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Division	Waste Management
Section	Superfund
Program	IHS (IHS)
DocCat	Facility

NCDENR
North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary

January 4, 2008

Mr. Harry Sideris
Plant Manager
Progress Energy Carolinas, Inc.
Sutton Steam Plant
801 Sutton Steam Plant Road
Wilmington, North Carolina 28401

REC-LEAD

Re: Termination of REC-Administrative Agreement
and Notice of Statutory Requirements
CP&L Sutton Steam Plant
Wilmington, New Hanover County, NC
Site ID No. 000 830 646

Dear Mr. Sideris:

On August 20, 2007, I received your letter terminating the Registered Environmental Consultant (REC) Administrative Agreement (AA) for the CP&L Sutton Steam Plant Site (Site). The AA was executed for cleanup of hazardous substances under Inactive Hazardous Substance Response Act (IHSRA) authority. As you requested, the AA was terminated and the site transferred from the Responsible Party Voluntary Remedial Action category to the Sites Priority List category of the Inactive Hazardous Sites Inventory. Note that all Sites where "voluntary" assessment and cleanup under administrating agreements is discontinued are published on the Inactive Hazardous Waste Sites Priority List is issued annually.

Please be aware that, if you have not already done so, pursuant to 15A NCAC 2L .0106(b), any person conducting or controlling an activity which results in the discharge of a waste or hazardous substance to the groundwaters of the State, or in proximity thereto, shall take immediate action to terminate and control the discharge, and mitigate any hazards resulting from exposure to the pollutants. Pursuant to 15A NCAC 2L .0106(c), if groundwater standards have been exceeded, you must take immediate action to eliminate the source or sources of contamination. Beyond initial abatement actions, all assessment and remediation will be done through the IHSRA.

Since you are no longer "volunteering" to address the contamination at the Site, the Inactive Hazardous Sites Branch (Branch) will review the Site to determine if it is a priority for remedial action under IHSRA authority. The Site may also be reviewed and evaluated by the US Environmental Protection Agency for action under the federal Superfund Program.

Pursuant to North Carolina General Statute 130A-310.8 of the IHSRA, the **owner** of property which has been determined by the North Carolina Department of Environment and Natural Resources, Division of Waste Management (DWM) to be or include an inactive hazardous substance or waste disposal site is required to submit, for DWM approval, Notice of an Inactive Hazardous Substance or Waste Disposal Site (Notice) suitable for recordation in the county register of deeds office. The Sutton Steam Plant Site is an inactive hazardous substance waste disposal site. Instructions for recordation of Notices can be found on the Branch's web site at

www.wastenotnc.org/sfhome/lhsguide.htm. In addition to recording the Notice after approval of it by the Department, you should take measures to control site access and post Notices at the Site. In accordance with 130A-310.8(g), recordation is not required for any Site that is undergoing voluntary remedial action under an agreement with the DWM pursuant to 130A-310.9(b) unless it is part of a proposed containment remedy.

In the letter that I received August 23, 2007, you suggest that additional sample data was not necessary in order for Progress Energy and the REC to implement the proposed remedial action plan for the Site. The letter states "the REC concluded that deed restrictions and Monitored Natural Attenuation were the appropriate remedies for this site. The site ....lacked significant soil or groundwater impacts. In addition, the contaminant was not leaching to groundwater and was not a threat to off-site (or on-site) receptors. DENR's review, however, indicated that additional sampling would be required under the REC rules and that an active remediation of groundwater may be necessary. This additional cost of reaching closure would not appear to offer any added benefit". Please note that a containment remedy with land use restrictions and groundwater monitored natural attenuation may ultimately be an acceptable and appropriate remedial alternative for the Site. However, the containment remedy for the flyash that was proposed by Progress Energy and the REC/RSM was not adequately supported in order for me to give concurrence as required by 15A NCAC 13C .0306(i)(2). The reasons why concurrence with the proposed containment remedy for the flyash (waste material) could not be provided were explained in my June 7, 2006 letter, during our July 11, 2006 site meeting, and in my April 25, 2207 e-mail (copy enclosed) that was sent to Mr. MacPherson of Progress Energy and Mr. Gary Cameron of ARCADIS BBL. First, an insufficient number of samples of the flyash, which is several acres in size, had been collected and properly analyzed in order to determine whether or not the contaminants in the waste material would be safe for the industrial worker exposure scenario that was proposed. A proper evaluation of the contaminant concentrations within the waste is necessary before any proposed containment remedy with perpetual land use restrictions can be considered by the Branch. Second, groundwater is already impacted at the Site, which, contrary to your letter, indicated that leaching of contamination into the groundwater had occurred. An insufficient number of samples of the waste material had been collected and properly analyzed to determine whether or not the contamination is still leaching into the groundwater. As explained in Appendix F of the REC Program Implementation Guidance (Guidance), in all cases the protection of groundwater criterion must be met for all sites. In other words, all sources of continued groundwater contamination must be remediated as required by 15A NCAC 2L .0106. Finally, I also had commented that the defined extent of the groundwater contaminant plume was questionable. No monitoring wells were installed at or immediately adjacent to the waste material area in order to evaluate the highest potential concentrations of contamination in the groundwater. Also, no groundwater quality data was collected to the south of well MW-15 which contained groundwater contamination in excess of remedial goals. Therefore, based on these three issues, additional data was necessary in order to complete the remedial investigation and select the appropriate remedial alternative for both the waste material and the groundwater. The standard procedures that are used in the environmental industry for evaluating the extent of contamination are provided in the Guidance.

In summary, concurrence with the proposed containment remedy for the waste material could not be given because it has not been properly characterized as required by 15A NCAC 13C .0306(e) and .0308(a). Proper evaluation of the concentrations and distribution of the contaminants of concern is a remedial investigation requirement of the REC Rules. For this Site, if you cannot demonstrate through proper site characterization of the waste material that the remedial goals for a restricted-use (industrial exposure) scenario and the "protection of groundwater" can be achieved, the Branch cannot provide concurrence with a proposed containment remedy and active remediation will be required unless a technical impracticability case can be demonstrated.

Be aware that removal of the Site from the REC Program does not relieve the Remediating Party (RP), Registered Site Manager (RSM), and REC of their obligations regarding the work performed to date. A complete technical audit of the project file and documents that have been submitted will be performed by the Branch in the future. It is recommended that the REC completely review the project and associated documents for compliance with the REC Rules and report any violations before a complete audit is performed by the Branch.

If you have any questions regarding the statutory requirements or the site specific issues and the REC Program, please feel free to contact me.

Sincerely,

Kim T. Caulk

Kim T. Caulk
REC Program
Inactive Hazardous Sites Branch
Superfund Section

Enclosure: April 25, 2207 e-mail

cc: Mr. Kerry MacPherson, Progress Energy
Mr. Gary Cameron, ARCADIS BB&L

Subject: Re: CP&L Sutton Steam Plant
From: "Kim T. Caulk" <Kim.Caulk@ncmail.net>
Date: Wed, 25 Apr 2007 10:53:03 -0500
To: "Cameron, Gary" <Gary.Cameron@arcadis-us.com>
CC: kerry.macpherson@pgnmail.com, "Davies, Scott" <Scott.Davies@arcadis-us.com>

REC-LEAD

Gary:

Per our telephone conversation, the following comments are provided:

1. As we discussed, when something comes in regarding an REC site, I check for proper document certification and forward the information to the file room unless I know it is something that has to have my review (such as a containment remedy). This is explained during the REC training we provide. For the Sutton Site, I reviewed the proposed containment remedy (as required), but also provided some comments in my June letter regarding the groundwater issues that I had noted while reviewing other portions of the March 2006 RAP. You did not receive any comment for your Sept. letter because I simply filed it and was waiting on the other sampling data needed for the soil remedial goals and the other proposed containment remedy issues to be addressed.
2. Regarding the ash, if it is not soil contamination, then it is waste contamination and has to be remediated like any drum, vessel, etc. containing a waste product and will have to be treated like soil contamination or actively remediated. I spoke with John Powers and he only recalls discussing with you doing trenching to define the extent of the ash in lieu of taking grid samples spaced across the site. There is nothing in the file regarding the conversation, number of samples that you were planning to collect for lab analysis, etc. and, based on my review of the RAP/containment remedy; it appears that only a couple of samples were collected within the several acres of ash. There may have been several samples collected in the area of the fuel oil release(s), but these were clustered in one or two areas of the ash and not spread over the ash area. The bottom line is, we cannot provide concurrence for a containment remedy and a particular health exposure scenario if we don't know how high the waste material concentrations are at the site that needs to be restricted and we don't know whether or not it is leaching and causing 2L groundwater quality standards to be exceeded.
3. In Appendix F of the guidance document, Item 1explains the information needed for the use of proposed land use restrictions at a site. The last sentence of Item 1 is the problem right now because you as the RSM need to confirm the waste and/or soil contamination will meet the remedial goals (it's not leaching and it's safe for the intended restricted use) at the site. As we discussed, you may also want to go ahead and send in the information in Item 2 (proposed alternate standards, proposed I&M, proposed restrictions, deed book and page number, etc.) that will be in the revised RAP. That way you can know up front that the concentrations for the restricted use scenario will be ok before you put the whole RAP together. We can also go ahead and put the together the DPLUR which will have to go into the RAP for public notice. This wording will probably be somehow revised in next year's guidance document.
4. My comments regarding the groundwater issues were provided only because I noted them while I was looking at other portions of the RAP. As we discussed, if I did an audit of the work, I would have similar questions/comments. There are no risk-base rules for groundwater and you will need to demonstrate that the remedial alternative will meet the NC 2L standards. Currently, it is possible that the highest groundwater impact may be closer to the ash material because wells MW-20, MW-15, and PZ-10 are approx. 250 ft., 500 ft., and 300 ft, respectively, from the ash. If the highest concentrations are unknown, it is unclear how someone can be sure MNA is the best long-term remedial alternative. Also, remedial goals were exceeded at MW-15 & MW-13 and I don't understand your averaging of the "parent" and "duplicate" sample results to compare to the remedial goal. Duplicate samples are usually just used for QA/AC of the data. Based on my site visit, I understand the limitations at MW-13, but it will be necessary to satisfactorily determine and monitor long-term the extent of the plume where the remedial goal is not defined at MW-15.

I hope our conversation has helped. Let me know if you have any further questions.

Kim T. Caulk, P.G.
Inactive Hazardous Sites Branch - REC Program
NCDENR - Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605
Phone: (919) 508-8451
Fax: (919) 733-4811
e-mail: kim.caulk@ncmail.net

Progress Energy

File: SUT 13550

August 20, 2007

Certified Mail # 7006 3450 0000 7506 9648

Mr. Kim T. Caulk
NC DENR, DWM-Superfund Section
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605

Subject: Withdrawal from Administrative Agreement
L. V. Sutton Electric Plant
Wilmington, NC
NCD 000 830 646

REC-LEAD

Dear Mr. Caulk:

As Kerry MacPherson discussed with you on July 25, 2007, Carolina Power & Light Company (dba Progress Energy Carolinas - PEC) is concerned with the direction and potential cost of reaching closure for the Former Ash Disposal Area at the L. V. Sutton Electric Plant. We understand that the Registered Environmental Consultant (REC) Program was designed to be prescriptive because a consultant was "standing in" for the regulator. However, the inflexibility of this approach coupled with the absence of risk-based rules for the remediation of groundwater and the expected lowering (possibly by several orders of magnitude) of the arsenic groundwater standard, results in a situation that is untenable.

Late last year, the REC for the Sutton Project completed data collection and prepared a draft Remedial Action Plan (RAP). The REC concluded that deed restrictions and Monitored Natural Attenuation were the appropriate remedies for this site. The site was industrial in nature with controlled access, committed to long-term occupancy by PEC, and lacked significant soil or groundwater impacts. In addition the contaminant was not leaching to groundwater and was not a threat to off-site (or on-site) receptors. DENR's review, however, indicated that additional sampling would be required under the REC rules and that an active remediation of groundwater may be necessary. This additional cost of reaching closure would not appear to offer any added benefit. Therefore, we find it necessary to withdraw from the 2003 Administrative Agreement with DENR.

Progress Energy Carolinas, Inc.
Sutton Steam Plant
801 Sutton Steam Plant Road
Wilmington, NC 28401

It is our understanding that after withdrawing from this voluntary program, the site will be placed back on the Inactive Hazardous Sites List. The initial ranking of this site was based in part on complications from an unlined ash pond also located on the Sutton Plant property. This concern has been resolved to the satisfaction of DWQ through the use of modeling that demonstrated that groundwater impacts would not reach off-site receptors. Analytical results from a monitoring well installed at the compliance boundary for the ash pond also demonstrated compliance. This would suggest a reduction in the priority ranking of the site should it be re-ranked. PEC is committed to fulfilling its obligations concerning this site and bringing it to closure. It is our hope that the passage of risk-based groundwater rules in the future will allow this course of action in a more practical and cost-effective manner.

We thank you for your considerations and guidance on this project, and we understand the constraints placed on both of us by this regulatory program. At this time, this appears to be the best course of action for the Company. Please contact Kerry MacPherson, Lead Environmental Specialist in our Corporate Office, at (919) 546-6753, should you have questions.

Very truly yours,

Harry Sideris

Harry Sideris
Plant Manager
Sutton Plant

ARCADIS BBL
Infrastructure, environment, facilities

ARCADIS G&M of North Carolina, Inc.
11000 Regency Parkway
West Tower
Suite 205
Cary
North Carolina 27518
Tel 919.469.1952
Fax 919.469.5676
www.arcadis-us.com

Mr. Kim Caulk, Manager
North Carolina Department of Environment and Natural Resources
Division of Waste Management
Inactive Hazardous Sites Branch
401 Oberlin Road, Suite 150
Raleigh, NC 27605

REC-LEAD

Subject:
Quarterly Progress Report (Period Covered: 04/1/07 to 06/30/07)
REC Program, Former Ash Disposal Area
Progress Energy Carolinas, Inc.
L.V. Sutton Steam Electric Plant, Wilmington, NC
Docket Number 03-SF-217

Date:
June 20, 2007

Contact:
Gary Cameron, P.E.

Phone:
919.415.2257

Email:
gary.cameron@arcadis-us.com

Our ref:
B0004017

Dear Mr. Caulk:

This Quarterly Progress Report has been prepared on behalf of Carolina Power and Light Company d/b/a Progress Energy Carolinas Inc. (Progress Energy) for the L. V. Sutton Steam Electric Plant (the Site) located in Wilmington, North Carolina (NCD000830646). This Progress Report is required under the voluntary Administrative Agreement (Docket Number 03-SF-217) signed by Progress Energy and the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Waste Management, Inactive Hazardous Sites Branch. The work conducted under the Administrative Agreement is intended to meet the applicable requirements of North Carolina General Statute 130A-310.9(c) (Statute), 15A North Carolina Administrative Code (NCAC) 13C .0300 Rules (Rules), and 15A NCAC 13C .0300 *Registered Environmental Consultant Implementation Guidance* (REC Guidance) dated August 2006. ARCADIS BBL, formerly known as Blasland, Bouck & Lee, Inc., (ABBL) has been designated as the Registered Environmental Consultant (REC) for the Site.

The requirements of the Administrative Agreement are focused on the Former Ash Disposal Area (FADA) at the Site. The FADA was used between 1954 and 1972 for the placement of coal ash generated at the Site located in Wilmington, New Hanover County, North Carolina.

Activities Conducted During the Reporting Period (April 1, 2007 through June 30, 2007)

ABBL contacted Mr. Kim Caulk of the NCDENR on April 16, 2007 to check on the status of the NCDENR's review of the RAP Addendum Report submitted to the Department on February 26, 2007. The NCDENR's approval of the RAP is required under the REC Program since the RAP includes a containment remedy. Subsequently, Mr. Caulk provided additional comments to ABBL in an April 25, 2007 e-mail, which in part, requested further soil and groundwater delineation activities to better determine the nature of the ash material and groundwater conditions proximate to monitoring well MW-15 located near the FADA.

ABBL and Progress Energy are currently developing a response to the NCDENR's comments to the RAP for the FADA.

In summary, progress has been made for the FADA located at the Site during this reporting period and work is progressing in a manner to achieve the mandatory work phase completion deadlines set forth in 15A NCAC 13C .0302(h).

If you have any questions, please feel free to contact me at 919-415-2257.

Sincerely,

ARCADIS BBL

Gary Cameron, P.E., RSM
Vice President

Copies:
Kerry MacPherson (Progress Energy)
Harry Sideris (Progress Energy)
Kent Tyndall (Progress Energy)
Scott Davies, P.G. (ABBL)
Daniel Peterman (ABBL)

ARCADIS BBL

CERTIFICATION STATEMENT
REMEDIATING PARTY CERTIFICATION STATEMENT (.0306(b)(2))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Harry Sideris
Printed Name

Signature

6/13/07
Date

North Carolina
State

New Hanover
County

I, DARLENE B. LONG, a Notary Public of said ~~County and~~ State, do hereby certify that HARRY SIDERIS did personally appear and sign before me this the 13th day of JUNE, 2007.

Darlene B. Long
Notary Public Signature

My commission expires: 01-22-2011.

ARCADIS BBL

CERTIFICATION STATEMENT

REGISTERED SITE MANAGER CERTIFICATION STATEMENT (.0306(b)(1))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act G.S. 130A-310, et seq, and the voluntary remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

GARY R. CAMERON
Printed Name

Signature

6/20/07
Date

NORTH CAROLINA
State

WAKE
County

I, CAROL RICKERBY, a Notary Public of said County and State, do hereby certify that GARY R. CAMERON did personally appear and sign before me this the 20 day of JUNE, 2007.

Carol Rickerby
Notary Public Signature

My commission expires: My Commission Expires 11-30-2009.

CAROL RICKERBY
NOTARY
* * *
PUBLIC
HARNETT COUNTY, NC

G:CARY\project reports\docnumberedfiles\2007\398711417

Subject: Re: CP&L Sutton Steam Plant
From: "Kim T. Caulk" <Kim.Caulk@ncmail.net>
Date: Mon, 07 May 2007 09:40:42 -0500
To: "Cameron, Gary" <Gary.Cameron@arcadis-us.com>

Gary:

I do have a tremendous amount of work right now with all the re-organization needs, but I cannot deny a meeting if you believe we really need one. I don't know of any complex issues regarding the situation. Knowing the concentrations near the source area is needed to determine the proper remedial alternative (in this case justifying MNA will work) and understanding the extent of contamination is needed to at least monitor the plume over time. These issues are the same at any site whenever groundwater RGs are exceeded. I understand the site is within a large industrial facility, but it has to be treated like any other site. The decisions regarding the concentrations and extent of groundwater contamination are the responsibility of the RSM, and I believe meeting to discuss the issue defeats the purpose of the REC Program.

As I previously mentioned, the groundwater issues are just something that I noticed during my review of the proposed containment remedy and would question if I did an audit. I noted there were no MWs near the source area and the RGs were exceeded at one of the downgradient MWs. The following text is taken from both guidance documents of the Branch:

> "At least one well must be installed centrally *within each area of release* that meet one or more of the above criteria."

and,

> "If the remediating party decides not to install a well within an area due to grossly contaminated conditions or concern for rupturing buried vessels, a minimum of three wells must then be installed immediately surrounding the suspect area. Once groundwater flow patterns are clearly defined, a well will be required on the hydraulically down-gradient perimeter of the area of concern. A previously installed well may be appropriately located. Depending on the size of the area and nature of the release, additional monitoring wells may be necessary once the source is removed or remediated."

Additionally,

> "If Phase I sampling indicates hazardous substances are present in groundwater, additional groundwater assessment will be required. The purpose of the Phase II groundwater investigation is to delineate the lateral and vertical extent of all contaminant plumes, on- and off-site. The lateral and vertical extent of the groundwater contaminant plumes must be defined by wells free from hazardous substance concentrations that exceed branch remediation goals."

I believe these are common practices in the environmental field, but if you still feel that we need to meet because of an unusual situation, let me know. I can meet briefly any day next week.

Regards,

Kim T. Caulk, P.G.
Inactive Hazardous Sites Branch - REC Program
NCDENR - Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605
Phone: (919) 508-8451
Fax: (919) 733-4811
e-mail: kim.caulk@ncmail.net

Cameron, Gary wrote:

> Kim - we will be submitting a Work Plan to collect some samples and do further analysis to address your concerns about the soil/waste issues and the containment remedy. However,

REC-LEAD

Subject: RE: CP&L Sutton Steam Plant
From: "Cameron, Gary" <Gary.Cameron@arcadis-us.com>
Date: Wed, 2 May 2007 08:33:39 -0400
To: "Kim T. Caulk" <Kim.Caulk@ncmail.net>

Kim - we will be submitting a Work Plan to collect some samples and do further analysis to address your concerns about the soil/waste issues and the containment remedy. However, we have a few questions regarding the groundwater issues you mentioned (I appreciate your informal review of the groundwater portion of the RAP). Would you be available for a meeting with myself and Kerry MacPherson the week of May 14? I think a brief face-to-face, informal discussion will help us understand the issues better and ensure that the revised RAP will be in complete compliance with the guidance. Please let me know if you can meet with us. Thanks.

Gary

From: Kim T. Caulk [mailto:Kim.Caulk@ncmail.net]
Sent: Wednesday, April 25, 2007 11:53 AM
To: Cameron, Gary
Cc: kerry.macpherson@pgnmail.com; Davies, Scott
Subject: Re: CP&L Sutton Steam Plant

Gary:

Per our telephone conversation, the following comments are provided:

1. As we discussed, when something comes in regarding an REC site, I check for proper document certification and forward the information to the file room unless I know it is something that has to have my review (such as a containment remedy). This is explained during the REC training we provide. For the Sutton Site, I reviewed the proposed containment remedy (as required), but also provided some comments in my June letter regarding the groundwater issues that I had noted while reviewing other portions of the March 2006 RAP. You did not receive any comment for your Sept. letter because I simply filed it and was waiting on the other sampling data needed for the soil remedial goals and the other proposed containment remedy issues to be addressed.
2. Regarding the ash, if it is not soil contamination, then it is waste contamination and has to be remediated like any drum, vessel, etc. containing a waste product and will have to be treated like soil contamination or actively remediated. I spoke with John Powers and he only recalls discussing with you doing trenching to define the extent of the ash in lieu of taking grid samples spaced across the site. There is nothing in the file regarding the conversation, number of samples that you were planning to collect for lab analysis, etc. and, based on my review of the RAP/containment remedy, it appears that only a couple of samples were collected within the several acres of ash. There may have been several samples collected in the area of the fuel oil release(s), but these were clustered in one or two areas of the ash and not spread over the ash area. The bottom line is, we cannot provide concurrence for a containment remedy and a particular health exposure scenario if we don't know how high the waste material concentrations are at the site that needs to be restricted and we don't know whether or not it is leaching and causing 2L groundwater quality standards to be exceeded.
3. In Appendix F of the guidance document, Item 1explains the information needed for the use of proposed land use restrictions at a site. The last sentence of Item 1 is the problem right now because you as the RSM need to confirm the waste and/or soil contamination will meet the remedial goals (it's not leaching and it's safe for the intended restricted use) at the site. As we discussed, you may also want to go ahead and send in the information in Item 2 (proposed alternate standards, proposed I&M, proposed restrictions, deed book and page number, etc.) that will be in the revised RAP. That way you can know up front that the concentrations for the restricted use scenario will be ok before you put the whole RAP together. We can also go ahead and put the together the DPLUR which will have to go into the RAP for public notice. This wording will probably be somehow revised in next year's guidance document.
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I hope our conversation has helped. Let me know if you have any further questions.

Kim T. Caulk, P.G.
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NCDENR - Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605
Phone: (919) 508-8451
Fax: (919) 733-4811
e-mail: kim.caulk@ncmail.net

Cameron, Gary wrote:

> Hi Kim - thanks for the e-mail. I have attached a letter we sent in September that responds to the comments in your June 7 letter. Can you do a quick review and let me know if our responses are satisfactory, or if we still need to provide additional information? Thanks.
>
> Gary
>
> Gary R.Cameron, P.E.
> Principal Engineer
> ARCADIS BBL
>
> ARCADIS U.S., Inc.
> 11000 Regency Parkway
> West Tower, Suite 205
> Cary, NC 27518
> Phone: 919.415.2257
> Fax 919.469.5676
> Cell: 919.605.5642

Subject: Re: CP&L Sutton Steam Plant
From: "Kim T. Caulk" <Kim.Caulk@ncmail.net>
Date: Wed, 25 Apr 2007 10:53:03 -0500
To: "Cameron,. Gary" <Gary.Cameron@arcadis-us.com>
CC: kerry.macpherson@pgnmail.com, "Davies, Scott" <Scott.Davies@arcadis-us.com>

REC-LEAD

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1. As we discussed, when something comes in regarding an REC site, I check for proper document certification and forward the information to the file room unless I know it is something that has to have my review (such as a containment remedy). This is explained during the REC training we provide. For the Sutton Site, I reviewed the proposed containment remedy (as required), but also provided some comments in my June letter regarding the groundwater issues that I had noted while reviewing other portions of the March 2006 RAP. You did not receive any comment for your Sept. letter because I simply filed it and was waiting on the other sampling data needed for the soil remedial goals and the other proposed containment remedy issues to be addressed.
2. Regarding the ash, if it is not soil contamination, then it is waste contamination and has to be remediated like any drum, vessel, etc. containing a waste product and will have to be treated like soil contamination or actively remediated. I spoke with John Powers and he only recalls discussing with you doing trenching to define the extent of the ash in lieu of taking grid samples spaced across the site. There is nothing in the file regarding the conversation, number of samples that you were planning to collect for lab analysis, etc. and, based on my review of the RAP/containment remedy, it appears that only a couple of samples were collected within the several acres of ash. There may have been several samples collected in the area of the fuel oil release(s), but these were clustered in one or two areas of the ash and not spread over the ash area. The bottom line is, we cannot provide concurrence for a containment remedy and a particular health exposure scenario if we don't know how high the waste material concentrations are at the site that needs to be restricted and we don't know whether or not it is leaching and causing 2L groundwater quality standards to be exceeded.
3. In Appendix F of the guidance document, Item 1explains the information needed for the use of proposed land use restrictions at a site. The last sentence of Item 1 is the problem right now because you as the RSM need to confirm the waste and/or soil contamination will meet the remedial goals (it's not leaching and it's safe for the intended restricted use) at the site. As we discussed, you may also want to go ahead and send in the information in Item 2 (proposed alternate standards, proposed I&M, proposed restrictions, deed book and page number, etc.) that will be in the revised RAP. That way you can know up front that the concentrations for the restricted use scenario will be ok before you put the whole RAP together. We can also go ahead and put the together the DPLUR which will have to go into the RAP for public notice. This wording will probably be somehow revised in next year's guidance document.
4. My comments regarding the groundwater issues were provided only because I noted them while I was looking at other portions of the RAP. As we discussed, if I did an audit of the work, I would have similar questions/comments. There are no risk-base rules for groundwater and you will need to demonstrate that the remedial alternative will meet the NC 2L standards. Currently, it is possible that the highest groundwater impact may be closer to the ash material because wells MW-20, MW-15, and PZ-10 are approx. 250 ft., 500 ft., and 300 ft, respectively, from the ash. If the highest concentrations are unknown, it is unclear how someone can be sure MNA is the best long-term remedial alternative. Also, remedial goals were exceeded at MW-15 & MW-13 and I don't understand your averaging of the "parent" and "duplicate" sample results to compare to the remedial goal. Duplicate samples are usually just used for QA/AC of the data. Based on my site visit, I understand the limitations at MW-13, but it will be necessary to satisfactorily determine and monitor long-term the extent of the plume where the remedial goal is not defined at MW-15.

I hope our conversation has helped. Let me know if you have any further questions.

Kim T. Caulk, P.G.
Inactive Hazardous Sites Branch - REC Program
NCDENR - Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605
Phone: (919) 508-8451
Fax: (919) 733-4811
e-mail: kim.caulk@ncmail.net

Cameron, Gary wrote:

> Hi Kim - thanks for the e-mail. I have attached a letter we sent in September that responds to the comments in your June 7 letter. Can you do a quick review and let me know if our responses are satisfactory, or if we still need to provide additional information? Thanks.
>
> Gary
>
> Gary R.Cameron, P.E.
> Principal Engineer
> ARCADIS BBL
>
> ARCADIS U.S., Inc.
> 11000 Regency Parkway
> West Tower, Suite 205
> Cary, NC 27518
> Phone: 919.415.2257
> Fax 919.469.5676
> Cell: 919.605.5642
> gary.cameron@arcadis-us.com
>
> -----Original Message-----
> From: Kim T. Caulk [mailto:Kim.Caulk@ncmail.net]
>
> Sent: Thursday, April 19, 2007 3:06 PM
> To: Cameron, Gary
> Cc: kerry.macpherson@pgnmail.com
> Subject: CP&L Sutton Steam Plant
>
> Gary:
>
> Thanks for your telephone call a few days ago regarding the status of the Feb. 26, 2007 letter report titled "Ash Management Investigation"
>
> for the above subject site. After we spoke, I remembered that, when the document arrived, I checked for appropriate document certification, logged it in, and filed the document. This is the normal procedure with these REC sites unless I know that I need to take some other action such as review a proposed containment remedy, assist with obtaining alternate soil remedial goals, provide instructions to the RSM for a RAP public notice, etc.. Since no RAP had been approved by you yet, I assumed that a revised RAP would be submitted later that would probably have a proposed containment remedy for me to review and provide concurrence.
>
> Therefore, I did not respond to this document. I apologize if there was any misunderstanding.
>
> Nevertheless, I have reviewed the report and find that it only address whether or not constituents are still leaching to groundwater. It does not address the other issues brought out in my June 7, 2006 letter.
>
> Although several of the comments in my letter did not apply to the proposed containment remedy, they were issues that I believed needed to

Subject: CP&L Sutton Steam Plant
From: "Kim T. Caulk" <Kim.Caulk@ncmail.net>
Date: Thu, 19 Apr 2007 14:06:27 -0500
To: Gary Cameron <grc@bbl-inc.com>
CC: kerry.macpherson@pgnmail.com

REC-LEAD

Gary:

Thanks for your telephone call a few days ago regarding the status of the Feb. 26, 2007 letter report titled "Ash Management Investigation" for the above subject site. After we spoke, I remembered that, when the document arrived, I checked for appropriate document certification, logged it in, and filed the document. This is the normal procedure with these REC sites unless I know that I need to take some other action such as review a proposed containment remedy, assist with obtaining alternate soil remedial goals, provide instructions to the RSM for a RAP public notice, etc.. Since no RAP had been approved by you yet, I assumed that a revised RAP would be submitted later that would probably have a proposed containment remedy for me to review and provide concurrence. Therefore, I did not respond to this document. I apologize if there was any misunderstanding.

Nevertheless, I have reviewed the report and find that it only address whether or not constituents are still leaching to groundwater. It does not address the other issues brought out in my June 7, 2006 letter. Although several of the comments in my letter did not apply to the proposed containment remedy, they were issues that I believed needed to be addressed and would be some of the issues that I would raise if I were doing a full audit for potential REC Rule violations for the project. The recent investigation seems to address comments 4 (& perhaps 7) in my June letter, but comments 3 ,6, & 8 need to be addressed because they also influence the proposed containment remedy. For example, as indicated in comment 6, the RAP needs to address the RGs for each area of concern in all environmental media and the information that is described in Appendix D & F of the REC Guidance such as the proposed restrictions, proposed inspection plan, etc. need to be included with the proposed containment remedy. If you want to propose a restricted-use scenario, the proposed alternate remedial goals need to be clarified and submitted. FYI, most RSMs contact me prior to submitting a proposed containment remedy and obtain the RGs for restricted-use prior to submitting the Draft RAP. That way they know the RGs prior to preparing the document. Also, if you do not have a copy of a standard DPLUR, let me know and I can forward one to you. It includes several typical land use restrictions that have been used in the past.

In summary, the contents of my June letter and what was necessary for the revised submittal were discussed during the meeting at the site last July. I indicated during the meeting that a containment remedy appears justifiable for the site, however, at this point I still cannot concur with the containment remedy as it has been proposed.

If you have any questions, please contact me.

--
Kim T. Caulk, P.G.
Inactive Hazardous Sites Branch - REC Program
NCDENR - Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605
Phone: (919) 508-8451
Fax: (919) 733-4811

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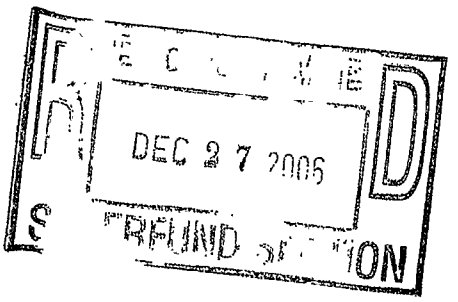

Transmitted Via Certified Mail

December 27, 2006

REC-LEAD

Mr. Kim Caulk, Manager
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road
Suite 150
Raleigh, NC 27605

Re: Quarterly Progress Report (Period Covered: 10/1/06 to 12/31/06)
REC Program, Former Ash Disposal Area
Progress Energy Carolinas, Inc.
L.V. Sutton Electric Steam Plant, Wilmington, NC
Docket Number 03-SF-217
BBL Project No. 04017

Dear Mr. Caulk:

This Quarterly Progress Report has been prepared on behalf of Carolina Power and Light Company d/b/a Progress Energy Carolinas Inc. (Progress Energy) for the L. V. Sutton Electric Steam Plant (Sutton Site) located in Wilmington, North Carolina (NCD000830646). This Progress Report is required under the voluntary Administrative Agreement (Docket Number 03-SF-217) signed by Progress Energy and the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Waste Management, Inactive Hazardous Sites Branch. The work conducted under the Administrative Agreement is intended to meet the applicable requirements of North Carolina General Statute 130A-310.9(c) (Statute), 15A North Carolina Administrative Code (NCAC) 13C .0300 Rules (Rules), and 15A NCAC 13C .0300 *Registered Environmental Consultant Implementation Guidance* (REC Guidance) dated August 2006. Blasland, Bouck & Lee, Inc., an ARCADIS Company (BBL) has been designated as the Registered Environmental Consultant (REC) for the Sutton Site.

The requirements of the Administrative Agreement are focused on the Former Ash Disposal Area (FADA) at the Sutton Site. The FADA was used between 1954 and 1972 for the placement of coal ash generated at the Sutton Site. The Sutton Site is located in Wilmington, New Hanover County, North Carolina.

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Activities Conducted During the Reporting Period (October 1, 2006 through December 31, 2006)

A Remedial Action Plan (RAP) was submitted to the NCDENR on March 31, 2006. NCDENR completed its initial review of the document and provided comments on the RAP in a letter dated June 7, 2006. On July 11, 2006, Progress Energy and BBL met with NCDENR at the Sutton Site to familiarize the agency with the current FADA layout, and to discuss comments on the RAP presented in the Department's June 7th letter. Subsequently, BBL, on behalf of Progress Energy, submitted a response to the NCDENR's comments on September 25, 2006 that were consistent with the discussions held during the July 11th meeting.

Following the submittal of the September 25, 2006 response to comment letter, BBL prepared a focused RAP Addendum Work Plan that included provisions for the collection of 10 samples representative of the three distinct ash units identified within the FADA during the Remedial Investigation activities. These samples were analyzed for Synthetic Precipitation Leaching Procedure (SPLP) by USEPA SW-846 Method 1312 for Hazardous Substance List Metals. This Work Plan was submitted to the NCDENR on November 20, 2006 and implemented by BBL on December 7, 2006. This data will be utilized to determine the potential of the ash-related constituents (i.e., metals) to leach to the groundwater. A summary of the findings will be presented to the NCDENR in a RAP Addendum Report.

In summary, progress has been made for the FADA located at the Sutton Site during this reporting period and work is progressing in a manner to achieve the mandatory work phase completion deadlines set forth in 15A NCAC 13C .0302(h).

If you have any questions, please feel free to contact me at 919-415-2257.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

Gary Cameron, P.E., RSM
Vice President

cc: Kerry MacPherson (Progress Energy)

Harry Sideris (Progress Energy)
Kent Tyndall (Progress Energy)
Scott Davies, P.G., (BBL)

CERTIFICATION STATEMENT

REMEDIATING PARTY CERTIFICATION STATEMENT (.0306(b)(2))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Harry Sideris
Printed Name

Harry Sideris
Signature

12/14/06
Date

North Carolina
State

New Hanover
County

I, DARLENE B. LONG, a Notary Public of said ~~County and~~ State, do hereby certify that HARRY SIDERIS did personally appear and sign before me this the 14th day of DECEMBER, 2006.

Darlene B. Long
Notary Public Signature

My commission expires: 01-22-2011.

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CERTIFICATION STATEMENT

REGISTERED SITE MANAGER CERTIFICATION STATEMENT (.0306(b)(1))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act G.S. 130A-310, et seq, and the voluntary remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

GARY R. CAMERON
Printed Name

Signature

12/18/06
Date

NORTH CAROLINA
State

WAKE
County

I, CAROL RICKERBY, a Notary Public of ~~said~~ HARNETT County and State, do hereby certify that GARY R. CAMERON did personally appear and sign before me this the 18 day of DECEMBER, 2006.

Carol Rickerby
Notary Public Signature

My Commission Expires 11-30-2009.
My commission expires: _____

CAROL RICKERBY NOTARY * * * PUBLIC HARNETT COUNTY, NC

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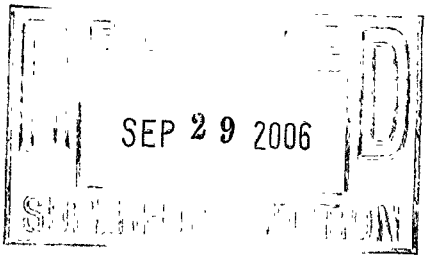

Transmitted Via Certified Mail

September 26, 2006

REC-LEAD

Mr. Kim Caulk, Manager
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road
Suite 150
Raleigh, NC 27605

Re: Quarterly Progress Report (Period Covered: 7/1/06 to 9/30/06)
REC Program, Former Ash Disposal Area
Progress Energy Carolinas, Inc.
L.V. Sutton Electric Steam Plant, Wilmington, NC
Docket Number 03-SF-217
BBL Project #: 04017

Dear Mr. Caulk:

This Quarterly Progress Report has been prepared on behalf of Carolina Power and Light Company d/b/a Progress Energy - Carolinas Inc. (Progress Energy) for the L. V. Sutton Electric Steam Plant (Sutton Site) located in Wilmington, North Carolina (NCD000830646). This Progress Report is required under the voluntary Administrative Agreement (Docket Number 03-SF-217) signed by Progress Energy Carolinas, Inc., and the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Waste Management, Inactive Hazardous Sites Branch. The work conducted under the Administrative Agreement is intended to meet the applicable requirements of North Carolina General Statute 130A-310.9(c) (Statute), 15A North Carolina Administrative Code (NCAC) 13C .0300 Rules (Rules), and 15A NCAC 13C .0300 *Registered Environmental Consultant Implementation Guidance* (REC Guidance) dated August 2006. BBL, an ARCADIS Company (BBL) has been designated as the Registered Environmental Consultant (REC) for the project.

The requirements of the Administrative Agreement are focused on the Former Ash Disposal Area (FADA) at the Sutton Site. The FADA was used between 1954 and 1972 for the placement of coal ash generated at the Sutton Site. The Sutton Site is located in Wilmington, New Hanover County, North Carolina.

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Activities Conducted During the Reporting Period (July 1, 2006 through September 30, 2006)

A Remedial Action Plan (RAP) was submitted to the NCDENR on March 31, 2006. NCDENR completed its initial review of the document and provided comments on the RAP in a letter dated June 7, 2006. On July 11, 2006, Progress Energy and BBL met with NCDENR representatives Mr. Kim Caulk and Mr. John Walsh at the Sutton site. The purpose of site visit was to familiarize the NCDENR with the current FADA layout, and to discuss comments on the RAP presented in the Department's June 7th letter. Since that time, Progress Energy and BBL have been working on a response to the NCDENR's comments that is consistent with the discussions held during the July 11th meeting. Progress Energy and BBL submited a response to the NCDENR's comment letter on September 25, 2006.

In addition, new fencing was observed at the Sutton site during the July 11th site visit. Since that time, Progress Energy and BBL have been reviewing the location and extent of the fencing to determine if it can be used to serve as all or part of the Access Controls proposed in the RAP.

In summary, progress has been made on the FADA REC project at the Sutton site during this reporting period and work is progressing in a manner to achieve the mandatory work phase completion deadlines set forth in 15A NCAC 13C .0302(h).

If you have any questions, please feel free to contact me at 919-469-1952.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

Gary Cameron, P.E., RSM
Vice President

cc: Kerry MacPherson (Progress Energy)

Harry Sideris (Progress Energy)
Kent Tyndall (Progress Energy)
Scott Davies, P.G., (BBL)

CERTIFICATION STATEMENT

REMEDIATING PARTY CERTIFICATION STATEMENT (.0306(b)(2))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Harry Sideris
Printed Name

Harry Sideris
Signature

9/25/06
Date

North Carolina
State

New Hanover
County

I, DARLENE B. LONG, a Notary Public of said ~~County and~~ State, do hereby certify that HARRY SIDERIS did personally appear and sign before me this the 25th day of SEPTEMBER, 2006.

Darlene B. Long
Notary Public Signature

My commission expires: 01-22-2011.

CERTIFICATION STATEMENT

REGISTERED SITE MANAGER CERTIFICATION STATEMENT (.0306(b)(1))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act G.S. 130A-310, et seq, and the voluntary remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

GARY R. CAMERON
Printed Name

Signature

9/26/06
Date

North Carolina
State

WAKE
County

I, CAROL RICKERBY, a Notary Public of ~~said~~ HARNETT County and State, do hereby certify that GARY R. CAMERON did personally appear and sign before me this the 26 day of September, 2006.

Carol Rickerby
Notary Public Signature

My Commission Expires 11-30-2009.
My commission expires: _____.

CAROL RICKERBY NOTARY * * * PUBLIC HARNETT COUNTY, NC

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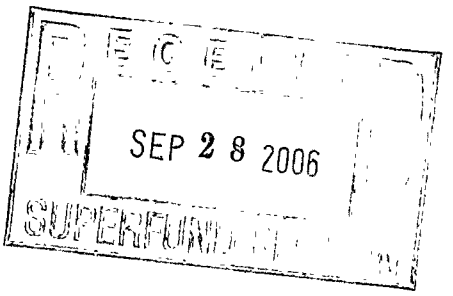

Transmitted Via Certified Mail

September 25, 2006

REC-LEAD

Mr. Kim Caulk, Manager
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road
Suite 150
Raleigh, NC 27605

Re: Response to Comments on the Remedial Action Plan
REC-Directed Assessment, Former Ash Disposal Area
Progress Energy Carolinas, Inc.
L.V. Sutton Steam Electric Plant, Wilmington, NC
Docket Number 03-SF-217
BBL Project #: 04017

Dear Mr. Caulk:

This letter has been prepared in response to comments received on June 7, 2006 from the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Waste Management, Inactive Hazardous Sites Branch on the Remedial Action Plan (RAP) submitted to the NCDENR on behalf of Carolina Power and Light Company d/b/a Progress Energy - Carolinas Inc. (Progress Energy) for the L.V. Sutton Steam Electric Plant (Sutton Site) (NCD000830646) on March 31, 2006. The Sutton site is located at 600 Sutton Steam plant Road in Wilmington, North Carolina.

The RAP was prepared in accordance with the voluntary Administrative Agreement (Docket Number 03-SF-217) signed by Progress Energy Carolinas, Inc., and the NCDENR. The RAP was also prepared in accordance with the applicable requirements of the North Carolina General Statute 130A-310.9(c) (Statute), 15A North Carolina Administrative Code (NCAC) 13C .0300 Rules (Rules), and 15A NCAC 13C .0300 *Registered Environmental Consultant Implementation Guidance* (REC Guidance) dated August 2005. Blasland, Bouck, and Lee, Inc., an ARCADIS Company (BBL) has been designated as the Registered Environmental Consultant (REC) for the project.

The requirements of the Administrative Agreement are focused on the Former Ash Disposal Area (FADA) at the Sutton Site. The FADA was used between 1954 and 1972 for the placement of coal ash generated at the Sutton Site. The Sutton Site is located in Wilmington, New Hanover County, North Carolina.

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Progress Energy appreciated the NCDENR visit the Sutton Site on July, 11, 2006. As discussed during the meeting, the FADA is located in a unique setting within the plant and is not a typical site within the REC Program.

The comments received from the NCDENR are presented below along with a response provided by Progress Energy.

NCDENR Comment:

1. Note that the Branch is only reviewing the proposed use of a containment remedy for the site, which, in accordance with 15A NCAC 13C .0306(i), is a remedial alternative that requires Branch concurrence prior to implementation. The Branch does not review and approve the entire RAP and all data associated with the site when reviewing the recommendation of the Registered Environmental Consultant (REC). Compliance with the REC Rules, including completion of all portions of the RAP, and all other applicable laws from other agencies is the responsibility of the Registered Site Manager (RSM). The latest version of the REC Program Implementation Guidance (Guidance), which can be found on our website at http://www.wastenotnc.org/sfhome/recprog.htm, can assist you regarding compliance with the REC Rules. Also, as the current RSM, you should ensure any information that you obtain from work documents prepared by other parties and included in your certified documents is accurate.

Progress Energy's Response:
Progress Energy appreciates the NCDENR's clarification on the RAP review process.

NCDENR Comment:

2. Page 2-3 discusses a release of No. 6 fuel oil that was investigated at the site. The Branch appreciates your assessment and remedial efforts regarding the fuel oil release, however, you should contact the Division of Water Quality to ensure the release has been adequately addressed.

