PMLevyCOLPEm Resource

From: Bruner, Douglas
Sent: Thursday, July 30, 2009 12:05 PM
To: Smith, Michael Alan; ellen.kennedy@pnl.gov; Wyngarden, Stephen; Hambrick, Gordon A SAJ; Masnik, Michael; Doub, Peyton
Cc: Moser, Michelle; LevyCOL Resource
Subject: FW: LNP - Spring CREC Water Quality Sampling Data
Attachments: NPD-NRC-2009-165.pdf

FYI

From: Snead, Paul [mailto:paul.snead@pgnmail.com]
Sent: Thursday, July 30, 2009 11:54 AM
To: Bruner, Douglas
Subject: LNP - Spring CREC Water Quality Sampling Data

Doug:

FYI, attached are the results of the Spring Water Quality Sampling for the CREC that is being sent to the Document Control Desk with copies to you.

Paul Snead
Lead Environmental Specialist
Nuclear Plant Development
Progress Energy
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(919) 546-2836

Hearing Identifier: Levy_County_COL_Public
Email Number: 379

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From: Bruner, Douglas

Created By: Douglas.Bruner@nrc.gov

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Serial: NPD-NRC-2009-165
July 29, 2009

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

LEVY NUCLEAR POWER PLANT, UNITS 1 AND 2
DOCKET NOS. 52-029 AND 52-030
SUPPLEMENTAL INFORMATION – WATER QUALITY SAMPLING DATA - SPRING 2009

Reference: Letter from Garry D. Miller (PEF) to U.S. Nuclear Regulatory Commission (NRC), dated March 27, 2009, "Response to Request for Additional Information Regarding the Environmental Review," Serial: NPD-NRC-2009-042

Ladies and Gentlemen:

In the referenced letter, Progress Energy Florida, Inc. (PEF) noted that additional Crystal River Energy Complex discharge canal water quality sampling data for samples collected in the spring would be provided to the NRC no later than July 2009 (RAI # 2.3.3-1, L-0090). The purpose of this letter is to submit this data in the form of the attached Technical Memorandum 338884-TMEM-104.

If you have questions, please contact Bob Kitchen at (919) 546-6992 or me at (919) 546-6107.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on July 29, 2009.

Sincerely,

Garry D. Miller
General Manager
Nuclear Plant Development

Attachment

cc (w/attachment): Mr. Douglas Bruner, U.S. NRC Environmental Project Manager

cc (w/o attachment): U.S. NRC Region II, Regional Administrator
Mr. Brian C. Anderson, U.S. NRC Project Manager

Progress Energy Florida, Inc.
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Lorin Young (CH2M HILL)
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NPD Document Control Inbox (Records: Correspondence)
File: NGG-NPD (Dawn Bisson)

Attachment A
Tech Memo Approval Form

Tech Memo Number: 338884-TMEM-104
Revision: 0
Project: 338884
Review Date: 07/13/09

Tech Memo Title: Crystal River Energy Complex Discharge Canal: Water Quality Sampling, May 2009

Revision History:

Revision Number	Description	Approval Date	Affected Pages
0	Initial submittal.	07/20/09	All

Document Review and Approval

Originator:	Mark Stinnett/ Project Chemist Name/Position	07/13/09 Date
	Signature	
Reviewer	William T. Marsh/Task Manager Name/Position	07/13/09 Date
	Signature	
Project Manager:	Lorin Young/Project Manager Name/Position	07/20/09 Approval Date
	Signature	

Crystal River Energy Complex Discharge Canal: Water Quality Sampling May 2009

Levy Nuclear Plant

Prepared for

Progress Energy Florida

Prepared by

CH2MHILL

Contents

1.0 Purpose **4**

2.0 Methodology **5**

3.0 Results **7**

Tables

1 CREC Station 1 Water Quality Analytical Results, May 19, 2009
2 CREC Station 2 Water Quality Analytical Results, May 19, 2009
3 CREC Station 3 Water Quality Analytical Results, May 19, 2009
4 CREC Station 4 Water Quality Analytical Results, May 19, 2009
5 CREC Units 4/5 Intake and Discharge Water Quality Analytical Results, May 19, 2009
6 Quality Assurance/Quality Control Samples, May 19, 2009
7 Water Quality Field Parameter Data, May 19, 2009

Figures

1 Sampling Stations
2 Units 4/5 Intake and Discharge Sampling Locations

References

1 TestAmerica Laboratories, Inc. "Analytical Report, SDG Number PRG22038 June 5, 2009.
2 TestAmerica Laboratories, Inc. "Analytical Report, SDG Number PRG22093 June 15, 2009.

