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July 24, 2008

VIA FEDERAL EXPRESS

Patrick A. Moulding, Esq.
U.S. Nuclear Regulatory Commission
Office of the General Counsel
1155 Rockville Pike, Stop O-15 D21
Washington, D.C. 20852-0001

**Re: Production of Southern Nuclear's Tenth Supplemental Disclosures
Docket No. 52-011-ESP**

Dear Mr. Moulding:

As you requested during our telephone conversation, enclosed is a CD containing the documents disclosed in Southern Nuclear's Tenth Supplemental Disclosures of July 7, 2008. Also enclosed is an attachment that includes the beginning and ending bates number references of the documents being provided.

As previously discussed, we have redacted out certain portions of some of the attached documents that we deemed either not relevant to the admitted contentions or subject to attorney-client/work product protections. To the extent any of the documents produced herein relate to attorney-client communications or related work product, the production of the attached documents shall not be deemed a waiver of any attorney-client/work product protections or the stipulations agreed to in the ASLB's April 3, 2007 order.

If you have any questions regarding the enclosed documents, please contact me.

Sincerely,

K.C. Hairston

KCH/dkf

Attachments

Document No.	Beginning Bates	Ending Bates	Document Name	Document Date	Source	Document Type
SNC583	TBD	TBD	E-mail from Anthony Dodd to Matthew Montz regarding ichthyoplankton samples.	7/1/2008	Southern Nuclear	E-mail
SNC584	TBD	TBD	E-mail from Anthony Dodd to Kenneth Middlebrooks et. al. regarding upcoming sampling event.	6/23/2008	Southern Nuclear	E-mail
SNC585	TBD	TBD	E-mail from Anthony Dodd to Matthew Montz regarding upcoming sampling event.	6/23/2008	Southern Nuclear	E-mail
SNC586	TBD	TBD	E-mail from Anthony Dodd to Matthew Montz et. al. regarding Trip Report 7 and related field study sheets.	6/18/2008	Southern Nuclear	E-mail
SNC587	TBD	TBD	E-mail from Anthony Dodd to Matthew Montz et. al. regarding Trip Report 6 and related field study sheets.	6/9/2008	Southern Nuclear	E-mail
SNC588	TBD	TBD	E-mail from Anthony Dodd to Matthew Montz regarding fish survey.	5/23/2008	Southern Nuclear	E-mail
SNC589	TBD	TBD	E-mail from Matthew Montz to Phil Moore and Karen Patterson regarding ichthyoplankton samples.	5/21/2008	Southern Nuclear	E-mail
SNC590	TBD	TBD	E-mail from Hannah Proctor to Anthony Dodd regarding ichthyoplankton samples.	6/26/2008	Southern Nuclear	E-mail
SNC591	TBD	TBD	E-mail from Anthony Dodd to Matthew Montz et. al. regarding Trip Report 8 and related field study sheets.	7/1/2008	Southern Nuclear	E-mail



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SNC587	TBD	TBD	E-mail from Anthony Dodd to Matthew Montz et. al. regarding Trip Report 6 and related field study sheets.	6/9/2008	Southern Nuclear	E-mail
SNC588	TBD	TBD	E-mail from Anthony Dodd to Matthew Montz regarding fish survey.	5/23/2008	Southern Nuclear	E-mail
SNC589	TBD	TBD	E-mail from Matthew Montz to Phil Moore and Karen Patterson regarding ichthyoplankton samples.	5/21/2008	Southern Nuclear	E-mail
SNC590	TBD	TBD	E-mail from Hannah Proctor to Anthony Dodd regarding ichthyoplankton samples.	6/26/2008	Southern Nuclear	E-mail
SNC591	TBD	TBD	E-mail from Anthony Dodd to Matthew Montz et. al. regarding Trip Report 8 and related field study sheets.	7/1/2008	Southern Nuclear	E-mail

From: Dodd, Anthony Ray
Sent: Tuesday, July 01, 2008 7:08 AM
To: Montz, Matthew Thomas
Subject: RE: Vogtle samples

Follow Up Flag: Follow up
Flag Status: Yellow

Matt:

To your recent questions - yes - the lab indicated they will process those samples as quickly as feasible. I sent a reply to the lab today indicating the dates they can expect to receive July samples ...21 July and 5 August.

Tony Dodd, CFP
Environmental Specialist
Georgia Power Environmental Lab
5131 Maner Rd.
Smyrna Ga 30080

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-----Original Message-----

From: Montz, Matthew Thomas
Sent: Friday, June 27, 2008 3:35 PM
To: Dodd, Anthony Ray
Subject: RE: Vogtle samples

Thanks Tony! Have you had any discussions with the lab on quick turn around times on our July samples to verify the end of the spawning season?

Matthew T. Montz
Office 205-992-5629

-----Original Message-----

From: Dodd, Anthony Ray
Sent: Friday, June 27, 2008 2:20 PM
To: Montz, Matthew Thomas
Subject: FW: Vogtle samples

Matt,

FYI,

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-----Original Message-----

From: Hannah Proctor [mailto:hproctor@normandean.com]
Sent: Thursday, June 26, 2008 9:58 AM
To: Dodd, Anthony Ray
Subject: RE: Vogtle samples

Tony,

We are considering collections through the recently received samples as Set#1, with Set#2 including the remainder of the program samples. We will have an excel spreadsheet of data for Set#1 (collection months of 3/11/08 through 6/12/08) for you by or before July 25th.

Hannah

-----Original Message-----

From: Dodd, Anthony Ray [mailto:ARDODD@southernco.com]
Sent: Wednesday, June 25, 2008 10:25 PM
To: Hannah Proctor
Subject: RE: Vogtle samples

Hannah,

Thanks for the follow-up...glad the samples made it there...any idea when we can get a "draft or preliminary" idea of species and numbers trend based on lab observations?

Thanks,

Tony

From: Hannah Proctor [mailto:hproctor@normandean.com]
Sent: Wed 6/25/2008 4:44 PM
To: Dodd, Anthony Ray
Subject: FW: Vogtle samples

From: Hannah Proctor
Sent: Wednesday, June 25, 2008 3:25 PM
To: 'Dodd, Anthony Ray'
Subject: RE: Vogtle samples

Hello Tony,

This recent delivery of samples arrived in good order, and we have begun processing them; thanks!

Ps.....there was some confusion over our street address with this last delivery; it is 25 Nashua Road (not 34).

Hannah

From: Dodd, Anthony Ray [mailto:ARDODD@southernco.com]
Sent: Friday, May 23, 2008 8:22 AM
To: Hannah Proctor
Subject: RE: Vogtle samples

Hannah,

Thanks for your message. See my responses below.

From: Hannah Proctor [mailto:hproctor@normandeau.com]
Sent: Thursday, May 22, 2008 4:43 PM
To: Dodd, Anthony Ray
Subject: FW: Vogtle samples

Hello Tony,

I will be responsible for seeing the Vogtle ichthyoplankton samples through the processing and reporting stage. We received the first shipment of samples on May 20th (signed COC attached) and will start processing them next week. Coolers have been mailed back to you.

I have a couple of questions:

1. Are all the samples net samples?

No. Labels indicating sample type as source water were collected with plankton nets in-river 0.5 m net with 500 micron size mesh 1:3 mouth to length ratio

Labels indicating sample type as canal/entrainment were collected via submersible pumps in the intake canal. Sample water was sieved through the same size nets at the top of the canal bulkhead located about 23 ft above the water surface. We always see very little organism volume in the canal samples.

2. In addition to the numerical station numbers (1-3, 1-6, 1-9, etc.); are you interested in having the station designation reflect the location of the sample, source water or canal entrainment?

YES

3. We will receive the remaining samples in one batch, and when?

I will send out two sample events worth of samples - each time at the end of each sample month. You should expect to see two coolers at/near the end of each month through August.

4. While the first shipment arrived OK; some samples were scrunched and one of the sample jars had broken (sample material recoverable). Would you help by seeing that the next shipment is packaged so that: jar lids are taped with electrical tape to avoid leaking and jars are packed tight inside the coolers to avoid getting crunched. We don't want to lose any samples, thanks!

Thanks for the description/disposition of contents received. I considered taping lids and decided not to at the last minute. I will be taping lids from this point forward.

5. I assume that you anticipate receiving data for the entire collection period at once but don't see any notation as to when this is. Would by or before the end of August be acceptable?

I am interested received data as it becomes available. Excel spreadsheet format.

Also, please confirm that you will retain a voucher collection for us.

Please let me know if you have any questions.

Thanks, Hannah

Hannah Proctor

Manager, Biology Laboratory

Normandeau Associates, Inc.

From: Paul Geoghegan
Sent: Wednesday, May 14, 2008 2:08 PM
To: 'Tony Dodd'
Cc: Hannah Proctor
Subject: Vogtle samples

Tony:

Please ship the samples to the address below and to the attention of Hannah Proctor.