Progress Energy's Response:
Progress Energy has worked with the Division of Water Quality on the historical release of No. 6 fuel oil in the FADA at the Sutton Plant. The release occurred from one of the on-site 11-million gallon above ground storage tanks during the 1970s. The event was a one time sudden event as opposed to an ongoing release. Progress Energy oversaw the removal of the No. 6 fuel oil from the area surrounding the tank shortly after the release. On several occasions after the original release, plant personnel discovered remnants of the above-referenced release during work activities in the vicinity of the tank. On July 13, 1995 and again on November 4, 1996, Division of Water Quality personnel in the Wilmington Regional Office were notified. One the first occasion, groundwater samples were collected by a consultant. DWQ personnel also visited the Site and were satisfied that Progress Energy had met its reporting and assessment obligations and no further action was deemed warranted. In 1996, DWQ was again notified, but again no further action was required.

NCDENR Comment:

3. To develop a remedy, it is important that a sufficient number of samples be collected from each environmental medium in order to properly assess the extent and contaminant concentrations at a site. Section 2.4 of the RAP indicates that a limited number of contaminants of concern exceed remedial goals (RGs) at the site. However, based on my review of the remedial investigation summary provided in the RAP, it appears that only 5 shallow groundwater monitoring wells have been installed and sampled for

water quality, and some of the wells are not located within or in close proximity to the ash material. Also, the extent of the groundwater contamination within the vicinity of wells MW-13 and MW-15, where remedial goals have been exceeded, is not completely defined. In addition, the ash disposal areas appear to be several acres in size and only 7 soil samples were apparently collected at the site for laboratory analyses and only a few of these samples were collected within the disposal area. The metals content of the ash can vary greatly with the source material. Furthermore, the surface water bodies immediately surrounding the site are a concern of the Branch and only 2 water samples and 2 sediment samples were apparently collected from the Cape Fear River. No samples were apparently collected from Sutton Lake and the adjacent canal. You need to provide additional support or justification for the proposed containment remedy that the contamination has been adequately characterized in the soil, sediment, surface water, and groundwater. These details should have been addressed during the remedial investigation and should be discussed as part of the proposed containment remedy that must be reviewed by the REC Program.

Progress Energy's Response:
This comment is focused on the remedial investigation program at the FADA for groundwater, soil, and surface water and sediment sampling. For ease of review, Progress Energy has separated the responses according to these three issues.

Response to Comment – Groundwater Monitoring Approach
The design of the groundwater monitoring program was prepared to characterize the groundwater movement and groundwater quality in and around the FADA. Several factors were evaluated prior to the placement of each FADA well:

1) Safe and unobstructed access to wells in and around the FADA by avoiding site-specific features including dense vegetation and the discharge canal on the north side of the FADA, the coal storage area, active rail spur, and above-ground storage tank and secondary containment to south, the discharge canal to the east and Lake Sutton to the west.

2) The location of existing subsurface and above-ground utilities (i.e., gas, coal ash, water and electric lines).

3) Limiting the potential for vertical migration (i.e., drag-down) of ash material during borehole advancement and well installation activities.

Based on these considerations, each well was strategically placed to ensure adequate delineation of constituents of concern (COCs) in the FADA. Figure 2-5 of the RAP depicts the locations of the temporary piezometers installed during the Phase II RI, the permanent piezometer, and the nine permanent monitoring wells in the FADA.

Groundwater samples were collected in June 2004 and February 2005 to assess the groundwater quality proximate to the FADA. Arsenic was the only COC detected above its RG of 10 µg/liter. Groundwater samples collected from downgradient monitoring wells MW-20 (shallow zone) and MW-20D (deep zone) confirmed that arsenic was not detected. Arsenic concentrations detected in February 2005 from samples collected in the upgradient monitoring well MW-14 were below the groundwater RG of 10 µg/L (9.6 µg/L). Concentrations of arsenic in groundwater samples collected from MW-13 and MW-15 were above the groundwater RG in June 2004 and February 2005 at 70.6 µg/L and 101 µg/L (average of parent and

duplicate sample), and 42.7 µg/L (average of parent and duplicate sample) and 44 µg/L, respectively. However, due to the factors previously discussed, it is not feasible to install additional monitoring wells near MW-13 and MW-15.

Overall, there does not appear to be a definable arsenic plume in the FADA groundwater; rather, isolated detections of arsenic generally occur in areas where ash is in close proximity to shallow well screens (e.g., MW-13). It should also be noted that vertical delineation of site COCs has been adequately defined in groundwater proximate to the FADA. Groundwater samples from the four deep wells installed as part of the Phase II RI activities were all below the groundwater RG.

The RAP contains a groundwater sampling program based to further assess groundwater quality in the FADA (see Section 5). To further address the NCDENR's comment, piezometer PZ-10 will be added to the RAP sampling list to further characterize groundwater upgradient from monitoring well MW-15. PZ-10 will be analyzed for iron (total and dissolved), manganese (total and dissolved) and for arsenic species [i.e., As (III) and As(V)] during the initial monitoring event. If arsenic is detected in groundwater samples from PZ-10, it will be added to the monitoring program.

Response to Comment – Ash/Soil Management Approach
Progress Energy submitted a Phase I RI Work Plan for the FADA to the NCDENR which did not include provisions for collecting soil samples for the FADA investigation because the ash is considered a waste-like material and not native soil. This approach was reviewed with Mr. John Powers of the NCDENR and agreed upon in September 2003. The FADA was delineated by excavating 20 test pits and 20 borings to determine the presence/absence of ash material. Potential impacts related to the FADA were evaluated based on the results of groundwater, surface-water, and sediment samples collected during the Phase I RI. Sampling locations for these media were based on the delineation of the FADA using the test pit and boring data. This strategy appears to be reasonable based on the limited impacts to groundwater as described above.

In addition, as discussed in Section 2.2.2 of the RAP (BBL, 2006), non-aqueous phase liquid (NAPL) was observed in three isolated locations within and near the FADA. Therefore, a total of seven surface and subsurface ash/soil samples (SF-1, SF-7, SF-8, SF-9, SB-10, SB-11, and TP-16) were collected and analyzed in accordance with the REC guidance. Analytical results are summarized in Section 2.2.3 and Table 2-4 of the RAP (BBL, 2006). These soil data further confirmed the limited presence of metals in and around the FADA.

Response to Comment – Surface water Monitoring Approach
CP&L was granted an easement by the State of North Carolina in 1971 to construct the cooling pond (i.e., Lake Sutton) at the Sutton Site, therefore, the cooling pond is not considered "waters of the State." Dikes were constructed around the perimeter to form a shallow pond to facilitate release of heat from the cooling water discharged by the Sutton facility. Additional dikes were constructed within the pond to direct the cooling water in a counter clockwise direction back to the plant for reuse.

The ash ponds and the closed-cycle cooling pond are wastewater treatment facilities; one for the removal of ash from the ash sluice water and the other for the removal of heat. Treated ash sluice water is conveyed to the cooling pond, or it is commingled with cooling pond blowdown water and discharged from the Sutton Site's National Pollution Discharge Elimination System (NPDES) permitted outfall to the Cape Fear River. Progress Energy has a monitoring program in place to collect water chemistry, sediment

and fish tissue data from the cooling pond. Water chemistry and fish tissue data (NPDES permit requirement) are also collected from the Cape Fear River. These results confirm that arsenic is not accumulated in the edible flesh of fish and is not a health concern.

In summary, the Sutton cooling pond is a process wastewater treatment facility that receives some arsenic loading directly from the ash pond. Surface water, sediment and fish tissue samples are monitored under a separate ongoing NCDENR program. The cooling pond is not waters of the State and water quality standards are not applicable. The appropriate location for assessment of the FADA is the Cape Fear River in the vicinity of the Sutton Sites permitted discharge point.

NCDENR Comment:

4. Page 4-4 of the RAP suggests that, since the ash material is younger in the Old Ash Pond (OAP), synthetic precipitation leaching procedure (SPLP) data from the OAP should represent a "worst case" estimate of arsenic concentrations in groundwater. Usually, arsenic concentrations vary depending on the source of the ash material. Therefore, several samples should be collected from each of the different ash materials to determine the contaminants of concern and concentrations so that appropriate remedial goals (RGs) can be evaluated.

Progress Energy's Response:

As described above, detections of arsenic in groundwater are spatially limited and are not indicative of a plume of arsenic emanating from the FADA. The RAP includes a plan to further evaluate groundwater quality and geochemistry under a variety of site-specific seasonal conditions. As discussed in our response to comment three, Progress Energy will collect additional samples from piezometer PZ-10 to further characterize groundwater quality beneath the FADA. If arsenic concentrations at PZ-10 exceed the groundwater RGs (10 ug/L), Progress Energy may elect to conduct additional sampling of FADA solids (soil and ash materials) to differentiate between the various ash material units identified during the Phase I RI test pitting activities, if appropriate. If solids sampling is conducted, Progress Energy will collect one (1) sample from each ash unit and analyze using the Synthetic Precipitation Leaching Procedure (SPLP) method.

NCDENR Comment:

5. Page 6-1 of the RAP indicates the North Carolina 2L standard for arsenic is 10 micrograms per liter (ug/l). Note that the 2L standard for arsenic is 50 ug/l, however, the EPA maximum contaminant level (MCL) for arsenic is 10 ug/l which is the RG for arsenic in groundwater as it is lower.

Progress Energy's Response:

Progress Energy appreciates the NCDENR's clarification on the arsenic standard.

NCDENR Comment:

6. Pursuant to the REC Rules, RECs must ensure that Branch cleanup standards are met. The procedures used to determine the RGs, including procedures for determining alternative health-based cleanup levels as you have proposed, are explained in Appendices D and E of the Guidance. The RGs for soil include both "health-based" remedial goals and "protection of groundwater" remedial goals. However, the RAP only discusses unrestricted use RGs for soil. As explained in the Guidance, the lower of the "health-based" remedial goals or "protection of groundwater" remedial goals or the "site-specific natural background concentrations" must be used as RGs for soil. In addition, surface water bodies are immediately adjacent to the site and the RGs for sediment and surface water are not discussed in the RAP.

Accordingly, the procedures that you used to establish the remedial goals for the site need further explanation, and clarification is needed regarding the RGs for each constituent of concern in all environmental media.

Progress Energy's Response:
We believe the approach presented in the RAP is consistent with Appendices D and E of the REC Guidance. Specifically, Section D.3 of the REC Guidance which states: "Under certain site conditions, it may not be appropriate or feasible to meet the soil or sediment remediation goals described in D.2 [i.e. for an unrestricted use scenario]. The REC may propose (for branch review and approval) alternate soil or sediment remediation goals based on a restricted land-use exposure scenario." We believe a restricted land-use scenario is appropriate for the FADA. Our rationale for this approach is provided below.

The RGs proposed in the RAP are based on the unique site-specific conditions in and around the FADA. The most significant site feature is the presence of coal ash which is not native soil. As discussed in our meeting on the July 11, 2006, FADA coal ash has been managed as a waste-like material with previous concurrence with the NCDENR (see our response to comment three above).

In addition, the FADA is located in a controlled and isolated area within the Sutton Plant property. These controls include extensive fencing, dense vegetation in the northern portion of the FADA, a sandstone cap along the eastern boundary of Lake Sutton, and grass and six inches of topsoil that minimizes direct contact with ash by on-site workers in the central and southern portion of the FADA. The entire Sutton site is located within an area that is zoned as Heavy Industrial. The RAP also contains provisions for additional engineering controls that will further limit contact with the FADA by trespassers and boaters, and implementation of a LUR to further restrict use of the FADA.

It should be noted that results of the "soil" samples collected during the RI, only two HSL metals were detected slightly above-restricted use RGs (this sample was actually collected in ash material, and not soil as part of the RI sampling program to characterize the apparent petroleum hydrocarbons observed in test pit excavations). Groundwater quality impacts are also limited based on the RI data and the conceptual site model presented in Section 4.0 of the RAP.

Based on the above-referenced factors, we believe an appropriate RG for "soil" within the FADA should be based on a restricted use scenario for the FADA as presented in the RAP.

NCDENR Comment:

7. As indicated above, RGs for soil must meet "protection of groundwater" remedial goals. Typically, containment remedies are only implemented at sites that do not have groundwater contamination above groundwater RGs. Based on the data collected at the site, groundwater is already contaminated above the groundwater RGs, which indicates contamination has already leached from the soil and into the groundwater. The proposed containment remedy will need to demonstrate that sufficient contamination has been treated or removed and the remaining ash and the soil contamination will not continue to produce leachate in concentrations in excess of the groundwater remedial goals and will not affect surface water and sediments in the future.

Progress Energy's Response:
Available RI data indicates that natural attenuation processes are limiting the presence of dissolved-phase arsenic in FADA groundwater. Natural attenuation processes for arsenic are driven mainly by site-

specific geochemical conditions that affect the sorption and precipitation of arsenic in a groundwater regime (Reisinger, et. al., 2005). These processes can be influenced by site-specific redox cycling of arsenic in the subsurface (Reisinger, et. al., 2005). Dilution and dispersion can also reduce arsenic concentrations in groundwater; however, these processes appear limited based on the isolated detections of arsenic in FADA groundwater. Furthermore, arsenic has not been detected in the downgradient shallow and deep monitoring wells (MW-20 and MW-20D). These wells are ideally located to evaluate whether or not a migrating arsenic plume is present from the FADA.

The monitoring program included in the RAP has been prepared to further evaluate these natural attenuation processes by analyzing key geochemical parameters under various seasonal conditions. These data will be collected to confirm whether or not the site-specific geochemical conditions affect the mobility and concentration of arsenic in groundwater. We believe this approach is consistent with the NCDENR's comment.

In addition, as described in our response to comment three, surface water and sediment quality in Lake Sutton are managed by Progress Energy under a separate NPDES permit. Lake Sutton processes several sources of coal ash in accordance with the NPDES permit; therefore, it is not practical to identify potential impacts from the FADA, if any.

NCDENR Comment:

8. Note that land use restriction remedies are perpetual. Annual inspections and reporting on compliance are required with the land use restrictions and begin upon recordation of the land use restriction document. This duty will run with the land and be the owner's duty. The estimated operation and maintenance costs included in the RAP should account for this requirement.

Progress Energy's Response:

Progress Energy appreciates the NCDENR's comments on the Land Use Restriction (LUR) requirements. The LUR implementation proposal is presented in Section 5.3 of the RAP (BBL, 2006). The RAP includes provisions for preparing a work plan that will include an approach for annual inspection of the LUR as required in the REC Guidance.

If you have any questions, please feel free to contact me at 919-469-1952.

Sincerely,
BLASLAND, BOUCK & LEE, INC., an ARCADIS Company

Gary Cameron, P.E., RSM
Vice President

cc: Kerry MacPherson (Progress Energy)

Harry Sideris (Progress Energy)
Kent Tyndall (Progress Energy)
Scott Davies, P.G., (BBL)

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References

Reisinger, H.J., Burris, D. R., and Hering, J.G., 2005. *Remediating Subsurface Arsenic Contamination with Monitored Natural Attenuation*, Environmental Science and Technology. November 15, 2005.

NCDENR
North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director | **Division of Waste Management** | Michael F. Easley, Governor
William G. Ross Jr., Secretary

September 21, 2006

Mr. Gary Cameron
Blasland, Bouck & Lee, Inc.
11000 Regency Parkway
West Tower, Suite 205
Cary, North Carolina 27511-8574

REC-LEAD

Re: Warning of Violation
CP&L Sutton Steam Plant
Wilmington, New Hanover County, NC
Site ID No. 000 830 646

Dear Mr. Cameron:

I have performed a partial audit of the March 2006 Remedial Action Plan (RAP) that the Branch received on March 31, 2006 for the above referenced site. The certified RAP document did not address both "health-based" and "protection of groundwater" remedial goals for soil. As required by 15A NCAC .0308(a) of the Registered Environmental Consultant (REC) Rules, RECs shall ensure that the Department's.....cleanup standards as would be applied under CERCLA/SARA are met. The procedures for establishing remediation goals can be found in the *Registered Environmental Consultant Implementation Guidance (Guidance)* document which can be downloaded from our website at http://www.wastenotnc.org/sfhome/recprog.htm. It is recommended that you carefully review all aspects of this project and report any REC Rule violations to the Branch before a complete technical audit is performed.

If you have any questions, please contact me.

Sincerely,

Kim T. Caulk
REC Program
Inactive Hazardous Sites Branch
Superfund Section

cc: Mr. Kerry MacPherson, Progress Energy

Subject: Re: REC Guidance
From: "Kim T. Caulk" <Kim.Caulk@ncmail.net>
Date: Tue, 01 Aug 2006 13:08:13 -0400
To: SCOTT DAVIES <SED@bbl-inc.com>, Gary Cameron <grc@bbl-inc.com>

REC-LEAD

Gary & Scott:

The revised procedures for the REC Guidelines, Appendix E are attached. You still need to use Appendix D for Protection of Groundwater RGs.

Kim T. Caulk, P.G.
Inactive Hazardous Sites Branch - REC Program
NCDENR - Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605
Phone: (919) 508-8451
Fax: (919) 733-4811
e-mail: kim.caulk@ncmail.net

SCOTT DAVIES wrote:

> Hi Kim,
>
> Can you send me the new procedure for determining alternate RGs that you mentioned when we were at the Progress Energy site in Wilmington?
>
> Hope all is well on your end.
>
> Thanks Kim.
>
> Scott E. Davies, P.G.
> Associate/Sr. Geologist
> Blasland, Bouck & Lee
> 11000 Regency Parkway
> West Tower, Suite 205
> Cary, NC 27511
> Ph: (919) 469-1952 ext. 52254
> Direct No.: (919) 415-2254
> Fax: (919) 469-5676
> sed@bbl-inc.com
>
>

RECGuidanceAppendix E.doc	**Content-Type:** application/msword **Content-Encoding:** base64

Subject: Re: Sutton Cooling Pond
From: "Kim T. Caulk" <Kim.Caulk@ncmail.net>
Date: Wed, 19 Jul 2006 12:58:11 -0400
To: "MacPherson, Kerry" <kerry.macpherson@pgnmail.com>

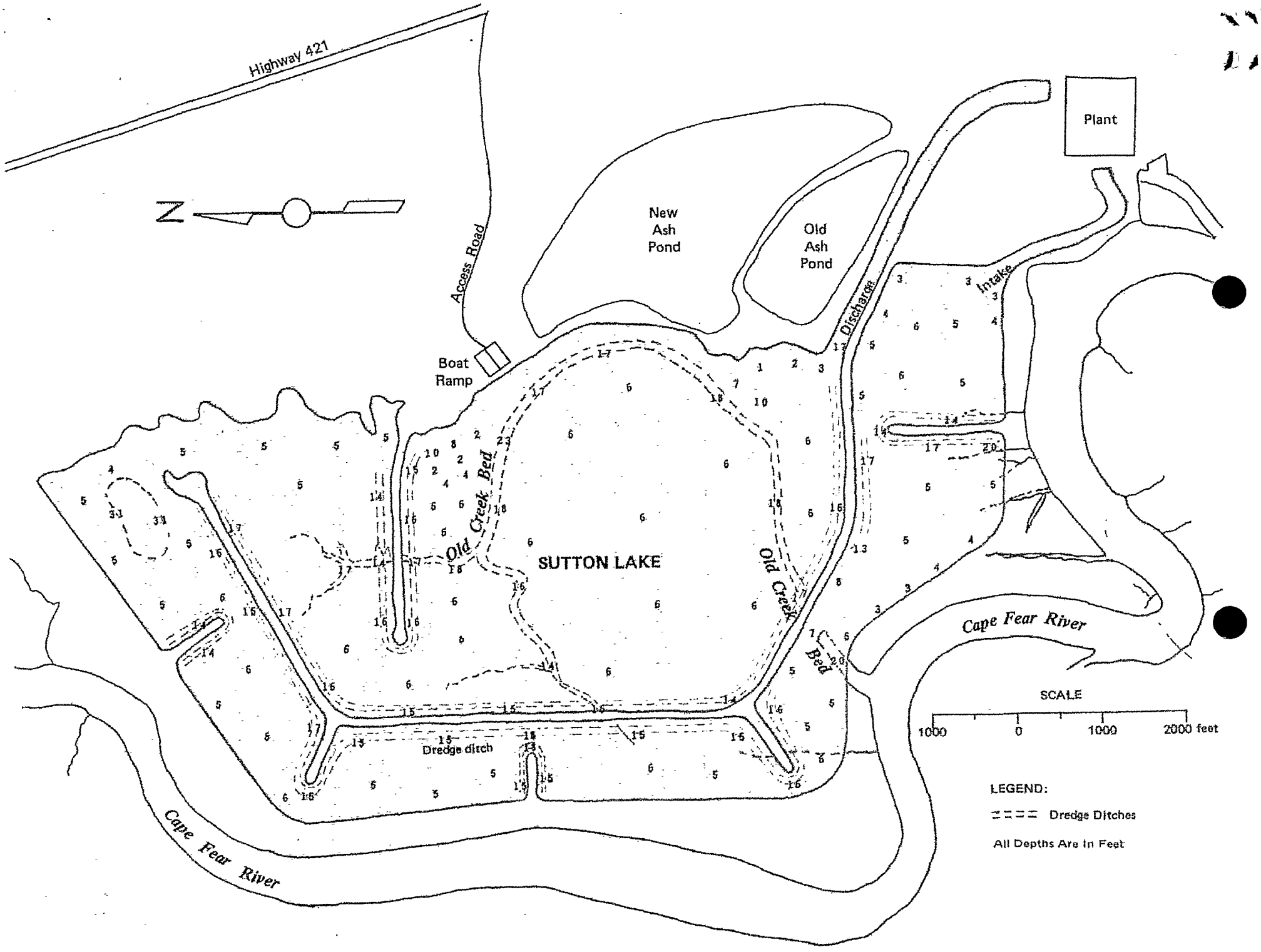
Thanks. The site visit was very beneficial to understanding the relationship of the disposal area and the surface water bodies in the area.

Kim T. Caulk, P.G.
Inactive Hazardous Sites Branch - REC Program
NCDENR - Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605
Phone: (919) 508-8451
Fax: (919) 733-4811
e-mail: kim.caulk@ncmail.net

REC-LEAD

MacPherson, Kerry wrote:

> Here is a map of the Sutton Cooling Pond that shows the internal dikes we discussed last week. Water flow is counter clockwise from the discharge to the intake. Note the deeper areas are a result of dike construction.
>
> <<Cooling Pond.pdf>>
>
> Kerry A. MacPherson
>
> Progress Energy
> 410 South Wilmington Street
> Raleigh, North Carolina 27601
> (919) 546-6753
> Kerry.MacPherson@pgnmail.com


Highway 421
N
Access Road
New
Ash
Pond
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Plant
Intake
Discharge
Boat
Ramp
Old Creek Bed
SUTTON LAKE
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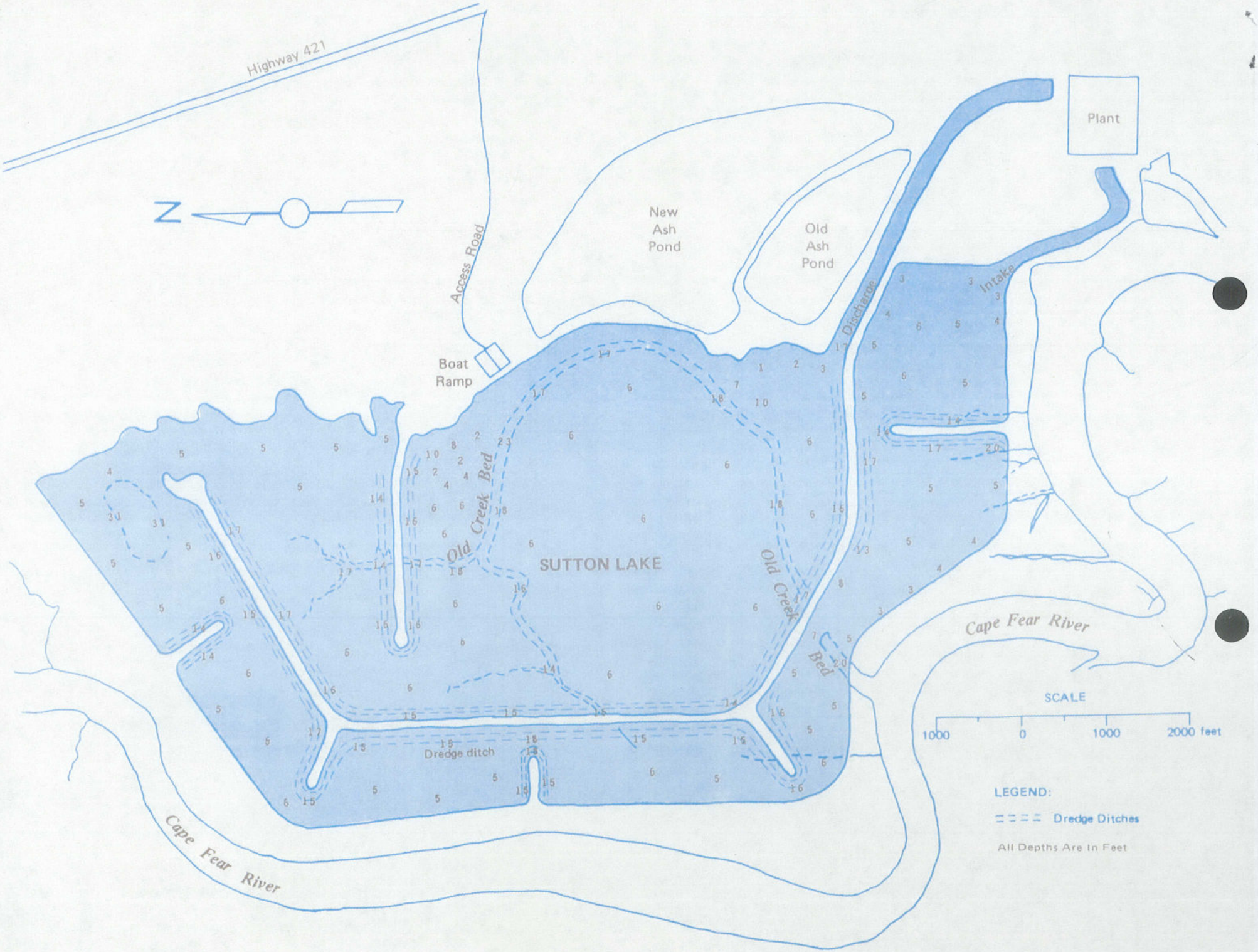
All Depths Are In Feet


Highway 421
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Discharge
Boat
Ramp
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SUTTON LAKE
Old Creek Bed
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LEGEND:
Dredge Ditches
All Depths Are In Feet

NCDENR
North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director | **Division of Waste Management** | Michael F. Easley, Governor
William G. Ross Jr., Secretary

July 13, 2006

Mr. Gary Cameron
Blasland, Bouck & Lee, Inc.
11000 Regency Parkway
West Tower, Suite 205
Cary, North Carolina 27511-8574

REC-LEAD

Re: Implementation of Groundwater Remediation
CP&L Sutton Steam Plant
Wilmington, New Hanover County, NC
Site ID No. 000 830 646

Dear Mr. Cameron:

A Registered Environmental Consultant (REC) Administrative Order on Consent (AOC) was executed for the above referenced site on **December 30, 2003**. As indicated in the AOC and the REC Rules, groundwater remediation must be implemented at the site within two years of completion of the remedial investigation or within five years after execution of the AOC, whichever is earlier. For sites which fail to meet the deadline, the AOC between the Remediating Party (RP) and the Division may be dissolved and the site transferred from the Responsible Party Voluntary Remedial Action category to the Sites Priority List category of the Inactive Hazardous Sites Inventory. The RP and REC for these sites may also be subject to enforcement action. Please review the AOC, REC Rules, and the REC Implementation Guidance for additional information.

This letter serves as a reminder regarding the above requirement. If you have any questions, please feel free to call me at (919) 508-8451.

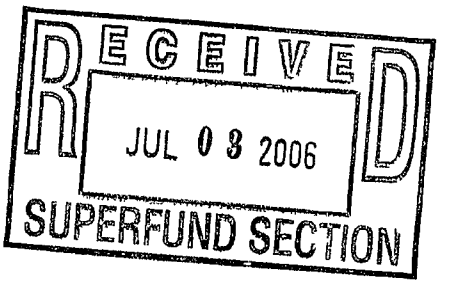
Sincerely,

K. T. Caulk

Kim T. Caulk
REC Program
Inactive Hazardous Sites Branch
Superfund Section

cc: Mr. Kerry MacPherson, Progress Energy

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists



Transmitted Via Certified Mail

REC-LEAD

June 29, 2006

Mr. Kim Caulk, Manager
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road
Suite 150
Raleigh, NC 27605

Re: Quarterly Progress Report (Period Covered: 4/1/06 to 6/30/06)
REC-Directed Assessment, Former Ash Disposal Area
Progress Energy Carolinas, Inc.
L.V. Sutton Electric Steam Plant, Wilmington, NC
Docket Number 03-SF-217
BBL Project #: 04016

Dear Mr. Caulk:

This Quarterly Progress Report has been prepared on behalf of Carolina Power and Light Company d/b/a Progress Energy - Carolinas Inc. (Progress Energy) for the L. V. Sutton Electric Steam Plant (Sutton Site) located in Wilmington, North Carolina (NCD000830646). This Progress Report is required under the voluntary Administrative Agreement (Docket Number 03-SF-217) signed by Progress Energy Carolinas, Inc., and the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Waste Management, Inactive Hazardous Sites Branch. The work conducted under the Administrative Agreement is intended to meet the applicable requirements of North Carolina General Statute 130A-310.9(c) (Statute), 15A North Carolina Administrative Code (NCAC) 13C .0300 Rules (Rules), and 15A NCAC 13C .0300 *Registered Environmental Consultant Implementation Guidance* (REC Guidance) dated August 2004. Blasland, Bouck, and Lee, Inc. (BBL) has been designated as the Registered Environmental Consultant (REC) for the project.

The requirements of the Administrative Agreement are focused on the Former Ash Disposal Area (FADA) at the Sutton Site. The FADA was used between 1954 and 1972 for the placement of coal ash generated at the Sutton Site. The Sutton Site is located in Wilmington, New Hanover County, North Carolina.

Activities Conducted During the Reporting Period (April 1, 2006 through June 30, 2006)
A Remedial Action Plan (RAP) was submitted to DENR at the end of the previous quarter (March 31, 2006). DENR completed its review of the document and provided comments to the plan in a letter dated

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June 7, 2006. These comments have been reviewed with the expectation that a written response will be provided early next quarter. In addition, Progress Energy and BBL are planning a tour of the site for Kim Caulk. A tentative date of July 11, 2006 has been selected for this tour.

In summary, substantial progress has been made on the FADA REC project at the Progress Energy Sutton site during this reporting period, and work is progressing in a manner to achieve the mandatory work phase completion deadlines set forth in 15A NCAC 13C .0302(h).

If you have any questions, please feel free to contact me at 919-469-1952.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

Gary Cameron, P.E., RSM
Vice President

cc: Kerry MacPherson (Progress Energy)

Harry Sideris (Progress Energy)
Kent Tyndall (Progress Energy)
Scott Davies, P.G., (BBL)

CERTIFICATION STATEMENT

REGISTERED SITE MANAGER CERTIFICATION STATEMENT (.0306(b)(1))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act G.S. 130A-310, et seq, and the voluntary remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

GARY R. CAMERON
Printed Name

Signature

6/29/06
Date

NORTH CAROLINA
State

WAKE
County

I, CAROL RICKERBY, a Notary Public of ~~said~~ HARNETT County and State, do hereby certify that GARY R. CAMERON did personally appear and sign before me this the 29 day of JUNE, 2006.

Carol Rickerby
Notary Public Signature

My commission expires: My Commission Expires 11-30-2009.

CAROL RICKERBY NOTARY * * * PUBLIC HARNETT COUNTY, NC

CERTIFICATION STATEMENT

REMEDIATING PARTY CERTIFICATION STATEMENT (.0306(b)(2))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Harry Sideris
Printed Name

Signature

6/26/06
Date

North Carolina
State

New Hanover
County

I, DARLENE B. LONG, a Notary Public of said ~~County and~~ State, do hereby certify that HARRY SIDERIS did personally appear and sign before me this the 26 day of JUNE, 2006.

Darlene B. Long
Notary Public Signature

My commission expires: 01-23-2011.

NCDENR
North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director | **Division of Waste Management** | Michael F. Easley, Governor
William G. Ross Jr., Secretary

June 7, 2006

Mr. Gary Cameraon
Blasland, Bouck & Lee, Inc.
11000 Regency Parkway
West Tower, Suite 205
Cary, North Carolina 27511-8574

REC-LEAD

Re: RAP with Proposed Containment Remedy
CP&L Sutton Steam Plant
Wilmington, New Hanover County, NC
Site ID No. 000 830 646

Dear Mr. Cameron:

The Inactive Hazardous Sites Branch (Branch) received the certified March 2006 Remedial Action Plan (RAP) for the above referenced site on March 31, 2006. I have reviewed the proposed containment remedy included with the RAP and provide the following comments:

1. Note that the Branch is only reviewing the proposed use of a containment remedy for the site, which, in accordance with 15A NCAC 13C .0306(i), is a remedial alternative that requires Branch concurrence prior to implementation. The Branch does not review and approve the entire RAP and all data associated with the site when reviewing the recommendation of the Registered Environmental Consultant (REC). Compliance with the REC Rules, including completion of all portions of the RAP, and all other applicable laws from other agencies is the responsibility of the Registered Site Manager (RSM). The latest version of the REC Program Implementation Guidance (Guidance), which can be found on our website at http://www.wastenotnc.org/sfhome/recprog.htm, can assist you regarding compliance with the REC Rules. Also, as the current RSM, you should ensure any information that you obtain from work documents prepared by other parties and included in your certified documents is accurate.

2. Page 2-3 discusses a release of No. 6 fuel oil that was investigated at the site. The Branch appreciates your assessment and remedial efforts regarding the fuel oil release, however, you should contact the Division of Water Quality to ensure the release has been adequately addressed.

3. To develop a remedy, it is important that a sufficient number of samples be collected from each environmental medium in order to properly assess the extent and contaminant concentrations at a site. Section 2.4 of the RAP indicates that a limited number of contaminants of concern exceed remedial goals (RGs) at the site. However, based on my review of the remedial investigation summary provided in the RAP, it appears that only 5 shallow groundwater monitoring wells have been installed and sampled for water quality, and some of the wells are not located within or in close proximity to the ash material. Also, the extent of the groundwater contamination within the vicinity of wells MW-13 and MW-15, where remedial goals have been exceeded, is not completely defined. In addition, the ash disposal areas appear to be several acres in size and only 7 soil samples were apparently collected at the site for laboratory analyses and only a few of these samples were collected within the disposal area. The metals content of the ash can vary greatly with the source material. Furthermore, the surface water bodies immediately surrounding the site are a concern of the Branch and only 2 water samples and 2 sediment samples were apparently collected from the Cape Fear River. No samples were apparently collected from Sutton Lake and the adjacent

canal. You need to provide additional support or justification for the proposed containment remedy that the contamination has been adequately characterized in the soil, sediment, surface water, and groundwater. These details should have been addressed during the remedial investigation and should be discussed as part of the proposed containment remedy that must be reviewed by the REC Program.

4. Page 4-4 of the RAP suggests that, since the ash material is younger in the Old Ash Pond (OAP), synthetic precipitation leaching procedure (SPLP) data from the OAP should represent a "worst case" estimate of arsenic concentrations in groundwater. Usually, arsenic concentrations vary depending on the source of the ash material. Therefore, several samples should be collected from each of the different ash materials to determine the contaminants of concern and concentrations so that appropriate remedial goals (RGs) can be evaluated.

5. Page 6-1 of the RAP indicates the North Carolina 2L standard for arsenic is 10 micrograms per liter (ug/l). Note that the 2L standard for arsenic is 50 ug/l, however, the EPA maximum contaminant level (MCL) for arsenic is 10 ug/l which is the RG for arsenic in groundwater as it is lower.

6. Pursuant to the REC Rules, RECs must ensure that Branch cleanup standards are met. The procedures used to determine the RGs, including procedures for determining alternative health-based cleanup levels as you have proposed, are explained in Appendices D and E of the Guidance. The RGs for soil include both "health-based" remedial goals and "protection of groundwater" remedial goals. However, the RAP only discusses unrestricted use RGs for soil. As explained in the Guidance, the lower of the "health-based" remedial goals or "protection of groundwater" remedial goals or the "site-specific natural background concentrations" must be used as RGs for soil. In addition, surface water bodies are immediately adjacent to the site and the RGs for sediment and surface water are not discussed in the RAP. Accordingly, the procedures that you used to establish the remedial goals for the site need further explanation, and clarification is needed regarding the RGs for each constituent of concern in all environmental media.

7. As indicated above, RGs for soil must meet "protection of groundwater" remedial goals. Typically, containment remedies are only implemented at sites that do not have groundwater contamination above groundwater RGs. Based on the data collected at the site, groundwater is already contaminated above the groundwater RGs, which indicates contamination has already leached from the soil and into the groundwater. The proposed containment remedy will need to demonstrate that sufficient contamination has been treated or removed and the remaining ash and the soil contamination will not continue to produce leachate in concentrations in excess of the groundwater remedial goals and will not affect surface water and sediments in the future.

8. Note that land use restriction remedies are perpetual. Annual inspections and reporting on compliance are required with the land use restrictions and begin upon recordation of the land use restriction document. This duty will run with the land and be the owner's duty. The estimated operation and maintenance costs included in the RAP should account for this requirement.

These issues need to be addressed before I can continue my review of the proposed containment remedy.

The Branch appreciates the remedial efforts at the site. If you have any questions or need additional information, please contact me.

Sincerely,

K. T. Caulk

Kim T. Caulk
REC Program
Inactive Hazardous Sites Branch
Superfund Section

cc: Mr. Kerry MacPherson, Progress Energy
Mr. Harry Sideris, Progress Energy

Subject: Re: Progress Energy - Sutton RAP
From: "Kim T. Caulk" <Kim.Caulk@ncmail.net>
Date: Thu, 04 May 2006 12:56:44 -0400
To: SCOTT DAVIES <SED@bbl-inc.com>

REC-LEAD

Scott:

I have received the RAP, and, on the first page of the cover letter, I noticed there is mention of a LUR. Therefore, I have to review the containment remedy portion of a RAP, which is in addition to the normal/routine things that I have to do. I received several other containment remedies over the last few months that I'm finishing up. I hope to take a look at it in a week or so.

As a quick summary, after I review the remedy and assuming there are no comments that need to address in the RAP, I will send out instructions with a 30-day public notice to mail out. After the public notice is complete and any public comments are addressed, the work phase completion statement can be mailed in and the RAP can be implemented.

Hope this helps.

Kim T. Caulk, P.G.
Inactive Hazardous Sites Branch - REC Program
NCDENR - Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605
Phone: (919) 508-8451
Fax: (919) 733-4811
e-mail: kim.caulk@ncmail.net

SCOTT DAVIES wrote:

> Hi Kim,
>
> I wanted to check in with you regarding the status of the RAP for the Progress Energy Sutton Steam Plant in Wilmington. Can you let me know what the next steps are at this point when you get a chance? Thank you.
>
> Scott E. Davies, P.G.
> Associate/Sr. Geologist
> Blasland, Bouck & Lee
> 11000 Regency Parkway
> West Tower, Suite 205
> Cary, NC 27511
> Ph: (919) 469-1952 ext. 52254
> Direct No.: (919) 415-2254
> Fax: (919) 469-5676
> sed@bbl-inc.com
>
>

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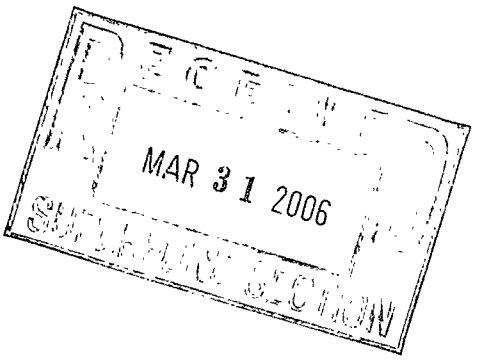

REC-LEAD

Hand Delivered by BBL

March 31, 2006

Mr. Kim Caulk, P.G.
Department of Environment
and Natural Resources
Superfund Section
Division of Waste Management
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

Re: Submittal of Remedial Action Plan and Land Use Restriction Proposal
Former Ash Disposal Area
Progress Energy Carolinas Inc.
L.V. Sutton Steam Electric Plant
Wilmington, North Carolina
NCD 000 830 646
BBL Project #: 04016

Dear Mr. Caulk:

The attached Remedial Action Plan (RAP) has been prepared on behalf of Carolina Power and Light Company d/b/a Progress Energy Carolinas, Inc. (Progress Energy) by Blasland, Bouck and Lee, Inc. (BBL) for the Former Ash Disposal Area (FADA) at the L.V. Sutton Steam Electric Plant located at 801 Sutton Steam Plant Road in Wilmington, New Hanover County, North Carolina. The RAP has been prepared pursuant to a voluntary Administrative Agreement (Docket Number 03-SF-217) signed by Progress Energy Carolinas Inc. and the North Carolina Department of Environment and Natural Resources (NCDENR) in October 2003. This RAP has been prepared to meet the applicable requirements of the North Carolina General Statute 130-310.9(c), 15A North Carolina Administrative Code (NCAC) 13C .0300 Rules, and 15A NCAC 13C.0300 *Registered Environmental Consultant Implementation Guidance* dated August 2004.

Please note that submittal of this RAP is also intended to fulfill the quarterly progress report requirement for March 2006 as outlined in Section III (B) of the Administrative Agreement between Progress Energy and NCDENR.

Notification of Proposed Land Use Restrictions (LURs) for the FADA

Pursuant to Appendix F, Section F.1.1, this letter is also intended to provide notification to the Inactive Hazardous Site Branch (IHSB) that Progress Energy is proposing to use LURs as part of the remedial action for soil and ash material within the FADA. Information regarding additional remedial actions

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proposed for the FADA are presented in the RAP. Supporting information this LUR proposal is provided below.

Request for Remediation Goals

Progress Energy proposes to use RGs for the limited number of COCs in soil/ash based on direct contact exposure pathway for an industrial use scenario. This approach is consistent with the projected future use of the Sutton plant as a power generation facility and the isolated location of the FADA within the large property buffer around the area. Therefore, Progress Energy proposes that USEPA Region 9 Preliminary Remediation Goals (PRGs) for industrial use (the NCDENR industrial soil-to-groundwater MSCC is proposed for C9 through C22 aromatic EPH) are used for soil RGs for the FADA. A summary of the proposed RGs are presented in the attached table and in Table 2-10 of the RAP. Please note that the industrial PRG for arsenic is 1.6 mg/kg. This value is based on a cancer risk of one-in-one million [10^{-6}]. This value is below the regional soil arsenic background concentration for arsenic of approximately 3.6 mg/kg reported by Shacklette and Boerngen, (1984) and is conservative given the industrial use of the Sutton facility and location and limited accessibility of the FADA within the site property. Therefore, it is proposed that the arsenic PRG be adjusted to 16 mg/kg based on an USEPA cancer risk range of 10^{-5}. This approach is conservative for an industrial setting and is within USEPA's acceptable cancer risk range of 10^{-6} to 10^{-4}. Progress Energy respectfully requests the IHSB's concurrence with this approach.

Sutton Site Description

The Sutton Site is located on approximately 3,300 acres of land near Wilmington, New Hanover County, North Carolina. Progress Energy has been the sole property owner since 1952. The FADA is located in the central portion of the property. Other notable site features include the main steam plant area, an 11-million-gallon aboveground storage tank (AST) located within the FADA, the "old" ash pond (operated mainly from 1972 to 1985), the "new" ash pond (operated from 1985 to present), and Sutton Lake.

The Sutton Site consists of three coal-fired boilers (steam) units and three internal combustion turbine (CT) generators units. The steam units primarily operate on bituminous coal and burn American Society of Testing Materials (ASTM) Grade No. 2 fuel oil for startup/shutdown of boiler, and flame stabilization. Although the CT generator units primarily operate on ASTM Grade No. 2 fuel oil, they can also burn natural gas. No. 2 fuel oil is normally offloaded from trucks that deliver fuel oil to the site. The fuel oil is stored in onsite ASTs prior to transfer to the steam or CT generator units for use in generating electricity for Progress Energy's customers.

The Sutton Site receives its process cooling water from the 1,110-acre Sutton Lake. Sutton Lake is an off-stream cooling water reservoir that stores water and dissipates heat absorbed by the water in passing through the plant condensers. Sutton Lake is located along the east bank of the Cape Fear River immediately upstream (north) from the Sutton plant area. Sutton Lake is a closed body of water with no channels or other uncontrolled connections between the Cape Fear River and other natural bodies of water. Sutton Lake is considered a cooling lake; therefore, it is not considered navigable water. Make-up water for Sutton Lake is taken from the Cape Fear River to replace the water lost by evaporation and seepage. Water is occasionally discharged from Sutton Lake to the Cape Fear River by raising one or both of the six-feet by four-feet sluice gates located on the western perimeter of the lake that connect to the Cape Fear River. These periodic and controlled releases are performed in accordance with the Sutton Site's National Pollutant Discharge Elimination System (NPDES) Permit.

Surrounding Site Description

The Sutton Site is adjacent to the Cape Fear River, which is classified by NCDENR as Class C-Swamp waters in the Cape Fear River Basin. The immediate vicinity of the Sutton Site is generally rural with relatively few residences close by to the Sutton Site. The area surrounding the Sutton Site is mainly industrial, with many industrial facilities located along Highway 421. Several businesses are located within one mile of the Sutton Plant, including the Maola Dairy distribution center and Ezzell Trucking Company. Two water supply wells operated by New Hanover County are located approximately 4,000 feet east of the FADA. These wells supply water to approximately 45 homes and 20 businesses in the area including the Sutton Plant.