1.0 Purpose

Water quality sampling was initiated at Progress Energy Florida, Inc.'s (PEF's) Crystal River Energy Complex (CREC) to characterize general water quality conditions within the cooling water discharge canal and adjacent near-shore areas potentially affected by the addition of blowdown water from the proposed Levy Nuclear Plant Units 1 and 2 (LNP). Water quality samples were collected from six locations and sent to a laboratory for analysis. Samples were analyzed for parameters of interest to aquatic biological communities and relevant parameters identified in NUREG-1555 Section 2.3.3. This memorandum details the results of the water quality sampling conducted during May 2009. Data previously collected during September and November 2008 were provided in LNP ER RAI 2.3.3-1 (L-0090). Data previously collected during January and February 2009 were provided in Technical Memorandum 338884-TMEM-098, Rev. 1. One future water quality sampling event is proposed for August 2009.

2.0 Methodology

The data collection methods employed in both the field and the laboratory analytical methods are summarized in this section. Sampling was conducted on May 19, 2009, at Stations 1 through 4 in the CREC discharge canal and at the CREC Units 4 and 5 intake and discharge stations. The sampling stations are located as follows:

- Station 1 – Within the CREC discharge canal adjacent to where the proposed LNP blowdown line would discharge, downstream of the Units 4/5 discharge
- Station 2 – Within the CREC discharge canal near the west end of the helper cooling towers
- Station 3 – Near the mouth of the CREC discharge canal
- Station 4 – Near shore, approximately 2 miles west of the mouth of the CREC discharge canal
- Units 4/5 Intake – Within the Units 4/5 intake ditch at access road bridge
- Units 4/5 Discharge – Within the Units 4/5 discharge ditch at access road bridge

Sampling locations are shown on Figures 1 and 2. Samples taken at Station 1, Station 2 and the Units 4/5 intake and discharge were collected just below the water surface from the shoreline and samples collected from Stations 3 and 4 were collected at the middle water column depth from a boat. In addition to the native samples collected at each station, one field duplicate and equipment blank were also analyzed for quality assurance (QA) and quality control (QC). Water samples were collected using a peristaltic pump and Teflon tubing as specified by the United States Environmental Protection Agency's (EPA's) low-level mercury method (EPA 1631E).

Water samples from Stations 1 through 4 were submitted to analytical laboratory TestAmerica Laboratories, Inc. (TestAmerica). The samples were tested by the following analytical methods:

- Metals (Induced Coupled Plasma Spectroscopy [ICP]) by 6010B, with the preparation methods of SW846 and 3005A
- Low-level mercury by method EPA 1631E, with preparatory method the same
- Total dissolved solids by MCAWW 160.1
- Total suspended solids by MCAWW 160.2
- Anions (chloride and sulfate) by MCAWW 300.0
- Ammonia by MCAWW 350.1
- Total Kjeldahl nitrogen by MCAWW 351.2, with preparatory method the same
- Nitrate-nitrite as nitrogen by MCAWW 353.2
- Total phosphorus by EPA 365.1, with preparatory method MCAWW 365.2/365.3/365
- Orthophosphate by MCAWW 365.2
- Alkalinity by SM 2320B
- Biological oxygen demand, 5-day, by EPA 405.1
- Carbonaceous oxygen demand by EPA 410.4
- Chlorophyll-a by SM 10200H, with preparatory method the same

Radium and Gross Alpha parameters were collected at the CREC Units 4/5 intake and discharge stations. The samples were submitted to TestAmerica and tested by the following methods:

- Gross Alpha by EPA 9310
- Radium 226 by EPA 903.0 MOD
- Radium 228 by EPA 904 MOD

Detailed information on the sampling methodology for the relevant parameters is presented in the *COLA Aquatic Sampling Workplan for Levy County Site, Progress Energy, Florida* (338884-WKPL-003, Rev. 2).