Paul

Paul Geoghegan

Principal Scientist

Normandeau Associates Inc.

25 Nashua Road

Bedford NH 03110

PH: 603 472 5191

FAX: 603 471 6007

Please consider the environment before printing this e-mail.

Please consider the environment before printing this e-mail.

Please consider the environment before printing this e-mail.

Please consider the environment before printing this e-mail.

From: Dodd, Anthony Ray
Sent: Monday, June 23, 2008 11:26 AM
To: Middlebrooks, Kenneth D.; VNP Dispatchers; Dyar, Ken C.; Williams, A. L. (Tony); Walden, Kevin C.; Montz, Matthew Thomas; Stuhaan, Chuck E.
Cc: Chambers, William Carlton; Blanton, Stan (Balch)
Subject: P.O.D. -- Plant Vogtle River and Intake Studies

Follow Up Flag: Follow up
Flag Status: Yellow

Tony Dodd of GPC Environmental Field Services will be leading and performing aquatic impingement and entrainment sampling at the Plant Vogtle water intake structure and on the Savannah River this week during 24-26 June. We will be working in the area on a sampling schedule requiring 6-hr sampling intervals through night and day hours for approximately 48 hours and are requesting that Gate 12 and the entrance gate to the intake building remain open during that time. We will contact the on-shift Unit 2 Operator periodically during the event to ask for assistance to have the traveling screens at the intake structure rotated on three instances during the study (0830 HRS and 2030 HRS on WED and 0830 HRS on Thursday). Kevin Walden and D'Andre Manigo are our team onsite contacts. Please include this activity in the POD for 24-26 June.

Thanks for your help in advance and please contact us if you have any questions.

Tony Dodd, CFP
Environmental Specialist
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From: Dodd, Anthony Ray
Sent: Monday, June 23, 2008 11:33 AM
To: Montz, Matthew Thomas
Subject: RE: P.O.D. -- Plant Vogtle River and Intake Studies

Follow Up Flag: Follow up
Flag Status: Yellow

Hi Matt,

Overall, yes...and thanks to your early efforts in coordinating this study with Plant personnel. We've had a number of unexpected variations in the time period that the screens get washed, but I'm not too concerned about that. The operators have done the best they can with available staff and always follow-up with us.

Thanks for your follow-up. I will try to get two more sample sets ready for shipment to the lab by tomorrow a.m.
td

Tony Dodd, CFP
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From: Montz, Matthew Thomas
Sent: Monday, June 23, 2008 12:28 PM
To: Dodd, Anthony Ray
Subject: RE: P.O.D. -- Plant Vogtle River and Intake Studies

Thanks Tony! Have things been running smoothly with regards to coordinating your sampling activities with the Plant?

Matthew T. Montz
Office 205-992-5629

From: Dodd, Anthony Ray
Sent: Monday, June 23, 2008 11:26 AM
To: Middlebrooks, Kenneth D.; VNP Dispatchers; Dyar, Ken C.; Williams, A. L. (Tony); Walden, Kevin C.; Montz, Matthew Thomas; Stuhaan, Chuck E.
Cc: Chambers, William Carlton; Blanton, Stan (Balch)

Subject: P.O.D. -- Plant Vogtle River and Intake Studies

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Thanks for your help in advance and please contact us if you have any questions.

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From: Dodd, Anthony Ray
Sent: Wednesday, June 18, 2008 10:09 AM
To: Montz, Matthew Thomas; 'ccoutant3@comcast.net'; Blanton, Stan (Balch)
Cc: Candler, W. Jim; Nichols, Michael C. (Env. Lab GPC); Walden, Kevin C.
Subject: Trip Report No. 7

Follow Up Flag: Follow up
Flag Status: Yellow

Attachments: 1st June event.pdf; Trip Report 7.doc

Plant Vogtle Impingement/Entrainment Study Team,

Please find electronic copies of the current Vogtle I& E sampling trip report and associated field data sheets. Please contact me if you have any questions.



1st June event.pdf (448 KB) Trip Report 7.doc (48 KB)

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PLANT VOGTLE IMPINGEMENT MONITORING DATA FORM

Sample Information

Page: 1 of 1

Collector(s): ADD/mmr

Remarks:

12-hour Period (circle)

DAY NIGHT

Start Date 6/11/08
End Date 6/12/08

Time 0830 2030
Time 2030 1106

Elapsed Time

Plant and CWIS Operating Conditions

	No. Pumps	Pump Flow (gpm)	No. of VTS Operating
Start	<u>2</u>	<u>~50,000</u>	<u>4 of 4 (units back)</u>
Finish	<u>2</u>	<u>~50,000</u>	

6/10/08 *on the site must record survey*

	River Stage (ft.)
Start <u>6.09</u>	<u>3.990 (6.09)</u>
Finish	<u>4.010 (6.11)</u>

2000/6/10/08
mmr

Physicochemical parameters:

D.O.	<u>7.2</u>	mg/L
pH	<u>8.0</u>	SU
Cond.	<u>128.5</u>	uS/cm
Turbidity	<u>0</u>	NTU

Water Temperature (°C)

Start	<u>28.6</u>
Finish	<u>28.6</u>

Temp 28.6 °C
Location of Measurement:
Hargrove's

Field Conditions/Other Observations

- passing thunder storms in the region - no precip of significance in the immediate area of study
- observed a pair of Swallowtail Kites - 2nd observation in 3 weeks.

Event #

Entered by:
Date: / /

Vogle I & E Study - Canal Entrainment Sampling Data Sheet*

Collected by: ARD / MNR
 Date: 6/11/08 - 6/12/08
 Canal Water Stage to top rail 23.5' ft @ 0750 hrs *increased stage since day*
 Depth of Pump Deployment 24.1 ft

Pumps: 2 electric Tsurumi LB3-750 type with 73 gpm capacity at level head

	DAY 1	DAY 2	NIGHT 1	NIGHT 2
Time start (HRS)	0852	1513	2112	0340
Time stop (HRS)	1505	2102	0327	0930
Total pumping time (mins)	373	349	375	350
Calculated sample flow volume (m ³)	90.4	84.6	90.8	84.8

Notes:

Flow volume flow based on depth and river stage and performance curve: 64.0 gals/min

* 6 hour samples are archived (type A samples)

* day and night sample components are composited for laboratory analysis (type C samples)

6/10/08 staff gage @ 1500 hrs = 23.2'
 6/11/08 " " " 0851 hrs = 24.1'

Vogle I & E Study - Source Water Community Sampling Data Sheet*

Collected by: ARD/MME
 Date: 10-10-08
 Gear: dual 1:3 ratio 0.5 m Nitex 500 micron mesh plankton nets

Sampling Period Circle One: DAY 1 DAY 2 **NIGHT 1** NIGHT 2

Location: Left Bank (facing upstream)

Time start	2226	HRS
Current meter start count	365702	
Current meter stop count	380282	
Time stop	2245	HRS
Total time for retrieval	19	MINS
Calculated sample flow volume (m ³ /s)	112.2	(1.6 #/s)

Depth (m)	Time at Depth (mins)
1	9
2	9
3	X
4	X
5	X
6	X

Location: Mid-Channel

Time start (HRS)	2200	HRS
Current meter start count	341824	
Current meter stop count	365189	
Time stop (HRS)	2218	HRS
Total time for retrieval (mins)	18	MINS
Calculated sample flow volume (m ³ /s)	123.2	(1.9 #/s)

1	9
2	9
3	X
4	X
5	X
6	X

Location: Right Bank (facing upstream)

Time start (HRS)	2131	HRS
Current meter start count	315833	
Current meter stop count	341816	
Time stop (HRS)	2149	HRS
Total time for retrieval (mins)	18	MINS
Calculated sample flow volume (m ³ /s)	137.0	(2.1 #/s)

1	9
2	9
3	X
4	X
5	X
6	X

Comments/Observations:

- * 6 hour samples are archived (type A samples)
- * day and night sample components are composited for laboratory analysis (type C samples)

Vogle I & E Study - Source Water Community Sampling Data Sheet*

Collected by: ARD/MMR

Date: 6-11-08

Gear: dual 1:3 ratio 0.5 m Nitex 500 micron mesh plankton nets

Sampling Period Circle One: DAY 1 DAY 2 NIGHT 1 **NIGHT 2**

Location: Left Bank (facing upstream)

Time start	0415	HRS
Current meter start count	429941	
Current meter stop count	449983	
Time stop	0434	HRS
Total time for retrieval	19	MINS
Calculated sample flow volume (m ³ /s)	105.5	(1.5 f/s)

Depth (m)	Time at Depth (mins)
1	9
2	9
3	X
4	X
5	X
6	X

Location: Mid-Channel

Time start (HRS)	0345	HRS
Current meter start count	405052	
Current meter stop count	429983	
Time stop (HRS)	0405	HRS
Total time for retrieval (mins)	18	MINS
Calculated sample flow volume (m ³ /s)	131.2	(2.0 f/s)