Proposed Site Use

The Sutton site is a power generation facility that provides electricity for the Wilmington area. The site is expected to continue operating in this capacity for the foreseeable future.

Current and Proposed Zoning of the Site and Surrounding Properties

The Sutton Steam Plant and surrounding area is zoned in the I-2 Industrial District (ID). The I-2 ID is a heavy industrial zone. Its purpose is to provide for uses that would produce excessive noise, odor, smoke, dust, air-borne debris, or any other objectionable characteristics. It is the least restrictive zoning district. The zoning for the Sutton site and surrounding area is not expected to change in the near future.

If you have any questions regarding this request or the RAP, please feel free to call me at 919-469-1952, ext: 11.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

Gary R. Cameron, P.E., RSM
Vice-President

DCHP/sed

cc: Kerry MacPherson (Progress Energy)
M. Shawn Longfellow (Progress Energy)
R. Kent Tyndall (Progress Energy)
Scott E. Davies, P.G. (BBL)

sed
Enclosures: 1

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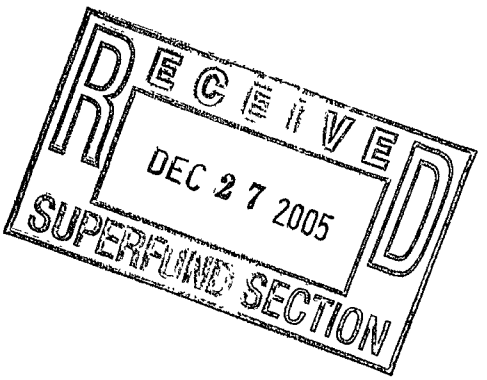

REC-LEAD

Transmitted Via Certified Mail

December 31, 2005

Mr. Kim Caulk, Manager
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road
Suite 150
Raleigh, NC 27605

Re: Quarterly Progress Report (Period Covered: 10/1/05 to 12/31/05)
REC-Directed Assessment, Former Ash Disposal Area
Progress Energy Carolinas, Inc.
L.V. Sutton Electric Steam Plant, Wilmington, NC
Docket Number 03-SF-217
BBL Project #: 04016.003

Dear Mr. Caulk:

This Quarterly Progress Report has been prepared on behalf of Carolina Power and Light Company d/b/a Progress Energy - Carolinas Inc. (Progress Energy) for the L. V. Sutton Electric Steam Plant (Sutton Site) located in Wilmington, North Carolina (NCD000830646). This Progress Report is required under the voluntary Administrative Agreement (Docket Number 03-SF-217) signed by Progress Energy Carolinas, Inc., and the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Waste Management, Inactive Hazardous Sites Branch. The work conducted under the Administrative Agreement is intended to meet the applicable requirements of North Carolina General Statute 130A-310.9(c) (Statute), 15A North Carolina Administrative Code (NCAC) 13C .0300 Rules (Rules), and 15A NCAC 13C .0300 *Registered Environmental Consultant Implementation Guidance* (REC Guidance) dated August 2005. Blasland, Bouck, and Lee, Inc. (BBL) has been designated as the Registered Environmental Consultant (REC) for the project.

The requirements of the Administrative Agreement are focused on the Former Ash Disposal Area (FADA) at the Sutton Site. The FADA was used between 1954 and 1972 for the placement of coal ash generated at the Sutton Site. The Sutton Site is located in Wilmington, New Hanover County, North Carolina.

Activities Conducted During the Reporting Period (July 1, 2005 through September 30, 2005)

During this reporting period the following activities were, or will be completed by January 1, 2006:

3700 Regency Parkway • Suite 140 • Cary, NC 27511-8574
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- BBL had FADA monitoring well MW-13R surveyed in November 2005. MW-13R is a replacement well for MW-13 which was damaged during repair of a nearby coal ash return line.

- BBL has completed a draft RAP for the FADA, which is currently undergoing review by Progress Energy. It is anticipated that the RAP will be submitted to the NCDENR during the next reporting period.

In summary, progress has been made on the FADA REC project at the Progress Energy Sutton site during this reporting period, and work is progressing in a manner to achieve the mandatory work phase completion deadlines set forth in 15A NCAC 13C .0302(h).

If you have any questions, please feel free to contact me at 919-469-1952.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

Gary Cameron, P.E., RSM
Vice President

SED
Enclosure

cc: Kerry MacPherson (Progress Energy)

Shawn Longfellow (Progress Energy)
Kent Tyndall (Progress Energy)
Scott Davies, P.G., (BBL)

CERTIFICATION STATEMENT

REMEDIATING PARTY CERTIFICATION STATEMENT (.0306(b)(2))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Michael Shawn Longfellow
Printed Name

Signature

12-16-05
Date

North Carolina
State

New Hanover
County

I, DARLENE B. LONG, a Notary Public of said ~~County and~~ State, do hereby certify that MICHAEL SHAWN LONGFELLOW did personally appear and sign before me this the 16th day of DECEMBER, 2005.

Darlene B. Long
Notary Public Signature

"OFFICIAL SEAL"
Notary Public, North Carolina
County of Brunswick
Darlene B. Long
My Commission Expires 1/22/2006

My commission expires: 1-22-06.

CERTIFICATION STATEMENT

REGISTERED SITE MANAGER CERTIFICATION STATEMENT (.0306(b)(1))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act G.S. 130A-310, et seq, and the voluntary remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

GARY R. CAMERON
Printed Name

Signature

12/22/05
Date

NORTH CAROLINA
State

WAKE
County

I, CAROL RICKERBY, a Notary Public of ~~said~~ HARNETT County and State, do hereby certify that GARY R. CAMERON did personally appear and sign before me this the 22 day of December, 2005.

Carol Rickerby
Notary Public Signature

My commission expires: 11-30-2009 (NOV).

CAROL RICKERBY NOTARY * * * PUBLIC HARNETT COUNTY, NC

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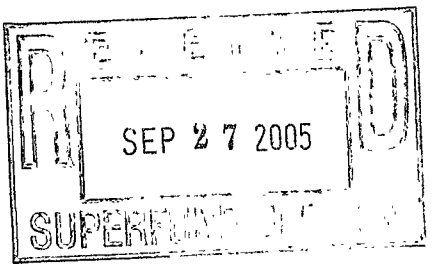

Transmitted Via Certified Mail

September 26, 2005

REC-LEAD

Mr. Kim Caulk, Manager
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road
Suite 150
Raleigh, NC 27605

Re: Quarterly Progress Report (Period Covered: 7/1/05 to 9/30/05)
REC-Directed Assessment, Former Ash Disposal Area
Progress Energy Carolinas, Inc.
L.V. Sutton Electric Steam Plant, Wilmington, NC
Docket Number 03-SF-217
BBL Project #: 04016.003

Dear Mr. Caulk:

This Quarterly Progress Report has been prepared on behalf of Carolina Power and Light Company d/b/a Progress Energy - Carolinas Inc. (Progress Energy) for the L. V. Sutton Electric Steam Plant (Sutton Site) located in Wilmington, North Carolina (NCD000830646). This Progress Report is required under the voluntary Administrative Agreement (Docket Number 03-SF-217) signed by Progress Energy Carolinas, Inc., and the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Waste Management, Inactive Hazardous Sites Branch. The work conducted under the Administrative Agreement is intended to meet the applicable requirements of North Carolina General Statute 130A-310.9(c) (Statute), 15A North Carolina Administrative Code (NCAC) 13C .0300 Rules (Rules), and 15A NCAC 13C .0300 *Registered Environmental Consultant Implementation Guidance* (REC Guidance) dated August 2004. Blasland, Bouck, and Lee, Inc. (BBL) has been designated as the Registered Environmental Consultant (REC) for the project.

The requirements of the Administrative Agreement are focused on the Former Ash Disposal Area (FADA) at the Sutton Site. The FADA was used between 1954 and 1972 for the placement of coal ash generated at the Sutton Site. The Sutton Site is located in Wilmington, New Hanover County, North Carolina.

Activities Conducted During the Reporting Period (July 1, 2005 through September 30, 2005)
During this reporting period the following activities were, or will be completed by October 1, 2005:

- Collection of groundwater samples from the nine FADA monitoring wells on July 27 and August 9, 2005 for ferrous iron analysis using the Hach field test method. This data was collected to support preparation of the Remedial Action Plan (RAP) for the FADA.

- On July 27, 2005, BBL conducted a synoptic groundwater gauging event of five shallow and four deep monitoring wells, and one shallow piezometer within the FADA as required under Section A.3.1. of the REC Guidance. The results of this gauging event were submitted to the NCDENR in a letter dated August 23, 2005.

- BBL replaced FADA monitoring well MW-13 which was damaged during repair of a pipeline located near the well. A letter documenting the replacement of MW-13 was submitted to the NCDENR on August 23, 2005. In addition, Attachment 1 to this progress report includes the well abandonment form for MW-13, and the well completion form for replacement monitoring well MW-13R. Also attached is a copy of the non-hazardous waste manifest for the investigation derived waste generated during well replacement activities.

- BBL is preparing a draft RAP for the FADA. It is anticipated that the RAP will be submitted to the NCDENR during the next reporting period.

In summary, substantial progress has been made on the FADA REC project at the Progress Energy Sutton site during this reporting period, and work is progressing in a manner to achieve the mandatory work phase completion deadlines set forth in 15A NCAC 13C .0302(h).

If you have any questions, please feel free to contact me at 919-469-1952.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

Gary Cameron, P.E., RSM
Vice President

SED
Enclosure

cc: Kerry MacPherson (Progress Energy)

Shawn Longfellow (Progress Energy)
Kent Tyndall (Progress Energy)
Scott Davies, P.G., (BBL)

CERTIFICATION STATEMENT

REMEDIATING PARTY CERTIFICATION STATEMENT (.0306(b)(2))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Michael Shawn Longfellow
Printed Name

MSLongfellow
Signature

9-21-05
Date

North Carolina
State

New Hanover
County

I, DARLENE B. LONG, a Notary Public of said ~~County and~~ State, do hereby certify that MICHAEL SHAWN LONGFELLOW did personally appear and sign before me this the 21st day of September, 2005.

Darlene B. Long
Notary Public Signature

My commission expires: 1-22-06.

CERTIFICATION STATEMENT

REGISTERED SITE MANAGER CERTIFICATION STATEMENT (.0306(b)(1))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act G.S. 130A-310, et seq, and the voluntary remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

GARY R. CAMERON, P.E.
Printed Name

Signature

9/26/05
Date

North Carolina
State

WAKE
County

I, CAROL RICKERBY, a Notary Public of ~~said~~ HARNETT County and State, do hereby certify that GARY R. CAMERON did personally appear and sign before me this the 26 day of September, 2005.

Carol Rickerby
Notary Public Signature

My commission expires: My Commission Expires 11-30-2009.

CAROL RICKERBY NOTARY * * * PUBLIC HARNETT COUNTY, NC

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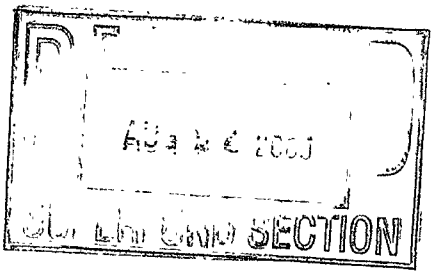

Transmitted Via Certified Mail

REC-LEAD

August 23, 2005

Mr. Kim T. Caulk, P.G.
Inactive Hazardous Sites Branch – REC Program
North Carolina Department of
Environment and Natural Resources
Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605

Re: Ash Management Investigation
Groundwater Monitoring Results – Former Ash Disposal Area
Progress Energy Carolinas, Inc.
L.V. Sutton Steam Electric Plant
Wilmington, New Hanover County, NC
BBL No: 04016.002

Dear Mr. Caulk:

Blasland, Bouck, and Lee, Inc. (BBL) on behalf of Progress Energy Service Co., LLC (Progress Energy) is pleased to present the results of groundwater monitoring activities conducted at the Progress Energy L.V. Sutton Steam Electric Plant (the Site) located at 801 Sutton Steam Plant Road in Wilmington, New Hanover County, North Carolina. Monitoring activities were conducted for the Former Ash Disposal Area (FADA) in accordance with Section A.3.1 (paragraph 4) of the North Carolina Department of Environment and Natural Resources (NCDENR), Registered Environmental Consultant Program (REC) Implementation Guidance (effective August 2004). Site activities are summarized in the following paragraph.

On July 27, 2005, BBL collected one synoptic round of groundwater-level measurements from all FADA permanent monitoring wells and permanent piezometer PZ-10 (see **Figure 1**). The measurements were made with a properly decontaminated electronic water-level probe. Depth-to-water measurements were measured from the surveyed top of inner casing to the nearest 0.01 foot. Shallow groundwater measurements collected from five monitoring wells and permanent piezometer PZ-10 ranged from 0.55 feet below ground surface (ft bgs) at MW-15 to 5.16 ft bgs at MW-20. Deep groundwater measurements collected from four groundwater monitoring wells ranged from 0.68 ft bgs at MW-15D to 5.34 ft bgs at MW-13D. Depth-to-groundwater measurements were converted to groundwater elevations and were used to create potentiometric surface maps for wells screened near the water table (shallow groundwater) and toward the base of the surficial aquifer unit (deep groundwater). Potentiometric surface maps for shallow and deep groundwater for the July 2005 monitoring event are presented as **Figures 1** and **2**. Historical groundwater elevation data are provided in **Table 1**. As shown, groundwater within the FADA generally

flows to the south and southwest which is consistent with the previous Remedial Investigation (RI) groundwater monitoring results.

Please note that monitoring well MW-13 was damaged during repairs to a nearby underground pipeline. The well was properly abandoned and replaced with a new monitoring well (MW-13R). A log of this well is included in Attachment A with this letter for your records.

Lastly, this is the final submittal of groundwater elevation data submitted per Section A.3.1 of the REC Guidance since the RI is now complete.

Please contact me with any questions or comments at 919-469-1952, ext: 17, or by electronic mail at sed@bbl-inc.com.

Sincerely,
BLASLAND, BOUCK & LEE, INC.

Scott E. Davies, P.G.
Associate/Senior Geologist II

DCHP/sed
Attachments: Table 1 - Historical Groundwater Elevation Data
Figures 1 and 2 – Potentiometric Surface Maps
Attachment A - MW-13R Well Construction Log

cc: Gary Cameron, P.E. (BBL)
Kerry MacPherson (Progress Energy)
Kent Tyndall (Progress Energy)

Table

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engineers, scientists, economists

Table 1
Historical Groundwater Elevation Data
Progress Energy - L.V. Sutton Steam Electric Plant
Former Ash Disposal Area
Wilmington, North Carolina

Well Designation	Date	Top of Casing Elevation (ft amsl)	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
Permanent Monitoring Wells				
MW-13	6/04	18.21	8.96	9.25
	2/05	18.21	7.89	10.32
	7/05	18.21	8.04	10.17
MW-13D	2/05	18.16	7.81	10.35
	7/05	18.16	7.97	10.19
MW-14	6/04	14.15	5.16	8.99
	2/05	14.15	4.23	9.92
	7/05	14.15	4.53	9.62
MW-15	6/04	11.47	2.94	8.53
	2/05	11.47	3.35	8.12
	7/05	11.47	3.49	7.98
MW-15D	2/05	11.21	3.13	8.08
	7/05	11.21	3.28	7.93
MW-16	6/04	16.91	7.60	9.31
	2/05	16.91	6.75	10.16
	7/05	16.91	6.97	9.94
MW-16D	2/05	16.43	6.38	10.05
	7/05	16.43	6.62	9.81
MW-20	2/05	13.70	7.92	5.78
	7/05	13.70	8.08	5.62
MW-20D	2/05	13.66	7.90	5.76
	7/05	13.66	8.09	5.57
Permanent Piezometer				
PZ-10	6/04	12.82	4.31	8.51
	2/05	12.82	3.43	9.39
	7/05	12.82	3.70	9.12

Notes:
ft amsl = feet above mean sea level.
ft msl = feet mean sea level.
ft btoc = feet below top of casing.
D denotes deep groundwater monitoring well.

Figures

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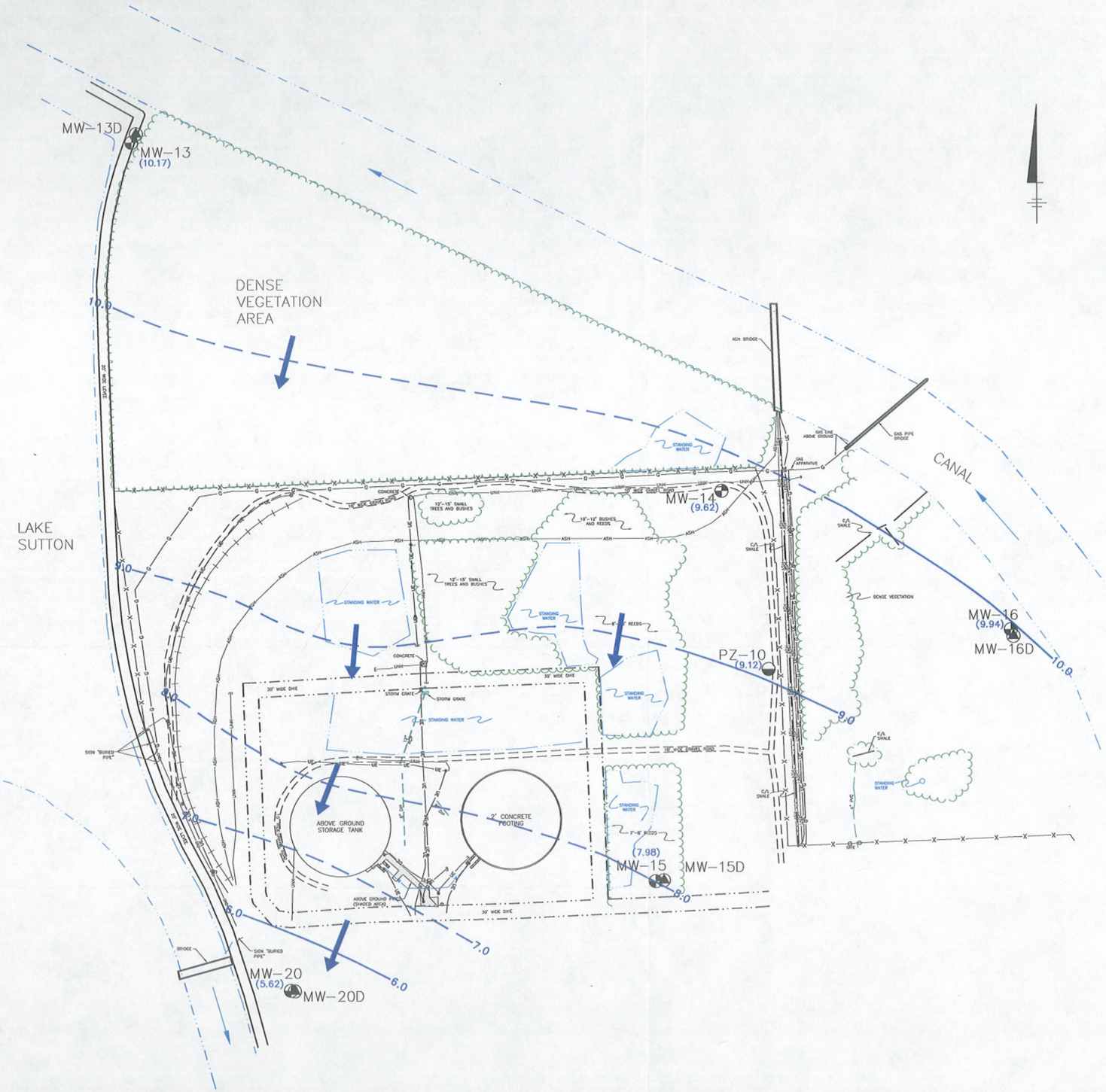


SYMBOL LEGEND

- EXISTING DEEP MONITORING WELL
- EXISTING SHALLOW MONITORING WELL
- PERMANENT PIEZOMETER
- UTILITY RISER
- LIGHT POLE
- (10.17) GROUNDWATER ELEVATION
- 9.0 GROUNDWATER ELEVATION CONTOUR LINE (DASHED WHERE INFERRED). CONTOUR INTERVAL = 1.0 FT.
- DIRECTION OF GROUNDWATER FLOW

LINE LEGEND

- FENCE LINE
- GAS LINE
- ASH LINE
- GROUND WIRE LINE
- UNDERGROUND ELECTRIC
- WATER LINE
- DIKE LINE
- STANDING WATER
- STORM PIPE
- RAILROAD TRACK (C/L)
- TREE/VEGETATION LINE
- UNKNOWN LINE
- GRAVEL ROAD

NOTE:

1. SOURCE: SURVEY PROVIDED BY 'TAYLOR, WISEMAN & TAYLOR', 3500 Regency Parkway, Suite H, Cary N.C., 919-297-0085, (PROJECT NO. 70488.0005) DATED JUNE 23, 2004. REVISIONS MADE ON JULY 7, 2004 AND FEB. 23, 2005.

0 100' 200'
GRAPHIC SCALE

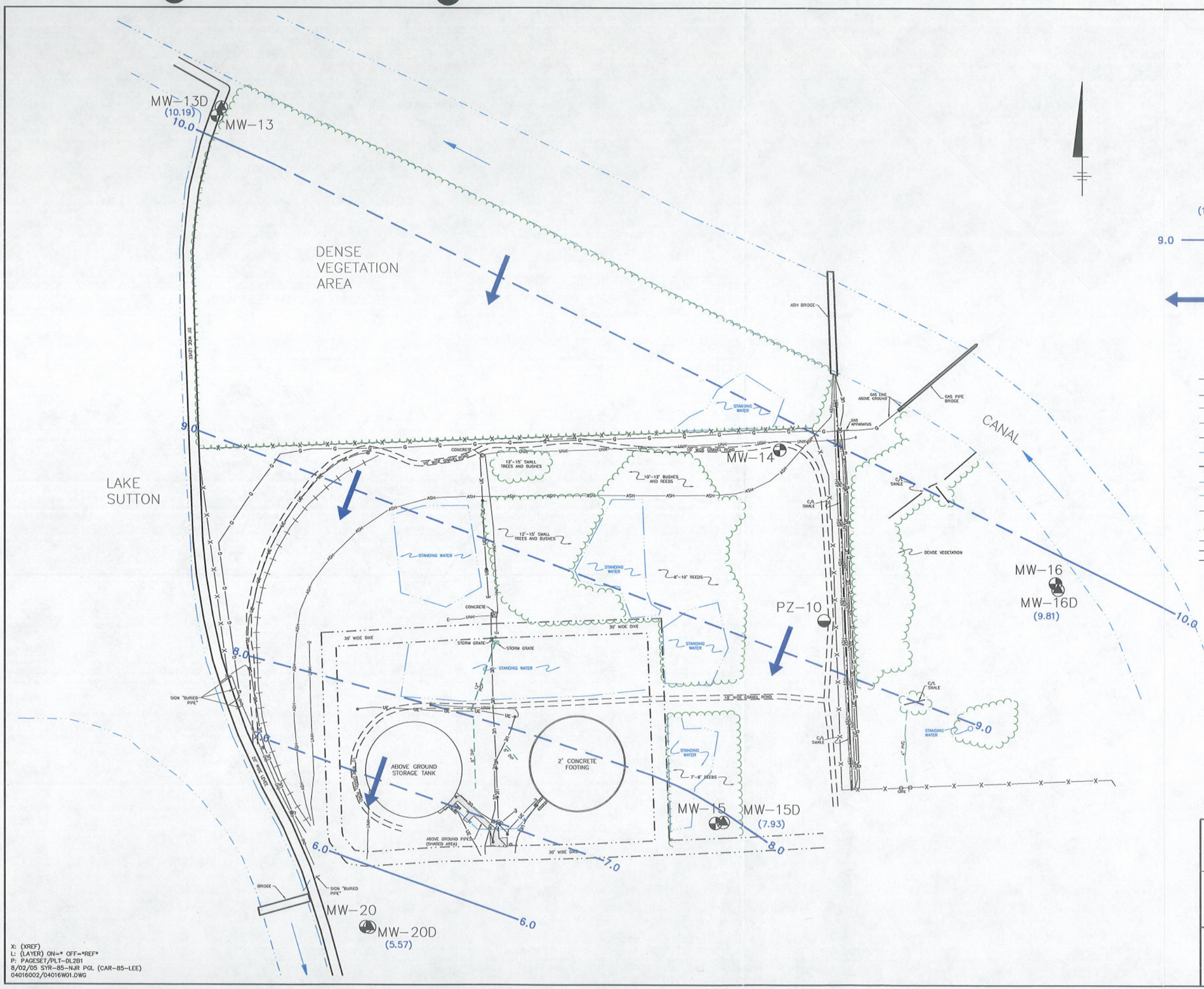
PROGRESS ENERGY
L.V. SUTTON STEAM ELECTRIC PLANT, WILMINGTON, N.C.
REMEDIAL INVESTIGATION ACTIVITIES

SHALLOW GROUNDWATER POTENTIOMETRIC SURFACE MAP - FORMER ASH DISPOSAL AREA - JULY 27, 2005

BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

FIGURE 1

X: NONE
L: ON=* OFF=*REF* (FRZ)
P: PAGESET/PLT-DL2B1
8/02/05 SYR-85-NJR PGL (CAR-85-LEE)
04016003/04016W02.DWG



SYMBOL LEGEND

- EXISTING DEEP MONITORING WELL
- EXISTING SHALLOW MONITORING WELL
- PERMANENT PIEZOMETER
- UTILITY RISER
- LIGHT POLE
- (10.19) GROUNDWATER ELEVATION
- 9.0 GROUNDWATER ELEVATION CONTOUR LINE (DASHED WHERE INFERRED). CONTOUR INTERVAL = 1.0 FT.
- DIRECTION OF GROUNDWATER FLOW

LINE LEGEND

- FENCE LINE
- GAS LINE
- ASH LINE
- GROUND WIRE LINE
- UNDERGROUND ELECTRIC
- WATER LINE
- DIKE LINE
- STANDING WATER
- STORM PIPE
- RAILROAD TRACK (C/L)
- TREE/VEGETATION LINE
- UNKNOWN LINE
- GRAVEL ROAD

NOTE:

1. SOURCE: SURVEY PROVIDED BY 'TAYLOR, WISEMAN & TAYLOR', 3500 Regency Parkway, Suite H, Cary N.C., 919-297-0085, (PROJECT NO. 70488.0005) DATED JUNE 23, 2004. REVISIONS MADE ON JULY 7, 2004 AND FEB. 23, 2005.

0 100' 200'
GRAPHIC SCALE

PROGRESS ENERGY
L.V. SUTTON STEAM ELECTRIC PLANT, WILMINGTON, N.C.
REMEDIAL INVESTIGATION ACTIVITIES

DEEP GROUNDWATER POTENTIOMETRIC SURFACE MAP - FORMER ASH DISPOSAL AREA - JULY 27, 2005

BBL BLASLAND, BOUCK & LEE, INC. engineers, scientists, economists

FIGURE 2

X: (XREF)
L: (LAYER) ON=* OFF=*REF*
P: PAGESET/PLT-DL2B1
8/02/05 SYR-85-NJR PGL (CAR-85-LEE)
04016002/04016W01.DWG

Attachment A

MW-13R Well Construction Log

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

Date Start/Finish: 08-09-05 **Drilling Company:** Parratt Wolffe **Driller's Name:** Lewis LeFevre **Drilling Method:** HSA **Bit Size:** NA **Auger Size:** 4.25-inch I.D. **Rig Type:** NA **Sampling Method:** 24-inch splitspoon	**Northing:** NA **Easting:** NA **Casing Elevation:** NA **Borehole Depth:** 18 ft bgs **Surface Elevation:** NA **Geologist:**	**Well/Boring ID:** MW-13R **Client:** Progress Energy **Location:** Progress Energy L.V. Sutton Steam Electric Plant Wilmington, NC Former Ash Disposal Area

DEPTH (feet) ELEVATION (feet amsl)	Recovery (inches)	Blows / 6 inches	N - Value	PID Headspace (ppm)			Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0 0				0.0 0.0					Topsoil, trace coarse gravel, low organic content, dry to slightly damp, no odors. SAND and ASH, dark grey, silt to fine grained, very loose, slightly damp to damp, no odor.	protective above ground steel casing (+3.0'-0.0') Cement pad (2'x2') Bentonite grout (0.0'-5.0') 2-inch SCH 40 PVC riser (+3.0' - 8.0')
-5 -5	19	2 2 1 3	3	0.0					SAND and ASH, dark grey, silt to fine grained, very loose, slightly damp to damp, no odor.	
									clayey SAND (SC), dark grey, fine grained, low plasticity, very soft, wet, no odor.	Bentonite chips (5.0'-7.0') 8.25-inch nominal borehole (0.0'-18.0')
-10 -10	24	3 1 4 5	5	0.0					clayey SAND (SC), dark grey, fine grained, low plasticity, medium soft, wet, no odor.	2-inch 0.010 slot PVC screen (8.0' - 18.0')
	19	5 4 5 4	9	0.0					SAND (SM), grey, mottled tan, fine grained, loose, wet, no odor. SAND (SM), dark brown, fine grained, loose, saturated, organic sulphur odor.	Well Sand Pack No. 1 (7.0'-18.0')
-15 -15									SAND (SM), brown to dark brown, fine to medium grained, loose, wet, no odor (lithologic information was not obtained for 13' - 18', description provided is for adjacent well MW-13D). Boring terminated at 18.0 ft bls	

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:
HSA = Hollow Stem Auger
NA = Not Applicable
ft bls = feet below land surface
1. Lithologic data collected during the installation of MW-13 on May 24, 2004.
2. Survey data has not been collected for MW-13R; however,

Water Level Data

Date	Depth	Elev.

Depth measured from top of casing

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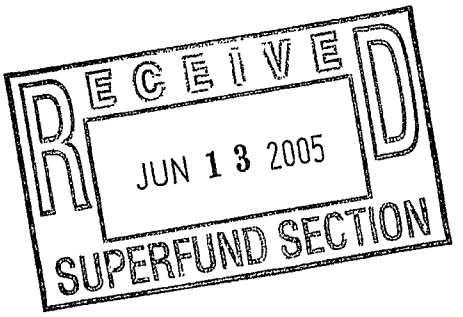
engineers, scientists, economists



CERTIFIED MAIL

REC-LEAD

June 9, 2005

Mr. Kim T. Caulk, P.G.
Inactive Hazardous Sites Branch - REC Program
NCDENR - Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605

Re: Phase II Remedial Investigation Report – Transmittal of RSM Certification Statement
Former Ash Disposal Area
Progress Energy Carolina's Inc.
L.V. Sutton Steam Electric Plant
Wilmington, North Carolina
NCD 000 830 646
BBL Project #: 04015

Dear Mr. Caulk:

Attached please find the completed Registered Site Manager (RSM) Certification Statement for the Phase II Remedial Investigation Report (RIR) for the Former Ash Disposal Area at the L.V. Sutton Steam Electric Plant located at 801 Sutton Steam Plant Road in Wilmington, New Hanover County, North Carolina. As we discussed, this certification statement was not included with the Phase II RIR submitted to the Department on May 27, 2005. I understand that the guidance requires this certification in addition to the RI Completion certification which was included in the May 27 submittal.

Please place this statement in front of the Remedial Investigation Completion Certification located in the front of the Phase II RIR. If you have any questions, please feel free to call me at 919-469-1952, ext: 11.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

Gary R. Cameron, P.E., RSM
Vice-President

3700 Regency Parkway, Suite 140 • Cary, NC 27511-8574
Tel (919) 469-1952 • Fax (919) 469-5676 • www.bbl-inc.com • Offices Nationwide

F:\Users\crick\2005 77852430

cc: Scott E. Davies, P.G. (BBL)

sed
Enclosures: 1

CERTIFICATION STATEMENT

REGISTERED SITE MANAGER CERTIFICATION STATEMENT (.0306(b)(1))

PROGRESS ENERGY CAROLINAS INC.
L.V. SUTTON STEAM ELECTRIC PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

PHASE II REMEDIAL INVESTIGATION REPORT

REC-LEAD

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act G.S. 130A-310, et seq, and the voluntary remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Gary R. Cameron, P.E.
Printed Name

G R Cameron
Signature

6/9/05
Date

North Carolina
State

Wake
County

I, CAROL RICKERBY, a Notary Public of ~~said~~ HARNETT County and State, do hereby certify that GARY R. CAMERON did personally appear and sign before me this the 9th day of June, 2005.

Carol Rickerby
Notary Public Signature

My commission expires: My Commission Expires 11-30-2009.

CAROL RICKERBY NOTARY * * * PUBLIC HARNETT COUNTY, NC

Subject: CP&L Sutton Steam Plant & Std. DPLUR
From: "Kim T. Caulk" <Kim.Caulk@ncmail.net>
Date: Tue, 07 Jun 2005 15:31:12 -0400
To: SED@BBL-INC.com

REC-LEAD

Scott:

Per our meeting today, attached is standard Declaration of Perpetual Land Use Restrictions (DPLUR). The Branch will make the changes and maintain the electronic version of the document. Once it is final, we will mail it out for signatures and recording. Regarding the RGs and DPLUR, please follow the procedures in the REC Guidelines.

Feel free to contact me if you have any questions.

--
Kim T. Caulk, P.G.
Inactive Hazardous Sites Branch - REC Program
NCDENR - Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605
Phone: (919) 508-8451
Fax: (919) 733-4811
e-mail: kim.caulk@ncmail.net

Subject: Re: Sutton
From: "Kim T. Caulk" <Kim.Caulk@ncmail.net>
Date: Fri, 03 Jun 2005 13:02:28 -0400
To: "MacPherson, Kerry" <kerry.macpherson@pgnmail.com>
CC: SED@BBL-INC.com

I have a small room in the file room reserved, so I hope the meeting won't be too long.

Kim T. Caulk, P.G.
Inactive Hazardous Sites Branch - REC Program
NCDENR - Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605
Phone: (919) 508-8451
Fax: (919) 733-4811
e-mail: kim.caulk@ncmail.net

MacPherson, Kerry wrote:

> Thanks for returning my call. As I mentioned, Scott Davies and I would like to have a short meeting with you to discuss the next steps at Sutton. If it works with you - Tuesday (June 7th) at 10:00 in your office. Unless I hear differently, we will see you then. Have a good weekend.
>
> **Kerry A. MacPherson**
> Project Manager
> Environmental Support & Remediation
> Progress Energy Service Company - PEB 4A
> 410 South Wilmington Street
> Raleigh, NC 27601
>
> (919) 546-6753
> Kerry.MacPherson@PGNMail.com

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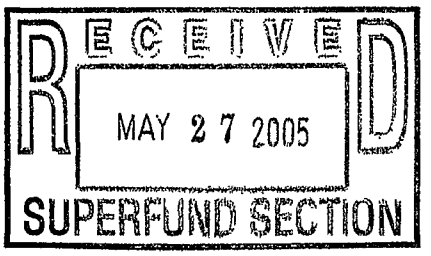
Hand Delivered by BBL

May 26, 2005

Mr. Kim Caulk, P.G.
Department of Environment
and Natural Resources
Superfund Section
Division of Waste Management
1646 Mail Service Center
Raleigh, North Carolina 27699-1646



Re: Submittal of Phase II Remedial Investigation Report
Former Ash Disposal Area
Progress Energy Carolina's Inc.
L.V. Sutton Steam Electric Plant
Wilmington, North Carolina
NCD 000 830 646
BBL Project #: 04015

Dear Mr. Caulk:

The attached Phase II Remedial Investigation Report (RIR) has been prepared on behalf of Progress Energy by Blasland, Bouck and Lee, Inc. (BBL) for the Former Ash Disposal Area at the L.V. Sutton Steam Electric Plant located at 801 Sutton Steam Plant Road in Wilmington, New Hanover County, North Carolina. The Phase II RIR has been prepared pursuant to a voluntary Administrative Agreement (Docket Number 03-SF-217) signed by Progress Energy Carolina's Inc. and the North Carolina Department of Environment and Natural Resources (NCDENR) in October 2003. This Phase II RIR has been prepared to meet the applicable requirements of the North Carolina General Statute 130-310.9(c), 15A North Carolina Administrative Code (NCAC) 13C .0300 Rules, and 15A NCAC 13C.0300 *Registered Environmental Consultant Implementation Guidance* dated August 2004.

Please note that submittal of this Phase II RIR is also intended to fulfill the quarterly progress report requirement for July 2005 as outlined in Section III (B) of the Administrative Agreement between Progress Energy and NCDENR.

3700 Regency Parkway, Suite 140 • Cary, NC 27511-8574
Tel (919) 469-1952 • Fax (919) 469-5676 • www.bbl-inc.com • Offices Nationwide

If you have any questions regarding this report, please feel free to call me at 919-469-1952, ext: 11.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

Gary R. Cameron, P.E., RSM
Vice-President

DCHP/sed

cc: Kerry MacPherson (Progress Energy)
M. Shawn Longfellow (Progress Energy)
R. Kent Tyndall (Progress Energy)
Scott E. Davies, P.G. (BBL)
Daniel C.H. Peterman (BBL)

DCHP/sed
Enclosures: 1

Subject: CP&L Sutton Steam Plant Status Report
From: "Kim T. Caulk" <Kim.Caulk@ncmail.net>
Date: Fri, 01 Apr 2005 14:58:20 -0500
To: Gary Cameron <grc@bbl-inc.com>

REC-LEAD

Gary:

FYI, I received your Phase II Work Plan during this quarter (in January), which gave the files an update on the project status. Therefore, you didn't have to submit recent quarterly status report for this quarter since we had already received the work plan. Also, it's ok that you included the certification statements, but the short letter status reports don't have to include the certification statements.....they just have to be notarized.
The information that you submitted is fine, just more than you had to do for the files.

Thanks.

--
Kim T. Caulk, P.G.
Inactive Hazardous Sites Branch - REC Program
NC DWM - Superfund Section
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605
Phone: (919)733-2801, ext. 364
Fax: (919)733-4811
e-mail: kim.caulk@ncmail.net

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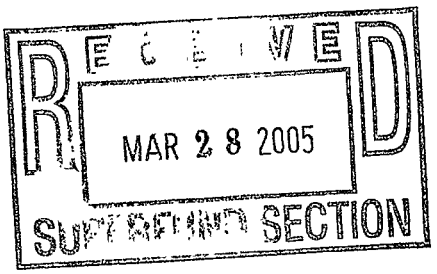

Transmitted Via Certified Mail

March 25, 2004

REC-LEAD

Mr. Kim Caulk, Manager
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road
Suite 150
Raleigh, NC 27605

Re: Quarterly Progress Report (Period Covered: 1/1/05 to 3/31/05)
REC-Directed Assessment, Former Ash Disposal Area
Progress Energy Carolinas, Inc.
L.V. Sutton Electric Steam Plant, Wilmington, NC
Docket Number 03-SF-217
BBL Project #: 04015.004

Dear Mr. Caulk:

This Quarterly Progress Report has been prepared for Progress Energy's L. V. Sutton Electric Steam Plant (Sutton Site) located in Wilmington, North Carolina (NCD000830646). This Progress Report is required under the voluntary Administrative Agreement (Docket Number 03-SF-217) signed by Progress Energy Carolinas, Inc., and the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Waste Management, Inactive Hazardous Sites Branch. The work conducted under the Administrative Agreement is intended to meet the applicable requirements of North Carolina General Statute 130A-310.9(c) (Statute), 15A North Carolina Administrative Code (NCAC) 13C .0300 Rules (Rules), and 15A NCAC 13C .0300 *Registered Environmental Consultant Implementation Guidance* (REC Guidance) dated August 2004. Blasland, Bouck, and Lee, Inc. (BBL) has been designated as the Registered Environmental Consultant (REC) for the project.

The requirements of the Administrative Agreement are focused on the Former Ash Disposal Area (FADA) at the Sutton Site. The FADA was used between 1954 and 1972 for the placement of coal ash generated at the Sutton Site. The Sutton Site is located in Wilmington, New Hanover County, North Carolina.

F:\Users\crick\2005\61752430

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Activities Conducted During the Reporting Period (January 1, 2005 through March 31, 2005)
During this reporting period the following activities were, or will be completed by April 1, 2005:

- Preparation of the Phase II Remedial Investigation Work Plan (RIWP), which was submitted to the NCDENR on January 25, 2005.

- The Phase II RI field activities were completed on February 17, 2005 and included the following scope of work:

  - Collection of five background soil samples to evaluate background metal concentrations as required in the REC Guidance.

  - The advancement of 16 soil borings and associated soil sampling around test pits TP-1 and TP-12, and TP-16/TP-20 to delineate the horizontal and vertical extent of petroleum hydrocarbons identified during the Phase I RI field activities.

  - Collection of related quality control/quality assurance (QA/QC) samples per the REC Guidance.

  - The advancement of two additional soil borings to further characterization of the horizontal and vertical extent of the ash unit within the heavily vegetated area located on the northern portion of the FADA.

  - The installation of six shallow temporary piezometers to better determine the shallow groundwater flow direction in and around the FADA.

  - Installation of five additional monitoring wells (one shallow and four deep wells), and associated groundwater sampling to further characterize the lateral and vertical extent of constituents of concern (COCs) in the FADA.

  - One synoptic groundwater gauging event of all piezometers, and new and existing monitoring wells within the FADA.

- BBL initiated preparation of the Phase II RI Report for the FADA based on the results of the scope of work described above.

In summary, substantial progress has been made on the Phase II RI at the Progress Energy Sutton site during this reporting period, and work is progressing in a manner to achieve the mandatory work phase completion deadlines set forth in 15A NCAC 13C .0302(h).

If you have any questions, please feel free to contact me at 919-469-1952.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

Gary Cameron, P.E., RSM
Vice President

SED
Enclosure

cc: Kerry MacPherson

Shawn Longfellow
Kent Tyndall
Scott Davies

CERTIFICATION STATEMENT

REMEDIATING PARTY CERTIFICATION STATEMENT (.0306(b)(2))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Michael Shawn Longfellow
Printed Name

Signature

3-14-05
Date

North Carolina
State

New Hanover
County

I, DARLENE B. LONG, a Notary Public of said ~~County and~~ State, do hereby certify that Michael Shawn Longfellow did personally appear and sign before me this the 14th day of MARCH, 2005.

Darlene B. Long
Notary Public Signature

My commission expires: 1-22-06.

CERTIFICATION STATEMENT

REGISTERED SITE MANAGER CERTIFICATION STATEMENT (.0306(b)(1))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act G.S. 130A-310, et seq, and the voluntary remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

GARY R. CAMERON
Printed Name

Signature

3/25/05
Date

NORTH CAROLINA
State

WAKE
County

I, CAROL RICKERBY, a Notary Public of ~~said County~~ HARNETT and State, do hereby certify that GARY R. CAMERON did personally appear and sign before me this the 25 day of March, 2005.

Carol Rickerby
Notary Public Signature

My commission expires: My Commission Expires 11-30-2009.

CAROL RICKERBY NOTARY PUBLIC HARNETT COUNTY, NC

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Transmittal

Transmitted via Hand Delivery

Blasland, Bouck & Lee, Inc.
3700 Regency Parkway, Suite 140
Cary, NC 27511

To: Kim Caulk
Division of Waste Management
Inactive Hazardous Sites Branch
401 Oberlin Road
Raleigh, NC

Date: January 24, 2005

File:

Re: Phase II RI Work Plan for the FADA
L.V. Sutton Steam Electric Plant
Wilmington, NC

We are sending you: ☐ herewith ☐ under separate cover
☐ drawings ☐ letters ☐ other _____

If material received is not as listed, please notify us at once.

Quantity	Identifying Number	Title	Action*
1		Phase II RI Work Plan for the FADA L.V. Sutton Steam Electric Plant Wilmington, NC	I

*Action letter code: R – for your review N - reviewed and noted I - for your information
S - resubmit J - rejected Y - for your approval

Remarks:

A copy of the referenced work plan is attached for your file.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

cc: Scott E. Davies, P.G.

Gary R. Cameron, P.E.

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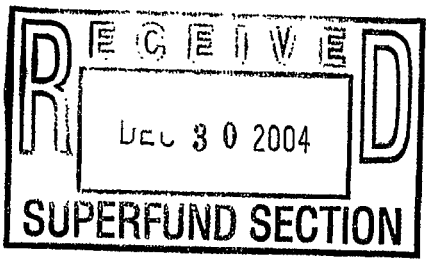
engineers, scientists, economists

REC-LEAD



Transmitted Via Certified Mail

December 15, 2004

Mr. Kim Caulk, Manager
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road
Suite 150
Raleigh, NC 27605

Re: Quarterly Progress Report (Period Covered: 10/1/04 to 1/1/05)
REC-Directed Assessment, Former Ash Disposal Area
Progress Energy Carolinas, Inc.
L.V. Sutton Electric Steam Plant, Wilmington, NC
Docket Number 03-SF-217
BBL Project #: 04010.001

Dear Mr. Caulk:

This Quarterly Progress Report has been prepared for Progress Energy's L. V. Sutton Electric Steam Plant (Sutton Site) located in Wilmington, North Carolina (NCD000830646). This Progress Report is required under the voluntary Administrative Agreement (Docket Number 03-SF-217) signed by Progress Energy Carolinas, Inc., and the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Waste Management, Inactive Hazardous Sites Branch. The work conducted under the Administrative Agreement is intended to meet the applicable requirements of North Carolina General Statute 130A-310.9(c) (Statute), 15A North Carolina Administrative Code (NCAC) 13C .0300 Rules (Rules), and 15A NCAC 13C .0300 *Registered Environmental Consultant Implementation Guidance* (REC Guidance) dated August 2004. Blasland, Bouck, and Lee, Inc. (BBL) has been designated as the Registered Environmental Consultant (REC) for the project.

The requirements of the Administrative Agreement are focused on the Former Ash Disposal Area (FADA) at the Sutton Site. The FADA was used between 1954 and 1972 for the placement of coal ash generated at the Sutton Site. The Sutton Site is located in Wilmington, New Hanover County, North Carolina.