In addition to analytical samples, water quality measurements were taken in the field using Yellow Springs Instruments (YSI) multiprobe water quality meters. Field water quality measurements included salinity, conductivity, dissolved oxygen, pH, and temperature. These field parameters were recorded on field sheets and entered into a Microsoft Access database.

3.0 Results

Tables 1 through 4 present the water quality analytical results from the May 2009 sampling event for CREC Stations 1 through 4. Table 5 provides the CREC intake and discharge radiological sample results for May 2009. Table 6 provides the QA/QC sample results.

Blank samples

Per EPA's functional guidelines, concentrations of organic and inorganic compounds detected in samples at less than five times the concentration of the associated blanks can be attributed to field sampling and/or laboratory contamination rather than environmental site conditions. Target compounds reported in the samples at levels less than five times the concentration in the associated blanks are qualified as not detected. Sample concentrations that are greater than five times the concentrations found in the blank samples are considered valid and may be used to satisfy the data quality objectives of the project.

No data were flagged for blank contamination with the exception of four native samples that were flagged as non-detected for mercury as a result of the target analyte being found in the associated equipment blank. Additionally, one native sample that was flagged for mercury was estimated to be non-detect due to contamination in the blank and a low matrix spike recovery.

Lab Control Sample/Lab Control Sample Duplicate (LCS/LCSD)

These samples are QC samples, spiked with a known concentration of target analytes, used to monitor laboratory method performance. The accuracy and precision of the LCS/LCSD indicate whether the analytical method was in control. Additionally, these measurements serve as a monitor of the overall performance of each step during the analysis, including sample preparation. The samples do not possess a difficult matrix, as they consist of de-ionized laboratory water spiked with target compounds of interest. A review of the LCS/LCSD shows that all recoveries were within criteria and that the analytical system was under control at the time of analysis.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

This is an aliquot of sample spiked with a known concentration of target analytes. Spike recoveries are used to evaluate potential matrix interferences, as well as accuracy and precision pertaining to each specific matrix. The MS/MSD recoveries for each parameter were evaluated according to SW-846 requirements.

A total of seven data points were flagged as estimated due to spike recoveries being either above or below the laboratory established control limit. Three individual records that were flagged due to matrix spike recoveries being high and above the upper control limit were ammonia, chemical oxygen demand, and phosphorus. Four records were flagged for low matrix spike recoveries. These fractions include chloride, Kjeldahl nitrogen, orthophosphate, and mercury. No data were flagged as rejected as a result of the validation process.

TABLE 1
CREC Station 1 Water Quality Analytical Results, May 19, 2009

Sample Number	Parameter*	Value	Qualifier	Minimum Detectable Limit	Units
PE-SW-CREC-01-051909 Depth = 0.15 meters	Calcium	360		0.058	mg/L
	Lead	0.01	U	0.0020	mg/L
	Magnesium	1200	J	12	mg/L
	Potassium	360	J	18	mg/L
	Sodium	10000		55	mg/L
	Mercury	0.002	UJ	0.00020	µg/L
	Total dissolved solids	27000		200	mg/L
	Total suspended solids	59		1.7	mg/L
	Alkalinity	130		0.39	mg/L
	Chloride	17000	J	36	mg/L
	Ammonia	0.18	J	0.0043	mg/L
	Nitrogen, Kjeldahl	0.57	J	0.062	mg/L
	Nitrate / Nitrite as Nitrogen	0.05	U	0.00011	mg/L
	Phosphorus	0.043	J	0.0044	mg/L
	Orthophosphate	0.062	J	0.028	mg/L
	Sulfate	2300		38	mg/L
	Carbonaceous Biochemical Oxygen Demand	2.0	U	1.5	mg/L
	Chemical Oxygen Demand	200	J	47	mg/L
	Chlorophyll-a**	2.1		2.0	mg/m^3

Notes:
µg/L = microgram per liter
mg/L = milligram per liter
mg/m^3 = milligram per cubic meter
U= Analyte was analyzed for but not detected.
J=Analyte was detected at levels above the minimum detectable limit but below the practical quantitation limit, and the result is an estimated value.
UJ= Indicates that the target compound or target analyte is an estimated non-detect. It is estimated due to other non-rejectable QC issue(s) with that data point such as a low spike recovery.
* Laboratory analytical and quality control issues are reported on page 5 of laboratory report (Reference 1).
** chlorophyll-a corrected for pheophytin; laboratory analytical and quality control issues are reported on page 5 of laboratory report (Reference 1).