1	9
2	9
3	X
4	X
5	X
6	X

Location: Right Bank (facing upstream)

Time start (HRS)	0316	HRS
Current meter start count	386276	
Current meter stop count	405053	
Time stop (HRS)	0335	HRS
Total time for retrieval (mins)	19	MINS
Calculated sample flow volume (m ³ /s)	98.9	(1.9 f/s)

1	9
2	9
3	X
4	X
5	X
6	X

Comments/Observations:

* 6 hour samples are archived (type A samples)

* day and night sample components are composited for laboratory analysis (type C samples)

Vogle I & E Study - Source Water Community Sampling Data Sheet*

Collected by: APD/MMR

Date: 6-11-08

Gear: dual 1:3 ratio 0.5 m Nitex 500 micron mesh plankton nets

Sampling Period Circle One: DAY 1 DAY 2 NIGHT 1 NIGHT 2

Location: Left Bank (facing upstream)

Time start	1034	HRS
Current meter start count	494658	
Current meter stop count	516718	
Time stop	1053	HRS
Total time for retrieval	19	MINS
Calculated sample flow volume (m ³ /s)	116.3	(1.7 f/s)

Depth (m)	Time at Depth (mins)
1	9
2	9
3	X
4	X
5	X
6	X

Location: Mid-Channel

Time start (HRS)	1008	HRS
Current meter start count	471652	
Current meter stop count	494650	
Time stop (HRS)	1025	HRS
Total time for retrieval (mins)	20	MINS
Calculated sample flow volume (m ³ /s)	121.3	(1.7)

1	10
2	9
3	X
4	X
5	X
6	X

Location: Right Bank (facing upstream)

Time start (HRS)	0940	HRS
Current meter start count	449951	
Current meter stop count	471654	
Time stop (HRS)	0958	HRS
Total time for retrieval (mins)	18	MINS
Calculated sample flow volume (m ³ /s)	114.5	(1.2 f/s)

1	9
2	9
3	X
4	X
5	X
6	X

Comments/Observations:

- * 6 hour samples are archived (type A samples)
- * day and night sample components are composited for laboratory analysis (type C samples).

Vogle I & E Study - Source Water Community Sampling Data Sheet*

Collected by: ADD/MMP
 Date: 6-11-08
 Gear: dual 1:3 ratio 0.5 m Nitex 500 micron mesh plankton nets

Sampling Period Circle One: DAY 1 **DAY 2** NIGHT 1 NIGHT 2

Location: Left Bank (facing upstream)

Time start	1635	HRS
Current meter start count	558912	
Current meter stop count	580852	
Time stop	1653	HRS
Total time for retrieval	18	MINS
Calculated sample flow volume (m ³ /s)	115.7	(1.8 f/s)

Depth (m)	Time at Depth (mins)
1	9
2	9
3	
4	
5	
6	

Location: Mid-Channel

6-11-08 MMP

Time start (HRS)	1609	HRS
Current meter start count	534759	
Current meter stop count	558909	
Time stop (HRS)	1627	HRS
Total time for retrieval (mins)	18	MINS
Calculated sample flow volume (m ³ /s)	127.4	(2.0 f/s)

1	9
2	9
3	
4	
5	
6	

Location: Right Bank (facing upstream)

Time start (HRS)	1540	HRS
Current meter start count	516714	
Current meter stop count	534754	
Time stop (HRS)	1559	HRS
Total time for retrieval (mins)	19	MINS
Calculated sample flow volume (m ³ /s)	95.1	(1.4 f/s)

1	9
2	9
3	
4	
5	
6	

Comments/Observations:

- * 6 hour samples are archived (type A samples)
- * day and night sample components are composited for laboratory analysis (type C samples)

Vogle I & E Study - Source Water Community Sampling Data Sheet* Proposed Units #3 + 4

Collected by: ARD/MMR
 Date: 6-12-08
 Gear: dual 1:3 ratio 0.5 m Nitex 500 micron mesh plankton nets

Proposed Units #3 + #4
 Sampling Period Circle One: DAY 1 DAY 2 NIGHT 1 NIGHT 2

Location: Left Bank (facing upstream)
 Time start
 Current meter start count
 Current meter stop count
 Time stop
 Total time for retrieval
 Calculated sample flow volume (m³/s)

1313	HRS
632 078	
659 280	
1333	HRS
20	MINS
1435	(2.0 f/s)

Depth (m)	Time at Depth (mins)
1	20
2	X
3	X
4	X
5	X
6	X

73 g/m
1,460 gals.

Location: Mid-Channel
 Time start (HRS)
 Current meter start count
 Current meter stop count
 Time stop (HRS)
 Total time for retrieval (mins)
 Calculated sample flow volume (m³/s)

1214	HRS
608 291	
632 074	
1234	HRS
20	MINS
125.5	(1.7 f/s)

Depth (m)	Time at Depth (mins)
1	10
2	10
3	X
4	X
5	X
6	X

1,460 gals

Location: Right Bank (facing upstream)
 Time start (HRS)
 Current meter start count
 Current meter stop count
 Time stop (HRS)
 Total time for retrieval (mins)
 Calculated sample flow volume (m³/s)

1130	HRS
586 018	
1008 284	
1100	HRS
20	MINS
117.5	(1.6 f/s)

Depth (m)	Time at Depth (mins)
1	10
2	10
3	X
4	X
5	X
6	X

1971 gals

Comments/Observations:

- * 6 hour samples are archived (type A samples)
- * day and night sample components are composited for laboratory analysis (type C samples)

Pump Serial # B-10339946 Model # L133-750
 TSURUMI Pump

Vogle I & E Study - Sample Chain Of Custody

Collected by: ARD / mark

page 1 of 2

Sample No.	Integrated Sample ID and Collection Date	Approximate Time of Collection	Preservative	Shipped to taxonomy lab	Archived at GPC Smyrna
		-0000 HRs	5% formalin or 10% formalin Wet Ice	✓	✓
1	ENLD1A 061108	1505	5%		✓
2	ENLD2A 061108	2102			✓
3	ENLDCOMP 061108	2102		✓	✓
4	ENLN1A 061108	0327			✓
5	ENLN2A 061208	0930			✓
6	ENLNCOMP 061208	0930	↓	✓	✓
7	IMDA	NO FISH	—	—	—
8	IMNA 061208	1106	5%		✓
9	SWLD1A 061108	1053			✓
10	SWLD2A 061108	1653			✓
11	SWLDCOMP 061108	1653		✓	✓
12	SWMD1A 061108	1028			✓
13	SWMD2A 061108	1627			✓
14	SWMDCOMP 061108	1627		✓	✓
15	SWRD1A 061108	0958			✓
16	SWRD2A 061108	1559			✓
17	SWRDCOMP 061108	1559		✓	✓
18	SWLN1A 061008	2245			✓
19	SWLN2A 061108	0434			✓
20	SWLNCOMP 061108	0434		✓	✓
21	SWMN1A 061008	2218			✓
22	SWMN2A 061108	0405			✓
23	SWMNCOMP 061108	0405		✓	✓
24	SWRN1A 061008	2149			✓
25	SWRN2A 061108	0335			✓
26	SWRNCOMP 061108	0335		✓	✓
27	SWLDI434 061208	1333	↓ 5%	✓	✓
28	SWMDI434 061208	1234		✓	✓
29	SWRDI434 061208	1156		✓	✓
30	SWLDI434-P 061208	1333	↓	✓	✓

EN = entrainment sample D1 = first day sample C = composited 1st and 2nd day or night samples
 IM = impingement sample N2 = second night sample P = pumped sample
 SW = source water sample A = archived 6-hour sample

Relinquished by: Tony Dadd Date: 6/13/08 Time: ~1800 HRS
 Received by: Melissa Reidy Date: 6/13/08 Time: 1800 HRS
by Tony Dadd

Vogle I & E Study - Sample Chain Of Custody

Collected by: ARD /mmr

page 2 of 2

Sample No.	Integrated Sample ID and Collection Date	Approximate Time of Collection	Preservative	Shipped to taxonomy lab	Archived at GPC Smyrna
		~0000 HRs	5% formalin or 10% formalin Wet Ice	✓	✓
1	SWMD1434-P 061208	1234	5% 5% 5%	✓	
2	SWRD1434-P 061208	1156	5% 5% 5%	✓	
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					

EN = entrainment sample D1 = first day sample C = composited 1st and 2nd day or night samples
 IM = impingement sample N2 = second night sample P = pumped sample
 SW = source water sample A = archived 6-hour sample

Relinquished by: Tony Dobb Date: 6/13/08 Time: ~1800 HRS
 Received by: Melissa Reidy Date: 6/13/08 Time: 1800 HRS
by Tony Dobb

To:

Plant Vogtle Impingement/Entrainment Assessment team members

This message conveys summary information from the 7th of 24 planned sampling events for aquatic impingement and entrainment assessment at the Plant Vogtle make-up water intake structure. This sampling event was conducted by Tony Dodd and Melissa Reidy of GPC's Environmental Field Services Group during 10-12 June 2008.