3700 Regency Parkway • Suite 140 • Cary, NC 27511-8574
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Activities Conducted During the Reporting Period (October 1, 2004 through January 1, 2005)
During this reporting period the following activities were, or will be completed by January 1, 2005:

- Based on the results of the Phase I Remedial Investigation Report (RIR) submitted to the NCDENR in September 2004, BBL and Progress Energy determined that a Phase II RI was necessary to further evaluate subsurface conditions in the FADA.

- Progress Energy and BBL worked to develop a general scope of work for the Phase II RI. General tasks identified for the Phase II RI include:

  - Collection of background soil samples to evaluate background metal concentrations near the FADA.

  - The advancement of approximately 13 soil borings and associated soil sampling around test pits TP-1 and TP-12, and near soil boring SB-6, TP-16 and TP-20 to delineate the horizontal and vertical extent of light non-aqueous phase liquid (LNAPL) observed during the Phase I RI field activities.

  - Collection of related quality control/quality assurance (QA/QC) samples per the REC Guidance.

  - The advancement of additional soil borings to further characterization of the horizontal and vertical extent of the ash unit within the heavily vegetated area located on the northern portion of the FADA.

  - The installation of shallow temporary piezometers to better determine the shallow groundwater flow direction in and around the FADA.

  - Installation of additional monitoring wells and associated groundwater sampling to further characterize the lateral and vertical extent of constituents of concern (COCs) in the FADA.

  - Collection of one synoptic groundwater gauging event of all existing and new FADA monitoring wells to determine shallow and deep potentiometric surface maps for the FADA.

- BBL initiated preparation of the Phase II RI Work Plan for the FADA based on the general scope of work described above. Progress Energy and BBL plan to submit the Phase II RI Work Plan to the NCDENR during the next reporting period.

In summary, progress has been made towards the Phase II RI at the Progress Energy Sutton site during this reporting period, and work is progressing in a manner to achieve the mandatory work phase completion deadlines set forth in 15A NCAC 13C .0302(h).

If you have any questions, please feel free to contact me at 919-469-1952.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

Gary Cameron, P.E., RSM
Vice President

SED
Enclosure

cc: Kerry MacPherson

Shawn Longfellow
Kent Tyndall
Scott Davies

CERTIFICATION STATEMENT

REMEDIATING PARTY CERTIFICATION STATEMENT (.0306(b)(2))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

PHASE I REMEDIAL INVESTIGATION REPORT

"I certify under penalty of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Michael Shawn Longfellow
Printed Name

Signature

12-15-04
Date

North Carolina
State

New Hanover
County

I, Darlene B. Long, a Notary Public of said ~~County and~~ State, do hereby certify that M. S. Longfellow did personally appear and sign before me this the 15th day of December, 2004.

Darlene B. Long
Notary Public Signature

My commission expires: 1-22-06.

CERTIFICATION STATEMENT

REGISTERED SITE MANAGER CERTIFICATION STATEMENT (.0306(b)(1))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act G.S. 130A-310, et seq, and the voluntary remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

GARY R. CAMERON
Printed Name

Signature

12/29/04
Date

NORTH CAROLINA
State

WAKE
County

I, CAROL RICKERBY Carol Rickerby, a Notary Public of ~~said County~~ HARNETT Cty, NC and State, do hereby certify that GARY R. CAMERON did personally appear and sign before me this the 29 day of December, 2004.

Carol Rickerby
Notary Public Signature

My commission expires: My Commission Expires 11-30-2009.

CAROL RICKERBY NOTARY * * * PUBLIC HARNETT COUNTY, NC

Subject: Re: REC Guidelines
From: "Kim T. Caulk" <Kim.Caulk@ncmail.net>
Date: Fri, 10 Dec 2004 10:08:44 -0500
To: "MacPherson, Kerry" <kerry.macpherson@pgnmail.com>
CC: SED@BBL-INC.com

REC-LEAD

Your plan modifications sound reasonable and are acceptable. I will put a copy of this message in the file.

I can understand the need to gather enough water level data at various times to confirm site findings, understand trends, etc., but water level measurements may not be needed specifically every six months as suggested in the guidelines. Therefore, I will plan on modifying this wording in the guidelines next year.

Thanks,

Kim T. Caulk
REC Program
Inactive Hazardous Sites Branch
Superfund Section
NC Division of Waste Management
Phone: (919)733-2801, ext. 364
Fax: (919)733-4811
e-mail: kim.caulk@ncmail.net

MacPherson, Kerry wrote:

> Kim - here's a copy of the page from the new guidance that requires groundwater elevation data be collected at least every six months during the remedial investigation. Therefore, as you suggested, I request that you allow us to delete this requirement for December but instead collect a full round of groundwater elevation data in January in conjunction with the Phase II field activities. Thanks.
>
> <<REC Guid W L Req 12-04.pdf>>
>
> **Kerry A. MacPherson**
> Project Manager
> Environmental Support & Remediation
> Progress Energy Service Company - PEB 4A
> 410 South Wilmington Street
> Raleigh, NC 27601
>
> (919) 546-6753
> Kerry.MacPherson@PGNMail.com

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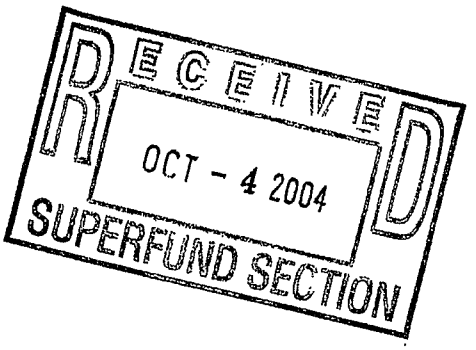

REC-LEAD

Transmitted Via Federal Express

September 30, 2004

Mr. Kim Caulk, P.G.
Department of Environment
and Natural Resources
Superfund Section
Division of Waste Management
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

Re: Submittal of Phase I Remedial Investigation Report
Former Ash Disposal Area
Progress Energy Carolina's Inc.
L.V. Sutton Steam Electric Plant
Wilmington, North Carolina
NCD 000 830 646
BBL Project #: 04010

Dear Mr. Caulk:

The attached Phase I Remedial Investigation Report (RIR) has been prepared on behalf of Progress Energy by Blasland, Bouck and Lee, Inc. (BBL) for the Former Ash Disposal Area at the L.V. Sutton Steam Electric Plant located at 801 Sutton Steam Plant Road in Wilmington, New Hanover County, North Carolina. The Phase I RIR has been prepared pursuant to a voluntary Administrative Agreement (Docket Number 03-SF-217) signed by Progress Energy Carolina's Inc. and the North Carolina Department of Environment and Natural Resources (NCDENR) in October 2003. This Phase I RIR has been prepared to meet the applicable requirements of the North Carolina General Statute 130-310.9(c), and 15A North Carolina Administrative Code (NCAC) 13C .0300 Rules, 15A NCAC 13C.0300 *Registered Environmental Consultant Implementation Guidance* dated August 2004.

Please note that submittal of this Phase I RIR is also intended to fulfill the quarterly progress report requirement for October 2004 as outlined in Section III (B) of the Administrative Agreement between Progress Energy and NCDENR.

If you have any questions regarding this report, please feel free to call me at 919-469-1952, ext: 11.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

Gary R. Cameron, P.E., RSM
Vice-President

DCHP/sed

cc: Kerry MacPherson (Progress Energy)
M. Shawn Longfellow (Progress Energy)
R. Kent Tyndall (Progress Energy)
Scott E. Davies, P.G. (BBL)
Daniel Peterman (BBL)

DCHP/sed
Enclosures: 1

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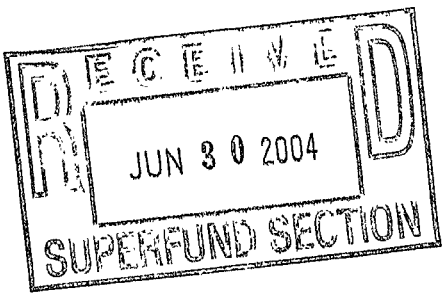

Transmitted Via Certified Mail

June 28, 2004

REC-LEAD

Kim Caulk, Manager
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road
Suite 150
Raleigh, NC 27605

Re: Second Quarterly Progress Report (Period Covered: 3/31/04 to 6/28/04)
REC-Directed Assessment, Former Ash Disposal Area
Progress Energy Carolinas, Inc.
Sutton Steam Plant, Wilmington, NC
Docket Number 03-SF-217
BBL Project #: 04010.001

Dear Mr. Caulk:

This Second Quarterly Progress Report has been prepared for Progress Energy's L. V. Sutton Electric Steam Plant (Sutton Site) located in Wilmington, North Carolina (NCD000830646). This Progress Report is required in the voluntary Administrative Agreement (Docket Number 03-SF-217) signed by Progress Energy Carolinas, Inc., and the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Waste Management, Inactive Hazardous Sites Branch. The work conducted under the Administrative Agreement is intended to meet the applicable requirements of North Carolina General Statute 130A-310.9(c) (Statute), 15A North Carolina Administrative Code (NCAC) 13C .0300 Rules (Rules), and 15A NCAC 13C .0300 *Registered Environmental Consultant Implementation Guidance* (REC Guidance) dated August 2003. Blasland, Bouck, and Lee, Inc. (BBL) has been designated as the Registered Environmental Consultant (REC) for the project.

The requirements of the Administrative Agreement are focused on the Former Ash Disposal Area (FADA) at the Sutton Site. The FADA was used between 1954 and 1972 for the placement of coal ash generated at the Sutton Site. The Sutton Site is located in Wilmington, New Hanover County, North Carolina.

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Activities Conducted During the Reporting Period (March 31, 2004 through June 28, 2004)
During this reporting period the following activities were, or will be completed by July 1, 2004:

- The Phase I Remedial Investigation Work Plan (RIWP) for the FADA was submitted to the NCDENR on April 28, 2004;

- Preparations to implement the Phase I RI field activities were made from April 29 through May 21, 2004;

- The Phase I RI field program was initiated on May 25, 2004. Activities completed to date include:
  - installation, logging, and backfilling of 20 test pits;
  - advancement of 19 hand auger borings;
  - installation of 4 groundwater monitoring wells;
  - installation of one piezometer;
  - collection of 3 soil samples which were archived for possible future Synthetic Precipitation Leachate Procedure analysis;
  - collection of 3 soil samples for analysis of Hazardous Substance List (HSL) metals and Target Compound List (TCL) parameters plus 10 tentatively identified compounds (TICs);
  - collection of 2 surface water and 2 sediment samples;
  - collection of appropriate quality control/quality assurance (QA/QC) samples;
  - development of the newly installed wells;
  - low flow groundwater sampling of the newly installed wells;
  - health and safety monitoring in accordance with the community health and safety plan; and,
  - surveying of all test pit, hand auger, monitoring well, and piezometer locations.

Variances from the Phase I RIWP
Certain variances from the Phase I RIWP were implemented based on observations during the Phase I RI field program. In all cases, these variances were implemented to enhance the understanding of the subsurface conditions in the FADA. Variances from the Phase I RIWP are summarized below:

- Three test pits and 19 hand auger borings were added to field program voluntarily by Progress Energy to facilitate the delineation of the FADA. In some cases, hand auger locations were substituted for test pits in areas where backhoe access was not possible due to dense vegetation, or health and safety concerns related to the potential presence of underground utilities.

- One additional monitoring well was added based on the delineation of the eastern FADA boundary.

- Two of the planned monitoring well locations were modified based on field observations and health and safety concerns over the presence of underground utilities.

- An apparent petroleum hydrocarbon material was observed in three test pits (TP-3, TP-11, and TP-12); therefore, three soil samples and associated QA/QC samples were collected for analysis of 14 HSL metals, and TCL volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) plus 10 TICs per Appendix A section A.2.1.1 of the REC Guidance.

- One soil sample was collected at test pit TP-16 for Total Petroleum Hydrocarbons (TPH) as Diesel Range Organics (DRO) analysis via USEPA Method SW-846 Method 8015 to identify the type of apparent petroleum material observed during field activities.

Figure 1 (attached) shows the locations of all test pit, soil boring, monitoring well, and piezometer locations. The figure also shows the preliminary outline of the FADA based on field observations.

In summary, substantial progress has been made on the Phase I RI at the Progress Energy Sutton site during this reporting period, and work is progressing in a manner to achieve the mandatory work phase completion deadlines set forth in 15A NCAC 13C .0302(h).

If you have any questions, please feel free to contact me at 919-469-1952.

Sincerely,

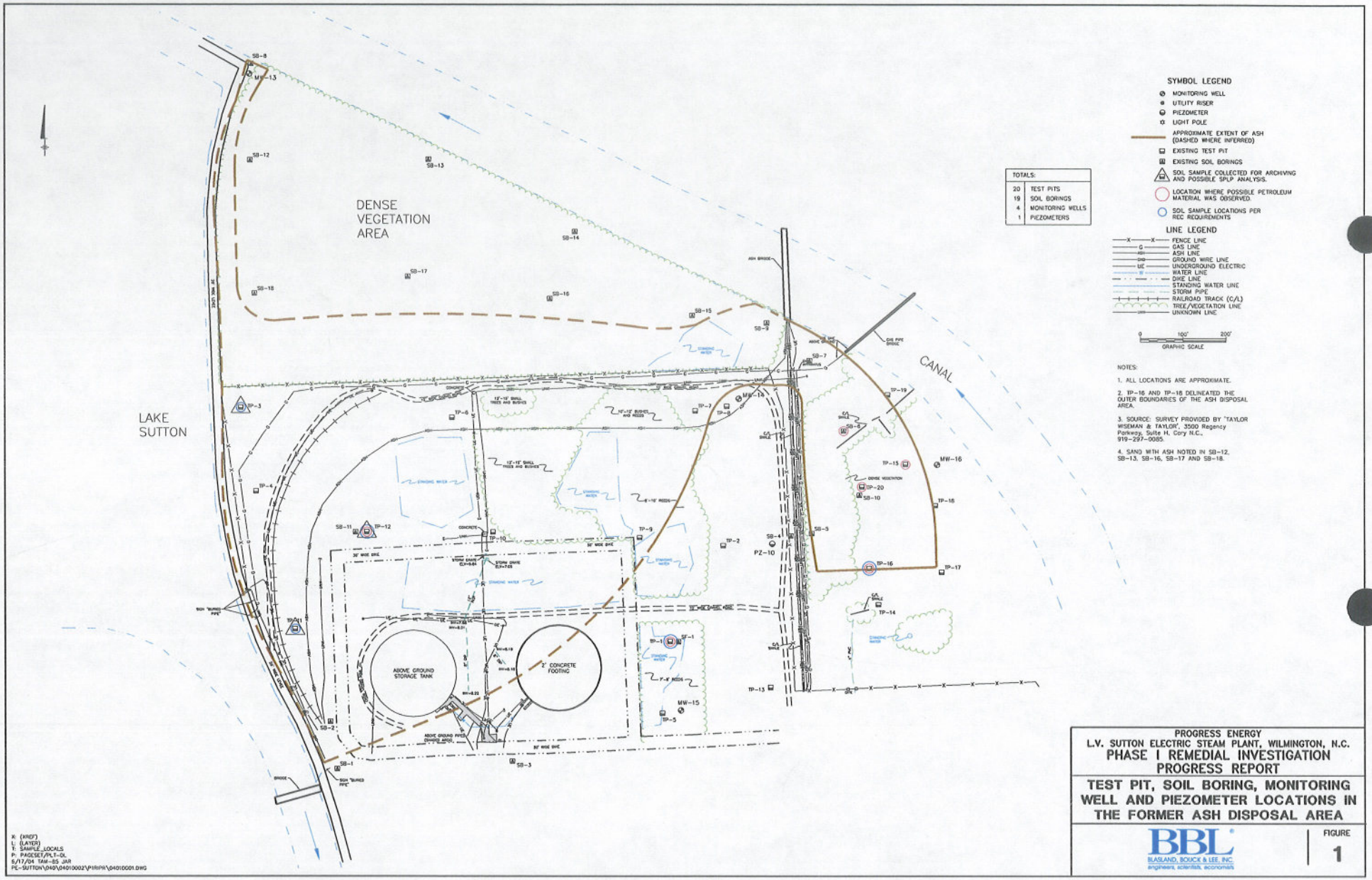
BLASLAND, BOUCK & LEE, INC.

Gary Cameron, P.E., RSM
Vice President

SED
Enclosure

cc: Kerry MacPherson

Shawn Longfellow
Kent Tyndall
Scott Davies



TOTALS:	
20	TEST PITS
19	SOIL BORINGS
4	MONITORING WELLS
1	PIEZOMETERS

NOTES:

1. ALL LOCATIONS ARE APPROXIMATE.
2. TP-16 AND TP-18 DELINEATED THE OUTER BOUNDARIES OF THE ASH DISPOSAL AREA.
3. SOURCE: SURVEY PROVIDED BY 'TAYLOR WISEMAN & TAYLOR', 3500 Regency Parkway, Suite H, Cary N.C., 919-297-0085.
4. SAND WITH ASH NOTED IN SB-12, SB-13, SB-16, SB-17 AND SB-18.

X: (XREF)
L: (LAYER)
T: SAMPLE_LOCALS
P: PAGESET/PLT-SL
5/17/04 TAM-BS JAR
PE-SUTTON\040\040100021\PltPlt\040100D1.DWG

PROGRESS ENERGY
L.V. SUTTON ELECTRIC STEAM PLANT, WILMINGTON, N.C.
PHASE I REMEDIAL INVESTIGATION PROGRESS REPORT

TEST PIT, SOIL BORING, MONITORING WELL AND PIEZOMETER LOCATIONS IN THE FORMER ASH DISPOSAL AREA

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engineers, scientists, economists

FIGURE 1

CERTIFICATION STATEMENT

REMEDIATING PARTY CERTIFICATION STATEMENT (.0306(b)(2))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

SECOND QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Michael Shawn Longfellow
Printed Name

Signature

6/21/04
Date

North Carolina
State

New Hanover
County

I, Darlene B. Long, a Notary Public of said ~~County and~~ State, do hereby certify that Michael Shawn Longfellow did personally appear and sign before me this the 21st day of June, 2004.

Darlene B. Long
Notary Public Signature

My commission expires: 01/22/2006.

CERTIFICATION STATEMENT

REGISTERED SITE MANAGER CERTIFICATION STATEMENT (.0306(b)(1))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

SECOND QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act G.S. 130A-310, et seq, and the voluntary remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

GARY R CAMERON
Printed Name

Signature

6/28/04
Date

NORTH CAROLINA
State

Wake
County

I, Lauren C. Gonzalez, a Notary Public of said County and State, do hereby certify that GARY R. CAMERON did personally appear and sign before me this the 28th day of JUNE, 2004.

Lauren C. Gonzalez
Notary Public Signature

My commission expires: 10/28/2006.

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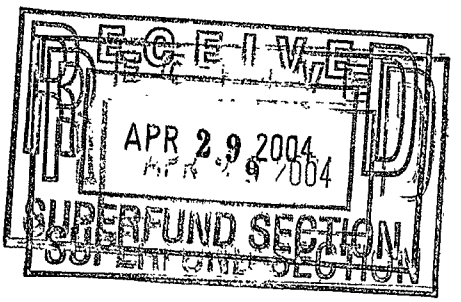
REC-LEAD

Transmitted Via Federal Express



April 28, 2004

Mr. Kim Caulk, P.G.
Department of Environment
and Natural Resources
Superfund Section
Division of Waste Management
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

Re: Phase I Remedial Investigation Work Plan
Former Ash Disposal Area
Progress Energy Carolina's Inc.
L.V. Sutton Electric Plant
Wilmington, North Carolina
BBL Project No.: 04010.001

Dear Mr. Caulk:

The attached Phase I Remedial Investigation (RI) Work Plan has been prepared on behalf of Progress Energy Carolina's Inc. (Progress Energy) by Blasland, Bouck and Lee, Inc. (BBL) for the Former Ash Disposal Area located at the L.V. Sutton Electric Plant facility (Sutton Site) in Wilmington, New Hanover County, North Carolina. This Phase I RI Work Plan has been prepared in accordance with the requirements of the voluntary Administrative Agreement (Docket No. 03-SF-217) for the Sutton Site under the North Carolina Department of Environment and Natural Resources (NCDENR), Inactive Hazardous Waste Branch's Registered Environmental Consultant program. Please note that the required certifications are contained in Section 5 of the Phase I RI Work Plan.

If you have questions or comments regarding the Phase I RI Work Plan, please call me at (919) 469-1952, [Ext. 17].

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Sincerely,

BLASLAND, BOUCK & LEE, INC.

Scott E. Davies, C.P.G.
Associate

SED/dchp
Enclosures: 2

cc: BBL (File)
Gary Cameron, P.E., RSM - BBL (ltr. only)
M. Shawn Longfellow - Progress Energy Sutton Plant (ltr. only)
R. Kent Tyndall - Progress Energy Sutton Plant (ltr. only)
Kerrie MacPherson - Progress Energy (ltr. only)

NCDENR

North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director | **Division of Waste Management** | Michael F. Easley, Governor
William G. Ross Jr., Secretary

April 16, 2004

Mr. Michael Longfellow
Progress Energy Steam Plant
801 Sutton Steam Plant Road
Wilmington, North Carolina 28401

REC-LEAD

Re: **INVOICE** for FY 2004-05 Annual REC Administrative Fee
CP&L Sutton Steam Plant
Wilmington, New Hanover County
NCD 000 830 646

Dear Mr. Longfellow:

Pursuant to 15A NCAC 13C .0307(c) of the REC Program rules, voluntary parties must pay an annual administration fee to the Department. The fee is adjusted annually to reflect the costs incurred by the Inactive Hazardous Sites Branch for site audits.

For FY 2004-05, the administration fee is **$1,843.00**. Please remit a check for this amount no later than **May 21, 2004**. If the full fee amount is not received by this deadline, the Administrative Order on Consent may be dissolved without further notice. Please make the check payable to **NC Division of Waste Management**, indicate on the check **REC Trust Fund,** and mail to:

MR. KIM T. CAULK
NC DENR
DIVISION OF WASTE MANAGEMENT
SUPERFUND SECTION
401 OBERLIN RD, SUITE 150
RALEIGH, NC 27605

Thank you for your cooperation and for voluntarily addressing the cleanup of this site. Should you have any questions, please contact me at (919) 733-2801, ext. 364.

Sincerely,

K. T. Caulk

Kim T. Caulk
REC Program
Inactive Hazardous Sites Branch
Superfund Section

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engineers, scientists, economists

Transmitted Via Certified Mail

REC-LEAD

March 26, 2004

Kim Caulk, Manager
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road
Suite 150
Raleigh, NC 27605

Re: First Quarterly Progress Report, REC-Directed Assessment, Former Ash Disposal Area
Progress Energy Carolinas, Inc. Sutton Steam Plant, Wilmington, NC
Docket Number 03-SF-217
BBL Project #: 04010.001

Dear Mr. Caulk:

This First Quarterly Progress Report was prepared for Progress Energy's Sutton Steam Plant (Sutton Site) located in Wilmington, North Carolina (NCD000830646). The First Quarterly Progress Report has been prepared pursuant to a voluntary Administrative Agreement (Docket Number 03-SF-217) signed by Progress Energy Carolinas, Inc., and the North Carolina Department of Environment and Natural Resources (NCDENR) Division of Waste Management, Inactive Hazardous Sites Branch. The work conducted under the Administrative Agreement is intended to meet the applicable requirements of North Carolina General Statute 130A-310.9(c) (Statute), 15A North Carolina Administrative Code (NCAC) 13C .0300 Rules (Rules), and 15A NCAC 13C .0300 *Registered Environmental Consultant Implementation Guidance* (REC Guidance) dated August 2003. Blasland, Bouck, and Lee, Inc. (BBL) has been designated as the Registered Environmental Consultant (REC) for the project.

The requirements of the Administrative Agreement are focused on the Former Ash Disposal Area (FADA) at the Sutton Site. The FADA was used between 1954 and 1972 for the placement of coal ash generated at the Sutton Site. The Sutton Site is located along the east bank of the Cape Fear River in Wilmington, New Hanover County, North Carolina. The location of the site is shown on a portion of the United States Geological Survey (USGS) 7.5 minute topographic quadrangle maps for Castle Hayne and Leland, North Carolina, and is presented as **Figure 1**. The FADA and other notable site features are shown on a site map which is presented as **Figure 2**.

BBL is currently in the process of finalizing the Phase I Remedial Investigation Work Plan (RIWP) for the FADA. At this point all RIWP components required under 15A NCAC 13C .0306(g)(1-19) have been completed.

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As partial fulfillment of the RIWP requirements, BBL conducted an evaluation to identify potable water sources and environmentally sensitive areas proximate to the FADA. Potable water sources located within a one-half-mile radius of the FADA are summarized in **Table 1** and shown on **Figure 2**. BBL contacted the 16 environmentally sensitive areas contacts listed in the REC Guidance. The results of these contacts are summarized in **Table 2**. As described in detail in the RIWP, a sensitive environment was identified for the Lower Cape Fear River aquatic habitat area, which includes the Cape Fear River along the boundary of the Sutton Site Property. It should be noted that the Cape Fear River is not in direct contact with the FADA. In addition, surface-water and sediment samples from the Cape Fear River will be collected as part of the Phase I RI. Nine archaeological sites have been recorded at the Sutton site, but are not located within the FADA (see **Figure 2**). All archaeological sites are situated along the eastern edge of Sutton Lake, formerly the eastern bank of Catfish Creek prior to the creation of the lake. FADA RI activities are not expected to interfere with existing archaeological sites (Nathan Henry, NC Department of Cultural Resources, personal communication, March 10, 2004).

Phase I RI field activities are scheduled to begin during the 2nd Quarter of 2004. Work is progressing in a manner to achieve the mandatory work phase completion deadlines set forth in 15A NCAC 13C .0302(h).

Sincerely,

BLASLAND, BOUCK & LEE, INC.

Gary R. Cameron, P.E., RSM
Vice President

JKS/SED
Enclosures

cc: Kerry MacPherson, Progress Energy
Shawn Longfellow, Progress Energy
Kent Tyndall, Progress Energy
Scott Davies, Blasland, Bouck & Lee, Inc.

Table 1. Summary of Water Supply Wells Around the FADA
Progress Energy Sutton Steam Plant
Wilmington, North Carolina

Supply Well ID	Well Site Location	Location (Latitude and Longitude)
B	Sutton well B	N 34 17 .48, W 77 58 29.94
C	Sutton well C	N 34 17 27, W 77 58 27.36
1	Sutton well 1	N 34 17 27, W 77 58 38.94
2	Sutton well 2	N 34 17 1.80, W 77 58 46.92
3	Sutton well 3	N 34 16 55.38, W 77 58 47.28
4	Sutton well 4	N 34 17 3.72, W 77 58 53.40
5	Ezzell well	N 34 17 32.70, W 77 58 44.52
6	SAS water tower	N 34 17 23.88, W 77 58 13.74
7	Kens WOW well	N 34 17 13.32, W 77 58 23.88
8	Pro. Cams well	N 34 17 9.30, W 77 58 18.06
9	Tide water transit	N 34 17 4.14, W 77 58 26.82
10	Carrier well	N 34 17 4.14, W 77 58 21.48
11	Pac lease well	N 34 17 3.24, W 77 58 19.32
12	International mailing service	N 34 17 5.94, W 77 58 14.88
13	Abandon build on Roymac rd	N 34 17 15.36, W 77 58 27.72
14	New Hanover County Well 3	N 34 17 15.48, W 77 58 31.80
15	New Hanover County Well 4	N 34 17 13.32, W 77 58 35.94
16	Maola Well	N 34 17 15.96, W 77 58 32.04

Notes

All Sutton Site Wells are used for process water needs only and not for human consumption.

Table 2
Results of Sensitive Receptor Survey Review
Progress Energy
Sutton Steam Plant
Wilmington, NC

Contact	Name	Telephone No. or Email	Date First Contacted	Sensitive Environment	Results of inquiry	Comments
NC Division of Parks and Recreation - Natural Heritage Program	Jennifer Dennis	(919) 733-4181	12/22/2004	Sate Parks	Sensitive environment not present	None.
				Sensitive Areas Identified Under the National Estuary	Sensitive environment not present	None.
				Designated State Natural Areas	Sensitive environment not present	None.
				State Seashore, Lakeshore and River Recreational	Sensitive environment not present	None.
	Sarah McRae	(919) 715-1751	1/7/2004	Areas Important to Maintenance of Unique Natural Communities	Significant natural heritage area that may be affected is the state significant Lower Cape Fear River Aquatic Habitat.	Phase I RI work in the FADA will not impact aquatic habitat.
				Rare species (State and Federal Threatened and Endangered)	Significant natural heritage area that may be affected is the state significant Lower Cape Fear River Aquatic Habitat; federal and state endangered shortnose sturgeon (Acipenser brevirostrum); federal and state threatened American alligator (Alligator mississippiensis); endangered red-cockaded woodpecker (Picoides borealis).	Phase I RI work in the FADA will not impact alligator, bird, or aquatic habitat.
				Sensitive Aquatic Habitat	Significant natural heritage area that may be affected is the state significant Lower Cape Fear River Aquatic Habitat.	Phase I RI work in the FADA will not impact aquatic habitat.
				State-Designated Areas for Protection or Maintenance of Aquatic Life	Significant natural heritage area that may be affected is the state significant Lower Cape Fear River Aquatic Habitat.	Phase I RI work in the FADA will not impact aquatic habitat.
NC Planning and Natural Resources	Robert K. Huband	(919) 715-2658	12/22/2004	State Wild & Scenic Rivers	Sensitive environment not present	None.
National Park Service - Public Affairs Office	Paul Winegar	(404) 562-3123, x600	12/22/2004	National Seashore, Lakeshore and River	Sensitive environment not present	None.
				National Parks or Monuments	Sensitive environment not present	None.
National Park Service - Internet	http://www.nps.gov/rivers	NA	NA	Federal Designated Wild & Scenic Rivers	Sensitive environment not present	None.
US Forest Service	Steve Hendricks	(828) 257-4873	12/18/2004	Designated and Proposed Federal Wilderness and Natural Areas	Sensitive environment not present	None.
	Larry Haden	(828) 257-4864	12/18/2004	National Preserves and Forests	Sensitive environment not present	None.
	Bill Jackson	(828) 257-4815	1/21/2004	Federal Land Desginated for the Protection of Natural Ecosystems	The Shining Rock and Linville Gorge Wilderness are about 460 and 400 km NW of the Sutton Steam Plant. Both of these Class I areas managed by the USDA Forest Service and no Class analysis will be required unless there are very large increases (>10,000 per year) of sulfur dioxide or nitrogen oxides. The Sutton Steam Plant is within 200 km of Swanquarter and Cape Romain. Contact the USDA Fish and Wildlife Service representative to see if they require a Class I analysis to be completed.	Phase I RI work in the FADA will not increase sulfur dioxide or nitrogen oxide emissions.
NC Division of Water Quality	Dianne Reid	dianne.reid@ncmail.net	1/21/2004	Cntical Areas Identified Under the Clean Lakes Program	Greenfield Lake is the only lake identified under the Clean Lakes Program in New Hanover County, NC.	Phase I RI work in the FADA will not impact Greenfield Lake.
NC Division of Forest Resources	Les Hunter	(919) 546-7411 or (910) 770-0259	12/22/2004	State Preserves and Forests	Sensitive environment not present	None.
US Fish and Wildlife Service - Raleigh Field Office	Dale Suiter	(919) 856-4520, x18	1/13/2004	Terrestrial Areas Utilized for Breeding by Large or Dense Aggregations of Animals	Sensitive environment not present	None.
NC Wildlife Resources Commission	Vic French	(910) 259-5555	12/22/2004	National or State Wildlife Refuges	Sensitive environment not present	None.
NOAA - National Marine Sanctuaries	http://www.sanctuaries.nos.noaa.gov/oms/oms.html	NA	NA	Manne Sanctuaries	Nearest sanctuary is the USS Monitor Marine Sanctuary located 16 miles SSE of Cape Hatteras in 240 feet of water.	Phase I RI work in the FADA will not impact USS Monitor Marine Sanctuary.

Table 2
Results of Sensitive Receptor Survey Review
Progress Energy
Sutton Steam Plant
Wilmington, NC

Contact	Name	Telephone No. or Email	Date First Contacted	Sensitive Environment	Results of Inquiry	Comments
NC Department of Cultural Resources	David L.S. Brook	(919) 733-6547	1/12/2004	National and State Historical Sites	Nine archaeological sites have been recorded either within or immediately adjacent to the project area. All are situated along the eastern edge of Sutton Lake, formerly the eastern bank of Catfish Creek prior to the creation of the lake. These sites have not been assessed to determine their eleigibility to the National Register of Historic Places. The location of these sites should be reestablished prior to ground disturbing activity outside of the existing ash retention ponds. If the sites cannot be avoided they should be assessed to determine their eligibility for listing in the National Register of Historic Places.	BBL is currently working with the Cultural Resources Department to get the longitude and latitude of the 9 locations and will check these prior to implementing Phase I RI field activities.
NC Division of Coastal Management	Jason Dail	(910) 395-3900	1/12/2004	Areas Identified Under Coastal Protection Legislation	All work conducted within 75 feet of the Cape Fear River requires a permit from the North Carolina Division of Coastal Management pursuant to the Coastal Area Management Act	All test pit and monitoring wells will be located more than 75 ft. from the Cape Fear River.
	http://dcm2.enr.state.nc.us	NA	NA	Coastal Barriers or Units of a Coastal Barrier Resources System	Sensitive environment not present	None.
NC Wildlife Resources Commission	Angie Rodgers	(919) 460-7350	1/9/2004	Spawning Areas Critical for the Maintenance of Fish/Shellfish Species within River, Lake or Coastal Tidal Waters	Starting with Sutton Lake, the primary concern is related to fish habitat in shallow water areas. The majority of gamefish species in Sutton Lake are centrarchids (largemouth bass and various sunfish species including bluegill, redbreast sunfish, redear sunfish, black crappie, warmouth, pumpkinseed) and these species rely heavily on structure and "apparently gain some energetic or ecological benefit from occupying complex structure (woody debris, shoreline vegetation, artificial fish attractors, etc). Since these species are self-sustaining in Sutton Lake, preservation of littoral zone habitats is essential as they are utilized during spring and summer as spawning and nursery areas. Complex structure also provides habitats conducive to resting, feeding, refuge, and concealment. Additionally, riparian habitat adjacent to the lake is also important as it contributes to the recruitment of natural woody debris to the aquatic environment." Because Progress Energy has actively and aggressively treated aquatic vegetation with herbicides and grass carp, we have deployed fish attractors (Christmas trees and artificial structures) in the lake as an effort to provide additional habitat to compensate for those vegetative losses. Because of the many anadromous fish species that use the Cape Fear River, special consideration should be given to this area as it serves as a vital migratory pathway to upstream spawning habitat.	Phase I RI work in the FADA will not impact aquatic habitat.
				Migratory Pathways and Feeding Areas Critical for Maintenance of Anadromous Fish Species within River Reaches or Areas in Lakes or Coastal Tidal Waters in which such Fish Spend Extended Periods of Time	The other area of concern is the Cape Fear River and anadromous fish issues. Many fish species (American shad, striped bass, Atlantic and shortnose sturgeon, hickory shad, blueback herring, alewife) use the Cape Fear as a migratory route to spawning habitat which is upstream of Sutton Lake. However the lower end of the Cape Fear River is used as nursery habitat throughout migration. "Populations of alewife and blueback herring (river herring) and hickory shad are extremely depressed in the river in the vicinity of the Sutton Plant (Lake Sutton). Historical spawning areas for these species are upstream of Fayetteville. Atlantic sturgeon and shortnose sturgeon are also present in the river but in very low numbers. American shad are plentiful during the spring spawning run and numbers appear to be increasing" (Keith Ashley, personal communication). Because of the many anadromous fish species that use the Cape Fear River, special consideration should be given to this area as it serves as a vital migratory pathway to upstream spawning habitat.	Phase I RI work in the FADA will not impact aquatic habitat.
US Army Corps of Engineers	Angie Pannock	(910) 251-4611	1/12/2004	Wetlands	Wetlands surround the property. Adjacent to south and southeast are riparian hard woods, brackish marshes, wetland pine flats, headwater wetlands, and tidal marshes. To the north and northwest is a tailings pond. (Note: A Wetlands Delineation on property around the Sutton Steam Plant was previously compiled by Progress Energy.)	Monitoring wells and test pits will located away from potential wetland areas.

REFERENCE: BASEMAPUSGS7.5 MIN.QUADS.,CASTLEHAYNE,NC,1997,AND LELAND, NC, 1997.

2000' 0 2000'

ApproximateScale:1"=2000'

AreaLocation

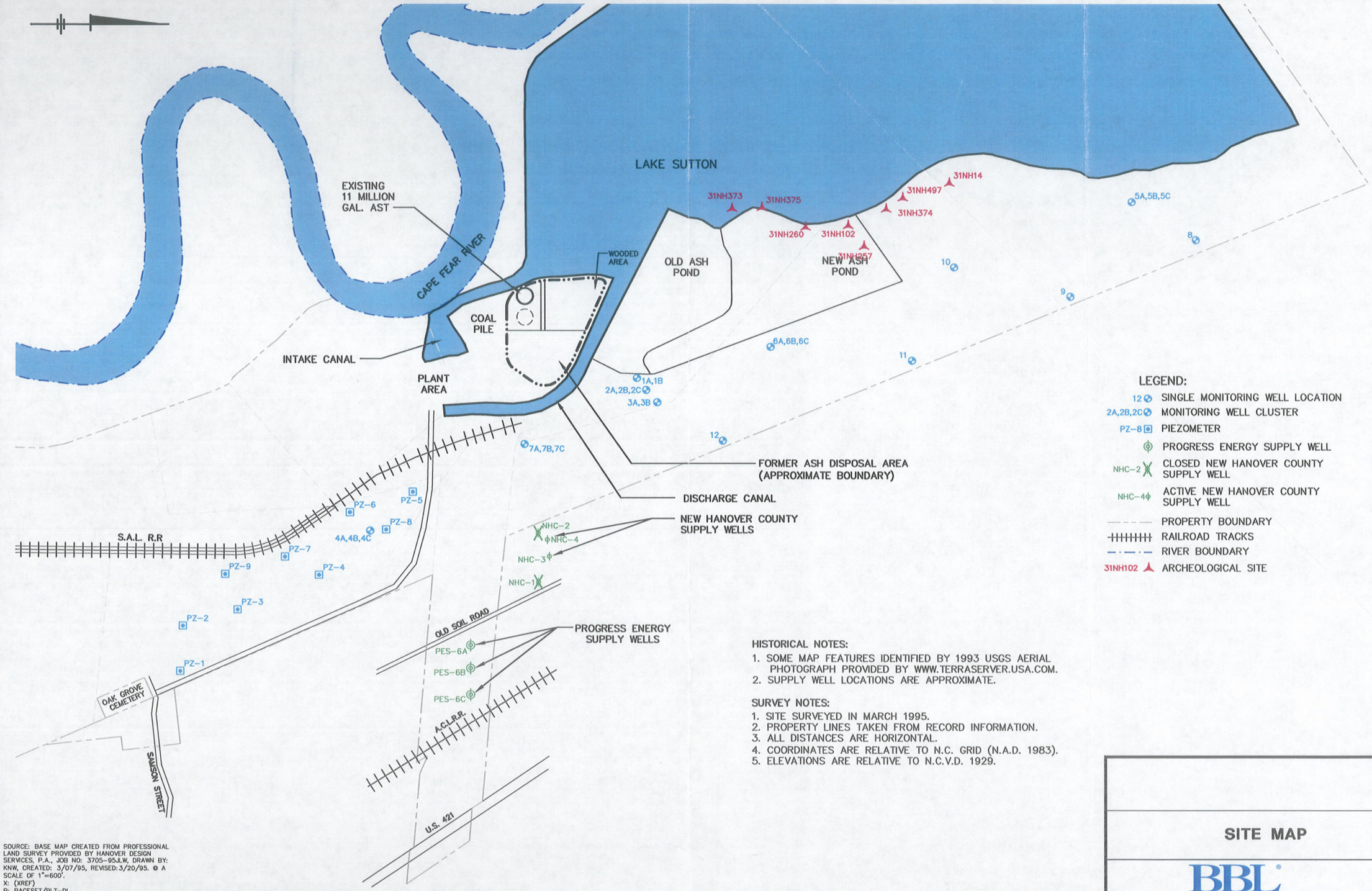
02/4/04 SYR-D85-DJH TAM-85JAR
PE_SUTTON\040\04010002\04010N02.CDR

PROGRESSENERGY
SUTTON STEAM PLANT, WILMINGTON,N.C.
PHASE I REMEDIAL INVESTIGATION WORK PLAN

SITE LOCATION MAP

BBL BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

FIGURE
1



HISTORICAL NOTES:

1. SOME MAP FEATURES IDENTIFIED BY 1993 USGS AERIAL PHOTOGRAPH PROVIDED BY WWW.TERRASERVER.USA.COM.
2. SUPPLY WELL LOCATIONS ARE APPROXIMATE.

SURVEY NOTES:

1. SITE SURVEYED IN MARCH 1995.
2. PROPERTY LINES TAKEN FROM RECORD INFORMATION.
3. ALL DISTANCES ARE HORIZONTAL.
4. COORDINATES ARE RELATIVE TO N.C. GRID (N.A.D. 1983).
5. ELEVATIONS ARE RELATIVE TO N.C.V.D. 1929.

SOURCE: BASE MAP CREATED FROM PROFESSIONAL LAND SURVEY PROVIDED BY HANOVER DESIGN SERVICES, P.A., JOB NO: 3705-95.JLW, DRAWN BY: KNW, CREATED: 3/07/95, REVISED: 3/20/95. @ A SCALE OF 1"=600'.
X: (XREF)
P: PAGESET/PLT-DL
3/19/04 BOC-85-MJS TAM-85 JAR
PE_SUTTON\040\04010002\P1RIWP\04010B01.DWG

SITE MAP

BBL®

FIGURE

CERTIFICATION STATEMENT

REMEDIATING PARTY CERTIFICATION STATEMENT (.0306(b)(2))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

FIRST QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Michael Shawn Longfellow
Printed Name

Signature

3/26/04
Date

North Carolina
State

New Hanover
County

I, DARLENE B. LONG, a Notary Public of said ~~County and~~ State, do hereby certify that MICHAE SHAWN LONGFELLOW did personally appear and sign before me this the 26th day of March, 2004.

Darlene B. Long
Notary Public Signature

My commission expires: 01-22-06.

CERTIFICATION STATEMENT

REGISTERED SITE MANAGER CERTIFICATION STATEMENT (.0306(b)(1))

PROGRESS ENERGY CAROLINAS INC.
SUTTON STEAM PLANT
WILMINGTON, NORTH CAROLINA
NCD 000 830 646

FIRST QUARTERLY PROGRESS REPORT

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act G.S. 130A-310, et seq, and the voluntary remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

GARY R. CAMERON, P.E.
Printed Name

Signature

4/1/04
Date

NORTH CAROLINA
State

WAKE / Durham
County

I, Jill Vance, a Notary Public of said County and State, do hereby certify that Gary R Cameron did personally appear and sign before me this the 1st day of April, 2004.

Jill Vance
Notary Public Signature

My commission expires: 7-23-2005.

NCDENR
North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary

January 6, 2004

Mr. Michael Longfellow
Progress Energy Steam Plant
801 Sutton Steam Plant Road
Wilmington, North Carolina 28401

Re: REC Administrative Agreement
CP&L Sutton Steam Plant
Wilmington, New Hanover County
NCD 000 830 646

Dear Mr. Longfellow:

I have attached the executed Administrative Agreement for the above referenced site. The effective date of the agreement is December 30, 2003.

Thank you for your cooperation. If you have any questions or need any assistance, please feel free to call me at (919) 733-2801, ext. 364.

Sincerely,

Kim T. Caulk
REC Program
Inactive Hazardous Sites Branch
Superfund Section

cc: Mr. Gary R. Cameron, Blasland, Bouck & Lee, Inc. (w/ attachment)

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone 919-733-4996 \ FAX 919-715-3605 \ Internet http://wastenotnc.org

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT
SUPERFUND SECTION

IN RE:	**CAROLINA P&L CO. SUTTON STEAM** **NCD 000 830 646** **WILMINGTON, NORTH CAROLINA** **NEW HANOVER COUNTY**	**ADMINISTRATIVE AGREEMENT FOR REGISTERED ENVIRONMENTAL CONSULTANT-DIRECTED ASSESSMENT AND REMEDIAL ACTION PURSUANT TO N.C.G.S. 130A-310.9(c) and 15A NCAC 13C .0300.** **DOCKET NUMBER 03-SF-217**

I. STATEMENT OF PURPOSE

The purpose of this Administrative Agreement (Agreement) is to provide for implementation by Progress Energy Carolinas, Inc. (the Remediator) of a voluntary remedial action program pursuant to N.C.G.S. 130A-310.9(c) and 15A NCAC 13C .0300 at the site defined in Section II. A. of this Agreement.

II. STIPULATIONS OF FACT

A. The "Site" is the closed ash disposal area currently owned by Progress Energy Carolinas, Inc. at 801 Sutton Steam Plant Road, Wilmington, New Hanover County, North Carolina and any additional area which has become contaminated as a result of hazardous sub-stances or waste disposed or discharged at the closed ash disposal area. The approxi-mate location of the Site is indicated by an "X" on the map attached as Attachment A.

B. The Site is an inactive hazardous substance or waste disposal site within the meaning of N.C.G.S. 130A-310(3).

III. WORK TO BE PERFORMED

A. The Remediator shall conduct a voluntary remedial action at the Site in accordance with the provisions of N.C.G.S. 130A-310.9(c), 15A NCAC 13C .0300, and the North Carolina Division of Waste Management's (the Division) "Registered Environmental Consultant Program Rules and Implementation Guidance."