TABLE 2
CREC Station 2 Water Quality Analytical Results, May 19, 2009

Sample Number	Parameter*	Value	Qualifier	Minimum Detectable Limit	Units
PE-SW-CREC-02-051909 Depth = 0.15 meters	Calcium	340		0.058	mg/L
	Lead	0.01	U	0.0020	mg/L
	Magnesium	1300		9.6	mg/L
	Potassium	400	J	15	mg/L
	Sodium	11000		44	mg/L
	Mercury	0.0014	U	0.00020	µg/L
	Total dissolved solids	28000		200	mg/L
	Total suspended solids	52		2.4	mg/L
	Alkalinity	130		0.39	mg/L
	Chloride	17000		36	mg/L
	Ammonia	0.11		0.0043	mg/L
	Nitrogen, Kjeldahl	0.56		0.062	mg/L
	Nitrate / Nitrite as Nitrogen	0.05	U	0.00011	mg/L
	Phosphorus	0.048		0.0044	mg/L
	Orthophosphate	0.062		0.028	mg/L
	Sulfate	2400		38	mg/L
	Carbonaceous Biochemical Oxygen Demand	2.0	U	1.5	mg/L
	Chemical Oxygen Demand	370		47	mg/L
	Chlorophyll-a**	2.0	U	2.0	mg/m^3

Notes:
µg/L = microgram per liter
mg/L = milligram per liter
mg/m^3 = milligram per cubic meter
U= Analyte was analyzed for but not detected.
J=Analyte was detected at levels above the minimum detectable limit but below the practical quantitation limit, and the result is an estimated value.
UJ= Indicates that the target compound or target analyte is an estimated non-detect. It is estimated due to other non-rejectable QC issue(s) with that data point such as a low spike recovery.
* Laboratory analytical and quality control issues are reported on page 5 of laboratory report (Reference 1).
** chlorophyll-a corrected for pheophytin; laboratory analytical and quality control issues are reported on page 5 of laboratory report (Reference 1).

TABLE 3
CREC Station 3 Water Quality Analytical Results, May 19, 2009

Sample Number	Parameter*	Value	Qualifier	Minimum Detectable Limit	Units
PE-SW-CREC-03M-051909 Depth = 0.15 meters	Calcium	350		0.058	mg/L
	Lead	0.01	U	0.0020	mg/L
	Magnesium	1300		9.6	mg/L
	Potassium	400	J	15	mg/L
	Sodium	11000		44	mg/L
	Mercury	0.0011	U	0.00020	µg/L
	Total dissolved solids	28000		200	mg/L
	Total suspended solids	59		2.4	mg/L
	Alkalinity	130		0.39	mg/L
	Chloride	17000		36	mg/L
	Ammonia	0.065		0.0043	mg/L
	Nitrogen, Kjeldahl	0.46		0.062	mg/L
	Nitrate / Nitrite as Nitrogen	0.05		0.00011	mg/L
	Phosphorus	0.037		0.0044	mg/L
	Orthophosphate	0.055	J	0.028	mg/L
	Sulfate	2300		38	mg/L
	Carbonaceous Biochemical Oxygen Demand	2.0	U	1.5	mg/L
	Chemical Oxygen Demand	350		47	mg/L
	Chlorophyll-a**	2.0	U	2.0	mg/m^3

Notes:
µg/L = microgram per liter
mg/L = milligram per liter
mg/m^3 = milligram per cubic meter
U= Analyte was analyzed for but not detected.
J=Analyte was detected at levels above the minimum detectable limit but below the practical quantitation limit, and the result is an estimated value.
UJ= Indicates that the target compound or target analyte is an estimated non-detect. It is estimated due to other non-rejectable QC issue(s) with that data point such as a low spike recovery.
* Laboratory analytical and quality control issues are reported on page 5 of laboratory report (Reference 1).
+ Low chloride result; possibly due to natural variability in canal water
** chlorophyll-a corrected for pheophytin; laboratory analytical and quality control issues are reported on page 5 of laboratory report (Reference 1).