Operation

During this event, it was observed that all four vertical traveling screens are in service following repair of the No. 3 Unit during the past few months. Two make-up water pumps were operating (~50,000 gal/m) as is typical during the sampling event.

Impingement Sampling

Impingement sampling was conducted at the Plant Vogtle intake structure screen wash outfall pit between 0830 hrs on 11 June and 1106 hrs on 12 June 2008. Prior to setting the sample net for daytime sample collection, the traveling screens were rotated and purged of impinged debris via the screen wash system. No fish or other aquatic organisms were observed in 12-hr daytime component. One fish, hogchoker (*Trinectes maculatus*), a species previously recorded during this study, was collected during the 12-hr night sample. About three double handfuls of organic debris in the form of leaves and twigs were present in the day sample. The night sample yielded enough leaves and twigs to fill about half of a 20-gal tub.

To date, a total of 26 organisms representing 14 species in nine taxonomic families have been collected in the impingement sampling program.

Entrainment Sampling

Entrainment sampling via our submersible pump system was conducted every six hours during a 24 hour period during 10-12 June 2008. The average volume of pumped canal water per sample was approximately 88.7 m³. Entrainment samples will be submitted to the laboratory for enumeration and taxonomic processing.

Source-Water Ichthyoplankton Community Sampling

The source water ichthyoplankton community was conducted during 10-12 June 2008. Each of the three sampling stations was sampled at 1-m intervals to a maximum depth of two meters for a total of nine minutes of sampling at each depth. The mean volume of river water sampled at each station was approximately 116.4 m³ with an average calculated water column velocity of 1.8 ft/s.

As a measure of sample quality assurance and community comparison for samples collected at Units 1 & 2, a duplicate daytime ichthyoplankton sample was collected at the left-bank, mid-channel, and right-bank positions located upstream at the approximate location of that planned for a canal entrance to Units 3 & 4. Additionally, the source water ichthyoplankton community was simultaneously sampled at this location with ichthyoplankton nets and one of the submersible pumps used to sample canal entrainment. These samples will be compared as a means to further validate gear methodology via laboratory observations of the organisms' disposition

between the two gear types. All source water samples have been preserved and the composited 12-HR day and night samples are being temporarily held at GPC's Smyrna Lab for future laboratory processing.

Other Observations

- The sample processing laboratory has indicated that organisms collected with submersible pumps at Plant Vogtle have been observed in good condition thus far initially validating our selection and use of Tsurumi submersible pumps as a suitable gear type for entrainment sampling.
- To date, two events have included source water sampling between the area associated with Units 1 & 2 and the proposed intake area for Units 3 & 4 thus satisfying an original project objective to provide some basis for comparison between the two sites during the spawning/larval drift season.
- Surface water temperature during the 24-hr event was approximately reached 29° C. Flow in the Savannah River varied between 3,990 and 4,010 cfs during this sampling event and likewise river stage varied between 6.09 and 6.11 ft (USGS Waynesboro Gage No. 021973269).
- Sample processing is underway for samples collected between 10 March and 22 May 2008.
- The next sampling event is scheduled for 24-26 June 2008.

Please contact me if you have any questions.

*Tony Dodd, CFP
Environmental Specialist
GPC Environmental Field Services
404-799-2142 (Main)
770-550-2502 (LINC Cell)
8-530-2142 (Internal Direct)
ardodd@southernco.com*

From: Dodd, Anthony Ray
Sent: Monday, June 09, 2008 2:28 PM
To: Montz, Matthew Thomas; Charles Coutant (ccoutant3@comcast.net); Blanton, Stan (Balch)
Cc: Candler, W. Jim; Nichols, Michael C. (Env. Lab GPC); Slaughter, Joe Ernest; Walden, Kevin C.; Broadwell, Tom L.
Subject: Vogtle I&E Study trip report
Attachments: Trip Report 6.doc; 2nd May Event.pdf



Trip Report 6.doc (46 KB)



2nd May Event.pdf (443 KB)

Plant Vogtle I & E Study Team members,

Please find the electronically attached trip report and data sheets from the most recent sampling event conducted at Plant Vogtle during 2002 May 2008.

Tony Dodd, CFP
Environmental Specialist
Georgia Power Environmental Lab
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Smyrna Ga 30080

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To:

Plant Vogtle Impingement/Entrainment Assessment team members

This message conveys summary information from the sixth of 24 planned sampling events for aquatic impingement and entrainment assessment at the Plant Vogtle make-up water intake structure. This sampling event was conducted by Tony Dodd and Ginny Pantano of GPC's Environmental Field Services Group during 20-22 May 2008.

Operation

Three of the four vertical traveling screens were in service and two circulator pumps were operating during the sampling event.

Impingement Sampling

Impingement sampling was conducted at the Plant Vogtle intake structure screen wash outfall/pit between 0910 hrs on 21 May and 0900 hrs on 22 May 2008. Prior to setting the sample net for daytime sample collection, the three operative traveling screens were rotated and purged of impinged debris via the screen wash system. No fish or other aquatic organisms were observed in 12-hr daytime component. Two fish representing two species including gizzard shad (*Dorosoma cepedianum*) and hogchoker (*Trinectes maculatus*) were collected during the 12-hr night sample. These species have been previously observed during this study at the Plant Vogtle intake structure. About 5 and 9 double handfuls of organic debris in the form of leaves and twigs were present in the day and night samples, respectively.

To date, a total of 25 organisms representing 14 species in nine taxonomic families have been collected in the impingement sampling program.

Entrainment Sampling

Entrainment sampling was conducted during 21-22 May 2008. The average volume of pumped canal water per sample was approximately 88.8 m³. Entrainment samples will be submitted to the laboratory for enumeration and taxonomic processing.

Source Water Ichthyoplankton Community Sampling

The source water ichthyoplankton community was 20-21 May 2008. Each of the three sampling stations was sampled at 1-m intervals to a maximum depth of 2 meters for a total of 9 minutes of sampling time at each depth. The mean volume of river water sampled at each station was approximately 132.6 m³ with an average calculated water column velocity of 1.9 ft/s. Additionally, as a measure of sample quality assurance and comparison, a duplicate day time ichthyoplankton sample was collected at the left bank location located upstream at the approximate location of that planned for a canal entrance to Units 3 & 4. All source water samples have been preserved and the composited 12-HR day and night samples are being temporarily held at GPC's Smyrna Lab for future laboratory processing.

Other Observations

- A severe storm event interrupted the start-up of source water sampling on the evening of 20 May. Source water sampling resumed during the early a.m. hrs on 21 May and the entire sampling regimen was completed a half day later than originally planned.
- Surface water temperature during the 24-hr event was approximately reached 23.2° C. Flow in the Savannah River ranged from 4,950 cfs down to 4,270 cfs during this event (USGS Waynesboro Gage No. 021973269).
- The next sampling event is scheduled for 10-12 June 2008.

Please contact me if you have any questions.

*Tony Dodd, CFP
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8-530-2142 (Internal Direct)
ardodd@southernco.com*

DRAFT DOCUMENT

PLANT VOGTLE IMPINGEMENT MONITORING DATA FORM

Sample Information

Page: 1 of 1

Collector(s): TD/GP

Remarks: _____

12-hour Period (circle)

Start Date 5/21/08
End Date 5/22/08

	DAY	NIGHT
Time	<u>0910</u>	<u>2130</u>
Time	<u>2100</u>	<u>0900</u>
Elapsed Time	<u>1103</u>	<u>11.5</u>

Plant and CWIS Operating Conditions

	No. Pumps	Pump Flow (gpm)	No. of VTS Operating
Start	<u>2</u>	<u>50,000</u>	<u>3</u>
Finish			

	River Stage (ft.)
Start	<u>6.68</u>
Finish	<u>6.37</u>

4,950 cfs
4,270 cfs

Physicochemical parameters:

D.O.	<u>7.2</u>	mg/L
pH	<u>7.1</u>	SU
Cond.	<u>106.2</u>	uS/cm
Turbidity	<u>6.4</u>	NTU

5/20/08
@2000 hrs

	Water Temperature (°C)
Start	<u>22.16</u>
Finish	<u>23.16</u>

Temp: 22.6
Location of Measurement: Hargrave

Field Conditions/Other Observations

* river lower than previous trips
* construction underway for screen #3
* 0948 hrs Hydrolab 5/21/08
pH 7.0
Cond 1028
Turb 7.7 NTU
Temp: 23.12 °C
D.O. 7.9 mg/L