B. The Remediator shall submit quarterly letter progress reports on the first day of January, April, July, and October of each year that this Agreement is in effect. Each quarterly report will summarize, in one to two paragraphs, work performed since the last quarterly report. These reports must include a statement confirming work is progressing in a manner to achieve the mandatory work phase completion deadlines set out in 15A NCAC 13C .0302(h). These reports must include the notarized signatures of a duly authorized representative of the Remediator and of the Registered Site Manager representing the Registered Environmental Consultant (REC) assigned to this project. A quarterly report is not required for those quarterly periods when another report (for example, a remedial investigation report, a remedial action plan, a remedial action progress report) has been submitted.

C. Within thirty-six (36) months after the execution of this Agreement, the Remediator shall complete a remedial investigation at the Site which complies with the provisions of 15A NCAC 13C .0300 including, but not limited to, .0302(f), .0302(k)-(p), .0306(c)-(h) and .0306(q). The remedial investigation shall not be considered complete until the Remediator has submitted a remedial investigation report and completion statement, both certified in accordance with .0306 (b) by the REC and the Remediator.

D. Within twenty-four (24) months of completion of the remedial investigation or within sixty (60) months after the execution of this Agreement, whichever is earlier, the Remediator shall begin operation of the remedial action system for groundwater at the Site, which complies with the provisions of 15A NCAC 13C .0300 including, but not limited to, .0302(f), .0302(k) - (p), .0306(c) - (d) and .0306(i) - (n). Operation of the remedial action system for groundwater shall be considered to have begun only upon the submission to the Division of the groundwater remedial action construction completion report, certified in accordance with .0306 (b) by the REC and the Remediator, and upon commencement of the actual operation of remedial system.

E. Within ninety-six (96) months after the execution of this Agreement, the Remediator shall complete, for wastes, soils, surface water and sediments at the Site, a remedial action which complies with the provisions of 15A NCAC 13C .0300 including, but not limited to, .0302(f), .0302(k) - (p), .0306(c) - (d), .0306(i) - (n) and .0308. The remedial action for wastes, soils, surface water and sediments shall not be considered complete until the Remediator has submitted, for these media, a remedial action report and work phase completion statement, both certified in accordance with .0306 (b) by the REC and the Remediator.

F. If hazardous substances or waste disposed at the Site have affected any drinking water wells, the Remediator shall, within a time period established by the Division, provide an alternate drinking water source for users of those wells.

IV. ADDITIONAL PROVISIONS

A. All work performed pursuant to this Agreement shall be under the direction and supervision of the Division-approved REC specified in Attachment B, in accordance with 15A NCAC 13C .0302(f).

B. All work plans, reports, completion statements and project schedules prepared pursuant to this Agreement shall be certified by a representative of the Remediator in accordance with 15A NCAC 13C .0306(a) and .0306(b)(2).

C. In the event that the REC specified in Attachment B ceases to serve in that capacity at the Site or is disqualified as an REC by the Division, the Remediator's voluntary remedial action status shall be subject to revocation if the Remediator fails to propose a replacement REC within sixty (60) days, in accordance with 15A NCAC 13C .0302(n).

D. Within ten (10) days of signing this Agreement, the Remediator shall pay an annual administration fee to the Division, in accordance with 15A NCAC 13C .0307(c), to help offset the costs of the Division's audits of voluntary remedial actions.

E. The Remediator is responsible for obtaining all necessary registrations, permits and approvals in accordance with 15A NCAC 13C .0306(m)(3).

F. The Remediator and its REC shall preserve, for at least six (6) years after termination of this Agreement, all records and documents in its possession or in the possession of its divisions, employees, agents, accountants, contractors or attorneys which relate in any way to this Agreement. After this six (6)-year period, the Remediator shall notify the Division at least thirty (30) days prior to the destruction of any such records and documents. The Remediator shall comply with any written request by the Division, prior to the day for which destruction is scheduled, to continue to preserve such records and documents or to provide them to the Division. The Remediator may assert any available right to confidentiality regarding particular records and documents, other than analytical data. Pursuant to 15A NCAC 13C .0302(m) the REC must maintain all such records and documents beyond the six (6) year period unless it receives Division approval for destruction.

G. If any new drinking water wells are installed within one-thousand five-hundred (1500) feet of the Site property boundaries, the Remediator shall notify the Division within twenty four (24) hours of the time when the Remediator or the Remediator's REC knew or should have known of such well(s).

This Agreement is entered into on the 28 30 Dm day of October December 10m, 2003.

By: _____
Dexter R. Matthews, Director
Division of Waste Management
North Carolina Department of Environment
and Natural Resources

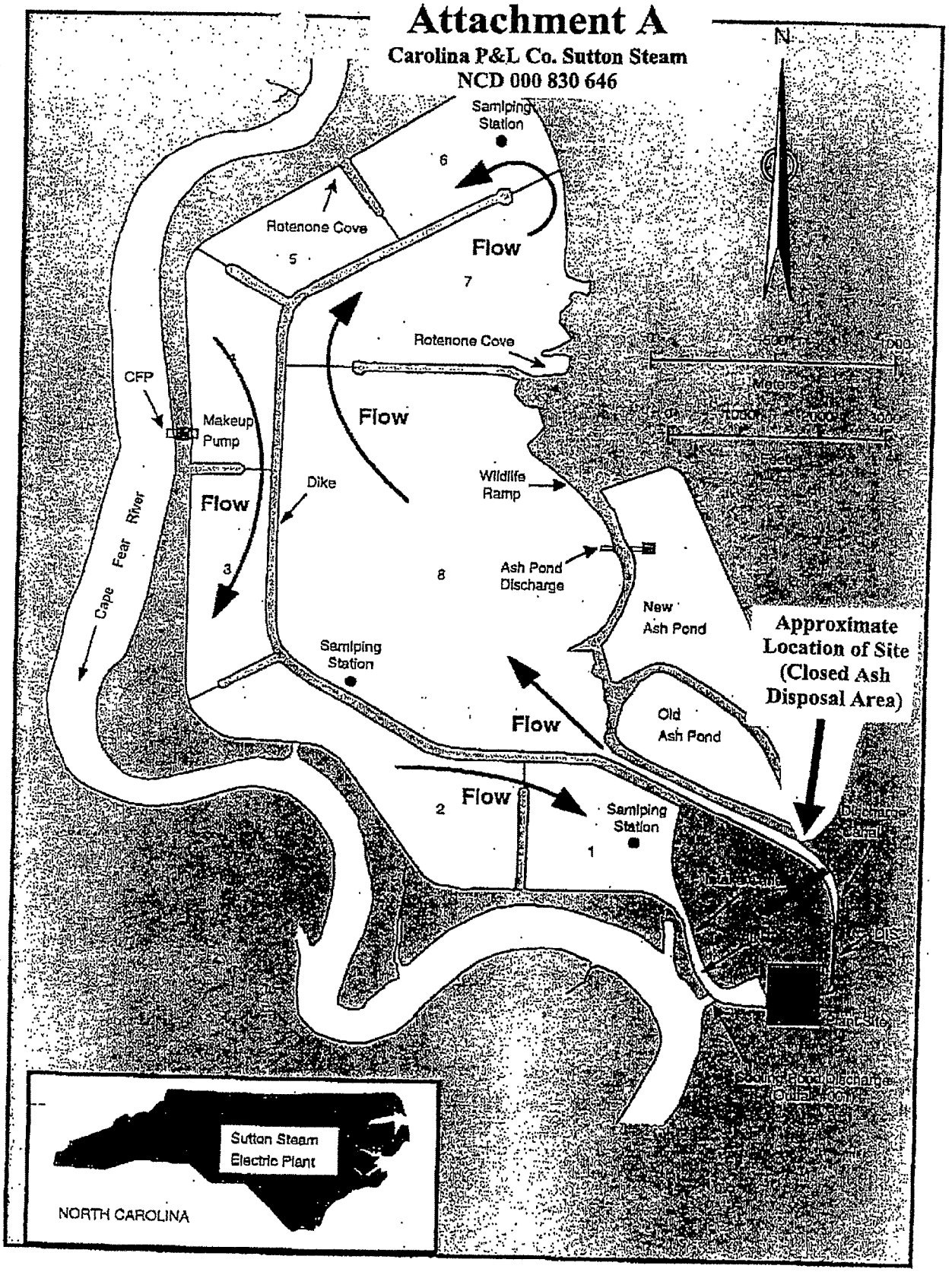
By: _____
(Signature of Party Authorized to Bind Remediator))

Michael Shawn Longfellow, Plant Manager
(Typed Name of Signatory, Title)

Progress Energy - Carolinas, Inc.
(Typed Name of Company)

Attachment A

Carolina P&L Co. Sutton Steam
NCD 000 830 646



North Carolina Department of Environment and Natural Resources
Division of Waste Management
Superfund Section

Attachment B to Administrative Agreement for Registered Environmental Consultant-Directed Assessment and Remedial Action Pursuant to N.C.G.S. 130A-310.9(c) and 15A NCAC 13C .0300.

Docket No. 03-SF-217

We hereby certify that the Remediator has retained the undersigned Division-approved Registered Environmental Consultant (REC), to implement and oversee a voluntary remedial action at the Site pursuant to N.C.G.S. 130A-310.9(c) and 15A NCAC 13C .0300, and that the undersigned Division-approved Registered Site Manager (RSM) shall serve as RSM for the voluntary remedial action.

The undersigned Remediator and REC agree to indemnify and save and hold harmless the State of North Carolina and its agencies, departments, officials, agents, employees, contractors and representatives, from any and all claims or causes of action arising from or on account of acts or omissions of the Remediator or REC or their officers, employees, receivers, trustees, agents, or assigns in carrying out actions required pursuant to this Agreement. Neither the State of North Carolina nor any agency or representative thereof shall be held to be a party to any contract involving the Remediator relating to the Site.

The Remediator affirms that the REC has been provided a full and complete copy of this Agreement prior to signature. The undersigned REC representatives affirm that they have received, read and intend to comply with the provisions of this Agreement.

Remediator:

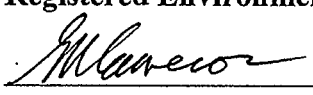
10-28-03

(Signature Party Authorized to Bind Remediator) (Date)

Michael Shawn Longfellow, Plant Manager
(Typed name of Signatory, Title)

Progress Energy - Carolinas, Inc.
(Typed Name of Company)

Registered Environmental Consultant:



10/22/03

(Signature of REC Owner, Partner, or Corporate Officer) (Date)

Gary R. Cameron, Vice President
(Typed Name of Signatory, Title)

Blasland, Bouck & Lee, Inc.
(Typed Name of REC Firm)

Registered Site Manager:

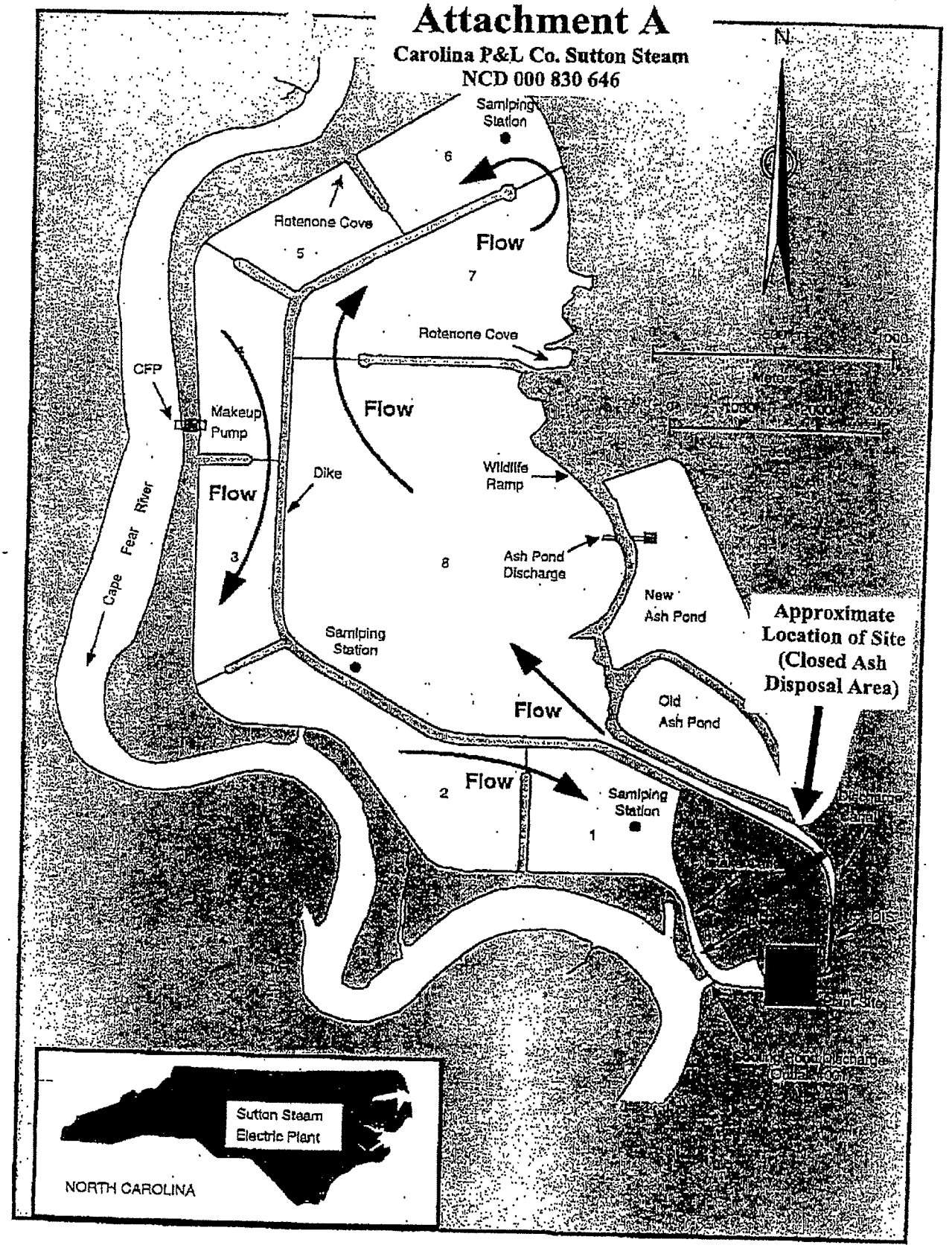
10/22/03

(RSM Signature) (Date)

Gary R. Cameron
(Typed Name of RSM)

Attachment A

Carolina P&L Co. Sutton Steam
NCD 000 830 646



North Carolina Department of Environment and Natural Resources
Division of Waste Management
Superfund Section

Attachment B to Administrative Agreement for Registered Environmental Consultant-Directed Assessment and Remedial Action Pursuant to N.C.G.S. 130A-310.9(c) and 15A NCAC 13C .0300.

Docket No. 03-SF-217

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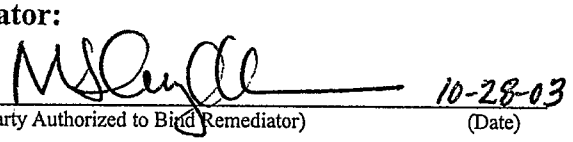
The undersigned Remediator and REC agree to indemnify and save and hold harmless the State of North Carolina and its agencies, departments, officials, agents, employees, contractors and representatives, from any and all claims or causes of action arising from or on account of acts or omissions of the Remediator or REC or their officers, employees, receivers, trustees, agents, or assigns in carrying out actions required pursuant to this Agreement. Neither the State of North Carolina nor any agency or representative thereof shall be held to be a party to any contract involving the Remediator relating to the Site.

The Remediator affirms that the REC has been provided a full and complete copy of this Agreement prior to signature. The undersigned REC representatives affirm that they have received, read and intend to comply with the provisions of this Agreement.

Remediator:



10-28-03

(Signature Party Authorized to Bind Remediator) (Date)

Michael Shawn Longfellow, Plant Manager
(Typed name of Signatory, Title)

Progress Energy - Carolinas, Inc.
(Typed Name of Company)

Registered Environmental Consultant:

10/22/03

(Signature of REC Owner, Partner, or Corporate Officer) (Date)

Gary R. Cameron, Vice President
(Typed Name of Signatory, Title)

Blasland, Bouck & Lee, Inc.
(Typed Name of REC Firm)

Registered Site Manager:

10/22/03

(RSM Signature) (Date)

Gary R. Cameron
(Typed Name of RSM)

NOTICE OF ADMINISTRATIVE AGREEMENT

Carolina P&L Co. Sutton Steam
801 Sutton Steam Plant Road
Wilmington, New Hanover County
NCD 000 830 646

The North Carolina Division of Waste Management (Division) is soliciting public comment on an Administrative Agreement (Agreement) that the Division intends to enter into with Progress Energy Carolinas, Inc. for Progress Energy Carolinas, Inc. to conduct a voluntary cleanup of hazardous substances at the Carolina P&L Co. Sutton Steam site in Wilmington, North Carolina. This voluntary remedial action will be conducted pursuant to N.C.G.S. 130A-310.9(b) and -310.9(c). Voluntary remedial actions implemented pursuant to N.C.G.S. 130A-310.9(c) are directed by Department-designated "Registered Environmental Consultants" in place of state oversight. A copy of the Agreement can be viewed at the following location:

NC Division of Waste Management
401 Oberlin Rd. - Suite 150
Raleigh, North Carolina 27605

Hours (by appointment only):
Monday - Friday 8:00 am - 5:00 pm
To schedule an appointment, contact Scott Ross
at (919) 733-2801, ext. 328.

Comments or questions on the draft Agreement or the role of the Registered Environmental Consultant at this site should be directed to:

Charlotte Jesneck
Head, Inactive Hazardous Sites Branch
Superfund Section
North Carolina Division of Waste Management
1646 Mail Service Center
Raleigh, NC 27699-1646
(919) 733-2801, ext. 284

ALL COMMENTS ON THE DRAFT AGREEMENT MUST BE POSTMARKED NO LATER THAN **DECEMBER 19, 2003.**

Carolina P&L Co. Sutton Steam
801 Sutton Steam Plant Road
Wilmington, New Hanover County

The Administrative Agreement Public Notice should be mailed by <u>Certified Mail</u> to the following:

Ms. Dianne Harvell
Environmental Health Director
2029 South 17th Street
Wilmington, NC 28401-4946

Mr. Bill Melton
Primary Resources
2709 Water Ridge Parkway
Suite 170
Charlotte, NC 28217

Ms. Karen L. Keller
ENSR International
7041 Old Wake Forest Road
Suite 103
Raleigh, North Carolina 27616

Mr. Allen O'Neal, County Manager
New Hanover County
320 Chestnut Street, Room 502
Wilmington, NC 28401-4093

Mr. Kerry A. MacPherson
Progress Energy Service Company, LLC
410 South Wilmington Street
PEB 4A
Raleigh, NC 27601

Progress Energy **REC-LEAD**

File No.: SUT 13550-A

October 30, 2003

Certified Mail # 7002 1000 0005 5781 7681
John Powers, Hydrogeologist
Inactive Hazardous Sites Branch
Division of Waste Management
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

AOC and INITIAL FEE SUBMITTAL

Dear Mr. Powers:

In response to your letter of August 7, 2003 to Kerry MacPherson (Progress Energy Service Company, LLC), enclosed please find a signed Administrative Agreement for an REC-directed, voluntary assessment and remedial action for the closed ash disposal area at Progress Energy - Carolinas' L. V. Sutton Electric Plant. Also enclosed is a check for $2,500 for the initial fee for entering the REC Program.

Please contact Kerry MacPherson, Lead Environmental Specialist in our Corporate Office in Raleigh at (919) 546-6753, should you have questions of further correspondence concerning this project.

Respectfully yours,

Michael Shawn Longfellow
Manager - Sutton Steam Plant

c: Kerry MacPherson

Progress Energy Carolinas, Inc.
Sutton Steam Plant
801 Sutton Steam Plant Road
Wilmington, NC 28401

NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

MICHAEL F. EASLEY, GOVERNOR
WILLIAM G. ROSS, JR., SECRETARY
DEXTER R. MATTHEWS, DIRECTOR

October 15, 2003

Mr. William Cavanaugh, III
President and CEO
Carolina Power and Light Company
Post Office Box 1551
Raleigh, NC 27602

Re: Inactive Hazardous Waste Sites Priority List
Carolina P & L - Sutton Steam
Wilmington, New Hanover County

Dear Mr. Cavanaugh:

The site listed above has been included on the October 2003 Inactive Hazardous Waste Sites Priority List (Priority List) in accordance with North Carolina General Statutes Section 130A-310.2. The Priority List is a list of sites where uncontrolled disposal, spills, or releases of hazardous substances have been identified. A special priority system (North Carolina Administrative Code Title 15A Subchapter 13C Section 0.200) is used to rank the sites on this list in decreasing order of danger to public health and the environment.

This letter is being sent to you to fulfill our statutory duty to notify those who own and those who at present are known to be responsible for each site on the Priority List. A copy of the Priority List with each site's rank appearing in the right-hand column is attached. Please note this letter is simply a notice of the site's inclusion on the priority list and is not an order to conduct any work.

If a responsible party or owner wishes to voluntarily perform site cleanup, that party must enter into an agreement with the Branch to ensure Branch approval. You should not proceed with remedial actions independently. Each voluntary remedial action will be overseen by Branch staff or, at the discretion of the Branch, by approved environmental consultants.

Those who are interested in reviewing the Superfund Section's files on any of these sites may contact Scott Ross at (919) 733-2801, ext. 328, to schedule an appointment. If you are interested in conducting a voluntary cleanup of your site, or if you have any questions, you may contact me at (919) 733-2801, ext. 284.

Sincerely,

Charlotte V. Jesneck

Charlotte V. Jesneck, Head
Inactive Hazardous Site Branch
Superfund Section

CVJ/slb(SPLMERGE10-2003.LTR)

Enclosure

1646 MAIL SERVICE CENTER, RALEIGH, NORTH CAROLINA 27699-1646
401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605
PHONE: 919-733-4996 \ FAX: 919-715-3605
HTTP://WASTENOT.ENR.STATE.NC.US

NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

MICHAEL F. EASLEY, GOVERNOR
WILLIAM G. ROSS, JR., SECRETARY
DEXTER R. MATTHEWS, DIRECTOR

October 15, 2003

Mr. Ben White
Manager of Enviornmental Services
Carolina Power & Light Company
Post Office Box 327
New Hill, NC 27562

Re: Inactive Hazardous Waste Sites Priority List
Carolina P & L - Sutton Steam
Wilmington, New Hanover County

Dear Mr. White:

The site listed above has been included on the October 2003 Inactive Hazardous Waste Sites Priority List (Priority List) in accordance with North Carolina General Statutes Section 130A-310.2. The Priority List is a list of sites where uncontrolled disposal, spills, or releases of hazardous substances have been identified. A special priority system (North Carolina Administrative Code Title 15A Subchapter 13C Section 0.200) is used to rank the sites on this list in decreasing order of danger to public health and the environment.

This letter is being sent to you to fulfill our statutory duty to notify those who own and those who at present are known to be responsible for each site on the Priority List. A copy of the Priority List with each site's rank appearing in the right-hand column is attached. Please note this letter is simply a notice of the site's inclusion on the priority list and is not an order to conduct any work.

If a responsible party or owner wishes to voluntarily perform site cleanup, that party must enter into an agreement with the Branch to ensure Branch approval. You should not proceed with remedial actions independently. Each voluntary remedial action will be overseen by Branch staff or, at the discretion of the Branch, by approved environmental consultants.

Those who are interested in reviewing the Superfund Section's files on any of these sites may contact Scott Ross at (919) 733-2801, ext. 328, to schedule an appointment. If you are interested in conducting a voluntary cleanup of your site, or if you have any questions, you may contact me at (919) 733-2801, ext. 284.

Sincerely,

Charlotte V. Jesneck

Charlotte V. Jesneck, Head
Inactive Hazardous Site Branch
Superfund Section

CVJ/slb(SPLMERGE10-2003.LTR)

Enclosure

North Carolina
Department of Environment and Natural Resources
Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director

STATE FILE

NCDENR

August 7, 2003

Mr. Kerry A. MacPherson
Progress Energy Service Company, LLC
410 South Wilmington Street
PEB 4A
Raleigh, NC 27601

RE: Registered Environmental Consultant (REC) Agreement
Carolina P&L Co. Sutton Steam
Wilmington, New Hanover County, North Carolina
NCD 000 830 646

Dear Mr. MacPherson:

I have attached a standard Administrative Agreement for an REC-directed, voluntary assessment and remedial action for the closed ash disposal area at the above-referenced site. Please review this document and let me know if you have any questions or comments. If you are satisfied with the terms specified in the Agreement, please obtain the signatures of the remediating party, the REC, and the Registered Site Manager in the spaces provided. A listing of approved RECs can be found on our web site at the following address: http://wastenot.enr.state.nc.us/sfhome/REC-FIRM.HTM.

Please be aware that by law the Department of Environment and Natural Resources must allow a 30-day public comment period for the proposed Administrative Agreement prior to its execution. Please let me know if the agreement is acceptable to you and I can begin preparing the public notice for mailing. Please send the names and addresses of any parties who have indicated that they wished to be kept informed of site notices.

In order to participate in the REC Program, the remediating party is required to pay an annual administration fee which is used by the state to offset the cost for auditing REC sites. The initial fee upon entering the REC Program is $2,500.00. Please submit a check for this amount payable to the **NC Division of Waste Management** and the signed agreement to:

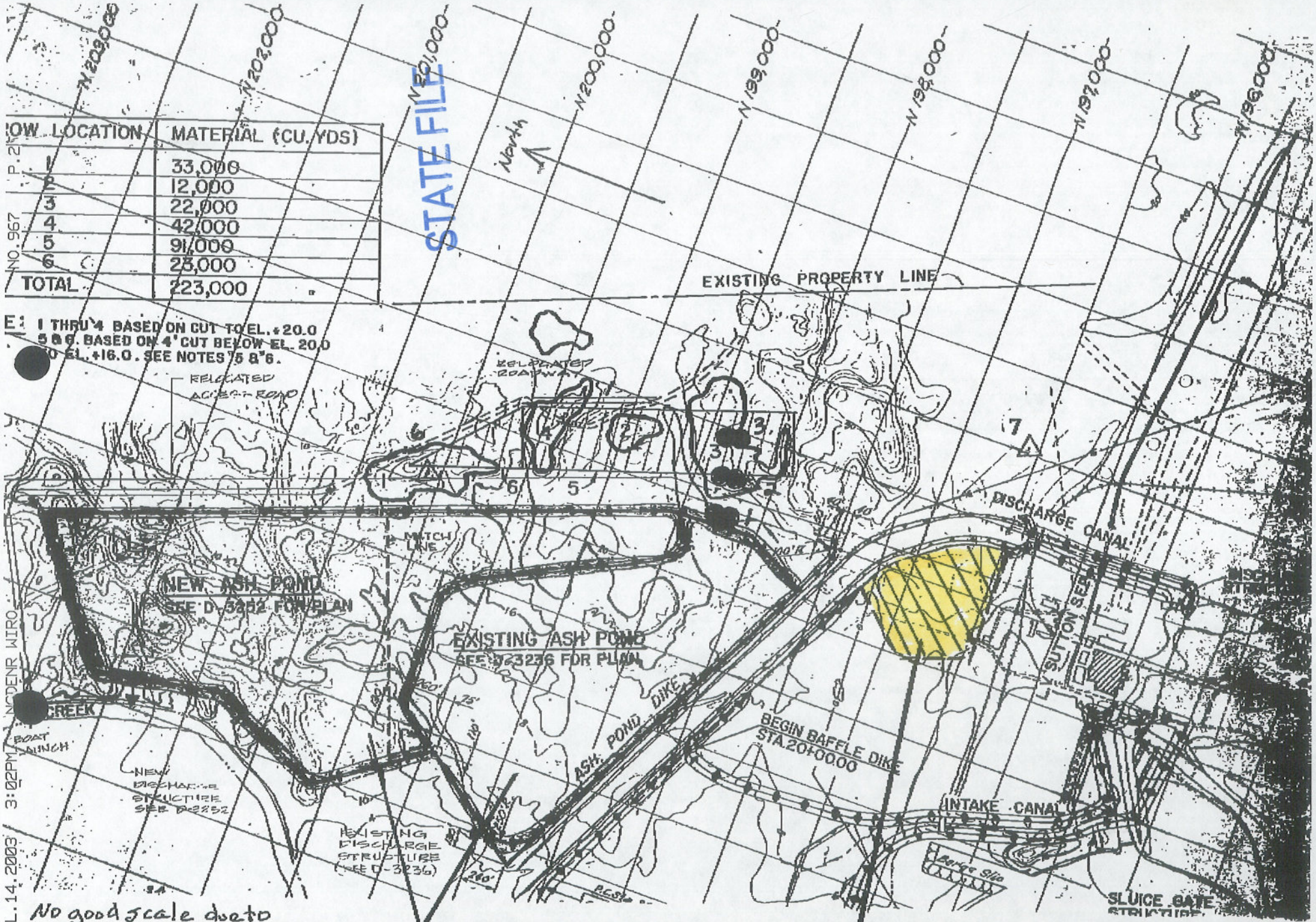
John Powers
NC DENR
Division of Waste Management
Superfund Section
1646 Mail Service Center
Raleigh, NC 27699-1646

Thank you for your cooperation. If you have any questions, please contact me at (919) 733-2801, ext. 329.

Sincerely,

John Powers
Inactive Hazardous Sites Branch
Superfund Section

Attachment



LOW. LOCATION	MATERIAL (CU. YDS)
1	33,000
2	12,000
3	22,000
4	42,000
5	91,000
6	25,000
TOTAL	223,000

E: 1 THRU 4 BASED ON CUT TO EL. +20.0
5 & 6 BASED ON 4' CUT BELOW EL. 20.0
EL. +16.0. SEE NOTES 5 & 6.

P. 2
NO. 967
JUL. 14. 2003 3:02PM NCDENR WIRO

No good scale due to Reduction. Grids = 500'

Active Ash Disposal Permitted by DWQ

Closed Ash Area

3 ● original monitoring well

7 △ Newer monitoring well

State of North Carolina
Department of Environment and Natural Resources
Wilmington Regional Office

Michael F. Easley, Governor William G. Ross Jr., Secretary

STATE FILE

FAX COVER SHEET

Date: July 14, 2003 **No. Of Pages:** 2
To: John Powers **From:** Charlie Fehrman
CO: **CO:**
FAX #: 919-733-4811 **FAX#:** 910-350-2004

REMARKS: Note As was found, w well 2c.

127 Cardinal Drive Extension, Wilmington, N.C. 28405-3845 Telephone (910) 395-3900 Fax (910) 350-2004
An Equal Opportunity Affirmative Action Employer

Progress Energy

July 2, 2003

Dr. Charlie Stehman
NCDENR-DWQ Groundwater Section
127 Cardinal Drive Extension
Wilmington, NC 28405-3845

STATE FILE

Subject: Letter of Understanding
Response to Elevated Arsenic Concentrations in MW-2C
Old Ash Pond Area – L.V. Sutton Steam Electric Plant
Wilmington, New Hanover County, North Carolina
NPDES Permit No. NC0001422

Dear Dr. Stehman:

I would like to thank you and Geoff Kegley for meeting with Kerry MacPherson, Charlie Ross Hank Lyon, and Louise England, Environmental Specialists for Progress Energy, on June 10, 2003 regarding the subject groundwater issue at the Sutton Steam Electric Plant. This correspondence is provided at your request to summarize our intended actions.

It is our understanding that additional investigative work pursuant to 15A NCAC 2L .0106(d) is required to further characterize the hydrogeologic and groundwater quality conditions associated with the well MW-2C area.

Our scope of work will include but not be limited to: 1) a review of public records for pertinent hydrogeologic and groundwater quality data; 2) re-sampling of the existing monitoring well network; 3) installation and water quality sampling of additional wells as necessary, 4) an analysis of groundwater flow conditions; and 5) presentation of findings, conclusions and recommendations.

The establishment of a project schedule is anticipated within the next few weeks and will be provided to you in turn. Thank you again for your valued input and please contact either Hank Lyon (919.362.3322) or Kerry MacPherson (919-546-6753) if you have further comments or suggestions.

Respectfully yours,

Michael Shawn Longfellow
Manager- L.V. Sutton Steam Electric Plant

Progress Energy Carolinas, Inc.
Sutton Steam Plant
801 Sutton Steam Plant Road
Wilmington, NC 28401

7/7/03

To John Powers

From Kerry MacPherson

subj sutton DNA Letter

Look forward to working with you on this project.

Kerry

Subject: [Fwd: Sutton Plant Oversight]
Date: Tue, 24 Jun 2003 14:30:08 -0400
From: Hanna Assefa <Hanna.Assefa@ncmail.net>
Organization: NCDENR
To: Jonathan.Powers@ncmail.net

STATE FILE

Subject: Sutton Plant Oversight
Date: Thu, 19 Jun 2003 12:06:05 -0400
From: Charles Stehman <Charles.Stehman@ncmail.net>
To: HANNA ASSEFA <HANNA.ASSEFA@ncmail.net>

Hanna,

This is a follow up on our discussion by phone yesterday. On June 10, 2003, Geoff Kegley and I met with representatives of Progress Energy (formerly CP&L) to discuss issues at that Company's New Hanover County Sutton Plant. Representatives from Progress Energy included Charlie Ross, Louise England, Hank Lyon and Kerry Mac Phearson. The topics discussed at this meeting included:

1. The presence of Arsenic in groundwater at monitoring locations to the east of the operating ash ponds.
2. A pending REC study of the plant's original ash disposal area (now closed) adjacent to the power generation facility.
3. A proposed disposal strategy for ash contained in the operating ash ponds on lands to the south of the Sutton Plant and development of a golf course upon the disposal area.

During the meeting I pointed out that the Division of Water Quality holds jurisdiction over the impact of the operative ash ponds because they are currently permitted by our agency and the activity is part of an on-going process. I also stated that DWQ did not have authority over the closed ash disposal area, but that we would be glad to review the findings of the REC. Progress Energy indicated that they were going to use the REC consultants to assess the cause and dynamics of the appearance of Arsenic in the monitoring well east of the oprative ash ponds.

The discussion of the ash disposal south of the plant and the development of a golf course was not on the agenda and I was not prepared to discuss this matter. We did hear a presentation from a consulting firm on the matter (MacTec), but we made little comment. However, in my opinion some fixation would be required for the ash to be used as fill. We already know that the ash is leachable from the showing in groundwter east of the operative ponds. Furthermore that proposed golf course is adjacent to the existing Flemington Landfill, a very controversial site.

Charlie Stehman

Charles F. Stehman, Ph.D., P.G. <Charles.Stehman@ncmail.net>
Regional Groundwater Supervisor
Division of Water Quality/ Groundwater Section
North Carolina Department of Environment and Natural Resources

NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

MICHAEL F. EASLEY, GOVERNOR
WILLIAM G. ROSS, JR., SECRETARY
DEXTER R. MATTHEWS, DIRECTOR

NCDENR

June 05, 2003

Mr. Michael Longfellow, Manager
Progress Energy Steam Plant
801 Sutton Steam Plant Road
Wilmington, NC 28401

SITE FILE

RE: Carolina Power and Light Sutton Steam Plant
Wilmington, New Hanover County
NCD 000 830 646

Dear Mr. Longfellow:

We have received your May 23, 2003 letter summarizing your understanding of the discussions between the Inactive Hazardous Sites Branch (Branch) personnel, and Mick Greeson and Kerry Mcpherson of Progress Energy at the May 20, 2003 meeting. This letter is to provide clarification on one point.

The Branch has not yet made a final determination on which areas of concern at the subject site will be covered under a consent agreement with the Branch. As we discussed in the meeting, our office will first need to discuss agency jurisdiction with the North Carolina Division of Water Quality Wilmington Regional Office (DWQ). We agreed that a meeting between Progress Energy and DWQ to brief them regarding the contamination around the permitted units prior to our contacting them would be helpful. Representatives of Progress Energy at the meeting agreed to promptly scheduling such a meeting and notifying us of the date of the meeting. We will contact DWQ after the June 10, 2003 meeting scheduled between Progress Energy and DWQ.

If you have any questions please call me at (919) 733-2801 ext. 279.

Sincerely,

Hanna Assefa
Environmental Toxicologist
Inactive Hazardous Sites Program
Superfund Section

1646 MAIL SERVICE CENTER, RALEIGH, NORTH CAROLINA 27699-1646
401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605
PHONE: 919-733-4996 \ FAX: 919-715-3605

Progress Energy

File No.: SUT 13550-A

May 23, 2003

Certified Mail # 7001 2510 0008 6639 7737
Charlotte V. Jesneck, Head
Inactive Hazardous Sites Program, Superfund Section
Division of Waste Management
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

Sutton Plant Ash Disposal Area Site Assessment

Dear Ms. Jesneck:

Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc., received a letter dated April 23, 2003 from your office soliciting the Company's cooperation in conducting a site assessment at the "Sutton Steam Site." In response to your request, this letter serves to notify you that Progress Energy Carolinas intends to work cooperatively with the Division and will hire a Division-approved Registered Environmental Consultant to conduct a site assessment under the supervision of the Inactive Hazardous Sites Branch. Progress Energy Carolinas is also willing to enter into a negotiated consent agreement with the Division.

It is my understanding a meeting was held on May 20, 2003. The Progress Energy Carolinas representatives at this meeting were Mick Greeson, Strategic Environmental Analyst and Kerry MacPherson, Lead Environmental Specialist. The representatives for your organization at this meeting were Hanna Assefa, Environmental Toxicologist, John Powers, Hydrogeologist, and yourself. It was agreed the site assessment would be limited to the old dump area as shown in the enclosed Figure No. 4 from the 1999 Expanded Site Inspection Report which was prepared by Stephanie Grubbs of the Superfund Section. In addition, it was agreed the two active ash ponds, which operate in accordance with the terms and conditions of a National Pollutant Discharge Elimination System Permit (Permit NC0001422) would not be included in the site assessment. Instead, Progress Energy Carolinas will meet with the Division of Water Quality's Wilmington Regional Office on June 10, 2003 to discuss ash pond ground water monitoring data collected pursuant to Part I, Condition A.6 of our Permit NC0001422.

Please direct future correspondence concerning this issue to Kerry MacPherson, Lead Environmental Specialist in our Corporate Office at (919) 546-6753.

Respectfully yours,

Michael Shawn Longfellow
Manager - Sutton Steam Plant

Enclosure
c: Kerry MacPherson

Progress Energy Carolinas, Inc.
Sutton Steam Plant
801 Sutton Steam Plant Road
Wilmington, NC 28401

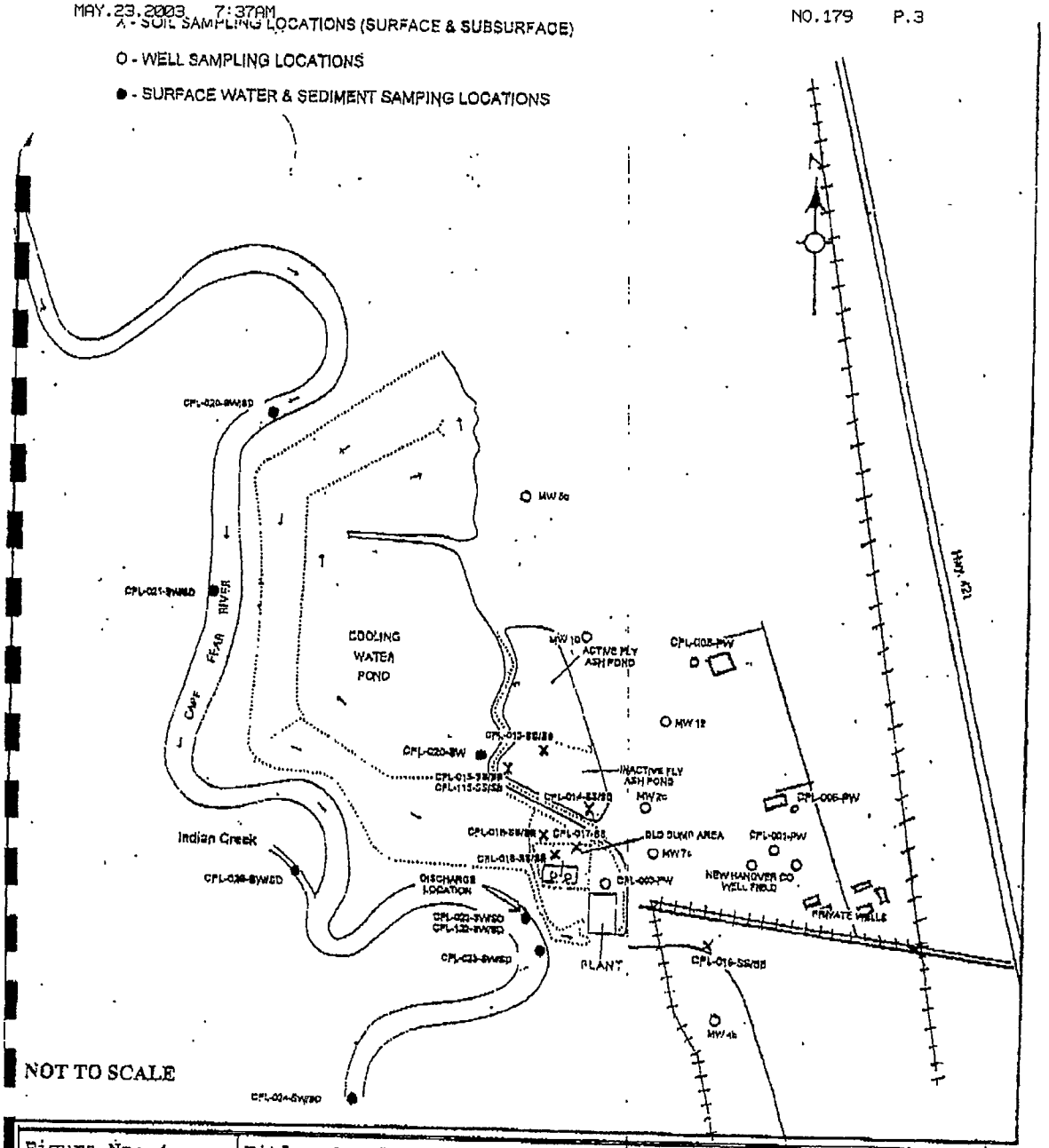


Figure No: 4	Title: Sampling Location Map from the 1999 ESI Sampling Event	
North Carolina Division of Waste Management	Date: December 1999	Drawn By: S.Grubbs
Superfund Section	Site Name: CP&L Sutton Steam Electric	NCD 000 830 646

STATE FILE

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Charles K Ross
Project Technical Specialist
CP&L/Progress Engergy
401 S. Wilmington Street
Raleigh NC 27601

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Flynn Greer ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* Flynn Greer
C. Date of Delivery 4-28

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☑ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Transfer from service label)* 7001 2510 0007 1337 1552

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1035

NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

MICHAEL F. EASLEY, GOVERNOR
WILLIAM G. ROSS, JR., SECRETARY
DEXTER R. MATTHEWS, DIRECTOR

NCDENR

CERTIFIED MAIL
Return Receipt Requested

STATE FILE

April 23, 2003

Mr. Charles K. Ross
Project Technical Specialist
Carolina Power & Light Company / Progress Energy
401 S. Wilmington Street
Raleigh, NC 27601

RE: Carolina P&L Co. Sutton Steam
U.S. Highway 421
Wilmington, New Hanover County
NCD 000 830 646

Dear Mr. Ross:

This letter is written to solicit your cooperation in monitoring, testing, analyzing and reporting on the Carolina P&L Co. Sutton Steam Site (the Site). The Division of Waste Management (Division) has determined that there is a release, or substantial threat of a release into the environment of a hazardous substance from the Site. Based on evidence of soil and groundwater contamination, the potential for continued release of contaminants from the on-site fly ash pond into groundwater, and possible off-site migration of site groundwater contaminants into nearby drinking water wells, the Division considers the Carolina P&L Co. Sutton Steam site to be a high priority for assessment.

The subject site has been in operation since 1954 furnishing electricity through a coal fired generating process. Fly ash generated from the burning of coal is pumped into a 75 acre active lined fly ash pond on the CP&L property. Prior to 1985 a 68 acre pond (now inactive) and an area adjacent to the plant were both used for disposal of the fly ash. Metals and polyaromatic hydrocarbons were detected at concentrations above the Inactive Hazardous Sites Program remediation goals in soil in the old fly ash disposal area. Historical sampling data indicates that on-site groundwater has been contaminated with metals. Groundwater data from a New Hanover Community Well System well located approximately 0.25 miles from the Site also shows possible metal contamination. Also there is a rented trailer on the property adjacent to the subject site which is owned by the Ezell Trucking Company. The tenant in that trailer consumes groundwater from a well that is contaminated with metals below State groundwater standards. These drinking water wells are located close to the site.

In light of these facts, the Division requests that you conduct a site assessment under the supervision of the Inactive Hazardous Sites Branch. If you are agreeable to working cooperatively with the Division in cleaning up the site, you must contact the Division, within (30) thirty days of receipt of this letter. You must be willing to enter into a consent agreement with the Division and to hire a Division-approved Registered Environmental Consultant (REC) from the enclosed list to conduct and certify the remedial action work. A copy of our model REC consent agreement is enclosed for reference. This offer shall expire at the close of business on the 30th day following your receipt of this letter, so please notify the Division in writing if Progress Energy intends to comply with our request.

To protect public health and the environment, the Division has the authority under N.C.G.S. 130A-310.1(c) to order any responsible party to conduct such monitoring, testing, analysis, and reporting as deemed reasonable and necessary to ascertain the nature and extent of any hazard posed by a Site. However, prior to issuing site assessment orders, the Division sends letters such as this to offer responsible parties the opportunity to work cooperatively with the Division.