TABLE 4
CREC Station 4 Water Quality Analytical Results, May 19, 2009

Sample Number	Parameter*	Value	Qualifier	Minimum Detectable Limit	Units
PE-SW-CREC-04M-051909 Depth = 0.15 meters	Calcium	300		0.058	mg/L
	Lead	0.01	U	0.0020	mg/L
	Magnesium	1000		9.6	mg/L
	Potassium	300	J	15	mg/L
	Sodium	8800		44	mg/L
	Mercury	0.0013	U	0.00020	µg/L
	Total dissolved solids	21000		200	mg/L
	Total suspended solids	43		2.4	mg/L
	Alkalinity	130		0.39	mg/L
	Chloride	13000		18	mg/L
	Ammonia	0.023	J	0.0043	mg/L
	Nitrogen, Kjeldahl	0.55		0.062	mg/L
	Nitrate / Nitrite as Nitrogen	0.05	U	0.00011	mg/L
	Phosphorus	0.038		0.0044	mg/L
	Orthophosphate	0.05	J	0.028	mg/L
	Sulfate	1900		38	mg/L
	Carbonaceous Biochemical Oxygen Demand	2.0	U	1.5	mg/L
	Chemical Oxygen Demand	1200		19	mg/L
	Chlorophyll-a**	2.1		2.0	mg/m^3

Notes:
µg/L = microgram per liter
mg/L = milligram per liter
mg/m^3 = milligram per cubic meter
U= Analyte was analyzed for but not detected.
J=Analyte was detected at levels above the minimum detectable limit but below the practical quantitation limit, and the result is an estimated value.
UJ= Indicates that the target compound or target analyte is an estimated non-detect. It is estimated due to other non-rejectable QC issue(s) with that data point such as a low spike recovery.
* Laboratory analytical and quality control issues are reported on page 5 of laboratory report (Reference 1).
** chlorophyll-a corrected for pheophytin; laboratory analytical and quality control issues are reported on page 5 of laboratory report (Reference 1).

TABLE 5
CREC Units 4/5 Intake and Discharge Water Quality Analytical Results, May 19, 2009

Sample Number	Parameter*	Value	Qualifier	Minimum Detectable Limit	Units
	Gross Alpha	-20	U	210	pCi/L
PE-SW-CREC-4/5-**INTK**-09					
Depth = 0.15 meters	Radium 226	1.07		0.20	pCi/L
	Radium 228	0.34	U	0.38	pCi/L
	Gross Alpha	0	U	240	pCi/L
PE-SW-CREC-4/5-**DSCH**-09					
Depth = 0.15 meters	Radium 226	118		0.18	pCi/L
	Radium 228	0.63	J	0.37	pCi/L

Notes:

pCi/L = picocuries per liter
U= Analyte was analyzed for but not detected.
J=Analyte was detected at levels above the minimum detectable limit but below the practical quantitation limit, and the result is an estimated value.
UJ= Indicates that the target compound or target analyte is an estimated non-detect. It is estimated due to other non-rejectable QC issue(s) with that data point such as a low spike recovery.
NR= Not reported
* Laboratory analytical and quality control issues are reported on page 2 of laboratory report (Reference 2).

TABLE 6
Quality Assurance/Quality Control Samples, May 19, 2009

Sample Number	Parameter*	Value	Qualifier	Minimum Detectable Limit	Units
PE-SW-CREC-00-051909-EB	Calcium	0.18	J	0.058	mg/L
Depth = n/a	Lead	0.010	U	0.0020	mg/L
	Magnesium	0.068	J	0.048	mg/L
	Potassium	0.089	J	0.074	mg/L
	Sodium	0.70	J	0.22	mg/L
	Mercury	0.00040	J	0.00020	µg/L
	Total dissolved solids	18	U	5.0	mg/L
	Total suspended solids	2.2	U	1.1	mg/L
	Alkalinity	0.47	J	0.39	mg/L
	Chloride	1.0	U	0.036	mg/L
	Ammonia	0.030	U	0.0043	mg/L
	Nitrogen, Kjeldahl	0.20	U	0.062	mg/L