Event #

Entered by:
Date: / /

Vogle I & E Study - Canal Entrainment Sampling Data Sheet*

Collected by: TD/CP
 Date: 5/21/08
 Canal Water Stage to top rail 23.0 ft @ 0844 HRS
 Depth of Pump Deployment 4.0 ft

Pumps: 2 electric Tsurumi LB3-750 type with 73 gpm capacity at level head 5/21/08 5/22/08

	5/21/08	5/21/08		
	DAY 1	DAY 2	NIGHT 1	NIGHT 2
Time start (HRS)	0847	1505	2130	0345
Time stop (HRS)	1450	2118	0345	0940
Total pumping time (mins)	363	373	375	355
Calculated sample flow volume (m ³)	87.9	90.4	90.8	86.0

Notes:

Flow volume flow based on depth and river stage and performance curve: 64.0 gals/min

* 6 hour samples are archived (type A samples)

* day and night sample components are composited for laboratory analysis (type C samples)

still gage @ 1507 HRS = 22.9'

Vogle I & E Study - Source Water Community Sampling Data Sheet*

Collected by: TD / GP
 Date: 5/29/08
 Gear: dual 1:3 ratio 0.5 m Nitex 500 micron mesh plankton nets

Sampling Period Circle One: DAY 1 DAY 2 NIGHT 1 NIGHT 2 Depth (m) Time at Depth (mins)

Location: Left Bank (facing upstream)

Time start	HRS	1	
Current meter start count		2	
Current meter stop count		3	
Time stop	HRS	4	
Total time for retrieval	MINS	5	
Calculated sample flow volume (m³/s)		6	

Location: Mid-Channel

Time start (HRS)	HRS	1	
Current meter start count		2	
Current meter stop count		3	
Time stop (HRS)	HRS	4	
Total time for retrieval (mins)	MINS	5	
Calculated sample flow volume (m³/s)		6	

Location: Right Bank (facing upstream) *

Time start (HRS)	2116 HRS	1	9
Current meter start count	963628	2	9
Current meter stop count	985678	3	X
Time stop (HRS)	2135 HRS	4	X
Total time for retrieval (mins)	19 MINS	5	X
Calculated sample flow volume (m ³ /s)	116.0	6	X

Vel = 1.7 ft/s

Comments/Observations:

- * 6 hour samples are archived (type A samples)
- * day and night sample components are composited for laboratory analysis (type C samples)

* *Severe storms in the area after start-up - discontinued*

Vogle I & E Study - Source Water Community Sampling Data Sheet*

Collected by: JD GP
 Date: 5/21/08
 Gear: dual 1:3 ratio 0.5 m Nitex 500 micron mesh plankton nets

Sampling Period Circle One: DAY 1 DAY 2 NIGHT 1 NIGHT 2

Location: Left Bank (facing upstream)

Time start	2303	HRS
Current meter start count	294480	
Current meter stop count	315833	
Time stop	2320	HRS
Total time for retrieval	17	MINS
Calculated sample flow volume (m ³ /s)	112.6	

1.8 #/s

Depth (m)	Time at Depth (mins)
1	9
2	9
3	X
4	X
5	X
6	X

11/20
1021

Location: Mid-Channel

Time start (HRS)	2233	HRS
Current meter start count	269956	
Current meter stop count	294457	
Time stop (HRS)	2252	HRS
Total time for retrieval (mins)	20	MINS
Calculated sample flow volume (m ³ /s)	129.2	

1.8 #/s

1	9
2	9
3	X
4	X
5	X
6	X

10/2
1051

Location: Right Bank (facing upstream) *collected on 5/20/08*

Time start (HRS)	2303	HRS
Current meter start count	294480	
Current meter stop count	315833	
Time stop (HRS)		HRS
Total time for retrieval (mins)		MINS
Calculated sample flow volume (m ³ /s)		

1	9
2	9
3	X
4	X
5	X
6	X

Comments/Observations:

* 6 hour samples are archived (type A samples)
 * day and night sample components are composited for laboratory analysis (type C samples)
** continuation of Night 1 sample set from 5/20/08 which was discontinued due to a storm.*

Vogle I & E Study - Source Water Community Sampling Data Sheet*

Collected by: TD, VP
 Date: 5-21-08
 Gear: dual 1:3 ratio 0.5 m Nitex 500 micron mesh plankton nets

Sampling Period Circle One: DAY 1 DAY 2 NIGHT 1 **NIGHT 2**

Location: Left Bank (facing upstream)

Time start
 Current meter start count
 Current meter stop count
 Time stop
 Total time for retrieval
 Calculated sample flow volume (m³/s)

0400	HRS
98400	036511
036511	067577
0420	HRS
20	MINS
163.8	

Depth (m)	Time at Depth (mins)
1	9
2	9
3	X
4	X
5	X
6	X

2.3 *g/s*

Location: Mid-Channel

Time start (HRS)
 Current meter start count
 Current meter stop count
 Time stop (HRS)
 Total time for retrieval (mins)
 Calculated sample flow volume (m³/s)

03:30	HRS
007922	
036513	
03:49	HRS
19	MINS
150.8	

1	9
2	9
3	X
4	X
5	X
6	X

2.2 *g/s*

Location: Right Bank (facing upstream)

Time start (HRS)
 Current meter start count
 Current meter stop count
 Time stop (HRS)
 Total time for retrieval (mins)
 Calculated sample flow volume (m³/s)

02:59	HRS
985670	
007932	
03:18	HRS
19	MINS
117.4	

1	9
2	9
3	X
4	X
5	X
6	X

1.7 *g/s*

Comments/Observations:

- * 6 hour samples are archived (type A samples)
- * day and night sample components are composited for laboratory analysis (type C samples)

Vogle I & E Study - Source Water Community Sampling Data Sheet*

Collected by: TD, VP
 Date: 5-21-08
 Gear: dual 1:3 ratio 0.5 m Nitex 500 micron mesh plankton nets

Sampling Period Circle One: DAY 1 DAY 2 NIGHT 1 NIGHT 2

Location: Left Bank (facing upstream)

Time start	1103 HRS
Current meter start count	1177104
Current meter stop count	143409
Time stop	1122 HRS
Total time for retrieval	19 MINS
Calculated sample flow volume (m ³ /s)	135.1
	2.0

Depth (m)	Time at Depth (mins)
1	9
2	9
3	X
4	X
5	X
6	X

Location: Mid-Channel

Time start (HRS)	1623 HRS
Current meter start count	089495
Current meter stop count	117704
Time stop (HRS)	1052 HRS
Total time for retrieval (mins)	19 MINS
Calculated sample flow volume (m ³ /s)	149.1
	2.26 HRS

Depth (m)	Time at Depth (mins)
1	9
2	9
3	X
4	X
5	X
6	X

Location: Right Bank (facing upstream)

Time start (HRS)	1003 HRS
Current meter start count	01075105
Current meter stop count	089487
Time stop (HRS)	1022 HRS
Total time for retrieval (mins)	19 MINS
Calculated sample flow volume (m ³ /s)	115.6
	1.7 HRS

Depth (m)	Time at Depth (mins)
1	9
2	9
3	X
4	X
5	X
6	X

Comments/Observations:

- * 6 hour samples are archived (type A samples)
- * day and night sample components are composited for laboratory analysis (type C samples)

Vogle I & E Study - Source Water Community Sampling Data Sheet*

Collected by: TD 168

Date: 5/21/06

Gear: dual 1:3 ratio 0.5 m Nitex 500 micron mesh plankton nets

Sampling Period Circle One: DAY 1 **DAY 2** NIGHT 1 NIGHT 2

Location: Left Bank (facing upstream)

Time start	1648	HRS
Current meter start count	215184	
Current meter stop count	241419	
Time stop	1706	HRS
Total time for retrieval	19	MINS
Calculated sample flow volume (m ³ /s)	138.4	

Depth (m)	Time at Depth (mins)
1	9
2	9
3	X
4	X
5	X
6	X

2.0 R/S

Location: Mid-Channel

Time start (HRS)	1621	HRS
Current meter start count	189152	
Current meter stop count	215154	
Time stop (HRS)	1640	HRS
Total time for retrieval (mins)	19	MINS
Calculated sample flow volume (m ³ /s)	157.1	

1	9
2	9
3	X
4	X
5	X
6	X

2.0

Location: Right Bank (facing upstream)

Time start (HRS)	1553	HRS
Current meter start count	166725	
Current meter stop count	189159	
Time stop (HRS)	1612	HRS
Total time for retrieval (mins)	19	MINS
Calculated sample flow volume (m ³ /s)	118.3	

1	9
2	9
3	X
4	X
5	X
6	X

1.7 R/S

Comments/Observations:

- * 6 hour samples are archived (type A samples)
- * day and night sample components are composited for laboratory analysis (type C samples)