If you have questions concerning this assessment request, please contact Hanna Assefa at (919) 733-2801, ext. 279.

Sincerely,

Charlotte Jesneck, Head
Inactive Hazardous Sites Program
Superfund Section
Division of Waste Management

Enclosures

6 February 2003

Memorandum

To: File

From: Charlotte Jesneck
Inactive Hazardous Sites Branch
Superfund Section

Re: Carolina P & L Co. Sutton Steam
Wilmington, New Hanover County
NCD000830646

A Mr. McPhearson with Progress Energy telephoned me today about placing more ash in an ash pond at the above site. He said he already had obtained approval for the ash placement from the Division of Water Quality (DWQ). He said the pond was a DWQ permitted unit. I told him that while DWQ is monitoring the permit, they have jurisdiction over the pond. However, once the permit is terminated and if there are any hazardous substance contamination issues unresolved, we would still consider the site as requiring action. I also cautioned him that if he mixes uncontaminated material with contaminated material in the process of adding ash to the pond, he could be creating a bigger contamination problem to address in the future. He said he realized that, but that they needed a place to put the ash and DWQ has okayed it.

NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

MICHAEL F. EASLEY, GOVERNOR
WILLIAM G. ROSS, JR., SECRETARY
DEXTER R. MATTHEWS, DIRECTOR

NCDENR

January 23, 2003

Mr. William Cavanaugh, III
President and CEO
Carolina Power and Light Company
Post Office Box 1551
Raleigh, NC 27602

Re: Inactive Hazardous Waste Sites Priority List
Carolina P & L - Sutton Steam
Wilmington, New Hanover County

Dear Mr. Cavanaugh:

The site listed above has been included on the October 2002 Inactive Hazardous Waste Sites Priority List (Priority List) in accordance with North Carolina General Statutes Section 130A-310.2. The Priority List is a list of sites where uncontrolled disposal, spills, or releases of hazardous substances have been identified. A special priority system (North Carolina Administrative Code Title 15A Subchapter 13C Section 0.200) is used to rank the sites on this list in decreasing order of danger to public health and the environment.

This letter is being sent to you to fulfill our statutory duty to notify those who own and those who at present are known to be responsible for each site on the Priority List. A copy of the Priority List with each site's rank appearing in the right-hand column is attached. Please note this letter is simply a notice of the site's inclusion on the priority list and is not an order to conduct any work.

If a responsible party or owner wishes to voluntarily perform site cleanup, that party must enter into an agreement with the Branch to ensure Branch approval. You should not proceed with remedial actions independently. Each voluntary remedial action will be overseen by Branch staff or, at the discretion of the Branch, by approved environmental consultants.

Those who are interested in reviewing the Superfund Section's files on any of these sites may contact Scott Ross at (919) 733-2801, ext. 328, to schedule an appointment. If you are interested in conducting a voluntary cleanup of your site, or if you have any questions, you may contact me at (919) 733-2801, ext. 284.

Sincerely,

Charlotte V. Jesneck

Charlotte V. Jesneck, Head
Inactive Hazardous Site Branch
Superfund Section

CVJ/slb(SPLMERGE1-2003.LTR)

Enclosure

1646 MAIL SERVICE CENTER, RALEIGH, NORTH CAROLINA 27699-1646
401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605
PHONE: 919-733-4996 \ FAX: 919-715-3605
HTTP://WASTENOT.ENR.STATE.NC.US

NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

MICHAEL F. EASLEY, GOVERNOR
WILLIAM G. ROSS, JR., SECRETARY
DEXTER R. MATTHEWS, DIRECTOR

January 23, 2003

Mr. Ben White
Manager of Enviornmental Services
Carolina Power & Light Company
Post Office Box 327
New Hill, NC 27562

Re: Inactive Hazardous Waste Sites Priority List
Carolina P & L - Sutton Steam
Wilmington, New Hanover County

Dear Mr. White:

The site listed above has been included on the October 2002 Inactive Hazardous Waste Sites Priority List (Priority List) in accordance with North Carolina General Statutes Section 130A-310.2. The Priority List is a list of sites where uncontrolled disposal, spills, or releases of hazardous substances have been identified. A special priority system (North Carolina Administrative Code Title 15A Subchapter 13C Section 0.200) is used to rank the sites on this list in decreasing order of danger to public health and the environment.

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Sincerely,

Charlotte V. Jesneck

Charlotte V. Jesneck, Head
Inactive Hazardous Site Branch
Superfund Section

CVJ/slb(SPLMERGE1-2003.LTR)

Enclosure

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NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

MICHAEL F. EASLEY, GOVERNOR
WILLIAM G. ROSS, JR., SECRETARY
DEXTER R. MATTHEWS, INTERIM DIRECTOR

November 5, 2001

Mr. William Cavanaugh, III
President and CEO
Carolina Power and Light Company
Post Office Box 1551
Raleigh, NC 27602

Re: Inactive Hazardous Waste Sites Priority List
Carolina P & L - Sutton Steam
Wilmington, New Hanover County

Dear Mr. Cavanaugh:

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Sincerely,

Charlotte V. Jesneck

Charlotte V. Jesneck, Head
Inactive Hazardous Site Branch
Superfund Section

CVJ/slb(SPLMERGE2001.LTR)

Enclosure

1646 MAIL SERVICE CENTER, RALEIGH, NORTH CAROLINA 27699-1646
401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605
PHONE: 919-733-4996 \ FAX: 919-715-3605

NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

MICHAEL F. EASLEY, GOVERNOR
WILLIAM G. ROSS, JR., SECRETARY
DEXTER R. MATTHEWS, INTERIM DIRECTOR

November 5, 2001

Mr. Ben White
Manager of Enviornmental Services
Carolina Power & Light Company
Post Office Box 327
New Hill, NC 27562

Re: Inactive Hazardous Waste Sites Priority List
Carolina P & L - Sutton Steam
Wilmington, New Hanover County

Dear Mr. White:

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Sincerely,

Charlotte V. Jesneck

Charlotte V. Jesneck, Head
Inactive Hazardous Site Branch
Superfund Section

CVJ/slb(SPLMERGE2001.LTR)

Enclosure

1646 MAIL SERVICE CENTER, RALEIGH, NORTH CAROLINA 27699-1646
401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605
PHONE: 919-733-4996 \ FAX: 919-715-3605

NCDENR

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES

DIVISION OF WASTE MANAGEMENT

JAMES B. HUNT JR.
GOVERNOR

BILL HOLMAN
SECRETARY

WILLIAM L. MEYER
DIRECTOR

November 30, 2000

Mr. William Cavanaugh, III
President and CEO
Carolina Power and Light Company
Post Office Box 1551
Raleigh, NC 27602

Re: Inactive Hazardous Waste Sites Priority List
Carolina P & L - Sutton Steam
Wilmington, New Hanover County

Dear Mr. Cavanaugh:

The site listed above has been included on the November 2000 Inactive Hazardous Waste Sites Priority List (Priority List) in accordance with North Carolina General Statutes Section 130A-310.2. The Priority List is a list of sites where uncontrolled disposal, spills, or releases of hazardous substances have been identified. A special priority system (North Carolina Administrative Code Title 15A Subchapter 13C Section 0.200) is used to rank the sites on this list in decreasing order of danger to public health and the environment.

This letter is being sent to you to fulfill our statutory duty to notify those who own and those who at present are known to be responsible for each site on the Priority List. A copy of the Priority List with each site's rank appearing in the left-hand column is attached (sites are listed in order of highest to lowest priority). Please note this letter is simply a notice of the site's inclusion on the priority list and is not an order to conduct any work.

If a responsible party or owner wishes to voluntarily perform site cleanup, that party must enter into an agreement with the Branch to ensure Branch approval. You should not proceed with remedial actions independently. Each voluntary remedial action will be overseen by Branch staff or, at the discretion of the Branch, by approved environmental consultants.

Those who are interested in reviewing the Superfund Section's files on any of these sites may contact Scott Ross at (919) 733-2801, ext. 328, to schedule an appointment. If you are interested in conducting a voluntary cleanup of your site, or if you have any questions, you may contact me at (919) 733-2801, ext. 284.

Sincerely,

Charlotte V. Jesneck

Charlotte V. Jesneck, Head
Inactive Hazardous Site Branch
Superfund Section

CVJ/slb(C:\WPWIN60\WPDOCS\ANNUAL2000\SPLMRG2000.LTR)

Enclosure

1646 MAIL SERVICE CENTER, RALEIGH, NORTH CAROLINA 27699-1646
401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605
PHONE 919-733-4996 FAX 919-715-3605

NCDENR

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES

DIVISION OF WASTE MANAGEMENT

JAMES B. HUNT JR.
GOVERNOR

BILL HOLMAN
SECRETARY

WILLIAM L. MEYER
DIRECTOR

November 30, 2000

Mr. Ben White
Manager of Enviornmental Services
Carolina Power & Light Company
Post Office Box 327
New Hill, NC 27562

Re: Inactive Hazardous Waste Sites Priority List
Carolina P & L - Sutton Steam
Wilmington, New Hanover County

Dear Mr. White:

The site listed above has been included on the November 2000 Inactive Hazardous Waste Sites Priority List (Priority List) in accordance with North Carolina General Statutes Section 130A-310.2. The Priority List is a list of sites where uncontrolled disposal, spills, or releases of hazardous substances have been identified. A special priority system (North Carolina Administrative Code Title 15A Subchapter 13C Section 0.200) is used to rank the sites on this list in decreasing order of danger to public health and the environment.

This letter is being sent to you to fulfill our statutory duty to notify those who own and those who at present are known to be responsible for each site on the Priority List. A copy of the Priority List with each site's rank appearing in the left-hand column is attached (sites are listed in order of highest to lowest priority). Please note this letter is simply a notice of the site's inclusion on the priority list and is not an order to conduct any work.

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Sincerely,

Charlotte V. Jesneck

Charlotte V. Jesneck, Head
Inactive Hazardous Site Branch
Superfund Section

CVJ/slb(c \WPWIN60\WPDOCS\ANNUAL2000\SPLMRG2000.LTR)

Enclosure

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401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605
PHONE 919-733-4996 FAX 919-715-3605

CP&L

Carolina Power & Light Company
PO Box 1551
Raleigh NC 27602

Tom D. Kilgore
Senior Vice President
Power Operations

January 6, 1999

Ms. Charlotte Jesneck
Inactive Hazardous Site Branch Superfund Section
Division of Waste Management
North Carolina Department of Environmental and Natural Resources
401 Oberlin Road, Suite 150
Raleigh, NC 27605

RE: Inactive Hazardous Waste Priority List:
CP&L - Cape Fear Steam
CP&L - Fayetteville
CP&L - Roxboro Steam
CP&L - Sutton Steam
CP&L - Weatherspoon Steam

Dear Ms. Jesneck:

Both Sherwood Smith, Chairman, and Mr. George Oliver, Manager of Environmental Services at Carolina Power & Light Company have received letters in reference to the above-named sites that were sent to fulfill your statutory duty to notify those who own and those who at present are known to be responsible for sites on the Inactive Hazardous Sites Inventory Priority List ("Priority List"). We understand that these letters are simply a notice of the sites' inclusion on the Priority List and not an order to conduct work.

In future correspondence, Carolina Power & Light requests the Superfund Branch to address these letters to William Cavanaugh III, President and Chief Executive Officer, and Benjamin C. White, Manager of Environmental Services.

Thank you for your help in this matter.

Sincerely,

Tom Kilgore

TDK/dcj
c: Mr. William Cavanaugh III
Ms. Lisa Cooper
Ms. Ellen Pulaski
Mr. Benjamin White

411 Fayetteville Street Mall Tel 919 546-6267 Fax 919 546-2405

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

NCDENR

JAMES B. HUNT JR.
GOVERNOR

WAYNE McDEVITT
SECRETARY

WILLIAM L. MEYER
DIRECTOR

December 15, 1998

Mr. George J. Oliver, Ph.D.
Manager of Environmental Services
Carolina Power & Light Company
Post Office Box 1551
411 Fayetteville Street Mall
Raleigh, NC 27602

Re: Inactive Hazardous Waste Sites Priority List
Carolina P & L - Sutton Steam
Wilmington, New Hanover County

Dear Mr. Oliver:

The site listed above has been included on the November 1998 Inactive Hazardous Waste Sites Priority List (Priority List) in accordance with North Carolina General Statutes Section 130A-310.2. The Priority List is a list of sites where uncontrolled disposal, spills, or releases of hazardous substances have been identified. A special priority system (North Carolina Administrative Code Title 15A Subchapter 13C Section 0.200) is used to rank the sites on this list in decreasing order of danger to public health and the environment.

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Sincerely,

Charlotte V. Jesneck

Charlotte V. Jesneck, Head
Inactive Hazardous Site Branch
Superfund Section

CVJ/slb(C:\WPWIN60\WPDOCS\ANNUAL98\SPLMRG98.LTR)

Enclosure

401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605
PHONE 919-733-4996 FAX 919-715-3605

NCDENR

JAMES B. HUNT JR.
GOVERNOR

WAYNE McDEVITT
SECRETARY

WILLIAM L. MEYER
DIRECTOR

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES

DIVISION OF WASTE MANAGEMENT

December 15, 1998

Mr. Sherwood Smith, Chairman and CEO
Carolina Power & Light Company
Post Office Box 1551
411 Fayetteville Street Mall
Raleigh, NC 27602

Re: Inactive Hazardous Waste Sites Priority List
Carolina P & L - Sutton Steam
Wilmington, New Hanover County

Dear Mr. Smith:

The site listed above has been included on the November 1998 Inactive Hazardous Waste Sites Priority List (Priority List) in accordance with North Carolina General Statutes Section 130A-310.2. The Priority List is a list of sites where uncontrolled disposal, spills, or releases of hazardous substances have been identified. A special priority system (North Carolina Administrative Code Title 15A Subchapter 13C Section 0.200) is used to rank the sites on this list in decreasing order of danger to public health and the environment.

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Sincerely,

Charlotte V. Jesneck

Charlotte V. Jesneck, Head
Inactive Hazardous Site Branch
Superfund Section

CVJ/slb(C:\WPWIN60\WPDOCS\ANNUAL98\SPLMRG98.LTR)

Enclosure

401 OBERLIN ROAD, SUITE 150, RALEIGH, NC 27605
PHONE 919-733-4996 FAX 919-715-3605

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

DEHNR

February 15, 1997

Mr. Sherwood Smith, Chairman and CEO
Carolina Power & Light Company
Post Office Box 1551
411 Fayetteville Street Mall
Raleigh, NC 27602

Re: Inactive Hazardous Waste Sites Priority List
Carolina Power & Light - Sutton Steam
Wilmington, New Hanover County

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Sincerely,

Charlotte V. Jesneck

Charlotte V. Jesneck, Head
Inactive Hazardous Site Branch
Superfund Section

CVJ/slb(C:\WPWIN60\WPDOCS\ANNUAL96\SPLMRG97.LTR)

Attachment

P.O. Box 27687,
Raleigh, North Carolina 27611-7687
Voice 919-733-4996

NRC Reduce Reuse Recycle

FAX 919-715-3605

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

DEHNR

February 15, 1997

Mr. George J. Oliver, Ph.D.
Manager of Environmental Services
Carolina Power & Light Company
Post Office Box 1551
411 Fayetteville Street Mall
Raleigh, NC 27602

Re: Inactive Hazardous Waste Sites Priority List
Carolina Power & Light - Sutton Steam
Wilmington, New Hanover County

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Raleigh, North Carolina 27611-7687
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FAX 919-715-3605

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

DEHNR

February 15, 1996

STATE FILE

Mr. George J. Oliver, Ph.D.
Manager of Environmental Services
Carolina Power & Light Company
Post Office Box 1551
411 Fayetteville Street Mall
Raleigh, NC 27602

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Carolina Power & Light - Sutton Steam
Wilmington, New Hanover County

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Charlotte V. Jesneck

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Inactive Hazardous Site Branch
Superfund Section

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State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

DEHNR

February 15, 1996

STATE FILE

Mr. Sherwood Smith, Chairman and CEO and
Carolina Power & Light Company
Post Office Box 1551
411 Fayetteville Street Mall
Raleigh, NC 27602

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Carolina Power & Light - Sutton Steam
Wilmington, New Hanover County

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Charlotte V. Jesneck

Charlotte V. Jesneck, Head
Inactive Hazardous Site Branch
Superfund Section

CVJ/slb(C:\WPWIN60\WPDOCS\ANNUAL96\SPLMRG96.LTR)

Attachment

P.O. Box 27687,
Raleigh, North Carolina 27611-7687
Voice 919-733-4996

Reduce Reuse Recycle

FAX 919-715-3605

24 July 1991

MEMORANDUM

TO: Jack Butler
Pat DeRosa
Charlotte Jesneck
Grover Nicholson

FROM: Lee Crosby LC

RE: Carolina Power & Light Company Sites

Carolina Power & Light Company has requested that we contact the CP&L Raleigh office when scheduling site visits or requesting information. The contacts are:

Dr. George Oliver, Environmental Services Section Manager
CP&L
Center Plaza Building - 4C3
PO Box 1551
Raleigh, NC 27602
Telephone 546-4189
Fax 546-7558

or

Carolyn Anderson
CP&L
Center Plaza Building - 4C3
PO Box 1551
Raleigh, NC 27602
Telephone 546-4879
Fax 546-7558

LC/acr

Jesneck, Charlotte

From: Culpepper, Linda
Sent: Tuesday, December 20, 2016 5:57 PM
To: Lyon, Henry
Cc: Kegley, Geoff; Zimmerman, Jay; Risgaard, Jon; King, Morella s; Gregson, Jim; Scott, Michael; Bateson, James; Jesneck, Charlotte; Lorscheider, Ellen
Subject: RE: Carolina P & L -Sutton Steam, Wilmington, New Hanover County, NCD000830646

After discussing the below request, this is to confirm that the Division of Water Resources (DWR) will oversee the remedial activities for the
Former Ash Disposal Area (FADA) unit at the Sutton facility which is currently in the inventory of Inactive Hazardous Sites.

It is my understanding that Duke Energy has included information related to the FADA in submittals to the DWR regarding coal ash remediation
at the facility. Information submitted to the Superfund Section in the Division of Waste Management can be found online:

Laserfiche Weblink is http://edocs.deq.nc.gov/WasteManagement/Search.aspx
Search using: Template = WM
Subdivision = Superfund
Doc_Category= Facility
ID = NCD000830646

If Duke Energy has additional information regarding the FADA, please provide that information to Geoff Kegley (geoff.kegley@ncdenr.gov).
Thank you,

Linda Culpepper
Deputy Director
Division of Water Resources
North Carolina Department of Environmental Quality

1611 Mail Service Center
Phone: 919-707-9014

Nothing Compares

From: Lyon, Henry [mailto:Henry.Lyon@duke-energy.com]
Sent: Monday, December 19, 2016 2:02 PM
To: Culpepper, Linda <linda.culpepper@ncdenr.gov>
Cc: Jesneck, Charlotte <charlotte.jesneck@ncdenr.gov>
Subject: Carolina P & L -Sutton Steam, Wilmington, New Hanover County, NCD000830646

Good Afternoon Ms. Culpepper,

I'm following up on the recent communication with Charlotte Jesneck regarding the delisting request for the Former Ash Disposal Area IHSB site at our Sutton facility. I would like to speak with you about the option that Ms. Jesneck has identified below and wanted to see if you, or perhaps someone in your organization, would have availability to discuss this in more detail? Any direction you can provide would be greatly appreciated.

I hope you have a joyful holiday and new year and I look forward to catching up in 2017.

Thank you,

Hank Lyon, PG
Principal Environmental Specialist
Duke Energy - Remediation
1451 Military Cutoff Road, ERO
Wilmington, North Carolina 28403
ph 910.256.7211, mob 919.632.1517

From: Jesneck, Charlotte [mailto:charlotte.jesneck@ncdenr.gov]
Sent: Monday, December 05, 2016 11:34 AM
To: Lyon, Henry
Cc: Culpepper, Linda
Subject: RE: Carolina P & L -Sutton Steam, Wilmington, New Hanover County, NCD000830646

As you know, several years ago we took the CP&L sites in the Inactive Hazardous Sites Inventory that only had coal ash discharges related to permits under the Division of Water Resources and no other contaminant issues off the Inactive Hazardous Sites Inventory.

With Sutton only having the one non-permitted coal ash disposal in the same area as the DWR permitted units, we need assurance the contaminant issues will be addressed. Sounds like the ash will be completely removed. So the only remaining question is how will groundwater contamination be addressed until standards are met.

There are 2 options for you for the Sutton site. If DWR determines that they can oversee groundwater remediation for the non-permitted unit, they take jurisdiction for the IHSB portion. If they cannot, you can still decide to address the contamination and then when it meets standards, request a No Further Action determination from our Branch.

I am copying Linda Culpepper on this email so she knows of your request.

Linda, Ellen may be contacting you further on this. Linda/Henry, call me if you have any questions.

Charlotte Jesneck, LG
Branch Head
Inactive Hazardous Sites Branch
NC Department of Environmental Quality

919-707-8327 office
charlotte.jesneck@ncdenr.gov

Office Location: 217 W Jones Street, Raleigh, NC
Mail: 1646 Mail Service Center
Raleigh, NC 27699

From: Jesneck, Charlotte
Sent: Tuesday, November 29, 2016 10:46 AM
To: 'Lyon, Henry' <Henry.Lyon@duke-energy.com>
Subject: RE: Carolina P & L -Sutton Steam, Wilmington, New Hanover County, NCD000830646

Update: I am checking with some folks over here. Will get back with you soon.

Charlotte Jesneck, LG
Branch Head
Inactive Hazardous Sites Branch
NC Department of Environmental Quality

919-707-8327 office
charlotte.jesneck@ncdenr.gov

Office Location: 217 W Jones Street, Raleigh, NC
Mail: 1646 Mail Service Center
Raleigh, NC 27699

From: Lyon, Henry [mailto:Henry.Lyon@duke-energy.com]
Sent: Monday, November 21, 2016 7:43 AM
To: Jesneck, Charlotte <charlotte.jesneck@ncdenr.gov>
Subject: Carolina P & L -Sutton Steam, Wilmington, New Hanover County, NCD000830646

Good Morning Ms. Jesneck,

I'm following up on our earlier telephone conversation regarding the subject Inactive Hazardous Waste Sites Priority Listing and the opportunity to address the incident under our on-going ash basin closure efforts at the former L.V. Sutton plant site. Since our last conversation, Duke Energy Progress (Duke) has received the June 1, 2016 Order Granting Motion for Partial Summary Judgment (Order), attached, which requires Duke, per paragraph 48(a), page 23 of the PDF, to "*excavate and remove all CCR and CCP from the Sutton Impoundments and the Inactive Ash Areas ("Sutton Removed Ash") to lined locations for disposal*…" As established in the Order and further defined in our various, historical reports to the IHSB regarding Incident NCD000830646, this includes the Former Ash Disposal Area (FADA, aka LOLA or Lay of Land Area) as shown in Exhibit G of the Order. The Order further requires in paragraph 48(b) that Duke shall "…*ensure that the Sutton Removed Ash transferred for disposal is transferred to a lined CCR landfill, industrial landfill, or municipal solid waste landfill meeting applicable permitting, siting, construction and engineering requirements established by applicable law, statute or Regulation*..." Given the findings in the historical FADA reports, site work has not identified any waste characterization conditions that would preclude disposal of the FADA materials in the pending on-site landfill at Sutton.

Duke is currently engaged with DEQ on the various regulatory aspects of the Sutton ash basin closure. With the issuance of the Order and specifically with regard to the inclusion of the FADA within the overall scope of the basin closure, Duke is respectfully requesting that DEQ remove, or delist, the FADA incident from the IHSB's current Inactive Hazardous Waste Sites Priority List. We believe this would allow the Division of Waste Management's interest in the FADA to be adequately addressed through the on-going basin closure effort and would provide an opportunity to decrease unnecessary administrative burden for both DEQ and Duke.

Please contact me at 910.256.7211 if I can be of assistance and thank you for your consideration of this request.

Hank Lyon, PG
Principal Environmental Specialist
Duke Energy - Remediation
1451 Military Cutoff Road, ERO
Wilmington, North Carolina 28403
ph 910.256.7211, mob 919.632.1517

STATE OF NORTH CAROLINA

COUNTY OF NEW HANOVER

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

IN THE MATTER OF ASSESSMENT OF CIVIL PENALTIES AGAINST	)	FINDINGS AND DECISIONS AND ASSESSMENT OF CIVIL PENALTIES
Duke Energy Progress, Inc.	)	
FOR VIOLATIONS OF: NCGS 143-215.1 15A NCAC 2L .0103 (d) 15A NCAC 2L .0202	)	FILE NO. LV-2015-0035

The Rules under the North Carolina Administrative Code Subchapter 2L (15A NCAC 02L) were established to maintain and preserve the quality of the groundwaters, prevent and abate pollution and contamination of the waters of the state, protect public health, and permit management of the groundwaters for their best usage by the citizens of North Carolina. It is the policy of the Environment Management Commission that the best usage of the groundwaters of the state is a source of drinking water. Therefore the intent of these Rules (15A NCAC 02L) is to protect the overall high quality of North Carolina's groundwater to the level established by the standards. With this intention and pursuant to North Carolina General Statutes (N.C.G.S.) 143-215.6(A) and the delegation provided by the Secretary of the Department of Environment and Natural Resources, I, Jay Zimmerman, Director of the Division of Water Resources (hereafter the Division), make the following:

I. FINDINGS OF FACT:

A. Duke Energy Progress, Inc. (hereinafter Duke Energy) is a corporation organized and existing under the laws of the State of North Carolina and is in the business of electric power generation.

B. Duke Energy owns and operates the L.V. Sutton Energy Complex, located at 801 Sutton Steam Plant Road, Wilmington, N.C. in New Hanover County (hereafter the facility).

C. The groundwater in the area of the facility is classified as Class GA waters in accordance with the rules of the Environmental Management Commission, codified at Title 15A, North Carolina Administrative Code (NCAC), Subchapter 2L (15A NCAC 2L).

D. The Compliance Boundary, as defined at 15A NCAC 2L .0102 (3), means a boundary around a disposal system at and beyond which groundwater quality standards may not be exceeded and only applies to facilities which have received a permit issued under authority of G.S. 143-215.1 or G.S. 130A.

E. The Waste Boundary, as defined at 15A NCAC 2L .0102 (26), means the perimeter of the permitted waste disposal area.

F. The Rules at 15A NCAC 2L .0103(d) prohibit any person from conducting, or causing to be conducted, any activity which causes the concentration of any substance to exceed that specified in 15A NCAC 2L .0202.

G. The compliance boundary for disposal systems individually permitted prior to December 30, 1983, is established at a horizontal distance of 500 feet from the waste boundary or at the property boundary, whichever is closer to the source, pursuant to 15A NCAC 2L .0107(a).

H. Permit No. NC0001422 was originally issued on June 30, 1977. On December 2, 2011, Carolina Power & Light d/b/a Progress Energy Carolinas, Inc. was issued the most recent NPDES permit No. NC0001422 for discharge of wastewater from the L.V. Sutton Energy Complex.

I. By letter dated June 10, 2013, Duke Energy requested that all permits listed under Carolina Power & Light d/b/a Progress Energy Carolinas, Inc. be changed to Duke Energy Progress, Inc. This letter included an attachment listing all permits necessitating name changes, which included Permit No. NC0001422.

J. Permit No. NC0001422 is required under North Carolina General Statute 143-215.1.

K. Fly Ash and bottom Ash generated from coal combustion was stored in on-site Ash management areas. The Ash basin system consists of two Ash basins (built in approximately 1971 and 1984). This system is part of the Plant's wastewater treatment and disposal system covered under Permit No. NC0001422.

L. Permit Condition A. (8) requires Groundwater Monitoring, well construction, and sampling in accordance with the Sampling Plan approved by the Division. The approved Groundwater Monitoring Plan for Permit No. NC0001422 established a Compliance Boundary around the permitted facility in accordance with the requirements of 15A NCAC 2L .0107(a).

M. This disposal system was individually permitted prior to December 30, 1983; therefore the Compliance Boundary is established at either 500 feet from the effluent disposal area, or at the property boundary, whichever is closest to the effluent disposal area. Duke Energy does not meet the Rules in 15A NCAC 2L .0106(e)(2), and therefore, an exceedance of Groundwater Quality Standards at or beyond the Compliance Boundary is a violation subject to corrective action according to 15A NCAC 02L .0106(c).

N. The approved Groundwater Monitoring Plan for Permit No. NC0001422 required monitoring for select groundwater parameters from monitor wells. The Groundwater Monitoring Plan was revised on March 17, 2011 and again on October 24, 2012.

O. The Groundwater Quality Standards established in 15A NCAC 2L .0202 in Class GA waters for the following parameters are summarized in the following table:

Arsenic	10 *ug*/l
Boron	700 *ug*/l
Iron	300 *ug*/l

Manganese	50 *ug*/l
Selenium	20 *ug*/l
Thallium	0.2 *ug*/l
Total Dissolved Solids (TDS)	500 mg/l

P. The Division received groundwater monitoring reports from Duke Energy beginning in 1995. Monitoring reports confirm that violations of the Groundwater Quality Standards have occurred at or beyond the compliance boundary at this facility.

Q. Groundwater monitoring wells MW-4 and MW-5 represent background ambient conditions.

R. The violations of Groundwater Quality Standards for Arsenic occurred in monitor well MW-21C, located at or beyond the Compliance Boundary. Concentrations of Arsenic were determined to be below detection levels in background wells. The concentrations of Arsenic in monitoring well(s) exceeded the Groundwater Quality Standards for the time period from October 2, 2013 through October 2, 2014, representing 365 days of continuous violation.

S. The violations of Groundwater Quality Standards for Boron occurred in monitor wells MW-12, MW-19, MW-21C, MW-22C, MW-23B, MW-23C, MW-24B, MW-24C, and MW-31C located at or beyond the compliance boundary. Concentrations of Boron were determined to be below detection levels in background wells. The concentrations of Boron in monitoring well(s) exceeded the Groundwater Quality Standards for the time period from October 6, 2009 through October 2, 2014, representing 1,822 days of continuous violation.

T. The violations of Groundwater Quality Standards for Iron occurred in monitor wells MW-21C, MW-24C, and MW-31C located at or beyond the compliance boundary. The concentrations of Iron in monitoring well(s) indicate a statistically significant difference when compared to the concentrations of Iron in the background wells, indicating an exceedance of the Groundwater Quality Standards for the time period from October 2, 2012 through October 2, 2014, representing 730 days of continuous violation.

U. The violations of Groundwater Quality Standards for Manganese occurred in monitor wells MW-19, MW-21C, MW-22C, MW-23C, MW-24C, and MW-31C located at or beyond the compliance boundary. The concentrations of Manganese in monitoring well(s) indicate a statistically significant difference when compared to the concentrations of Manganese in the background wells, indicating an exceedance of the Groundwater Quality Standards for the time period from October 2, 2012 through October 2, 2014, representing 730 days of continuous violation.

V. The violations of Groundwater Quality Standards for Selenium occurred in monitor well MW-27B, located at or beyond the compliance boundary. Concentrations of Selenium were determined to be below detection levels in background wells. The concentrations of Selenium in monitoring well(s) exceeded the Groundwater Quality Standards for the time period from October 2, 2012 through October 1, 2014, representing 729 days of continuous violation.

W. The violations of Groundwater Quality Standards for Thallium occurred in monitor wells MW-19 and MW-24B located at or beyond the compliance boundary. Concentrations of

Thallium were determined to be below detection levels in background wells. The concentrations of Thallium in monitoring well(s) exceeded the Groundwater Quality Standards for the time period from March 9, 2010 through October 2, 2014, representing 1,668 days of continuous violation.

X. The violations of Groundwater Quality Standards for Total Dissolved Solids (TDS) occurred in monitor well MW-24C located at or beyond the compliance boundary. Concentrations of TDS were determined to be below detection levels in background wells. The concentrations of TDS in monitoring well(s) exceeded the Groundwater Quality Standards for the time period from October 3, 2012 through October 1, 2014, representing 728 days of continuous violation.

Y. On August 26, 2014, a Notice of Violation (NOV) and Notice of Intent to Enforce was issued to Duke Energy for conducting or controlling an activity that caused the concentration of contaminants in groundwater to exceed the groundwater standards adopted pursuant to N.C.G.S. 143-214.1 and set forth in 15A NCAC 2L .0202. The NOV was sent by Certified Mail, Return Receipt Requested and received on August 29, 2014.

Z. The cost to the State of the enforcement procedures in this matter totaled $8,883.61.

Based upon the above Findings of Fact, I make the following:

II. CONCLUSIONS OF LAW:

A. Duke Energy Progress, Inc. is a "person" within the meaning of G.S. 143-215.6A pursuant to N.C.G.S. 143-212(4).

B. Permit No. NC0001422 is required by N.C.G.S. 143-215.1.

C. Permit No NC0001422 was originally issued on June 30, 1977.

D. Compliance with all conditions set forth in Permit No. NC0001422 is required for wastewater treatment and disposal operations pursuant to G.S. 143-215.6A(a)(2).

E. The Waste Boundary, as defined at 15A NCAC 2L .0102 (26), means the perimeter of the permitted waste disposal area.

F. The Compliance Boundary, as defined at 15A NCAC 2L .0102 (3), means a boundary around a disposal system at and beyond which groundwater quality standards may not be exceeded and only applies to facilities which have received a permit issued under authority of G.S. 143-215.1 or G.S. 130A.

G. Duke Energy violated 15A NCAC 2L .0103(d) by conducting an activity causing the concentration of contaminants in groundwater to exceed the groundwater standards adopted pursuant to N.C.G.S. 143-214.1 and set forth in 15A NCAC 2L .0202.

H. Duke Energy violated N.C.G.S. 143-215.1. The Compliance Boundary for the disposal system is specified by regulations in 15A NCAC 2L, Groundwater Classifications and Standards. The Compliance Boundary for the disposal system constructed prior to December 30, 1983 is established at either (1) 500 feet from the waste disposal area, or (2) at the property boundary, whichever is closest to the waste disposal area. An exceedance of Groundwater Quality Standards at or beyond the Compliance Boundary is subject to Corrective Action in addition to the penalty provisions applicable under General Statute 143-215.6A(a)(1). The violations are a result from the sampling of the site's monitoring wells demonstrating the facility to be in violation of the Groundwater Quality Standards.

I. Duke Energy violated 15A NCAC 2L .0202 and -.0103 on 365 days by exceeding the standard referenced in 15A NCAC 2L .0202 for Arsenic at or beyond the compliance boundary in monitor well(s) MW-21C, from October 2, 2013 through October 2, 2014.

J. Duke Energy violated 15A NCAC 2L .0202 and -.0103 on 1,822 days by exceeding the standard referenced in 15A NCAC 2L .0202 for Boron at or beyond the compliance boundary in monitor well(s) MW-12, MW-19, MW-21C, MW-22C, MW-23B, MW-23C, MW-24B, MW-24C, and MW-31C, from October 6, 2009 through October 2, 2014.

K. Duke Energy violated 15A NCAC 2L .0202 and -.0103 on 730 days by exceeding a statistically-established concentration that is higher than the standard referenced in 15A NCAC 2L .0202 for Iron, at or beyond the compliance boundary in monitor well(s) MW-21C, MW-24C, and MW-31C, from October 2, 2012 through October 2, 2014.

L. Duke Energy violated 15A NCAC 2L .0202 and -.0103 on 730 days by exceeding a statistically-established concentration that is higher than the standard referenced in 15A NCAC 2L .0202 for Manganese, at or beyond the compliance boundary in monitor well(s) MW-19, MW-21C, MW-22C, MW-23C, MW-24C, and MW-31C, from October 2, 2012 through October 2, 2014.

M. Duke Energy violated 15A NCAC 2L .0202 and -.0103 on 729 days by exceeding the standard referenced in 15A NCAC 2L .0202 for Selenium at or beyond the compliance boundary in monitor well(s) MW-27B, from October 2, 2012 through October 1, 2014.

N. Duke Energy violated 15A NCAC 2L .0202 and -.0103 on 1,668 days by exceeding the standard referenced in 15A NCAC 2L .0202 for Thallium at or beyond the compliance boundary in monitor well(s) MW-19 and MW-24B, March 9, 2010 through October 2, 2014.

O. Duke Energy violated 15A NCAC 2L .0202 and -.0103 on 728 days by exceeding the standard referenced in 15A NCAC 2L .0202 for Total Dissolved Solids (TDS) at or beyond the compliance boundary in monitor well(s) MW-24C, October 3, 2012 through October 1, 2014.

P. N.C.G.S. 143-215.6A(a)(1) provides that the Secretary of the Department of Environment and Natural Resources may assess a civil penalty of not more than $25,000.00 against any person who violates any classification, standard, limitation or management practice established pursuant to N.C.G.S. 143-214.1, 143-214.2 or 143-215.

Q. N.C.G.S. 143-215.6A(b) provides that if any action or failure to act for which a penalty may be assessed under this section is continuous, the Secretary may assess a penalty not to exceed twenty-five thousand dollars ($25,000) per day for so long as the violation continues, unless otherwise stipulated.

R. N.C.G.S. 143-215.3(a)(9) provides that the reasonable costs of any investigation, inspection, or monitoring survey may be assessed against a person who violates any regulation, standards or limitations adopted by the Environmental Management Commission.

III. DECISION:

Pursuant to N.C.G.S. 143-215.6A, in determining the amount of the penalty, I have taken into account the Findings of Fact and Conclusions of Law and considered all the factors listed in N.C.G.S. 143B-282.1. Accordingly, Duke Energy shall be, and hereby is assessed a civil penalty of:

$1,825,000.00 For violation of N.C.G.S. 143-215.1, 15A NCAC 2L .0202 and -.0103 on 365 days by exceeding the standard referenced in 15A NCAC 2L .0202 for Arsenic at or beyond the compliance boundary in monitor well(s) MW-21C, from October 2, 2013 through October 2, 2014 for a period of **365** days.

$9,110,000.00 For violation of N.C.G.S. 143-215.1, 15A NCAC 2L .0202 and -.0103 on 1,822 days by exceeding the standard referenced in 15A NCAC 2L .0202 for Boron at or beyond the compliance boundary in monitor well(s) MW-12, MW-19, MW-21C, MW-22C, MW-23B, MW-23C, MW-24B, MW-24C, and MW-31C, from October 6, 2009 through October 2, 2014 for a period of **1,822** days.

$730,000.00 For violation of N.C.G.S. 143-215.1, 15A NCAC 2L .0202 and -.0103 on 730 days by exceeding a statistically-established concentration that is higher than the standard referenced in 15A NCAC 2L .0202 for Iron, at or beyond the compliance boundary in monitor well(s) MW-21C, MW-24C, and MW-31C, from October 2, 2012 through October 2, 2014, for a period of **730** days.

$730,000.00 For violation of N.C.G.S. 143-215.1, 15A NCAC 2L .0202 and -.0103 on 730 days by exceeding a statistically-established concentration that is higher than the standard referenced in 15A NCAC 2L .0202 for Manganese, at or beyond the compliance boundary in monitor well(s) MW-19, MW-21C, MW-22C, MW-23C, MW-24C, and MW-31C, from October 2, 2012 through October 2, 2014, for a period of **730** days.

$3,645,000.00 For violation of N.C.G.S. 143-215.1, 15A NCAC 2L .0202 and -.0103 on 729 days by exceeding the standard referenced in 15A NCAC 2L .0202 for Selenium at or beyond the compliance boundary in monitor well(s) MW-27B, from October 2, 2012 through October 1, 2014, for a period of **729** days.

$8,340,000.00 For violation of N.C.G.S. 143-215.1, 15A NCAC 2L .0202 and -.0103 on 1,668 days by exceeding the standard referenced in 15A NCAC 2L .0202 for Thallium

at or beyond the compliance boundary in monitor well(s) MW-19 and MW-24B, from March 9, 2010 through October 2, 2014, for a period of **1,668** days.

$ 728,000.00 For violation of N.C.G.S. 143-215.1, 15A NCAC 2L .0202 and -.0103 on 728 days by exceeding the standard referenced in 15A NCAC 2L .0202 for Total Dissolved Solids (TDS) at or beyond the compliance boundary in monitor well(s) MW-24C, from October 3, 2012 through October 1, 2014, for a period of **728** days.

$ 25,108,000.00 **TOTAL CIVIL PENALTY** which is 20 percent of the maximum penalty authorized by N.C.G.S. 143-215.6A; and

$ $8,883.61 Enforcement costs

$ 25,116,883.61 **TOTAL AMOUNT DUE**

Pursuant to N.C.G.S. 143-215.6A(c), in determining the amount of the penalty I have taken into account the Findings of Fact and Conclusions of Law and the factors set forth at N.C.G.S. 143B-282.1(b), which are:

(1) The degree and extent of harm to the natural resources of the State, to the public health, or to private property resulting from the violation;
(2) The duration and gravity of the violation;
(3) The effect on ground or surface water quantity or quality or on air quality;
(4) The cost of rectifying the damage;
(5) The amount of money saved by noncompliance;
(6) Whether the violation was committed willfully or intentionally;
(7) The prior record of the violator in complying or failing to comply with programs over which the Environmental Management Commission has regulatory authority; and
(8) The cost to the State of the enforcement procedures.

IV. NOTICE:

I reserve the right to assess civil penalties and investigative costs for any continuing violations occurring after the assessment period indicated above. Each day of a continuing violation may be considered a separate violation subject to a maximum $25,000.00 per day penalty. Civil penalties and investigative cost may be assessed for any other rules and statutes for which penalties have not yet been assessed.

V. TRANSMITTAL:

This Civil Penalty Assessment is directed to be transmitted to Duke Energy , in accordance with N.C.G.S. 143-215.6A(d).