Sample Number	Parameter*	Value	Qualifier	Minimum Detectable Limit	Units
	Nitrate / Nitrite as Nitrogen	0.050	U	0.00011	mg/L
	Phosphorus	0.010	U	0.0044	mg/L
	Orthophosphate	1.0	U	0.0014	mg/L
	Sulfate	1.0	U	0.076	mg/L
	Carbonaceous Biochemical Oxygen Demand	2.0	U	1.5	mg/L
	Chemical Oxygen Demand	20	U	9.4	mg/L
	Chlorophyll-a**	2.0	U	2.0	mg/m^3
PE-SW-CREC-02-051909-FD Depth = 0.15 meters	Calcium	340		0.058	mg/L
	Lead	0.010	U	0.0020	mg/L
	Magnesium	1300		9.6	mg/L
	Potassium	400	J	15	mg/L
	Sodium	11000		44	mg/L
	Mercury	0.0015	J	0.00020	µg/L
	Total dissolved solids	27000		200	mg/L
	Total suspended solids	42		2.4	mg/L
	Alkalinity	130		0.39	mg/L
	Chloride	17000		36	mg/L
	Ammonia	0.11		0.0043	mg/L
	Nitrogen, Kjeldahl	0.56		0.062	mg/L
	Nitrate / Nitrite as Nitrogen	0.0023	J	0.062	mg/L
	Phosphorus	0.048		0.0044	mg/L
	Orthophosphate	0.064	J	0.028	mg/L
	Sulfate	2300		38	mg/L
	Carbonaceous Biochemical Oxygen Demand	2.0	U	1.5	mg/L
	Chemical Oxygen Demand	370		47	mg/L
	Chlorophyll-a**	2.0	U	2.0	mg/m^3

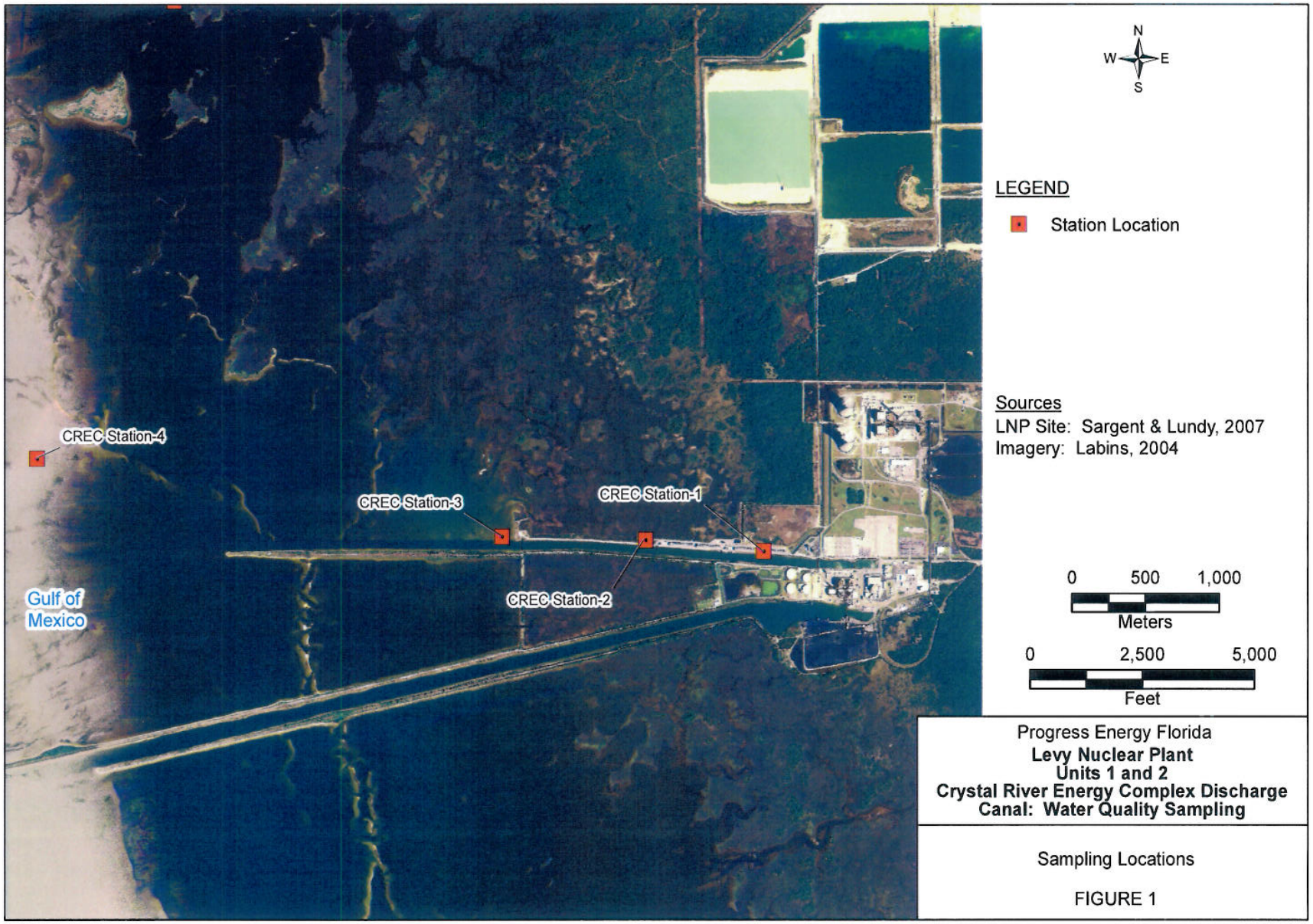
Notes:
EB = Equipment blank
FD = Field duplicate

