide updated wetland impact drawing and UMAM tables and score sheets prior to beginning construction of the new transmission line support structures.

DEF shall comply with conditions 4 and 5 prior to commercial operation of the Citrus Combined Cycle Project:

4. All areas identified by the Applicant in the SCA as “temporary” wetland impact areas shall be restored to pre-construction site conditions, including contours and elevations, within 15 days of completion of construction. For trench construction in wetland areas, DEF shall segregate and return the upper 12-inches of wetland topsoil to the top of the trench during backfilling.
5. A "Time Zero" Wetland Monitoring Report shall be submitted within 45 days of completion of the re-grading activities within the temporary wetland impact areas and shall include the following:
 - a. Date the re-grading was completed;
 - b. Color photographs to provide an accurate representation of each re-graded area. The photographs shall be taken from fixed reference points and directions which are shown on a scaled plan-view.

Time Zero Wetland Monitoring Reports may be submitted separately for individual facilities or segments of linear facilities.

DEF shall comply with the following conditions post-construction:

6. Subsequent Wetland Monitoring Reports shall be submitted to the District office semiannually for the first year and annually thereafter until the success criteria outlined in Condition No. 7 are achieved. If separate Time Zero Monitoring Reports are submitted for individual facilities or segments of linear facilities, the subsequent semiannual Restoration Reports shall consolidate those facilities into one semiannual Restoration Report.

The Restoration Monitoring Reports shall include the following for each restoration area:

- a. Color photographs taken from the reference points established in the Time Zero Monitoring Report.
- b. Plant species composition with estimates of the contribution of each species to percent cover.
- c. Total contribution to percent cover by non-native wetland species and species not listed in 62-340, F.A.C.

7. The restoration of temporarily impacted areas shall be deemed successful when the following criterion has been continuously met for a period of six months, without intervention in the form of irrigation, removal of undesirable vegetation, or replanting of desirable vegetation:

- a. Native wetland species have achieved a minimum of 80% coverage.

8. DEF shall meet the restoration success criteria as defined in Condition No. 7. The responsibility to assess if the restoration areas are meeting the success criteria shall not fall solely on the Department. In the event DEF becomes aware the restoration areas are not meeting the success criteria (based on either site observations or review of monitoring reports) after two years of monitoring, DEF shall be responsible to submit an alternative restoration plan to the Department for review and approval.