3/10/2015
Date

S. Jay Zimmerman, P.G.
Director, Division of Water Resources

Key to Significance Rating

	Rating	Description
Likelihood	**5**	Very likely / high probability (90% or more that an aspect will result in the described impact.
	4	Likely / strong probability (66% - 89%) that an aspect will result in the described impact.
	3	Moderate / reasonable probability (34% - 65%) that an aspect will result in the described impact.
	2	Low / Low probability (11% - 33%) that an aspect will result in the described impact.
	1	Remote / very unlikely (10% or less) that an aspect will result in the described impact.
Consequence		
Exposure/ Toxicity	**5**	Severe - impact is catastrophic, very harmful or potentially fatal to humans and/or large portions of the ecosystem
	4	Serious - impact is harmful
	3	Moderate - impact is somewhat harmful
	2	Mild - impact has little potential for harm
	1	Harmless - impact has no potential for harm
Business Risk Costs (Operations and Clean-up)	**5**	Major impact - over $1,000,000
	4	High cost - $100,00 to $1,000,000
	3	Considerable cost - $10,000 to $100,000
	2	Moderate cost - $1,000 - $10,000
	1	Minimal cost - $0 - $1,000
Public Relations Costs	**5**	Primary concern to all / most stakeholder
	4	Primary concern to few / one stakeholder
	3	Secondary concern to all / most stakeholders
	2	Secondary concern to few / one stakeholders
	1	Little / no concern to stakeholders
Regulatory	**5**	Government / Fines and / or Criminal Activity - impact reportable to state, federal, or local authority and involving criminal actiity, NOV issued, and/or fine likely
	4	Government administrative action - impact reportable to state, federal, or local authority, NOV issued and/or fine likely
	3	Government - impact reportable to state, federal or local authority
	2	Supervisor - impact reportable to line supervisor/management
	1	Not reportable - impact covered by procedure, BMP, routine work practices

Scoring Formula

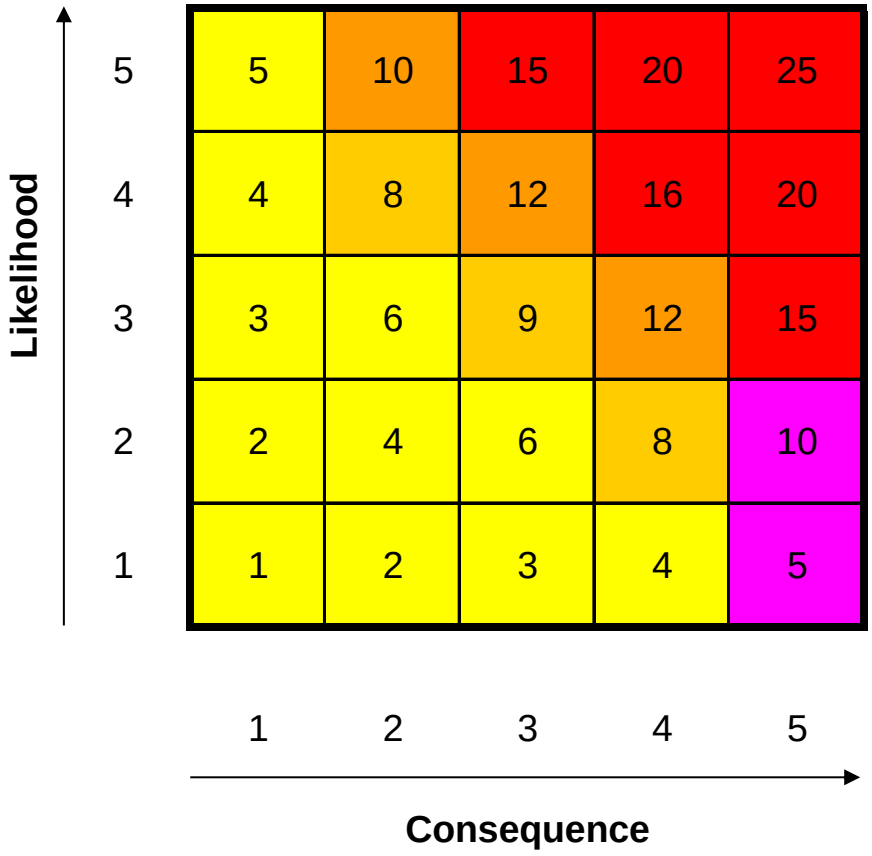
Significance Value = Likelihood x Consequence

Consequence =(Exposure Toxicity + Business Cost + PR Costs + Regulatory Risk)/4

Likelihood = See scoring criteria

Reference: EVC-SUBS-00202 Environmental Aspects - Impacts/Analysis/Risk Assessments

Consequence = (Exposure/Toxicity + Business Cost + PR Costs + Regulatory Reporting)/4
Significance Value = Likelihood x Consequence



1 - 7	Lowest Priority
8 - 9	Low Priority
10 - 13	Moderate Priority
14 - 25	High Priority
	Catastrophic Event - High Priority Regardless of Score

Summary Worksheet

2012 Significant Environmental Impacts Scoring Sheet

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Fuel Handling (Fuel Oil)	Unloading fuel (Barges, train cars, tankers)	Spills/releases							
		Transferring oils/fuels	Spills/releases							
		Fuel oil tanks - AST	Spills/releases							
		UST	Spills/releases							
	monitor wells		Ground water impact							
		Oily waste line	oil leak potetial							
		Draining of tank containments - storm water collection	Storm water impact							
		Burning Fuel (Oil)	Air impact (specify pollutants of concern)							
		Burning Used Oil	Air impact (specify pollutants of concern)							
			Spills/releases							
	Fuel Handling (Coal)	Unloading fuel (Barges, train cars)	Spills/releases							
		Operating Coal Yard	Air impact(fugitive dust)							
			Storm water impact							
			Surface Water Impact							
		Coal Yard Maintenance	Coal run off-surface water impact							
			Coal run off- storm water impact							
			Coal Pile (Fugitive dust)							
			Oil spills/release							
		Conveying Coal	Air Impact - Fugitive Dust							
			Storm water impact							
			Surface Water Impact							
		Pulverize Coal	Air Impact - Fugitive Dust							
		Generation of mill rejects	Landfill/ponds - Ground water impact							
			Air impact - Fugitive Dust							
			Storm water impact							
			Surface water impact							
			mill reject recycling							
		Burning Fuel (Coal)	Air impact (specify pollutants of concern)							
			ILB, NAP, coal							
			Mag Ox / Calcium Carbonate							
	Ash Management	Fly/Bottom Ash Generation	Air Impact - Fugitive Dust							
		DFA reliability	Loose DFA							
			Landfill/Pond - Potential ground water impacts							

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
			Off-site deposition - trucks							
			Storm water impact							
		Ash Handling system (piping/pumps/collection system/dewatering systems)	Spills/releases							
			Air impact - Fugitive Dust							
			ground water impact							
		ASH Pond (dredging)								
		Dry Handling of Bottom Ash	new design & new Regs							
		Higher LOI; Higher sulfer coal	Surface water impact ;							
		Operation of Ash Ponds	Ground water/surface water impact							
	Mayo Ash	Truck hauling	Off & on-site deposition - trucks							
	Gypsum Management	Gypsum Collection, Dewatering, Storage and Disposal	Spills/releases							
			Groundwater impact							
			Surface Water Impact							
			fugitive dust							
		Stockpile stability	water impacts, disposal							
		Conveying gypsum	water impacts							
		Truck hauling	Off-site deposition - trucks							
	Cooling Tower Operation	Chemical Treatment - Cooling Towers	Reduction of Cooling water temperature							
			(closed-loop) - reduction of impingement/entrainment 316(b)							
			Surface Water Impact							
			Wildlife Impact							
		Once-thru cooling water intake	316(b) - Impingement/ Entrainment							
		Biocide Use - Cooling water	Surface Water Impact							
			Wildlife Impact							
		Auxiliary Cooling water (closed cooling water) - Corrosion Inhibitor addition	Ground water impact							
		Auxiliary Cooling water (closed cooling water) - Pond discharge	Ground water impact							
	Boiler Operation	Boiler make-up - Resin Regen	Discharge to Pond - groundwater impact							
		Boiler make-up - pH control	Chemical Spill Potential							
		Boiler make-up - Wastes - (resin, filter media)	Improper waste management by contractor - liability for Company							
		Boiler make-up - RO Treatment	Ground water impact							
		Boiler make-up - consumptive use of water	Lake consumption							

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
		Fan Operation	Air impact - NOx generation							
			Air Impact - Fugitive Dust							
			Air Impact - Excess Opacity							
		Boiler chemical cleaning	Spills/releases							
			Potential Haz. Waste generation							
			waste disposal							
			Pond discharge - ground water impact							
		Smoke Stacks	Bird Collisions							
			Positive - Navigational landmark							
		Transformers	Spills/Release potential							
	Limestone Handling	Unloading	fugitive dust							
		Limestone crushing/prep	fugitive dust							
			spills/releases							
		Limestone injection	spills/releases							
		Coal pile runoff pond pH	regulatory							
	Service Water/Drinking Water	Service Water/Drinking water - chlorination (gas/liquid)	Spills/Releases							
		Service Water/Drinking water/Aux. cooling water - consumptive Use of water	depletion of aquifer							
		State Drinking Water Rule Interpretation changes	Replace/refurbish drinking water system							
	Wastewater Treatment	Waste water - Operation of Elementary Neutralization System/	Ground water impact							
			Surface Water Impact							
		Waste water tanks	Spills/releases							
		Ash pond classification	waste disposal and plant operation							
		FGD Wastewater Treatment System(Wastewater Settling Pond, Bioreactor Operation	Ground water impact							
			Surface Water Impact							
			Spills/releases							
	Chemical Handling (**Anhydrous Ammonia, Sodium Hydroxide, Aluminum Hydroxide, Ammonium Hydroxide, Hydrazine, Limestone)**	Loading/Unloading of chemicals	Spills/Releases							
		truck movement	truck traffic							
		NH3 rail movement	rail traffic							

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
		Receive/Store chemicals	Spills/releases							
		Storage Tank and chemical/fuel inventory management	Spills/Releases							
	Control Equipment and Monitor Operations	ESP/FGD/SCR Operations	air quality impacts							
			Air Impact - Fugitive Dust							
			Spills/Releases - chemical use							
			Potential Haz. Waste generation							
		CEMS Operation/maintenance	Hazardous waste generation - Cleaning of umbilical							
		upgrade and installlation	Loss of Data, other Regulatory							
		Particulate Monitors (PM)	Data collection							
Power Plant Maintenance	Cooling Tower Maintenance	Cooling Towers - Equipment leaks (piping, etc)	Spills/Releases							
		Cooling Towers - Structural Issues - basin leaks	Spills/Releases							
		Cooling Towers - Management of Waste (sludge, sediment)	Storm water impact							
			Ground water impact							
	Equipment Maintenance	Oil Containing mobile equipment use (fork lifts, cranes, etc.)	Spills/releases							
		Removal/changing equipment oils - non-water front	Spills/releases							
		Removal/changing equipment oils - water front	Potential Haz. Waste generation with oil change							
		Oil filtering	Spills/releases							
		FGD/SCR/ESP Maintenance	Air Impact - Excess Emissions							
			Air Impact - Fugitive Dust							
			Storm water impact							
		Vehicle Use & Maintenance	Fuel Consumption							
			Generation of Used oil and use oil filters and other wastes.							
		SCR catalyst change-out;	sell / regeneration							
	Cleaning and Equipment Washing	Air Heater Washing	Ground water impact							
			High Water Usage							
			Spills/releases							
			Surface Water Impact							
		ESP Washing	Ground water impact							
			Spills/releases							
			High Water Usage							
		Fan washing	Spills/releases of oil							

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
		General cleaning of sumps/pipes/floors/conveyors	Run off - Surface water impact							
			Run off - storm water impact							
		Oil water sep. cleaning	Spills/releases							
		Parts cleaning	Hazardous Waste Generation							
		duct work washing	Surface water impact							
	Scrap metal storage	Scrap metal storage (oil/iron run off)	Surface Water Impact							
			Storm water impact							
			Soil impact							
	Painting of structures & equipment	Painting of structures & equipment	Reduction of rustand impact to storm water							
			Potential Haz. Waste generation							
			Air - VOC generation							
		Coatings Abatement (Metals)	Hazardous waste generation							
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Waste management (haz/non-haz)	Improper management - liability for company							
			Spills/releases							
		On-site landfills (other than ash)	Ground water impact							
			Soil impact							
		Ability to permit	Plant operation							
		Landfill classification	Plant operation							
	Facility/Grounds Maintenance	Vegetation/Insect Control	Surface water impact							
			Storm water impact							
			Wildlife impact							
		Storm water discharge	Surface water impact							
		Dredging canals/ditches/ponds - (process & if does not occur)	surface water impact (TSS impact							
		Dam Maintenance	upkeep and inspections of dams							
		Hydrogen								
		Batteries	recycling							
		Glycol	recycling							
	NPDES	Permit renewel	New limits							
	Title V Permit	Permit renewel	New limits/requirements							
	Bioreactor	surface water impacts	leaks							

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
		performance								
	Settling ponds	surface water impacts	leaks							
			cleaning of ponds sediment							
	Flush Pond	surface water impacts	leaks							
			cleaning of pond sediment							
			Flush pond/settling pond short circutting							
	Hydraded lime injection		spill releases							
	ZLD	operation	future state							
		waste stream / disposal	future state							
	MACT Standard									
	NAAQS									
	CCR									
	CSAPR rule									
	DAM Safety & inspections									

Asheville Plant (Steam and CTs)

2012 Significant Environmental Impacts Scoring Sheet

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Control Equipment and Monitor Operations	ESP/FGD/SCR Operations	Positive: Reduction of air impacts	5	5	5	5	5	25	
Power Plant Operations			Pond - Potential ground water impacts	5	3	5	5	4	21	Fe,Mn,Bo hits at compliance boundary
Power Plant Operations			Ground water impact	5	3	5	5	4	21	Unlined ponds/Mn&Fe hits/ increasing reg scrutiny
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	CCR Rule		Ash Disposal	5	2	5	5	4	20	Rules to be determined
Power Plant Operations	Hydrated Lime System	Operation Failure	Air - blue plume	5	2	3	5	4	18	Operation Required for ILB coal
Power Plant Operations	Ash Management	Fly/Bottom Ash Generation	Air Impact - Fugitive Dust	5	2	3	4	4	16	ash stacking/cenospheres
Power Plant Operations		Burning ILB Coal	Air - blue plume	4	2	4	5	5	16	Blue plume if can not keep HLS in service
Power Plant Operations		Higher Sulfur Coals (ILB)	Surface water impact	5	2	3	4	3	15	Ash pond pH treatment required
Power Plant Operations		Dam Integrity	Surface water impact	3	5	5	5	4	14	1964/71 dam enhancement project mitigation
Power Plant Operations		CT operations	Spills/Releases - chemical use	4	3	3	4	4	14	Ethylene glycol lacks secondary containment
Power Plant Operations			Air impact - Fugitive Dust-cenospheres	5	1	2	4	4	14	2008 NOV
Power Plant Operations		Operation of Ash Ponds	Surface water impact	4	2	3	4	4	13	Exceedances due to pH control issues
Power Plant Operations			Air permit condition/limit/notifications	4	2	3	4	4	13	5-day notice to WNCRAQA for chem.cleaning evaporation
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)		Constructed Wetlands Operation	Potential surface water impact	3	3	2	5	5	11	Hg exceedance in 2007/cattail cells distressed
Power Plant Operations			Surface water impact	4	2	2	4	3	11	Addressed in NPDES permit/drains to ash pond/sig. color change
Power Plant Operations		Wetlands Maintenance	Surface water permit exceedance	3	3	2	4	5	11	Failure to monitor/maintain = NPDES permit exceedance
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	MATS Rule		Air - Hg exceedance	3	2	3	5	4	11	Strategic Engineering evaluating compliance options
Power Plant Operations			visibile plume	5	1	1	5	1	10	
Power Plant Operations		Acid piping/delivery system	Spills/Releases	5	3	1	1	3	10	Sulfuric acid line leaks commom
Power Plant Operations		Bagfilter failure/piping leak/hole	Air - Release of lime particulates	5	3	1	1	3	10	violation of air permit/caustic particulates
Power Plant Operations			Off-site deposition - trucks	3	3	2	4	4	10	fill projects
Power Plant Operations		Remaining useful life to stay in compliance	Surface water impact	3	2	2	4	4	9	Airport project increases pond capacity/dry ash conversion TBD
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	SO2 NAAQS		Air -lower Sox compliance	3	2	1	5	4	9	Modeling ongoing by consultant
Power Plant Operations		VIMS upgrade/installation	Loss of Data, other Regulatory	3	1	3	3	4	8	New VIMS software/virtual server
Power Plant Operations		Burning Fuel (Coal)	Air impact (specify pollutants of concern)	2	3	3	5	4	8	SOX, NOX, Opacity, Hg
Power Plant Operations		Burning Fuel (Oil) (CTs and start-up coal)	Air impact (specify pollutants of concern)	2	2	3	5	4	7	Sox, Nox, opacity, VOCs
Power Plant Operations		Burning Used Oil (coal units)	Air impact (specify pollutants of concern)	2	2	3	5	4	7	VOCs
Power Plant Operations	Cooling Pond	Lake Wildlife	Se levels in fish tissue	2	4	3	5	1	7	

Asheville Plant (Steam and CTs)

2012 Significant Environmental Impacts Scoring Sheet

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations		Stockpiling Off-spec gypsum	Air Impact - Fugitive Dust	3	2	2	2	2	6	Occurs occasionally - high winds
Power Plant Operations		Slagging Mitigation (MgOH/CaCO3)	Spills/Releases	5	1	1	1	1	5	Drains to ash opnd - requires pH adjustment
Power Plant Operations		Coatings Abatement (Metals)	Hazardous waste generation	4	1	1	1	1	4	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			Spills/releases	2	3	1	1	3	4	
Power Plant Operations		Fuel oil tanks - AST	Spills/releases	2	1	2	1	2	3	Secondary containment/SPCC/Drains to ash pond/worst case
Power Plant Operations		Boiler chemical cleaning	Spills/releases	2	2	1	1	2	3	Chem. cleaning in 2013
Power Plant Operations		Waste water tanks	Spills/releases	2	2	1	1	2	3	All tanks and cells double lined
Power Plant Operations		Removal/changing equipment oils - non-water front	Spills/releases	1	2	2	5	3	3	
Power Plant Operations		Parts cleaning	Hazardous Waste Generation	2	1	1	1	3	3	Electra 221 (do our own)
Power Plant Operations			Potential Haz. Waste generation	2	2	1	1	2	3	
Power Plant Operations			Air impact (sulfuric acid)	1	3	1	4	3	3	NA
Power Plant Operations			Potential Haz. Waste generation	2	1	1	1	2	3	Chemical cleaning in 2013
Power Plant Operations			Air - VOC generation	2	2	1	1	1	3	
Power Plant Operations			chemical spills	1	2	2	1	4	2	Significant dilution in ponds
Power Plant Operations			Air Impact - Excess Opacity	1	1	1	3	4	2	
Power Plant Operations		Transferring oils/fuels/piping	Spills/releases	1	3	2	1	2	2	Aboveground piping/Drains to ash pond/worst case
Power Plant Operations	Limestone Handling	Unloading trucks	Air Impact - Fugitive Dust	2	1	1	1	1	2	
Power Plant Operations	Gypsum Handling	Loading trucks and rail cars	Air Impact - Fugitive Dust	2	1	1	1	1	2	
Power Plant Operations	Boiler Operation	Boiler make-up - pH control	Chemical Spill Potential	1	2	2	1	3	2	
Power Plant Operations		Transformers	Spills/Release potential	1	1	3	1	3	2	
Power Plant Operations	Chemical Handling	Loading/Unloading of chemicals	Spills/Releases	1	2	2	1	3	2	
Power Plant Operations			Soil impact	2	1	1	1	1	2	Scrap metal bin sits on concrete
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)		Dredging canals/ditches/ponds - (process & if does not occur)	SPCC implications - surface water impact	1	1	1	3	3	2	
Power Plant Operations		Storage Tank and chemical/fuel inventory management	Spills/Releases	1	3	1	2	1	2	SCR urea, ammonia, bulk chemicals
Power Plant Operations			Air Impact - Fugitive Dust	1	1	1	2	3	2	
Power Plant Operations		Oil filtering	Spills/releases	1	2	2	1	2	2	
Power Plant Operations		FGD/SCR/ESP Maintenance	Air Impact - Excess Emissions	1	1	1	2	3	2	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Waste management (haz/non-haz)	Improper management - liability for company	1	2	1	1	3	2	Annual training of personnel and pre-job briefs
Power Plant Operations		Operating Coal Yard	Air impact(fugitive dust)	1	1	1	2	2	2	
Power Plant Operations		Fan Operation	Air impact - NOx generation	1	1	1	1	3	2	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			Storm water impact	1	1	1	1	3	2	
Power Plant Operations	Fuel Handling (Fuel Oil)	Unloading fuel (tankers)	Spills/releases	1	1	1	1	2	1	Unloaded on concrete/SPCC/Drains to ash pond/worst case

Asheville Plant (Steam and CTs)

2012 Significant Environmental Impacts Scoring Sheet

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations			Ground water impact	1	1	1	1	2	1	
Power Plant Operations		Draining of tank containments - storm water collection	Storm water impact	1	1	1	1	2	1	Drains to ash pond via oi/h2o separator
Power Plant Operations			Spills/releases	1	1	1	1	2	1	
Power Plant Operations			Oil spills/release from equipment	1	1	1	1	2	1	Drains to ash pond/worst case
Power Plant Operations			Surface water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations		Receive/Store chemicals/oils	Spills/releases	1	1	1	1	2	1	
Power Plant Operations			Spills/Releases - chemical use	1	1	1	1	2	1	
Power Plant Operations			Potential Haz. Waste generation	1	1	1	1	2	1	
Power Plant Operations	Equipment Maintenance	Oil Containing mobile equipment use (fork lifts, cranes, etc.)	Spills/releases	1	1	1	1	2	1	
Power Plant Operations			Air Impact - Fugitive Dust	1	1	1	1	2	1	
Power Plant Operations		Oil water sep. cleaning (CTs)	Spills/releases	1	1	1	1	2	1	Drains to ash pond/worst case
Power Plant Operations	Fuel Handling (Coal)	Unloading fuel (train cars, trucks)	Spills/releases	1	1	1	1	1	1	
Power Plant Operations			Storm water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations			Surface Water Impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations		Coal Yard Maintenance	Coal run off-surface water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations			Coal run off- storm water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations		Conveying Coal	Air Impact - Fugitive Dust	1	1	1	1	1	1	
Power Plant Operations			Storm water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations			Surface Water Impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations		Pulverize Coal	Air Impact - Fugitive Dust	1	1	1	1	1	1	
Power Plant Operations		Generation of mill rejects	ponds - Ground water impact	1	1	1	1	1	1	Put back on coal pile
Power Plant Operations			Air impact - Fugitive Dust	1	1	1	1	1	1	
Power Plant Operations			Storm water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations			Surface water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations			Surface water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations			Storm water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations			Surface water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations			Storm water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations			Storm water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations			Storm water impact	1	1	1	1	1	1	
Power Plant Operations		Ash Handling system (piping/pumps/collection system/dewatering systems)	Spills/releases	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations			Air impact - Fugitive Dust	1	1	1	1	1	1	
Power Plant Operations			Storm water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations			Surface water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations			Air Impact - Fugitive Dust	1	1	1	1	1	1	
Power Plant Operations			Pond discharge - ground water impact	1	1	1	1	1	1	Significant dilution in ponds
Power Plant Operations		Smoke Stacks	Bird Collisions	1	1	1	1	1	1	
Power Plant Operations	Wastewater Treatment	Waste water - Operation of FGD blowdown	Ground water impact	1	1	1	1	1	1	All tanks and cells double lined

Asheville Plant (Steam and CTs)

2012 Significant Environmental Impacts Scoring Sheet

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations		CEMS Operation/maintenance	Hazardous waste generation - Cleaning of umbilical	1	1	1	1	1	1	
Power Plant Operations			Storm water impact	1	1	1	1	1	1	
Power Plant Operations		Vehicle Use & Maintenance	Fuel Consumption	1	1	1	1	1	1	
Power Plant Operations			Generation of Used oil and use oil filters and other wastes.	1	1	1	1	1	1	Mintenance done off-site
Power Plant Operations	Cleaning and Equipment Washing	Air Heater Washing	Ground water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations			High Water Usage	1	1	1	1	1	1	
Power Plant Operations			Spills/releases	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations		Fan washing	Spills/releases of oil	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations		General cleaning of sumps/pipes/floors/conveyors	Run off - Surface water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations	Scrap metal storage	Scrap metal storage (oil/iron run off)	Surface Water Impact	1	1	1	1	1	1	Drains to ash pond/worst case
Power Plant Operations			Storm water impact	1	1	1	1	1	1	Drains to ash pond/worst case
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Vegetation/Insect Control	Surface water impact	1	1	1	1	1	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			Storm water impact	1	1	1	1	1	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			Wildlife impact	1	1	1	1	1	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)		Storm water discharge	Surface water impact	1	1	1	1	1	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			waste - ground water impact	1	1	1	1	1	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			Potential ground water impact	1	1	1	1	1	1	All cells lined
Power Plant Operations									0	
Power Plant Operations									0	
Power Plant Operations									0	
Power Plant Operations									0	
Power Plant Operations									0	
Power Plant Operations									0	
Power Plant Operations	Painting of structures & equipment	Painting of structures & equipment	Positive - Reduction of rust and impact to storm water						0	
Power Plant Operations									0	

Asheville Plant (Steam and CTs)

2012 Significant Environmental Impacts Scoring Sheet

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)									0	
Power Plant Operations										
Power Plant Operations										
Power Plant Maintenance										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										

Work Area: Blewett Hydro Plant

2012 Significant Environmental Impacts Scoring Sheet

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Equipment Maintenance	Oil Containing mobile equipment use (fork lifts, cranes, etc.)	Spills/releases	4	4	4	3	4	15	trash removal crane on water
Power Plant Maintenance		Removal/changing equipment oils - water front	Spills/releases to surface water	4	4	4	3	4	15	Vessel
Power Plant Operations		Transferring oils/fuels	Spills/releases (To Water)	2	4	2	2	4	6	Barge Refueling/misc fueling
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Waste management (haz/non-haz)	Improper management - liability for company	1	2	2	1	2	2	
Power Plant Operations		Waste water tanks	Spills/releases	1	1	2	1	2	2	septic tank
Power Plant Operations	Chemical Handling	Loading/Unloading of chemicals	Spills/Releases	1	1	2	1	2	2	
Power Plant Operations		Receive/Store chemicals/oils	Spills/releases	1	1	2	1	2	2	
Power Plant Operations		Storage Tank and chemical/fuel inventory management	Spills/Releases	1	1	2	1	2	2	
Power Plant Maintenance			Potential Haz. Waste generation	1	2	1	1	2	2	
Power Plant Maintenance		Coatings Abatement (Metals)	Hazardous waste generation	1	2	1	1	2	2	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			Spills/releases	1	2	1	1	2	2	
Power Plant Maintenance		Oil filtering	Spills/releases	1	1	1	1	2	1	U 1-6 Gen. brgs/Govs
Power Plant Maintenance			Generation of Used oil and used oil filters and other wastes.	1	1	1	1	2	1	plant mobile equipment
Power Plant Maintenance		General cleaning of sumps/pipes/floors/conveyors	Run off - Surface water impact	1	1	1	1	2	1	Washing plant eqipment
Power Plant Maintenance		~~Parts Washer******~~	~~Hazardous Waste Generation~~	1	1	1	1	2	1	
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)	Surface Water Impact	1	1	1	1	2	1	
Power Plant Maintenance			Soil impact	1	1	1	1	2	1	
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Positive - Reduction of rust and impact to storm water	1	1	1	1	2	1	penstocks
Power Plant Maintenance			Air - VOC generation	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Vegetation/Insect Control	Surface water impact	1	1	1	1	2	1	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			Wildlife impact	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)		Dredging canals/ditches/ponds - (process & if does not occur)	SPCC implications - surface water impact	1	1	1	1	2	1	plant intake
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			waste - ground water impact	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			Storm water impact	1	1	1	1	2	1	
Power Plant Operations	Wastewater Treatment	Waste water - Operation of Elementary Neutralization System	Ground water impact	1	1	1	1	1	1	
Power Plant Maintenance		Removal/changing equipment oils - non-water front	Spills/releases	1	1	1	1	1	1	gehl,tractor,lawn mower
Power Plant Operations	Fuel Handling (Fuel Oil)	~~Unloading fuel (Barges, train cars, tankers)~~	~~Spills/releases~~	0	0	0	0	0	0	CT Site Responsibility
Power Plant Operations		~~Fuel oil tanks - AST/UST~~	~~Spills/releases~~	0	0	0	0	0	0	CT Site Responsibility
Power Plant Operations			~~Ground water impact~~	0	0	0	0	0	0	N/A CT Site responsibility
Power Plant Operations		~~Draining of tank containments - storm water collection~~	~~Storm water impact~~	0	0	0	0	0	0	N/A CT Site responsibility
Power Plant Operations		~~No. 6 oil heating~~	~~Spills/releases~~	0	0	0	0	0	0	N/A
Power Plant Operations		~~Burning Fuel (Oil)~~	~~Air impact (specify pollutants of concern)~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Burning Used Oil~~	~~Air impact (specify pollutants of concern)~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Spills/releases~~	0	0	0	0	0	0	n/a
Power Plant Operations									0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~	~~Unloading fuel (Barges, train cars)~~	~~Spills/releases~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Operating Coal Yard~~	~~Air impact(fugitive dust)~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Surface Water Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Coal Yard Maintenance~~	~~Coal run off-surface water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Coal run off- storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Oil spills/release~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Conveying Coal~~	~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Surface Water Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Pulverize Coal~~	~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Generation of mill rejects~~	~~Landfill/ponds - Ground water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Air impact - Fugitive Dust~~	0	0	0	0	0	0	n/a

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations			~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Surface water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Burning Fuel (Coal)~~	~~Air impact (specify pollutants of concern)~~	0	0	0	0	0	0	n/a
Power Plant Operations				0	0	0	0	0	0	n/a
Power Plant Operations	~~Ash Management~~	~~Fly/Bottom Ash Generation~~	~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Landfill/Pond - Potential ground water impacts~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Off-site deposition - trucks~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Ash Handling system (piping/pumps/collection system/dewatering systems)~~	~~Spills/releases~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Air impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Surface water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Operation of Ash Ponds~~	~~Ground water/surface water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations				0	0	0	0	0	0	n/a
Power Plant Operations	~~Cooling Tower Operation~~	~~Chemical Treatment - Cooling Towers~~	~~Positive: Reduction of Cooling water temperature~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Positive - (closed-loop) - reduction of impingement/entrainment 316(b)~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Surface Water Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Wildlife Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Salt Drift - Cooling Towers~~	~~Impact to vegetation~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Once-thru cooling water intake~~	~~316(b) - Impingement/ Entrainment~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Biocide Use - Cooling water~~	~~Surface Water Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Wildlife Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Auxillary Cooling water (closed cooling water) - Corrosion Inhibitor addition~~	~~Ground water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Auxillary Cooling water (closed cooling water) - Pond discharge~~	~~Ground water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations				0	0	0	0	0	0	n/a
Power Plant Operations	~~Boiler Operation~~	~~Boiler make-up - Resin Regen~~	~~Discharge to Pond - groundwater impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Boiler make-up - pH control~~	~~Chemical Spill Potential~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Boiler make-up - Wastes - (resin, filter media)~~	~~Improper waste management by contractor - liability for Company~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Boiler make-up - RO Treatment~~	~~Ground water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Boiler make-up - consumptive use of water~~	~~Well level draw down - depletion of aquifer~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Fan Operation~~	~~Air impact - NOx generation~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Air Impact - Excess Opacity~~	0	0	0	0	0	0	n/a

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations		~~Boiler chemical cleaning~~	~~Spills/releases~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Potential Haz. Waste generation~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Pond discharge - ground water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Smoke Stacks~~	~~Bird Collisions~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Positive - Navigational landmark~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Transformers~~	~~Spills/Release potential~~	0	0	0	0	0	0	n/a
Power Plant Operations	Service Water/Drinking Water	~~Service Water/Drinking water - chlorination (gas/liquid)~~	~~Spills/Releases~~	0	0	0	0	0	0	n/a
Power Plant Operations		Service Water	None	0	0	0	0	0	0	Fire system
Power Plant Operations		Drinking Water/Potable Water	Well level draw down - depletion of aquifer	0	0	0	0	0	0	
Power Plant Operations			~~Air impact (chlorine)~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Control Equipment and Monitor Operations~~	~~ESP/FGD/SCR Operations~~	~~Positive: Reduction of air impacts~~	0	0	0	0	0	0	na
Power Plant Operations			~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	na
Power Plant Operations			~~Spills/Releases - chemical use~~	0	0	0	0	0	0	na
Power Plant Operations			~~Potential Haz. Waste generation~~	0	0	0	0	0	0	na
Power Plant Operations			~~Well level draw down - depletion of aquifer - high water use~~	0	0	0	0	0	0	na
Power Plant Operations		~~CEMS Operation/maintenance~~	~~Hazardous waste generation - Cleaning of umbilical~~	0	0	0	0	0	0	na
Power Plant Maintenance	~~Cooling Tower Maintenance~~	~~Cooling Towers - Equipment leaks (piping, etc)~~	~~Spills/Releases~~	0	0	0	0	0	0	na
Power Plant Maintenance		~~Cooling Towers - Structural Issues - basin leaks~~	~~Spills/Releases~~	0	0	0	0	0	0	na
Power Plant Maintenance		~~Cooling Towers - Management of Waste (sludge, sediment)~~	~~Storm water impact~~	0	0	0	0	0	0	na
Power Plant Maintenance			~~Ground water impact~~	0	0	0	0	0	0	na
Power Plant Maintenance		~~FGD/SCR/ESP Maintenance~~	~~Air Impact - Excess Emissions~~	0	0	0	0	0	0	n/a
Power Plant Maintenance			~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Maintenance			~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Maintenance		~~Vehicle Use & Maintenance~~	~~Fuel Consumption~~	0	0	0	0	0	0	n/a
Power Plant Maintenance	~~Cleaning and Equipment Washing~~	~~Air Heater Washing~~	~~Ground water impact~~	0	0	0	0	0	0	na/
Power Plant Maintenance			~~High Water Usage~~	0	0	0	0	0	0	na/
Power Plant Maintenance			~~Spills/releases~~	0	0	0	0	0	0	na/

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance		~~ESP Washing~~	~~Ground water impact~~	0	0	0	0	0	0	na/
Power Plant Maintenance			~~Spills/releases~~	0	0	0	0	0	0	na/
Power Plant Maintenance			~~High Water Usage~~	0	0	0	0	0	0	na/
Power Plant Maintenance		~~Fan washing~~	~~Spills/releases of oil~~	0	0	0	0	0	0	na/
Power Plant Maintenance			Run off - storm water impact	0	0	0	0	0	0	n/a
Power Plant Maintenance		~~Oil water sep. cleaning~~	~~Spills/releases~~	0	0	0	0	0	0	n/a
Power Plant Maintenance			~~Storm water impact~~	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)		~~On-site landfills (other than ash)~~	~~Ground water impact~~	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			~~Soil impact~~	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			~~Storm water impact~~	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)		~~Storm water discharge~~	~~Surface water impact~~	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)		Constructed Wetlands Operation	Potential surface water impact	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			Potential ground water impact	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)									0	
Power Plant Operations										
Power Plant Operations										
Power Plant Operations										
Power Plant Operations										
Power Plant Maintenance										

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance										
Power Plant Maintenance										
Power Plant Maintenance										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										

Cape Fear Plant

2012 Significant Environmental Aspects/Impacts Scoring Sheet

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Cooling Tower Operation	Once-thru cooling water intake	316(b) - Impingement/ Entrainment	5	3	4	4	4	19	see note 4 below
Power Plant Operations	Ash Management	Operation of Ash Ponds	Useful/remaining life	5	1	5	5	3	18	see note 3 below
Power Plant Operations	Ash Management	Fly/Bottom Ash Generation	Landfill/Pond - Potential ground water impacts	4	4	4	4	4	16	see note 7 below
Power Plant Operations	Ash Management	Operation of Ash Ponds	Ground water impact	4	4	4	4	4	16	see note 7 below
Power Plant Operations	Ash Management	Maintenance of Ash Ponds	Seepage Issues	5	3	2	3	4	15	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Decommission of Plant	Ground water sampling	Ground water impact from historical plant operations	5	1	3	4	4	15	
Power Plant Maintenance	Demolition Activity	Demolish Boilers 1-8	Asbestos	4	4	4	2	3	13	see note 5 below
Power Plant Operations	Ash Management	Operation of Ash Ponds	Air Impact - Fugitive Dust	4	2	2	4	4	12	Plant utilizes a soil cementing chemical during dry periods.
Power Plant Operations	Ash Management	Maintenance of Ash Ponds	Air Impact (fugitive dust)	4	2	2	4	4	12	Plant utilizes a soil cementing chemical during dry periods.
Power Plant Operations	Control Equipment and Monitor Operations	CEMS Operation/maintenance	Missing Data Use	5	2	2	1	4	11	see note 6 below
Power Plant Maintenance	Painting of structures & equipment	Coatings Abatement (Metals)	Hazardous waste generation	5	3	2	1	3	11	Possible generation of lead paint chips.

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Digging Activities	Potential discovery of petroleum contaminated soil	4	2	3	3	3	11	
Power Plant Operations	Ash Management	Maintenance of Ash Ponds	Animal Burrows/Paths	4	2	1	3	4	10	
Power Plant Operations	Fuel Handling (Coal)	Burning Fuel (Coal) for U5 & U6	Air impact (NOx, Opacity, Particulate, SO2)	3	2	3	4	4	10	see note 2 below
Power Plant Operations	Ash Management	Maintenance of Ash Ponds	Vegetation	3	3	3	3	4	10	
Power Plant Operations	Ash Management	Operation of Ash Ponds	Spill/Release	2	4	5	5	5	10	Monthly inspections are conducted to note any pattern changes and to address work orders
Power Plant Operations	Ash Management	Operation of Ash Ponds	Surface Water Impact	3	2	2	4	4	9	see note 13 below
Power Plant Operations	Cooling Tower Operation	Cooling Tower Fans	Spills/Release	3	2	2	4	4	9	
Power Plant Operations	Condensers	Water Usage for steam condensing	Water depletion	3	3	2	4	3	9	Concerned that legislation may establish a water-withdrawal permitting program.
Power Plant Operations	Control Equipment and Monitor Operations	ROFA/ESP/ROTAMIX Operations	Air permit exceedances	3	2	3	3	4	9	see note 2 below
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Plant Permit Changes	All permits will have to be modified or may be eliminated.	Improper action could lead to NOV(s) potentially.	3	1	2	5	4	9	
Power Plant Operations	Boiler Operation	Boiler make-up - consumptive use of water	Depletion of river level	3	1	2	4	3	8	drought conditions
Power Plant Operations	Boiler Operation	Transformers	Spills/Release potential	3	2	3	2	3	8	Depends on location of spill.
Power Plant Operations	Control Equipment and Monitor Operations	COMS Operation/maintenance	Monitor downtime greater than 2% in operating quarter	3	2	2	2	4	8	
Power Plant Maintenance	Equipment Maintenance	Equipment cleaning - Solvents/degreasers	Hazardous Waste Generation	3	3	2	1	4	8	Improper disposal of aerosol cans and rags

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Cooling Tower Operation	Main Cooling Towers	Cooling water temperature above limit	2	4	2	4	4	7	See note 9
Power Plant Operations	Cooling Tower Operation	water (closed cooling water) - Pond discharge	Surface/ground water impact	2	4	1	4	4	7	Sampling needs to be conducted at a minimum constant flowrate
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Storm water discharge	Surface water impact	3	1	2	1	4	6	New NPDES Permit has storm water sampling requirements.
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Use of asbestos for boiler/equipment insulation	Asbestos Abatement	2	3	3	2	3	6	
Power Plant Maintenance	Demolition Activity	Demolish Boilers 1-8	Non-haz waste	3	1	3	1	2	5	see note 5 below
Power Plant Operations	Ash Management	Fly/Bottom Ash Generation	Air Impact - Fugitive Dust	2	1	3	3	3	5	
Power Plant Operations	Ash Management	Maintenance of Ash Ponds	Oil Filled Equipment	2	2	1	3	4	5	NPDES permit has oil/grease limits.
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Potential Haz. Waste generation	2	2	3	2	3	5	
Power Plant Maintenance	Demolition Activity	Demolish Boilers 1-8	Mercury	2	4	4	1	1	5	see note 5 below
Common Power Plant Activities (May be Operations,	Facility/Grounds Maintenance	Hydraulic systems at intake and discharge (i.e.,	Spill/Release	2	1	2	3	4	5	
Power Plant Operations	Control Equipment and Monitor Operations	230 KV Switchyard	Spill/Release	1	4	4	5	4	4	see note 10 below
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps/collection system)	Spills/releases	3	1	1	1	2	4	All spills need to be promptly cleaned up.
Common Power Plant Activities (May be Operations,	Waste Management	Waste management (haz/non-haz)	Improper management - liability	1	4	3	4	4	4	Use only approved vendors
Power Plant Maintenance	Cleaning and Equipment Washing	Oil water sep. cleaning	Inefficient Oil and grease	2	1	1	1	4	4	See note 12
Power Plant Maintenance	Painting of structures & equipment	Sandblasting Activities	Potential Haz. Waste generation	2	1	2	1	3	4	TCLP sample or mechanically remove for waste reduction.

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Demolition Activity	Demolish Boilers 1-8	Haz waste	2	2	2	1	2	4	see note 5 below
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Waste management (haz/non-haz)	Spills/releases	1	3	3	4	4	4	
Power Plant Operations	Fuel Handling (Coal)	Operating Coal Yard	Air impact (fugitive dust)	2	2	1	1	2	3	
Power Plant Maintenance	Equipment Maintenance	Oil Containing mobile equipment use (fork lifts, cranes, etc.)	Spills/releases	2	1	1	1	3	3	
Power Plant Operations	Fuel Handling (Fuel Oil)	Transferring oils/fuels	Spills/releases	1	2	3	3	3	3	see note 1 below
Power Plant Operations	Fuel Handling (Fuel Oil)	Fuel oil tanks - AST	Spills/releases	1	2	3	3	3	3	
Power Plant Operations	Ash Management	Ash Reuse	Spills/releases	1	2	2	4	3	3	NA based on current operation
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Landfill/ponds - Ground water impact	1	3	2	2	2	2	See note 8
Power Plant Operations	Chemical Handling	Loading/Unloading of chemicals	Spills/Releases	1	3	2	1	3	2	
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Potential Haz. Waste	2	1	1	1	1	2	Only non-dripping paint cans are to be disposed of
Power Plant Operations	Fuel Handling (Fuel Oil)	Unloading fuel (tankers)	Spills/releases	1	2	2	1	2	2	
Power Plant Operations	Fuel Handling (Fuel Oil)	Fuel Oil Start-up for U5 and U6	Unburned oil in ash hopper	1	1	1	1	4	2	non-ignitable oil from start-up
Power Plant Operations	Fuel Handling (Fuel Oil)	Transferring/Burning Fuel (PCB Oil)	Spill/Release	1	1	2	1	3	2	
Power Plant Operations	Fuel Handling (Coal)	Fuel Handling Equipment - Locomotive and Bulldozer	Spills/releases	1	1	2	1	3	2	
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Pond discharge - ground water impact	1	1	1	1	4	2	
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - non-water front	Potential Haz. Waste	1	1	2	1	3	2	See note 11

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Cleaning and Equipment Washing	Air Heater Washing	Surface water impact	1	1	1	1	4	2	
Common Power Plant Activities (May be Operations,	Facility/Grounds Maintenance	Metal Cleaning Wastes	NPDES iron and copper	1	1	1	1	4	2	
Power Plant Operations	Chemical Handling	Receive/Store chemicals/oils	Spills/releases	1	1	1	1	3	2	
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - non-water front	Spills/releases	1	1	1	1	3	2	
Power Plant Operations	Fuel Handling (Coal)	Conveying Coal	Air Impact - Fugitive Dust	1	2	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)	Pulverize Coal	Air Impact - Fugitive Dust	1	2	1	1	1	1	
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Spills/releases	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Fuel Oil)	Fuel oil tanks - AST	Ground water impact	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Fuel Oil)	Draining of tank containments - storm water collection	Storm water impact	1	1	1	1	1	1	A drainage checklist must be followed and filled out.
Power Plant Operations	Fuel Handling (Fuel Oil)	Burning Fuel (Oil)	Air impact (NOx, Opacity, SO2)	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Fuel Oil)	Transferring/Burning Fuel (PCB Oil)	Air impact (NOx, Opacity, SO2)	1	1	1	1	1	1	Burn PCB at Cape Fear
Power Plant Operations	Fuel Handling (Coal)	Unloading fuel (train cars)	Spills/releases	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)	Operating Coal Yard	Storm water impact	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)	Operating Coal Yard	Surface Water Impact	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)	Conveying Coal	Storm water impact	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)	Conveying Coal	Surface Water Impact	1	1	1	1	1	1	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Air impact - Fugitive Dust	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Storm water impact	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Surface water impact	1	1	1	1	1	1	
Power Plant Operations	Ash Management	Fly/Bottom Ash Generation	Storm water impact	1	1	1	1	1	1	
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps/collection system)	Air impact - Fugitive Dust	1	1	1	1	1	1	
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps/collection system)	Storm water impact	1	1	1	1	1	1	
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps/collection system)	Surface water impact	1	1	1	1	1	1	
Power Plant Operations	Boiler Operation	Boiler make-up - pH control	Chemical Spill Potential	1	1	1	1	1	1	
Power Plant Operations	Boiler Operation	Boiler make-up - Wastes - (filter media)	Improper waste management by contractor - liability for Company	1	1	1	1	1	1	
Power Plant Operations	Boiler Operation	Boiler make-up - RO Treatment	Surface/ground water impact	1	1	1	1	1	1	
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Air permit condition/limits/notifications.	1	1	1	1	1	1	Follow Permit Conditions
Power Plant Operations	Boiler Operation	Smoke Stacks	Bird Collisions	1	1	1	1	1	1	
Power Plant Operations	Service Water	Service Water - chlorination (gas/liquid)	Spills/Releases	1	1	1	1	1	1	NA based on current operation
Power Plant Operations	Wastewater Treatment	Waste water tanks	Spills/releases	1	1	1	1	1	1	septic tank
Power Plant Operations	Chemical Handling	Receive/Store chemicals/oils	Air impact	1	1	1	1	1	1	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Control Equipment and Monitor Operations	ROFA/ESP/ROTA MIX Operations	Air Impact - Fugitive Dust	1	1	1	1	1	1	
Power Plant Operations	Control Equipment and Monitor Operations	ROFA/ESP/ROTA MIX Operations	Spills/Releases - chemical use	1	1	1	1	1	1	
Power Plant Operations	Control Equipment and Monitor Operations	ROFA/ESP/ROTA MIX Operations	Potential Haz. Waste generation	1	1	1	1	1	1	
Power Plant Operations	Control Equipment and Monitor Operations	CEMS Operation/maintenance	Hazardous waste generation - Cleaning of umbilical	1	1	1	1	1	1	
Power Plant Maintenance	Equipment Maintenance	Oil filtering	Spills/releases	1	1	1	1	1	1	
Power Plant Maintenance	Equipment Maintenance	SNCR/ESP Maintenance	Air Impact - Excess Emissions	1	1	1	1	1	1	
Power Plant Maintenance	Equipment Maintenance	SNCR/ESP Maintenance	Air Impact - Fugitive Dust	1	1	1	1	1	1	
Power Plant Maintenance	Equipment Maintenance	SNCR/ESP Maintenance	Storm water impact	1	1	1	1	1	1	
Power Plant Maintenance	Equipment Maintenance	Vehicle Use & Maintenance	Fuel Consumption	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Air Heater Washing	High Water Usage	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Air Heater Washing	Spills/releases	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	ESP Washing	Ground water impact	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	ESP Washing	Spills/releases	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	ESP Washing	High Water Usage	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Fan washing	Spills/releases of oil	1	1	1	1	1	1	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Cleaning and Equipment Washing	General cleaning of sumps/pipes/floors/ conveyors	Run off - Surface water impact	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	General cleaning of sumps/pipes/floors/ conveyors	Run off - storm water impact	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Oil water sep. cleaning	Spills/releases	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Parts cleaning	Hazardous Waste Generation	1	1	1	1	1	1	New vendor to be established. Fluid should be continued to be recycled.
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)	Surface Water Impact	1	1	1	1	1	1	
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)	Storm water impact	1	1	1	1	1	1	
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)	Soil impact	1	1	1	1	1	1	
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Positive - Reduction of rust and impact to storm water	1	1	1	1	1	1	
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Air - VOC generation	1	1	1	1	1	1	Paint cans are not allowed to be air dried
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Vegetation/Insect Control	Surface water impact	1	1	1	1	1	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Vegetation/Insect Control	Storm water impact	1	1	1	1	1	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Vegetation/Insect Control	Wildlife impact	1	1	1	1	1	1	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Severity	Costs	PR	Regulatory	Significance Score	

Significance Score:
8-9, Low Priority

Significance Score:
10-13, Moderate Priority

Significance Score:
14 - 25, High Priority

Notes

1 - Fuel oil lines 40+ yrs old. Engineering performing evaluation.
2 - Burning the right fuel, operating the boiler & ESP properly, and maintaining the opacity & NOx controls must be done to ensure compliance with the Title V Air Permit limits, such as the 3-hour Opacity limits and SO2 mass limits.
3 - Current ash pond storage plans for the 1985 and 1978 ash ponds indicate storage capacity until 2015. Plant to cease operation by 2014.
4 - Cape Fear Plant is affected by 316 B. EHSS conducted an impingement mortality and entrainment characterization study Sept. 2005 thru August 2006. Study indicated that impingement mortality and entrainment appears to be relatively low. EPA has issued draft rules in 2011.
5 - The Boilers 1-8 demolition have yet to be determined.
6 - If the CEMS equipment is not operating properly, there is the potential that the units may operate while out of compliance. Also, extensive use of missing data can result in dollars due to the need to purchase more allowances. Proper operation of CEMS equipment will reduce this impact.
7 - Cape Fear Plant has conducted volunteer groundwater monitoring around the review boundary of the East Ash Pond. Test results have shown
8 - Mill rejects are currently being buried in the active ash pond,above the water table and covered with ash.
9 - Proper operation of the main cooling tower is essential to meet the Plant's NPDES permit requirement of a daily maximum temperature of 90°F.
10 - The 230 KV Switchyard currently has no controls in place to keep an oil spill from entering the discharge canal. Absorbent and containment
11 - Checking used oil for halogen levels prior to adding to used oil tank will prevent used oil tank contamination and hazardous waste disposal costs.
12 - The oil skimmers must be kept in proper operation to effectively remove oil and grease from water prior to discharging to the old ash pond.
13 - Continuous dredging of the rim ditch, weekly operational checks for TSS, utilizing the alum system when necessary, and sampling during times
14- Dismantlement issues will become more apparent as demolition team formulates plans.
15- Permit changes in different media will require coordination with ESS and Decommissioning team.
16- Importance of Sedimentation & Erosion Control Plans will increase.
17- Maintenance of ash pond wiers will help establish no flow so NPDES can be vacated at that point.
18- Ceasation of coal transport ,the requlated industrial activity,to the plant will facilitate SWPP suspension and removal.