Comparison Surrogate / Intended Site for Units 3 & 4

Vogle I & E Study - Source Water Community Sampling Data Sheet*

Collected by: FD/EP
 Date: 5/21/08
 Gear: dual 1:3 ratio 0.5 m Nitex 500 micron mesh plankton nets

Sampling Period Circle One: DAY 1 **DAY 2** NIGHT 1 NIGHT 2 Depth (m) Time at Depth (mins)

Location: Left Bank (facing upstream)

Time start	1777 HRS	
Current meter start count	241415	
Current meter stop count	269951	
Time stop	1737 HRS	
Total time for retrieval	20 MINS	
Calculated sample flow volume (m ³ /s)	150.5	

1	9
2	9
3	X
4	X
5	X
6	X

2.1 / 0.15

Location: Mid-Channel

Time start (HRS)	HRS	
Current meter start count		
Current meter stop count		
Time stop (HRS)	HRS	
Total time for retrieval (mins)	MINS	
Calculated sample flow volume (m ³ /s)		

1	
2	
3	
4	
5	
6	

Location: Right Bank (facing upstream)

Time start (HRS)	HRS	
Current meter start count		
Current meter stop count		
Time stop (HRS)	HRS	
Total time for retrieval (mins)	MINS	
Calculated sample flow volume (m ³ /s)		

1	
2	
3	
4	
5	
6	

Comments/Observations:

- * 6 hour samples are archived (type A samples)
- * day and night sample components are composited for laboratory analysis (type C samples)

Vogle I & E Study - Sample Chain Of Custody

Collected by: TD / GP

Sample No.	Integrated Sample ID and Collection Date	Approximate Time of Collection	Preservative	Shipped to taxonomy lab	Archived at GPC Smyrna
		-0000 HRs	5% formalin or 10% formalin Wet Ice	√	√
1	ENLD1A 052108	1450	5%		
2	ENLD2A 052108	2118	5%		
✓ 3	ENLDCOMP 052108	2118	5%		
4	ENLN1A 052108	0345	5%		
5	ENLN2A 052208	0940	5%		
✓ 6	ENLNCOMP 052208	0940	5%		
7	IMDA NO SAMPLE / NO FISH				
8	IMNA 052208	0900	10%		✓
9	SWLD1A 052108	1122	5%		
10	SWLD2A 052108	1706	5%		
✓ 11	SWLDCOMP 052108	1706	5%		
12	SWMD1A 052108	1052	5%		
13	SWMD2A 052108	1040	5%		
✓ 14	SWMDCOMP 052108	1040	5%		
15	SWRD1A 052108	1022	5%		
16	SWRD2A 052108	1612	5%		
✓ 17	SWRDCOMP 052108	1612	5%		
18	SWLN1A 052108	2320	5%		
19	SWLN2A 052108	0420	5%		
✓ 20	SWLNCOMP 052108	0420	5%		
21	SWMN1A 05/21/08	2252	5%		
22	SWMN2A 052108	0349	5%		
✓ 23	SWMNCOMP 052108	0349	5%		
24	SWRN1A 052008	2135	5%		
25	SWRN2A 052108	0318	5%		
✓ 26	SWRNCOMP 052108	0318	5%		
27	SWLD1 434A 052108	1155	5%		
✓ 28	SWLDCOMP 434 052108	1737	5%		
29	SWLD2 434A 052108	1737	5%		
30					

EN = entrainment sample D1 = first day sample C = composited 1st and 2nd day or night samples
 IM = impingement sample N2 = second night sample
 SW = source water sample A = archived 6-hour sample

Relinquished by: Jay Doh Date: 5/22/08 Time: ~1700
 Received by: Ginny Pantano Date: 5/22/08 Time: 1700

From: Dodd, Anthony Ray
Sent: Friday, May 23, 2008 11:20 AM
To: Montz, Matthew Thomas
Subject: RE: Species list

Not yet Matt,

I will work with that specimen some more..it's not in the best of shape.

This week's event resulted in two fish impinged including a juv. hogchoker and adult gizzard shad.

Source water and canal sampling went well. The storms did scrub our first night sample on the river so, we finished up on the second night.

Water temps about 22 C.

We did observe at least one larval fish in a night time source water sample jar.

TD

From: Montz, Matthew Thomas
Sent: Friday, May 23, 2008 12:15 PM
To: Dodd, Anthony Ray
Subject: Species list

Tony,

The impingement monitoring data form from the very first monitoring event, night sample, has a cyprinid sp listed. Were you able to ID that fish down to species?

Hope this weeks sampling trip went well. I know you had some rain to contend with!

Matthew T. Montz
Environmental Specialist
Southern Nuclear Operating Company
Office 205-992-5629

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From: Montz, Matthew Thomas
Sent: Wednesday, May 21, 2008 8:58 AM
To: 'Moore, Phil'
Cc: 'Patterson, Karen'
Subject: RE: Savannah R larval fish surveys

Yes, actually, ichthyoplankton samples are being collected every 6 hours (in duplicate) and composited into a 12 hour samples. The 6 hour duplicates are held for possible future analyses.

Matthew T. Montz
Office 205-992-5629

From: Moore, Phil [mailto:Phil.Moore@tetrattech.com]
Sent: Wednesday, May 21, 2008 8:43 AM
To: Montz, Matthew Thomas
Cc: Patterson, Karen
Subject: RE: Savannah R larval fish surveys

Matt,

I neglected to ask when we spoke on the phone....you're doing day-night ichthyoplankton sampling, I presume?

Thanks for your help,

PHIL M

From: Montz, Matthew Thomas [mailto:MTMONTZ@SOUTHERNCO.COM]
Sent: Wednesday, May 21, 2008 9:23 AM
To: Patterson, Karen; Fulton, Dale Lane
Cc: Moore, Phil; Moorer, Tom C.
Subject: RE: Savannah R larval fish surveys

Karen,
I called him this morning.

Matthew T. Montz
Office 205-992-5629

7/7/2008

From: Patterson, Karen [mailto:Karen.Patterson@tetrattech.com]
Sent: Wednesday, May 21, 2008 8:06 AM
To: Fulton, Dale Lane; Montz, Matthew Thomas
Cc: Moore, Phil; Moorer, Tom C.
Subject: FW: Savannah R larval fish surveys

Matt or Dale – Can one of you call Phil (803 641 6311) and brief him on the SR sampling – or, if you have a methodology you can send him? SCE&G is planning to do sampling in the Broad and wants to be as consistent with ya'll as possible.

Thanks. KP

From: Moore, Phil
Sent: Wednesday, May 21, 2008 6:11 AM
To: Patterson, Karen
Subject: Savannah R larval fish surveys

Karen,

Could you pls find out exactly what Southern/Ga Power is doing in the way of ichthyoplankton surveys at Plant Vogtle?

Or direct me to someone who would know?

I'm interested in frequency of **sampling and no/location of sampling transects**. SCE&G wants to do "what everybody else is doing."

Thanks,

PHIL

From: Hannah Proctor [hproctor@normandeau.com]
Sent: Thursday, June 26, 2008 8:58 AM
To: Dodd, Anthony Ray
Subject: RE: Vogtle samples

Tony,

We are considering collections through the recently received samples as Set#1, with Set#2 including the remainder of the program samples. We will have an excel spreadsheet of data for Set#1 (collection months of 3/11/08 through 6/12/08) for you by or before July 25th.

Hannah

-----Original Message-----

From: Dodd, Anthony Ray [mailto:ARDODD@southernco.com]
Sent: Wednesday, June 25, 2008 10:25 PM
To: Hannah Proctor
Subject: RE: Vogtle samples

Hannah,

Thanks for the follow-up...glad the samples made it there...any idea when we can get a "draft or preliminary" idea of species and numbers trend based on lab observations?

Thanks,

Tony

From: Hannah Proctor [mailto:hproctor@normandeau.com]
Sent: Wed 6/25/2008 4:44 PM
To: Dodd, Anthony Ray
Subject: FW: Vogtle samples

From: Hannah Proctor
Sent: Wednesday, June 25, 2008 3:25 PM
To: 'Dodd, Anthony Ray'
Subject: RE: Vogtle samples

Hello Tony,

This recent delivery of samples arrived in good order, and we have begun processing them; thanks!

Ps.....there was some confusion over our street address with this last delivery; it is 25 Nashua Road (not 34).

Hannah

From: Dodd, Anthony Ray [mailto:ARDODD@southernco.com]
Sent: Friday, May 23, 2008 8:22 AM
To: Hannah Proctor
Subject: RE: Vogtle samples

Hannah,

Thanks for your message. See my responses below.