µg/L = microgram per liter
mg/L = milligram per liter
mg/m^3 = milligram per cubic meter
U= Analyte was analyzed for but not detected.
J=Analyte was detected at levels above the minimum detectable limit but below the practical quantitation limit, and the result is an estimated value.
UJ= Indicates that the target compound or target analyte is an estimated non-detect. It is estimated due to other non-rejectable QC issue(s) with that data point such as a low spike recovery.
* Laboratory analytical and quality control issues are reported on page 5 of laboratory report (Reference 1).
** chlorophyll-a corrected for pheophytin; laboratory analytical and quality control issues are reported on page 5 of laboratory report (Reference 1).

TABLE 7
Water Quality Field Parameter Data, May 19, 2009

Station ID	Date Sampled	Sample Depth (m)	Temperature (°C)	Dissolved Oxygen (DO) (mg/L)	DO Percent Saturation (%)	Conductivity (mS/cm)	Salinity (ppt)	pH (units)	Secchi depth (m)	Total Depth (m)
Units 4/5 **Intake**	5/19/2009	0.15	34.77	5.73	NR	44.46	28.45	8.00	NR	NR
Units 4/5 **Discharge**	5/19/2009	0.15	29.49	6.59	NR	48.96	31.85	8.16	NR	NR
CREC 1	5/19/2009	0.15	32.11	5.39	NR	46.00	29.59	8.03	NR	NR
CREC 2	5/19/2009	0.15	32.36	5.48	NR	46.62	30.05	8.05	NR	NR
CREC 3	5/19/2009	0.15	22.3	7.74	105.1	37.57	23.84	7.88	1.0	2.4
CREC 3	5/19/2009	1	22.55	7.43	88.1	38.5	24.6	7.96	1.0	2.4
CREC 3	5/19/2009	2	22.73	7.21	90.3	40.31	25.68	7.97	1.0	2.4
CREC 3	5/19/2009	2.5	23.33	6.99	86.4	41.77	26.84	7.98	1.0	2.4
CREC 3	5/19/2009	0.15	33.52	6	77.2	48.02	31.03	7.98	1.0	4.3
CREC 4	5/19/2009	1	33.5	6.03	71	48.01	31.02	7.97	1.0	4.3
CREC 4	5/19/2009	2	33.57	6.01	76.9	48.02	31.02	7.97	1.0	4.3
CREC 4	5/19/2009	3	33.53	6.02	87.3	47.99	31.01	7.97	1.0	4.3
CREC 4	5/19/2009	4	33.53	6.02	87.3	47.99	31.01	7.96	1.0	4.3

Notes:
°C = degrees Celsius
ft = foot
m = meter
mg/L = milligram per liter
mS/cm = milliSiemen per centimeter
ppt = parts per thousand
NR = not recorded