From: Hannah Proctor [mailto:hproctor@normandean.com]
Sent: Thursday, May 22, 2008 4:43 PM
To: Dodd, Anthony Ray
Subject: FW: Vogtle samples

Hello Tony,

I will be responsible for seeing the Vogtle ichthyoplankton samples through the processing and reporting stage. We received the first shipment of samples on May 20th (signed COC attached) and will start processing them next week. Coolers have been mailed back to you.

I have a couple of questions:

1. Are all the samples net samples?

No. Labels indicating sample type as source water were collected with plankton nets in-river 0.5 m net with 500 micron size mesh 1:3 mouth to length ratio

Labels indicating sample type as canal/entrainment were collected via submersible pumps in the intake canal. Sample water was sieved through the same size nets at the top of the canal bulkhead located about 23 ft above the water surface. We always see very little organism volume in the canal samples.

2. In addition to the numerical station numbers (1-3, 1-6, 1-9, etc.); are you interested in having the station designation reflect the location of the sample, source water or canal entrainment?

YES

3. We will receive the remaining samples in one batch, and when?

I will send out two sample events worth of samples - each time at the end of each sample month. You should expect to see two coolers at/near the end of each month through August.

4. While the first shipment arrived OK; some samples were scrunched and one of the sample jars had broken (sample material recoverable). Would you help by seeing that the next shipment is packaged so that: jar lids are taped with electrical tape to avoid leaking and jars are packed tight inside the coolers to avoid getting crunched. We don't want to lose any samples, thanks!

Thanks for the description/disposition of contents received. I considered taping lids and decided not to at the last minute. I will be taping lids from this point forward.

5. I assume that you anticipate receiving data for the entire collection period at once but don't see any notation as to when this is. Would by or before the end of August be acceptable?

I am interested received data as it becomes available. Excel spreadsheet format.

Also, please confirm that you will retain a voucher collection for us.

Please let me know if you have any questions.

Thanks, Hannah

Hannah Proctor

Manager, Biology Laboratory

Normandeau Associates, Inc.

From: Paul Geoghegan
Sent: Wednesday, May 14, 2008 2:08 PM
To: 'Tony Dodd'
Cc: Hannah Proctor
Subject: Vogtle samples

Tony:

Please ship the samples to the address below and to the attention of Hannah Proctor.

Paul

Paul Geoghegan
Principal Scientist
Normandeau Associates Inc.
25 Nashua Road
Bedford NH 03110

PH: 603 472 5191

FAX: 603 471 6007

Please consider the environment before printing this e-mail.

Please consider the environment before printing this e-mail.

Please consider the environment before printing this e-mail.

Please consider the environment before printing this e-mail.

From: Dodd, Anthony Ray
Sent: Tuesday, July 01, 2008 1:51 PM
To: Montz, Matthew Thomas; 'Coutant, Chuck/Nancy'; Blanton, Stan (Balch)
Cc: Candler, W. Jim; Walden, Kevin C.; Nichols, Michael C. (Env. Lab GPC)
Subject: Plant Vogtle I & E Sampling Event No. 8

Follow Up Flag: Follow up
Flag Status: Yellow

Attachments: 2nd June Event.pdf; Trip Report 8.doc

Vogtle Impingement/Entrainment Study Team,
Please find electronic copies of the current Vogtle I& E sampling trip report and associated field data sheets.
Please contact me if you have any questions.



2nd June Event.pdf (360 KB)



Trip Report 8.doc (45 KB)

Tony Dodd, CFP
Environmental Specialist
Georgia Power Environmental Lab
5131 Maner Rd.
Smyrna Ga 30080

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LINC Cell: 770-550-2502
LINC Radio: 1*20*15202
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Vogle I & E Study - Sample Chain Of Custody

Collected by: ARD/MMR

Sample No.	Integrated Sample ID and Collection Date	Approximate Time of Collection	Preservative	Shipped to taxonomy lab	Archived at GPC Smyrna
		-0000 HRs	5% formalin or 10% formalin Wet Ice	✓	✓
1	ENLD1A 6/25/08	1430	5%		✓
2	ENLD2A 6/25/08	2116			✓
3	ENLDCOMP 6/25/08	2116		✓	
4	ENLN1A 6/25/08	0315			✓
5	ENLN2A 6/24/08	0917			✓
6	ENLNCOMP 6/26/08	0917		✓	
7	IMDA 6/25/08	1945	10%		
8	IMNA 6/26/08	0845			✓
9	SWLD1A 6/25/08	1007	5%		✓
10	SWLD2A 6/25/08	1709			✓
11	SWLDCOMP 6/25/08	1709		✓	
12	SWMD1A 6/25/08	0937			✓
13	SWMD2A 6/25/08	1641			✓
14	SWMDCOMP 6/25/08	1641		✓	
15	SWRD1A 6/25/08	0912			✓
16	SWRD2A 6/25/08	1612			✓
17	SWRDCOMP 6/25/08	1612		✓	
18	SWLN1A 6/25/08	2217			✓
19	SWLN2A 6/25/08	0419			✓
20	SWLNCOMP 6/25/08	0419		✓	
21	SWMN1A 6/24/08	2159			✓
22	SWMN2A 6/25/08	0350			✓
23	SWMNCOMP 6/25/08	0350		✓	
24	SWRN1A 6/24/08	2119			✓
25	SWRN2A 6/25/08	0321			✓
26	SWRNCOMP 6/25/08	0321		✓	
27	 	 	 	 	
28	 	 	 	 	
29	 	 	 	 	
30	 	 	 	 	

EN = entrainment sample D1 = first day sample C = composited 1st and 2nd day or night samples
 IM = impingement sample N2 = second night sample
 SW = source water sample A = archived 6-hour sample

Relinquished by: Jay Dodd Date: 6/26/08 Time: 1800
 Received by: Melissa Murphy Date: 6/26/08 Time: 1800

PLANT VOGTLE IMPINGEMENT MONITORING DATA FORM

Sample Information

Collector(s): ARD / mpr

Page: 1 of 1
MARK 6-25-08

12-hour Period (circle)

0805

Remarks:

DAY | NIGHT

Start Date

6/24/08

Time

0830 | 1945

End Date

6/25/08

Time

1945 | 0845

Elapsed Time

Plant and CWIS Operating Conditions

	No. Pumps	Pump Flow (gpm)	No. of VTS Operating
Start	<u>2</u>		
Finish	<u>2</u>		<u>4</u>

	River Stage (ft.)
Start	<u>6.42</u>
Finish	<u>6.25</u>

*(4,320 cfs)
(4,150 cfs)*

	Water Temperature (°C)
Start	<u>26.5</u>
Finish	<u>27.4</u>

Physicochemical parameters:

D.O.	<u>7.4</u>	mg/L	<u>7.8</u>
pH	<u>8.2</u>	SU	<u>7.7</u>
Cond.	<u>123.5</u>	uS/cm	<u>113.7</u>
Turbidity	<u>0.0</u>	NTU	<u>0.0</u>

6/24/08 *6/25/08*
Temp. 26.5
27.4

*Hydrolab. HANNA
S/N 03100608500*

Field Conditions/Other Observations

** partly cloudy & hot / falling river stage
* no precipitation*

Event #

Entered by:
Date: / /

Vogtle I & E Study - Source Water Community Sampling Data Sheet*

Collected by: AKD/MMK

Date: 6-25-08

Gear: dual 1:3 ratio 0.5 m Nitex 500 micron mesh plankton nets

Sampling Period Circle One: DAY 1 DAY 2 NIGHT 1 NIGHT 2

Location: Left Bank (facing upstream)

Time start	0947 HRS	
Current meter start count	879079	
Current meter stop count	906194	
Time stop	1007 HRS	
Total time for retrieval	20 MINS	
Calculated sample flow volume (m ³)	143	(2.0 ft ³)

Depth (m)	Time at Depth (mins)
1	10
1.5	10
3	
4	
5	
6	

Location: Mid-Channel

Time start (HRS)	0919 HRS	
Current meter start count	849013	
Current meter stop count	877078	
Time stop (HRS)	0939 HRS	
Total time for retrieval (mins)	20 MINS	
Calculated sample flow volume (m ³)	155.4	(2.2 ft ³)

Depth (m)	Time at Depth (mins)
1	10
1.5	10
3	
4	
5	
6	

Location: Right Bank (facing upstream)

Time start (HRS)	0851 HRS	
Current meter start count	820345	
Current meter stop count	849167	
Time stop (HRS)	0912 HRS	
Total time for retrieval (mins)	21 MINS	
Calculated sample flow volume (m ³)	154.4	(2.0 ft ³)

Depth (m)	Time at Depth (mins)
1	10
1.5	10
3	
4	
5	
6	

Comments/Observations:

- * 6 hour samples are archived (type A samples)
- * day and night sample components are composited for laboratory analysis (type C samples)

Vogle I & E Study - Source Water Community Sampling Data Sheet*

Collected by: 6-25-08

Date: ARD/MMR

Gear: dual 1:3 ratio 0.5 m Nitex 500 micron mesh plankton nets

Sampling Period Circle One: DAY 1 DAY 2 NIGHT 1 NIGHT 2 Depth (m) Time at Depth (mins)

Location: Left Bank (facing upstream)

Time start	1648	HRS
Current meter start count	960285	
Current meter stop count	980133	
Time stop	1709	HRS
Total time for retrieval	21	MINS
Calculated sample flow volume (m ³ /s)	136.3	(1.8 ft/s)

1	10
1.5	10
3	
4	
5	
6	

Location: Mid-Channel

Time start (HRS)	1621	HRS
Current meter start count	993014	
Current meter stop count	960215	
Time stop (HRS)	1641	HRS
Total time for retrieval (mins)	20	MINS
Calculated sample flow volume (m ³ /s)	143.5	(2.0 ft/s)

1	10
1.5	10
3	
4	
5	
6	

Location: Right Bank (facing upstream)

Time start (HRS)	1551	HRS
Current meter start count	906192	
Current meter stop count	933017	
Time stop (HRS)	1612	HRS
Total time for retrieval (mins)	21	MINS
Calculated sample flow volume (m ³ /s)	141.4	(1.9 ft/s)

1	10
1.5	10
3	
4	
5	
6	

Comments/Observations:

* 6 hour samples are archived (type A samples)

* day and night sample components are composited for laboratory analysis (type C samples)

Vogle I & E Study - Source Water Community Sampling Data Sheet*

Collected by: ARD/MMR

Date: 6-24-08

Gear: dual 1:3 ratio 0.5 m Nitex 500 micron mesh plankton nets

Sampling Period Circle One: DAY 1 DAY 2 **NIGHT 1** NIGHT 2

Location: Left Bank (facing upstream)

Time start	2157 HRS
Current meter start count	711738
Current meter stop count	736684
Time stop	2217 HRS
Total time for retrieval	20 MINS
Calculated sample flow volume (m ³ /s)	131.6 (1.8 ft/s)

Depth (m)	Time at Depth (mins)
1	10
2.5	10
3	
4	
5	
6	

Location: Mid-Channel

Time start (HRS)	2128 HRS
Current meter start count	685197
Current meter stop count	711740
Time stop (HRS)	09259 HRS
Total time for retrieval (mins)	21 20 MINS
Calculated sample flow volume (m ³ /s)	140.0 (1.9 ft/s)

1	10
2	10
3	
4	
5	
6	

Location: Right Bank (facing upstream)

Time start (HRS)	2058 HRS
Current meter start count	659201
Current meter stop count	685189
Time stop (HRS)	2119 HRS
Total time for retrieval (mins)	21 MINS
Calculated sample flow volume (m ³ /s)	136.7 (1.8 ft/s)

1	10
2.5	10
3	
4	
5	
6	

Comments/Observations:

* 6 hour samples are archived (type A samples)

* day and night sample components are composited for laboratory analysis (type C samples)

Rt Bank: 2nd sample @ 1.5 m due to shallow water

Vogle I & E Study - Source Water Community Sampling Data Sheet*

Collected by: ARD/mm

Date: 6-25-08

Gear: dual 1:3 ratio 0.5 m Nitex 500 micron mesh plankton nets

Sampling Period Circle One: DAY 1 DAY 2 NIGHT 1 **NIGHT 2**

Location: Left Bank (facing upstream)

Time start	0358 HRS
Current meter start count	793442
Current meter stop count	820317
Time stop	0419 HRS
Total time for retrieval	21 MINS
Calculated sample flow volume (m ³ /s)	141.7 (1.9 ft/s)

Depth (m)	Time at Depth (mins)
1	10
2	10
3	
4	
5	
6	

Location: Mid-Channel

Time start (HRS)	0329 HRS
Current meter start count	7165700
Current meter stop count	793456
Time stop (HRS)	0350 HRS
Total time for retrieval (mins)	21 MINS
Calculated sample flow volume (m ³ /s)	146.4 (1.9 ft/s)

1	10
2	10
3	
4	
5	
6	

Location: Right Bank (facing upstream)

Time start (HRS)	0300 HRS
Current meter start count	736695
Current meter stop count	7165700
Time stop (HRS)	0321 HRS
Total time for retrieval (mins)	21 MINS
Calculated sample flow volume (m ³ /s)	153 (2.0 ft/s)

1	10
2	10
3	
4	
5	
6	

Comments/Observations:

* 6 hour samples are archived (type A samples)

* day and night sample components are composited for laboratory analysis (type C samples)

Vogle I & E Study - Canal Entrainment Sampling Data Sheet*

Collected by: ARD/mmml

Date: 6-25-08

Canal Water Stage to top rail 24.4 ft

Depth of Pump Deployment 4 ft 3.5' in river side

Pumps: 2 electric Tsurumi LB3-750 type with 73 gpm capacity at level head

	DAY 1	DAY 2	NIGHT 1	NIGHT 2
Time start (HRS)	<u>0758</u>	<u>1508</u>	<u>2126</u>	<u>0327</u>
Time stop (HRS)	<u>1430</u>	<u>2116</u>	<u>0315</u>	<u>0917</u>
Total pumping time (mins)	<u>332</u>	<u>368</u>	<u>349</u>	<u>350</u>
Calculated sample flow volume (m ³)	<u>80.4</u>	<u>89.2</u>	<u>84.6</u>	<u>84.8</u>

Notes:

Flow volume flow based on depth and river stage and performance curve: (64) gals/min

* 6 hour samples are archived (type A samples)

* day and night sample components are composited for laboratory analysis (type C samples)

0440 HRS on 6/26/08 gage = 23.7'

To:

Plant Vogtle Impingement/Entrainment Assessment team members

This message conveys summary information from the 8th of 24 planned sampling events for aquatic organism impingement and entrainment assessment at the Plant Vogtle make-up water intake structure. This sampling event was conducted by Tony Dodd and Melissa Reid of GPC's Environmental Field Services Group during 24-26 June 2008.

Operation

Two make-up water pumps were operating (~ 50,000 gal/m) as is typical during the sampling event.

Impingement Sampling

Impingement sampling was conducted at the Plant Vogtle intake structure screen wash outfall pit between 0805 hrs on 25 June and 0845 hrs on 26 June 2008. The traveling screens were rotated and purged of any prior impinged debris via the screen wash system before setting the insert net for collection. Amidst the approximately ½ tub-full (20 gallon size) of debris including leaves, twigs, and seeds, four fish and one freshwater shrimp were collected observed in 12-hr daytime sample. They included two white catfish (*Ameiurus tatus*), one spotted sunfish (*Lepomis punctatus*), one pirate perch (*Aphredoderus sayanes*), and one shore shrimp (*Paleomonetes pugio*). No organisms were collected in the night time sample. About three double handfuls of organic debris were present in the night sample.

To date, a total of 31 organisms representing 14 species in nine taxonomic families have been collected in the impingement sampling program.

Entrainment Sampling

Entrainment sampling via the submersible pump system was conducted from the intake canal every six hours during a 24-hour period during 25-26 June 2008. The average volume of pumped canal water per sample was approximately 84.8 m³. Entrainment samples have been submitted to the laboratory for taxonomic processing.

Source-Water Ichthyoplankton Community Sampling

The source water ichthyoplankton community was conducted during 24-25 June 2008. Because the net has occasionally touched the river bottom at 2-meters on most recent trips resulting in unwanted detritus in the samples, each of the three sampling stations was sampled during this event at 1-m and 1.5-m intervals for a total of ten minutes of sampling at each depth. The mean volume of river water sampled at each station was approximately 143.6 m³ with an average calculated water column velocity of 1.9 ft/s.

Other Observations

- Surface water temperature during the 24-hr event was approximately 27.4°C having declined slightly from 29° C following scattered showers and cooler air temperatures

since the previous sampling event. Flow in the Savannah River varied between 4,150 and 4,320 cfs during this sampling event and river stage varied between 6.25 and 6.42 ft based on the USGS Waynesboro Gage No. 021973269.

- To date, 435.9 grams (~15.4 oz.) of impinged fish biomass has been collected at the Plant Vogtle intake via the screen wash system in this sampling program.
- The species of common shore shrimp reported earlier on 4/8/08 as *Paleomonetes vulgaris* has been re-examined and corrected in the impingement database species list as *P. pugio*.
- A previously unidentified specimen of shiner in poor condition from daytime impingement sample of 3/11/2008 has been identified as coastal shiner (*Notropis petersoni*).
- The next sampling event is scheduled for 15-17 July 2008.

Please contact me if you have any questions.

Tony Dodd, CFP
Environmental Specialist
GPC Environmental Field Services
404-799-2142 (Main)
770-550-2502 (LINC Cell)
8-530-2142 (Internal Direct)
ardodd@southernco.com

DRAFT DOCUMENT