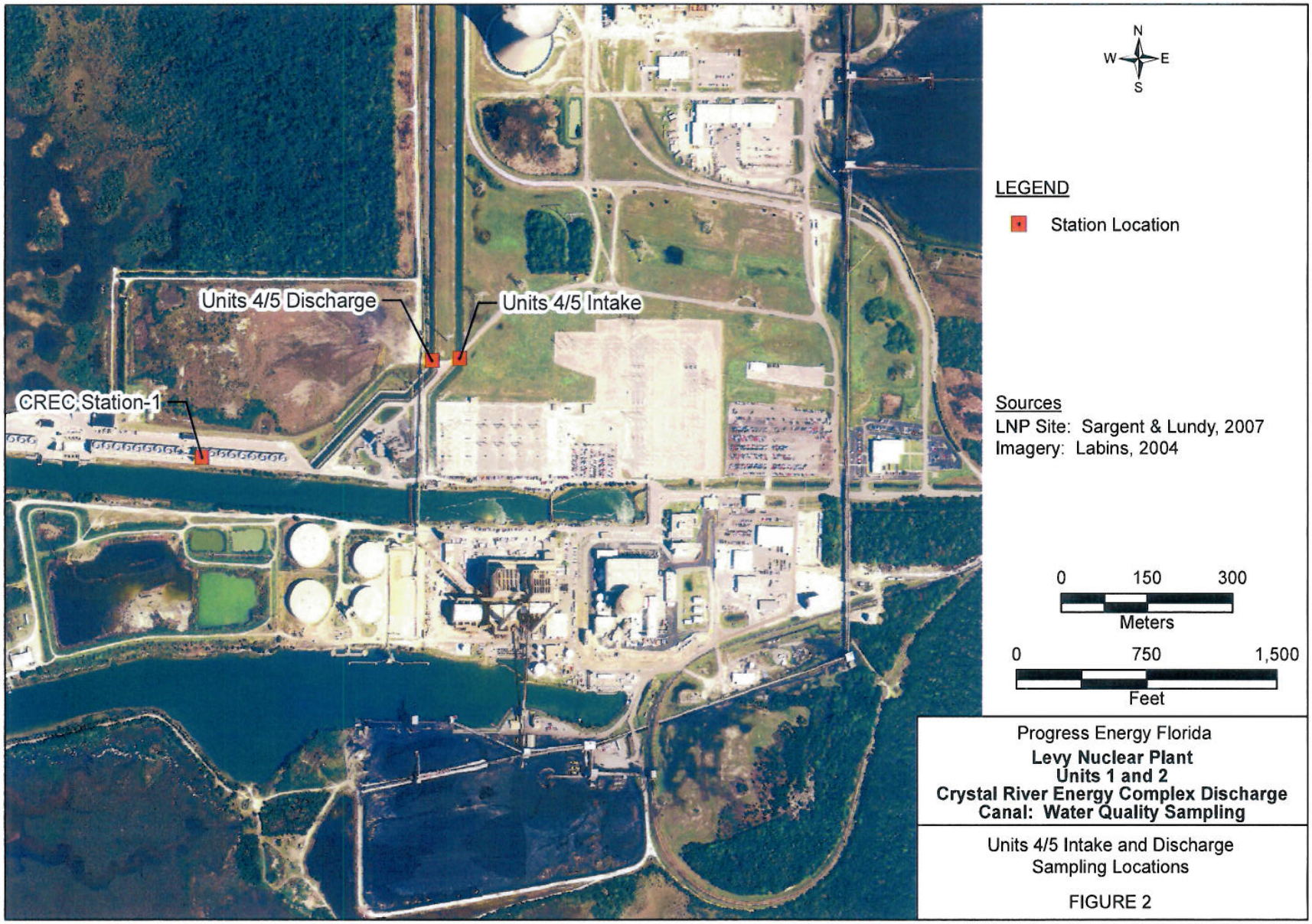


Progress Energy Florida
Levy Nuclear Plant
Units 1 and 2
Crystal River Energy Complex Discharge Canal: Water Quality Sampling

Sampling Locations

FIGURE 1

File Path: I:\projects4\Progress_Energy_FL\MXD\Figure1_ID2468.mxd, Date: April 14, 2009, User: DDickman



Progress Energy Florida
Levy Nuclear Plant
Units 1 and 2
Crystal River Energy Complex Discharge Canal: Water Quality Sampling

Units 4/5 Intake and Discharge Sampling Locations

FIGURE 2

File Path: I:\projects4\Progress_Energy_FL\MXD\Figure2_ID2471.mxd, Date: April 15, 2009, User: DDickman