2012- 2013 Darlington County Aspect Impact
Significant Environmental Impacts Scoring Sheet

Secondary Activity, Product, or Service	Aspect	Potential Impact	Significance Ratings					Total	Comment
				Consequence					
			Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Facility Operation (Generating Power)	Fuel Storage	1. Spills/releases	3	3	4	5	5	13	Worst case is catastrophic
Facility Operation (Generating Power)	Equipment Operation/Failure	1. Land spills/releases	3	4	3	3	4	11	
Facility Maintenance	Routine Maintenance (PM)	2. Hazardous Waste Generation/Universal Waste Generation	3	3	3	2	3	8	
Facility Maintenance	Painting Activities	2. Hazardous Waste Generation	3	3	3	2	3	8	
Facility Maintenance	Draining Equipment	1. Waste Generation	4	2	3	1	2	8	
Facility Operation (Generating Power)	Burn Fuel	1. Air emissions/ pollution	2	3	3	4	4	7	
Facility Operation (Generating Power)	Receive/Store/Ship Chemicals and Materials	1. Spills/releases	2	4	3	4	3	7	Considering worst case spill destination for both petroleum and chemicals
Facility Maintenance	Painting Activities	1. Solid Waste Generation	4	2	2	1	2	7	

Secondary Activity, Product, or Service	Aspect	Potential Impact	Significance Ratings					Total	Comment
				Consequence					
			Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Facility Operation (Generating Power)	BOP and auxillary equipment	2. Waste generation	3	2	3	1	2	6	
Facility Maintenance	Replace/Repair Equipment	4. Solid / Universal Waste Generation	3	2	2	1	2	5	
Facility Maintenance	Groundskeeping / Janitorial	1. Solid / Universal Waste Generation	3	2	2	1	2	5	Includes office waste
Facility Operation (Generating Power)	Fuel Storage	2. Air emissions/ pollution	5	1	1	1	1	5	
Facility Maintenance	Replace/Repair Equipment	1. Permit Impact	2	2	4	1	3	5	
Facility Operation (Generating Power)	Fuel Storage	3. Waste generation	3	1	2	1	2	5	Bottoms / sludges
Facility Operation (Generating Power)	Equipment Operation/Failure	2. Water spills/releases	1	4	4	4	4	4	
Facility Operation (Generating Power)	Equipment Operation/Failure	3. Chemical spills/releases	1	4	4	3	5	4	Worst case
Administrative Process	Agency / Regulatory Reporting, correspondence and notifications	2. Reporting Violations	1	4	3	3	5	4	Failure to report information

Secondary Activity, Product, or Service	Aspect	Potential Impact	Significance Ratings					Total	Comment
				Consequence					
			Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Facility Operation (Generating Power)	Unload Fuel	3. Waste generation	2	2	2	1	2	4	
Facility Operation (Generating Power)	Fuel Storage	4. Air emissions (fire/emergency)	1	2	3	3	4	3	
Staffing	Training/Awareness	1. Noncompliance	1	3	3	2	4	3	
Facility Operation (Generating Power)	Unload Fuel	1. Spills/releases (petroleum)	1	3	3	2	3	3	Considering worst case spill destination
Facility Maintenance	Replace/Repair Equipment	3. Asbestos disposal	1	2	4	2	3	3	
Administrative Process	Agency / Regulatory Reporting, correspondence and notifications	1. Adminstrative Errors / Resubmittals	1	3	2	2	4	3	Permit Driven Reporting
Administrative Process	CEMS/PEMS	1. Noncompliance	1	3	2	2	4	3	Lack or failure of process
Administrative Process	Regulatory changes	1. Noncompliance	1	2	3	1	4	3	
Facility Operation (Generating Power)	Abondon Oil Piping	1.Land spills/releases	1	2	2	3	2	2	Product removed from abandon oil piping by contractor.
Facility Operation (Generating Power)	Unload Fuel	2. Air emissions/ pollution	1	2	2	1	4	2	Fuel specs verification
Facility Operation (Generating Power)	Equipment Operation/Failure	4. Air releases	1	2	2	1	3	2	Considering uncontrolled catastrophic release
Facility Operation (Generating Power)	Receive/Store/Ship Chemicals and Materials	2. Waste generation	1	2	2	2	2	2	

Secondary Activity, Product, or Service	Aspect	Potential Impact	Significance Ratings					Total	Comment
				Consequence					
			Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Facility Operation (Generating Power)	BOP and auxillary equipment	1. Permit Exceedance	1	2	2	1	3	2	
Administrative Process	Chemical control	1. Waste Generation	1	2	2	2	2	2	Lack or failure of process
Facility Maintenance	Draining Equipment	2. Spills/releases	1	2	2	1	2	2	Considering worst case spill destination for both petroleum and chemicals
Facility Maintenance	Routine Maintenance (PM)	1. Solid Waste Generation	1	2	2	1	2	2	
Facility Maintenance	Routine Maintenance (PM)	3. Spills/releases	1	2	2	1	2	2	Considering worst case spill destination for both petroleum and chemicals
Facility Maintenance	Painting Activities	3. Spills/releases	1	2	2	1	2	2	Considering worst case spill destination for both petroleum and chemicals
Facility Maintenance	Replace/Repair Equipment	2. Air Emissions	1	2	2	1	2	2	
Facility Maintenance	Groundskeeping / Janitorial	2. Spills/releases	1	2	2	1	2	2	Considering worst case spill destination for both petroleum and chemicals
Facility Maintenance	Land Management	1. Sedimentation and erosion	1	2	2	1	2	2	
Facility Operation (Generating Power)	Draining Equipment							0	
New Construction	Permitting	na							
New Construction and Projects	Permitting	na							

Secondary Activity, Product, or Service	Aspect	Potential Impact	Significance Ratings					Total	Comment
				Consequence					
			Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
New Construction and Projects	Haz Waste Generation	na							
New Construction and Projects	Storm Water Issues	na							
New Construction and Projects	NSR review	na							

Work Area: Plant H.F. LEE PLANT

2012 Significant Environmental Impacts Scoring Sheet

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Ash Management	Operation of Ash Ponds	Useful/remaining life issues (capacity)close out	5	3	5	5	5	23	
Power Plant Maintenance	Equipment Maintenance	FGD/SCR/ESP Maintenance	Air Impact - Excess Emissions	5	3	3	4	4	18	
Power Plant Operations	Wastewater Treatment	Waste water tanks (septic tanks)	Spills/releases	4	3	2	5	5	15	
Power Plant Operations	Fuel Handling (Coal)	Burning Fuel (Coal)	Air impact (specify pollutants of concern)	4	1	4	4	4	13	Opacity, SO2, NOx. Particulates & Load loss
Power Plant Operations	Operation of Cooling Ponds	Auxillary Cooling water (closed cooling water) - Pond discharge	Surface/Ground water impact	3	2	4	5	5	12	
Power Plant Operations	Boiler Operation	Boiler make-up - pH control	Chemical Spill Potential	3	4	2	4	5	11	
Power Plant Operations	Boiler Operation	Transformers	Spills/Release potential	3	3	3	4	4	11	
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Spills/releases	3	3	3	3	4	10	
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps/collection system/dewatering systems)	Surface water impact	2	3	5	5	5	9	
Power Plant Operations	Chemical Handling	Storage Tank and chemical/fuel inventory management	Spills/Releases	4	2	3	2	5	12	
Power Plant Operations	Chemical Handling	Receive/Store chemicals/oils	Spills/releases	3	3	3	2	4	9	
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps/collection system/dewatering systems)	Spills/releases	2	2	5	5	5	9	
Power Plant Operations	Chemical Handling	Loading/Unloading of chemicals	Spills/Releases	3	3	3	2	3	8	
Power Plant Operations	Control Equipment and Monitor Operations	CEMS Operation/maintenance	Hazardous waste generation - Cleaning of umbilical	5	2	2	1	2	9	
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Potential Haz. Waste generation	2	2	5	3	5	8	
Power Plant Operations	Control Equipment and Monitor Operations	ESP/~~FGD~~/Flue gas conditioningl;~~SCR~~ Operations	Positive: Reduction of air impacts	2	2	4	4	5	8	
Power Plant Maintenance	Cooling Tower Maintenance	Cooling Towers - Equipment leaks (piping, etc)	Spills/Releases	2	2	4	4	4	7	
Power Plant Operations	Fuel Handling (Coal)	Coal Yard Maintenance	Oil spills/release	3	1	2	3	3	7	
Power Plant Operations	Cooling Tower Operation	Chemical Treatment - Cooling Towers	Surface Water Impact	2	3	3	3	4	7	
Power Plant Maintenance	Equipment Maintenance	Oil filtering	Spills/releases	3	1	2	3	2	6	
Power Plant Maintenance	Painting of structures & equipment	Coatings Abatement (Metals)	Hazardous waste generation	3	2	2	2	2	6	
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Air Permit Conditions/Limits/Notifications	2	1	3	3	4	6	
Power Plant Maintenance	Equipment Maintenance	Oil Containing mobile equipment use (fork lifts, cranes, Backhoes, etc.)	Spills/releases	3	1	2	2	2	5	
Power Plant Maintenance	Equipment Maintenance	Vehicle Use & Maintenance	Fuel Consumption	3	1	3	1	2	5	Referencing to spills/releases

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Fuel Handling (Fuel Oil)	Transferring oils/fuels	Spills/releases	4	1	2	2	2	7	
Power Plant Operations	Boiler Operation	Boiler make-up - consumptive use of water		3	1	3	1	2	5	applicableDrought Procedures
Power Plant Operations	Fuel Handling (Coal)	Pulverize Coal	Air Impact - Fugitive Dust	3	2	1	1	2	5	
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - non-water front	Spills/releases	2	2	3	2	2	5	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Dredging canals/ditches/ponds - (process & if does not occur)	SPCC implications - surface water impact	2	1	3	1	4	5	
Power Plant Operations	Ash Management	Operation of Ash Ponds	Ground water/surface water impact	2	1	2	2	4	5	
Power Plant Maintenance	Cleaning and Equipment Washing	Parts cleaning	Hazardous Waste Generation	2	2	2	1	3	4	
Power Plant Operations	Fuel Handling (Fuel Oil)	Unloading fuel (~~Barges, train cars,~~ tankers)	Spills/releases	3	1	1	1	2	4	
Power Plant Operations	Control Equipment and Monitor Operations	ESP/~~FGD~~/Flue gas conditioningl;~~SCR~~ Operations	Spills/Releases - chemical use	3	2	1	1	1	4	
Power Plant Maintenance	Equipment Maintenance	FGD/SCR/ESP Maintenance	Storm water impact	2	1	2	2	2	4	
Power Plant Maintenance	Cooling Tower Maintenance	Cooling Towers - Structural Issues - basin leaks	Spills/Releases	1	2	3	3	2	3	
Power Plant Operations	Fuel Handling (Fuel Oil)	Fuel oil tanks - AST/UST	Spills/releases	3	1	3	2	3	7	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Waste management (haz/non-haz)	Improper management - liability for company	1	2	2	2	3	2	
Power Plant Operations	Fuel Handling (Fuel Oil)		Ground water impact	1	1	3	1	3	2	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Waste management (haz/non-haz)	Spills/releases	1	3	1	1	3	2	
Power Plant Operations	Fuel Handling (Coal)	Conveying Coal	Surface Water Impact	2	1	1	1	1	2	
Power Plant Operations	Fuel Handling (Fuel Oil)	Burning Fuel (No. 2 Oil)	Air impact (specify pollutants of concern)	1	1	1	1	3	2	Opacity, SO2, Nox
Power Plant Operations	Fuel Handling (Coal)	Unloading fuel , train cars)	Spills/releases	1	1	2	1	2	2	
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Air impact - Fugitive Dust	1	1	2	1	2	2	
Power Plant Operations	Fuel Handling (Fuel Oil)	Draining of tank containments - storm water collection	Storm water impact	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Fuel Oil)	Burning Used Oil	Spills/releases	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Coal)	Operating Coal Yard	Air impact(fugitive dust)	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Coal)	Operating Coal Yard	Storm water impact	1	1	1	1	2	1	drains to cooling pond

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Boiler Operation	Boiler make-up - Wastes - (resin, filter media)	Improper waste management by contractor - liability for Company	1	1	1	1	2	1	
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - water front	Spills/releases to surface water	1	1	1	1	2	1	No maint performed on/near waterfront
Power Plant Maintenance	Equipment Maintenance	Vehicle Use & Maintenance	Generation of Used oil and use oil filters and other wastes.	1	1	1	1	1	1	
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Potential Haz. Waste generation	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)	Conveying Coal	Storm water impact	1	1	2	1	1	1	
Power Plant Operations	Cooling Tower Operation	Chemical Treatment - Cooling Towers	Positive: Reduction of Cooling water temperature	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Fuel Oil)	Burning Used Oil	Air impact (specify pollutants of concern)	1	1	1	1	1	1	Currently do not burn used oil, recycle thru Shamrock
Power Plant Operations	Fuel Handling (Coal)	Operating Coal Yard	Surface Water Impact	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)	Coal Yard Maintenance	Coal run off-surface water impact	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)	Coal Yard Maintenance	Coal run off- storm water impact	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)	Conveying Coal	Air Impact - Fugitive Dust	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Landfill/ponds - Ground water impact	1	1	1	1	1	1	Historically , mill rejects have been placed into Landfill
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Storm water impact	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Surface water impact	1	1	1	1	1	1	
Power Plant Operations	Ash Management	Fly/Bottom Ash Generation	Air Impact - Fugitive Dust	1	1	1	1	1	1	
Power Plant Operations	Ash Management	Fly/Bottom Ash Generation	Landfill/Pond - Potential ground water impacts	1	1	1	1	1	1	
Power Plant Operations	Ash Management	Fly/Bottom Ash Generation	Off-site deposition - trucks	1	1	1	1	1	1	Presently do not transport any Ash off site
Power Plant Operations	Ash Management	Fly/Bottom Ash Generation	Storm water impact	1	1	1	1	1	1	
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps/collection system/dewatering systems)	Air impact - Fugitive Dust	1	1	1	1	1	1	
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps/collection system/dewatering systems)	Storm water impact	1	1	1	1	1	1	
Power Plant Operations	Operation of Cooling Ponds	Once-thru cooling water intake	316(b) - Impingement/ Entrainment	1	1	1	1	1	1	Presntly, Lee not affected by Phase II of 316(b)
Power Plant Operations	Operation of Cooling Ponds	Auxillary Cooling water (closed cooling water) - Corrosion Inhibitor addition	Surface/Ground water impact	1	1	1	1	1	1	
Power Plant Operations	Boiler Operation	Boiler make-up - Resin Regen	Discharge to Ash Pond - ~~groundwater impact~~	1	1	1	1	1	1	
Power Plant Operations	Boiler Operation	Boiler make-up - RO Treatment	Discharge to Ash Pond	1	1	1	1	1	1	
Power Plant Operations	Boiler Operation	Smoke Stacks	Bird Collisions	1	1	1	1	1	1	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Service Water/Drinking Water	Service Water/ chlorination (liquid)	Spills/Releases	1	1	1	1	1	1	
Power Plant Operations	Service Water/Drinking Water	Service Water/Drinking water/Aux. cooling water - consumptive Use of water	Well level draw down - depletion of aquifer	1	1	1	1	1	1	
Power Plant Operations	Wastewater Treatment	Waste water - Operation of Elementary Neutralization System	Ground water impact	1	1	1	1	1	1	
Power Plant Operations	Control Equipment and Monitor Operations	ESP/~~FGD~~/Flue gas conditioningl;~~SCR~~ Operations	Air Impact - Fugitive Dust	1	1	1	1	1	1	
Power Plant Operations	Control Equipment and Monitor Operations	ESP/~~FGD~~/Flue gas conditioningl;~~SCR~~ Operations	Potential Haz. Waste generation	1	1	1	1	1	1	
Power Plant Maintenance	Cooling Tower Maintenance	Cooling Towers - Management of Waste (sludge, sediment)	Storm water impact	1	1	1	1	1	1	
Power Plant Maintenance	Cooling Tower Maintenance	Cooling Towers - Management of Waste (sludge, sediment)	Ground water impact	1	1	1	1	1	1	
Power Plant Maintenance	Equipment Maintenance	FGD/SCR/ESP Maintenance	Air Impact - Fugitive Dust	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Air Heater Washing	Ground water impact	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Air Heater Washing	High Water Usage	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Air Heater Washing	Spills/releases	3	2	1	1	1	4	
Power Plant Maintenance	Cleaning and Equipment Washing	ESP Washing	Ground water impact	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	ESP Washing	Spills/releases	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	ESP Washing	High Water Usage	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Fan washing	Spills/releases of oil	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	General cleaning of sumps/pipes/floors/conveyors	Run off - Surface water impact	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	General cleaning of sumps/pipes/floors/conveyors	Run off - storm water impact	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Oil water seperator cleaning	Spills/releases	1	1	1	1	1	1	
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)	Surface Water Impact	2	2	2	1	2	4	
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)	Storm water impact	3	2	1	1	2	5	
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)	Soil impact	4	1	1	1	2	5	
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Positive - Reduction of rust and impact to storm water	1	1	1	1	1	1	
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Air - VOC generation	0	0	0	0	0	0	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Vegetation/Insect Control	Surface water impact	2	2	1	1	2	3	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Vegetation/Insect Control	Storm water impact	2	1	1	1	2	3	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Vegetation/Insect Control	Wildlife impact	2	1	1	1	1	2	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Storm water discharge	Surface water impact	2	2	1	1	2	3	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Dredging canals/ditches/ponds - (process & if does not occur)	waste - ground water impact	1	1	1	1	1	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Dredging canals/ditches/ponds - (process & if does not occur)	Storm water impact	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Fuel Oil)	~~No. 6 oil heating~~	~~Spills/releases~~	0	0	0	0	0	0	N/A
Power Plant Operations	Cooling Tower Operation	Chemical Treatment - Cooling Towers	~~Positive - (closed-loop) - reduction of impingement/entrainment 316(b)~~						0	Presently, Lee not affected by Phase II of 316(b)
Power Plant Operations	Cooling Tower Operation	Chemical Treatment - Cooling Towers	~~Wildlife Impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	Cooling Tower Operation	~~Salt Drift - Cooling Towers~~	~~Impact to vegetation~~	0	0	0	0	0	0	N/A
Power Plant Operations	Operation of Cooling Ponds	~~Biocide Use - Cooling water (Sodium Hypochlorite Solution)~~	~~Surface Water Impact~~						0	
Power Plant Operations	Boiler Operation	~~Fan Operation~~	~~Air impact - NOx generation~~						0	
Power Plant Operations	Boiler Operation	~~Fan Operation~~	~~Air Impact - Fugitive Dust~~						0	
Power Plant Operations	Boiler Operation	~~Fan Operation~~	~~Air Impact - Excess Opacity~~						0	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	~~Pond discharge - ground water impact~~						0	
Power Plant Operations	Boiler Operation	Smoke Stacks	~~Positive - Navigational landmark~~						0	
Power Plant Operations	Chemical Handling	Receive/Store chemicals/oils	~~Air impact (chlorine)~~						0	
Power Plant Operations	Control Equipment and Monitor Operations	ESP/~~FGD~~/Flue gas conditioningl;~~SCR~~ Operations	~~Well level draw down - depletion of aquifer - high water use~~						0	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	~~On-site landfills (other than ash)~~	~~Ground water impact~~	0	0	0	0	0	0	No landfills on site
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	~~On-site landfills (other than ash)~~	~~Soil impact~~	0	0	0	0	0	0	No landfills on site
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	~~Constructed Wetlands Operation~~	~~Potential surface water impact~~						0	
									0	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	~~Constructed Wetlands Operation~~	~~Potential ground water impact~~							

Work Area: Marshall Hydro Plant

2012 Significant Environmental Impacts Scoring Sheet

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Equipment Maintenance	Oil Containing mobile equipment use (fork lifts, cranes, etc.)	Spills/releases	2	3	3	3	3	6	15 - Ton Crane
Power Plant Operations		Transferring oils/fuels	Spills/releases (To Water)	2	2	3	3	3	5	Misc. plant equipment
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)		Dredging canals/ditches/ponds - (process & if does not occur)	SPCC implications - surface water impact	2	2	3	1	2	4	plant intake
Power Plant Operations		Receive/Store chemicals/oils	Spills/releases	1	2	2	1	2	2	Lubricating oils
Power Plant Operations		Storage Tank and chemical/fuel inventory management	Spills/Releases	1	2	2	1	2	2	Used Oil Storage Tanks
Power Plant Maintenance		Removal/changing equipment oils - water front	Spills/releases to surface water	1	2	2	1	2	2	Headgate Operators/15-ton crane
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Waste management (haz/non-haz)	Improper management - liability for company	1	2	2	1	2	2	
Power Plant Operations		Waste water tanks	Spills/releases	1	1	2	1	2	2	septic tank
Power Plant Operations	Chemical Handling	Loading/Unloading of chemicals	Spills/Releases	1	1	2	1	2	2	Cleaning supplies
Power Plant Maintenance			Potential Haz. Waste generation	1	2	1	1	2	2	
Power Plant Maintenance		Coatings Abatement (Metals)	Hazardous waste generation	1	2	1	1	2	2	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			Spills/releases	1	2	1	1	2	2	
Power Plant Operations		Service Water/Drinking water/Aux. cooling water - consumptive Use of water	Well level draw down - depletion of aquifer	1	1	1	1	2	1	Non-potable water only
Power Plant Maintenance		Removal/changing equipment oils - non-water front	Spills/releases	1	1	1	1	2	1	
Power Plant Maintenance		Oil filtering	Spills/releases	1	1	1	1	2	1	Gov's/Generators
Power Plant Maintenance			Generation of Used oil and used oil filters and other wastes.	1	1	1	1	2	1	plant equipment
Power Plant Maintenance		General cleaning of sumps/pipes/floors/conveyors	Run off - Surface water impact	1	1	1	1	2	1	
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)	Surface Water Impact	1	1	1	1	2	1	Outside Warehouse

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance			Soil impact	1	1	1	1	2	1	Outside Warehouse
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Positive - Reduction of rust and impact to storm water	1	1	1	1	2	1	15-ton crane/drag rake
Power Plant Maintenance			Air - VOC generation	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Vegetation/Insect Control	Surface water impact	1	1	1	1	2	1	Fish Lock
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			Wildlife impact	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			waste - ground water impact	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			Storm water impact	1	1	1	1	2	1	
Power Plant Operations	Wastewater Treatment	Waste water - Operation of Elementary Neutralization System	Ground water impact	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Fuel Oil)	~~Unloading fuel (Barges, train cars, tankers)~~	~~Spills/releases~~	0	0	0	0	0	0	
Power Plant Operations		~~Fuel oil tanks - AST/UST~~	~~Spills/releases~~	0	0	0	0	0	0	N/A
Power Plant Operations			~~Ground water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations		~~Draining of tank containments - storm water collection~~	~~Storm water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations		~~No. 6 oil heating~~	~~Spills/releases~~	0	0	0	0	0	0	N/A
Power Plant Operations		~~Burning Fuel (Oil)~~	~~Air impact (specify pollutants of concern)~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Burning Used Oil~~	~~Air impact (specify pollutants of concern)~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Spills/releases~~	0	0	0	0	0	0	n/a
Power Plant Operations									0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~	~~Unloading fuel (Barges, train cars)~~	~~Spills/releases~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Operating Coal Yard~~	~~Air impact(fugitive dust)~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Surface Water Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Coal Yard Maintenance~~	~~Coal run off-surface water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Coal run off- storm water impact~~	0	0	0	0	0	0	n/a

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations			~~Oil spills/release~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Conveying Coal~~	~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Surface Water Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Pulverize Coal~~	~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Generation of mill rejects~~	~~Landfill/ponds - Ground water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Air impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Surface water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Burning Fuel (Coal)~~	~~Air impact (specify pollutants of concern)~~	0	0	0	0	0	0	n/a
Power Plant Operations				0	0	0	0	0	0	n/a
Power Plant Operations	~~Ash Management~~	~~Fly/Bottom Ash Generation~~	~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Landfill/Pond - Potential ground water impacts~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Off-site deposition - trucks~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Ash Handling system (piping/pumps/collection system/dewatering systems)~~	Spills/releases	0	0	0	0	0	0	n/a
Power Plant Operations			~~Air impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Surface water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Operation of Ash Ponds~~	~~Ground water/surface water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations				0	0	0	0	0	0	n/a
Power Plant Operations	~~Cooling Tower Operation~~	~~Chemical Treatment - Cooling Towers~~	~~Positive: Reduction of Cooling water temperature~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Positive - (closed-loop) - reduction of impingement/entrainment 316(b)~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Surface Water Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Wildlife Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Salt Drift - Cooling Towers~~	~~Impact to vegetation~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Once-thru cooling water intake~~	~~316(b) - Impingement/ Entrainment~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Biocide Use - Cooling water~~	~~Surface Water Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Wildlife Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Auxillary Cooling water (closed cooling water) - Corrosion Inhibitor addition~~	Ground water impact	0	0	0	0	0	0	n/a
Power Plant Operations		~~Auxillary Cooling water (closed cooling water) - Pond discharge~~	~~Ground water impact~~	0	0	0	0	0	0	n/a

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations				0	0	0	0	0	0	n/a
Power Plant Operations	~~Boiler Operation~~	~~Boiler make-up - Resin Regen~~	~~Discharge to Pond - groundwater impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Boiler make-up - pH control~~	~~Chemical Spill Potential~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Boiler make-up - Wastes - (resin, filter media)~~	~~Improper waste management by contractor - liability for Company~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Boiler make-up - RO Treatment~~	~~Ground water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Boiler make-up - consumptive use of water~~	~~Well level draw down - depletion of aquifer~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Fan Operation~~	~~Air impact - NOx generation~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Air Impact - Excess Opacity~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Boiler chemical cleaning~~	~~Spills/releases~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Potential Haz. Waste generation~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Pond discharge - ground water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Smoke Stacks~~	~~Bird Collisions~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Positive - Navigational landmark~~	0	0	0	0	0	0	n/a
Power Plant Operations		~~Transformers~~	~~Spills/Release potential~~	0	0	0	0	0	0	n/a
Power Plant Operations				0	0	0	0	0	0	n/a
Power Plant Operations	Service Water/Drinking Water	~~Service Water/Drinking water - chlorination (gas/liquid)~~	~~Spills/Releases~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Air impact (chlorine)~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Control Equipment and Monitor Operations~~	~~ESP/FGD/SCR Operations~~	~~Positive: Reduction of air impacts~~	0	0	0	0	0	0	na
Power Plant Operations			~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	na
Power Plant Operations			~~Spills/Releases - chemical use~~	0	0	0	0	0	0	na
Power Plant Operations			~~Potential Haz. Waste generation~~	0	0	0	0	0	0	na
Power Plant Operations			~~Well level draw down - depletion of aquifer - high water use~~	0	0	0	0	0	0	na
Power Plant Operations		~~CEMS Operation/maintenance~~	~~Hazardous waste generation - Cleaning of umbilical~~	0	0	0	0	0	0	na
Power Plant Operations									0	na
Power Plant Maintenance	~~Cooling Tower Maintenance~~	~~Cooling Towers - Equipment leaks (piping, etc)~~	~~Spills/Releases~~	0	0	0	0	0	0	na
Power Plant Maintenance		~~Cooling Towers - Structural Issues - basin leaks~~	~~Spills/Releases~~	0	0	0	0	0	0	na
Power Plant Maintenance		~~Cooling Towers - Management of Waste (sludge, sediment)~~	~~Storm water impact~~	0	0	0	0	0	0	na

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance			~~Ground water impact~~	0	0	0	0	0	0	na
Power Plant Maintenance		~~FGD/SCR/ESP Maintenance~~	~~Air Impact - Excess Emissions~~	0	0	0	0	0	0	n/a
Power Plant Maintenance			~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Maintenance			~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Maintenance		~~Vehicle Use & Maintenance~~	~~Fuel Consumption~~	0	0	0	0	0	0	n/a
Power Plant Maintenance	~~Cleaning and Equipment Washing~~	~~Air Heater Washing~~	~~Ground water impact~~	0	0	0	0	0	0	na/
Power Plant Maintenance			~~High Water Usage~~	0	0	0	0	0	0	na/
Power Plant Maintenance			~~Spills/releases~~	0	0	0	0	0	0	na/
Power Plant Maintenance		~~ESP Washing~~	~~Ground water impact~~	0	0	0	0	0	0	na/
Power Plant Maintenance			~~Spills/releases~~	0	0	0	0	0	0	na/
Power Plant Maintenance			~~High Water Usage~~	0	0	0	0	0	0	na/
Power Plant Maintenance		~~Fan washing~~	~~Spills/releases of oil~~	0	0	0	0	0	0	na/
Power Plant Maintenance			Run off - storm water impact	0	0	0	0	0	0	n/a
Power Plant Maintenance		~~Oil water sep. cleaning~~	~~Spills/releases~~	0	0	0	0	0	0	n/a
Power Plant Maintenance		~~Parts cleaning~~	~~Hazardous Waste Generation~~	0	0	0	0	0	0	N/A
Power Plant Maintenance			~~Storm water impact~~	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)		~~On-site landfills (other than ash)~~	~~Ground water impact~~	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			~~Soil impact~~	0	0	0	0	0	0	n/a

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			~~Storm water impact~~	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)		~~Storm water discharge~~	~~Surface water impact~~	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)		Constructed Wetlands Operation	Potential surface water impact	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			Potential ground water impact	0	0	0	0	0	0	n/a
Power Plant Operations										
Power Plant Operations										
Power Plant Operations										
Power Plant Maintenance										
Power Plant Maintenance										
Power Plant Maintenance										
Power Plant Maintenance										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										

Work Area: Mayo Plant

2012 Significant Environmental Impacts Scoring Sheet

				Significance Ratings						
					Consequence					
Primary Activity	Secondary Activity	Aspect	Potential Impact	Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	Comments
									Total	
Power Plant O&M	Scrubber	Wastewater treatment - meeting NPDES permit	NPDES impact	5	5	5	5	5	25	Scrubber WW ZLD project started / SOC w/NC-DENR
Power Plant Construction	Construction/Operation	Opening/revising of existing permits/meeting permits	NPDES impact	5	5	5	4	5	24	Permit renewal/SOC signed
Power Plant O&M	Ash Management	Operation of Ash Ponds	Ground water/surface water impact	5	3	5	5	5	23	
Power Plant Construction	Construction	Landfill/Monofill	Permitting & PR issues; Wet Lands impact; Soil Erosion Sedimentation	5	2	5	4	4	19	
Power Plant O&M	Ash Management	Fly/Bottom Ash Generation	Monofill/Landfill/Pond - Potential ground water impacts	4	2	5	4	4	15	
Power Plant O&M	Water system operations	Water consumption	High water usage	5	2	4	4	2	15	
Power Plant O&M	Cleaning and Equipment Washing	Air Heater Washing	Spills/releases	4	4	3	3	4	14	more air heater washing
Power Plant O&M	Control Equipment and Monitor Operations	ESP/SCR Operations	Spills/Releases - chemical use	3	5	4	4	4	13	
Power Plant Construction	Construction	Opening/revising of existing permits/Testing	Title V Air permit	4	2	4	3	4	13	Monofill, ZLD and Bottom Ash projects
Power Plant O&M	CCP Management	Fly Ash Management; Bottom Ash Management; Gypsum Management	Off-site deposition - trucks; Storm Water Impact: Surface Water Impact	3	2	4	5	4	11	
Power Plant O&M	Chemical Handling	Receive/Store chemicals/oils	Spills/releases	3	5	2	3	4	11	
Power Plant O&M	Cooling Tower Maintenance	Cooling Towers - Structural Issues - basin leaks	Spills/Releases	4	1	4	1	5	11	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Vegetation/Insect Control	Surface water impact; Storm Water Impact	4	3	2	2	3	10	Herbicides
Power Plant O&M	Scrap metal storage	Scrap metal storage (oil/iron run off)	Surface Water Impact; Storm Water Impact; Soil Impact	5	2	2	1	3	10	
Power Plant O&M	Fuel Handling (Coal)	Conveying Coal	Air Impact - Fugitive Dust	4	2	3	2	3	10	Different coals
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Dredging canals/ditches/ponds - (process & if does not occur)	SPCC implications - surface water impact	3	2	4	3	4	10	
Power Plant O&M	Equipment Maintenance	SCR/ESP Maintenance	Air Impact - Excess Emissions	3	1	3	4	4	9	
Power Plant O&M	Cleaning and Equipment Washing	General cleaning of sumps/pipes/floors/conveyors	Run off - Surface water impact	4	2	2	2	3	9	
Power Plant O&M	Cleaning and Equipment Washing	General cleaning of sumps/pipes/floors/conveyors	Run off - storm water impact	4	2	2	2	3	9	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Storm water discharge	Surface water impact	4	2	2	2	3	9	
Power Plant O&M	Scrubber	Gypsum handling	Air permit conditions	4	2	2	2	3	9	
Power Plant O&M	Fuel Handling (Coal)	Conveying Coal	Storm water impact; Surface water impact	4	1	2	2	4	9	

				Significance Ratings						
					Consequence					
Primary Activity	Secondary Activity	Aspect	Potential Impact	Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	Comments
Power Plant O&M	CCP Management	Gypsum/Fly Ash/Bottom Ash Generation & Handling Systems	Air Impact - Fugitive Dust; Air Permit Conditions	3	3	2	3	3	8	
Power Plant O&M	Boiler Operation	Transformers	Spills/Release potential	3	3	3	2	3	8	
Power Plant O&M	Chemical Handling	Loading/Unloading of chemicals	Spills/Releases	2	5	4	4	4	9	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Re-stacking ash ponds	Potential water impact	4	2	2	1	3	8	
Power Plant O&M	Scrubber	Wastewater treatment - bioreactor	Air impact - hydrogen sulfide	3	3	1	4	3	8	
Power Plant O&M	Cooling Tower Maintenance	Cooling Towers - Equipment leaks (piping, etc)	Spills/Releases	4	1	2	1	3	7	
Power Plant O&M	Equipment Maintenance	Oil Containing mobile equipment use (fork lifts, cranes, etc.)	Spills/releases	4	1	2	1	3	7	
Power Plant O&M	Scrubber	Limestone handling; Gypsum Handling	Spills/releases; Air Permit Conditions	3	2	2	2	3	7	Increased truck traffic
Power Plant O&M	Boiler Operation	Boiler make-up - Wastes - (resin, filter media)	Improper waste management by contractor - liability for Company	3	2	2	2	3	7	
Power Plant O&M	Cooling Tower Operation	Chemical Treatment - Cooling Towers - Biocide Use	Surface Water Impact; Wildlife Impact	3	2	2	2	3	7	
Power Plant Construction	Construction	Opening/revising of existing permits	Land disturbance / water runoff	2	3	3	3	4	7	
Power Plant O&M	Boiler Operation	Boiler make-up - pH control	Chemical Spill Potential	2	5	3	2	3	7	
Power Plant O&M	Water system operations	New EPA requirements (reuse)	Restrictions on water usage	2	2	4	3	4	7	
Power Plant O&M	SCR Operation	Draining liquid seperator off of NH4 vaporizer skid	Spill/Releases	3	3	1	1	3	6	new guideline developed
Power Plant O&M	Equipment Maintenance	Vehicle Use & Maintenance	Fuel Consumption	5	1	2	1	1	6	
Power Plant O&M	Fuel Handling (Coal)	Operating Coal Yard	Air impact(fugitive dust)	3	2	1	2	3	6	
Power Plant O&M	Water system operations	New EPA requirements (reuse)	Increased wear/blockage of equipment O&M $$	2	2	4	2	4	6	
Power Plant O&M	Fuel Handling (Coal)	Pulverize Coal	Storm water impact; Surface water impact	3	2	2	1	3	6	
Power Plant O&M	CCP Management	Gypsum/Ash Handling system (piping/pumps/collection system/dewatering systems)	Storm water impact	3	2	2	1	3	6	
Power Plant O&M	Wastewater Treatment	Waste water - Operation of Wastewatr Treatment Plant	Ground water impact	2	3	3	2	4	6	
Power Plant O&M	Control Equipment and Monitor Operations	CEMS Maintenance	Hazardous waste generation - Cleaning of umbilical	3	2	2	1	3	6	More equipment due to Scrubber installation.
Power Plant O&M	Painting of structures & equipment	Painting of structures & equipment	Spills/Releases; Air - VOCs generated; Potential Haz. Waste generation	3	2	2	1	3	6	

				Significance Ratings						
					Consequence					
Primary Activity	Secondary Activity	Aspect	Potential Impact	Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	Comments
Power Plant O&M	Fuel Handling (Coal)	Pulverize Coal	Air Impact - Fugitive Dust	3	2	2	1	2	5	
Power Plant O&M	Equipment Maintenance	Removal/changing equipment oils - non-water front	Spills/releases	3	1	2	1	3	5	
Power Plant O&M	Equipment Maintenance	Vehicle Use & Maintenance	Generation of Used oil and use oil filters and other wastes.	5	1	1	1	1	5	
Power Plant O&M	Cleaning and Equipment Washing	Air Heater Washing; ESP Washing	Ground water impact	2	2	3	1	4	5	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Dredging canals/ditches/ponds - (process & if does not occur)	Wildlife impact; Storm Water/Surface Water impact; Ground Water impact	2	2	2	2	3	5	
Power Plant O&M	Boiler Operation	Boiler make-up - Resin Regen/RO operation	Discharge to Pond - groundwater impact	2	2	2	1	4	5	
Power Plant O&M	Boiler Operation	Fan Operation	Air Impact - Excess Opacity/Particulate Matter	2	1	1	2	4	4	2010 PM is compliance tool - which is after scrubber
Power Plant O&M	Chemical Handling	Storage Tank and chemical	Spills/Releases	1	5	4	3	4	4	Bulk acid tank UT in 2003 with no issues. NH4 tank inspected in 2009 with no issues or concerns aditional tanks added for hydrated lime, slag treatment chemicals
Power Plant O&M	Equipment Maintenance	SCR/ESP Maintenance	Storm water impact	1	4	4	4	4	4	
Power Plant O&M	Cleaning and Equipment Washing	Oil water sep. cleaning	Spills/releases	2	2	2	1	3	4	
Power Plant O&M	Cleaning and Equipment Washing	Parts cleaning	Hazardous Waste Generation	2	2	2	1	3	4	
Power Plant O&M	Painting of structures & equipment	Coatings Abatement (Metals)	Hazardous waste generation	2	2	2	1	3	4	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Waste management (haz/non-haz)	Spills/releases	2	2	2	1	3	4	
Power Plant O&M	Control Equipment and Monitor Operations	SCR Operations	Potential Haz. Waste generation	1	5	4	1	4	4	
Power Plant O&M	Fuel Handling (Fuel Oil)	Transferring oils/fuels	Spills/releases	2	1	2	1	3	4	
Power Plant O&M	Fuel Handling (Coal)	Coal Yard Maintenance	Oil spills/release	2	1	2	1	3	4	
Power Plant O&M	Boiler Operation	Boiler chemical cleaning	Spills/releases; Potential Hazardous Waste generation	1	5	3	2	4	4	Scheduled for 2013
Power Plant O&M	Equipment Maintenance	Removal/changing equipment oils - water front; Oil Filtering systems	Spills/releases to surface water	2	1	2	1	3	4	
Power Plant O&M	Boiler Operation	Smoke Stacks/Scrubber Stacks	Bird Collisions	2	1	1	2	3	4	
Power Plant O&M	Wastewater Treatment	Waste water tanks	Spills/releases	1	3	4	2	4	3	
Power Plant O&M	Fuel Handling (Fuel Oil)	Fuel oil tanks - AST	Ground water impact; Spills/Releases	1	2	4	2	4	3	
Power Plant O&M	Fuel Handling (Fuel Oil)	Burning Used Oil	Air Permit conditions; Spills/releases	2	1	1	1	3	3	

				Significance Ratings						
					Consequence					
Primary Activity	Secondary Activity	Aspect	Potential Impact	Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	Comments
Power Plant O&M	Fuel Handling (Fuel Oil)	Unloading fuel (tankers)	Spills/releases	3	1	0	1	2	3	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Waste management (haz/non-haz)	Improper management - liability for company	1	1	3	2	5	3	
Power Plant O&M	Cooling Tower Operation	Auxillary Cooling water (closed cooling water) - Corrosion Inhibitor addition - Pond Discharge	Ground water impact; Storm Water impact; Surface Water impact	1	3	3	1	3	3	
Power Plant O&M	Fuel Handling (Fuel Oil)	Fuel oil tanks - AST	Spills/releases	1	1	3	1	3	2	
Power Plant O&M	Cooling Tower Maintenance	Cooling Towers - Management of Waste (sludge, sediment)	Storm water impact; Surface water impact	1	1	2	1	3	2	
Power Plant O&M	Equipment Maintenance	SCR Maintenance	Air Impact - Fugitive Dust	1	1	1	1	3	2	
Power Plant O&M	Fuel Handling (Fuel Oil)	Burning Used Oil	Air impact - Halogens, Lead	1	1	1	1	3	2	
Power Plant O&M	Equipment Maintenance	HVAc maintenance	Release of Class I/II CFCs	1	2	1	1	2	2	
Power Plant O&M	Fuel Handling (Fuel Oil)	Draining of tank containments - storm water collection	Storm water impact	2	1	1	1	1	2	
Power Plant O&M	Fuel Handling (Fuel Oil)	Burning Fuel (Oil)	Air impact - sulfur	2	1	1	1	1	2	
Power Plant O&M	Fuel Handling (Coal)	Burning Fuel (Coal)	Air impact SO2	2	1	1	1	1	2	
Power Plant O&M	Fuel Handling (Coal)	Burning Fuel (Coal)	Air impact Nox	2	1	1	1	1	2	
Power Plant O&M	Fuel Handling (Coal)	Burning Fuel (Coal)	Air impact SO3	2	1	1	1	1	2	
Power Plant O&M	Fuel Handling (Coal)	Burning Fuel (Coal)	Air impact Particulate Matter	2	1	1	1	1	2	
Power Plant O&M	SO3 Mitigation	Burning Fuel (Coal)	Spills/Releases	2	1	1	1	1	2	
Power Plant Construction	Construction	New Stack	FAA Notification	0	0	0	0	0	0	FAA notifications made for FGD stack
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Air impact - Fugitive Dust						0	N/A
Power Plant Operations	Cooling Tower Operation	Chemical Treatment - Cooling Towers	Positive: Reduction of Cooling water temperature						0	N/A
Power Plant Operations	Cooling Tower Operation	Chemical Treatment - Cooling Towers	Positive (closed loop) reduction of impingement/entrainment 316(b)						0	N/A Closed cooling wtr syst
Power Plant Operations	Cooling Tower Operation	Salt Drift - Cooling Towers	Impact to vegetation						0	N/A
Power Plant Operations	Cooling Tower Operation	Once-thru cooling water intake	316(b) - Impingement/ Entrainment						0	N/A
Power Plant Operations	Cooling Tower Operation	Auxillary Cooling water (closed cooling water) - Pond discharge							0	N/A
Power Plant Operations	Boiler Operation	Boiler make-up - RO Treatment	Ground water impact						0	N/A
Power Plant Operations	Boiler Operation	Boiler make-up - consumptive use of water	Well level draw down - depletion of aquifer						0	N/A

				Significance Ratings						
					Consequence					
Primary Activity	Secondary Activity	Aspect	Potential Impact	Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	Comments
Power Plant Operations	Boiler Operation	Fan Operation	Air Impact - Fugitive Dust						0	N/A neg press
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Pond discharge - ground water impact						0	N/A
Power Plant Operations	Boiler Operation	Smoke Stacks	Positive - Navigational landmark						0	N/A
Power Plant Operations	Service Water/Drinking Water	Service Water/Drinking water/ fan cooling water - consumptive Use of water	Well level draw down - depletion of aquifer						0	N/A
Power Plant Operations	Chemical Handling	Receive/Store chemicals/oils	Air impact (chlorine)						0	N/A
Power Plant Operations	Control Equipment and Monitor Operations	ESP/SCR Operations	Positive: Reduction of air impacts						0	N/A
Power Plant Operations	Control Equipment and Monitor Operations	ESP/SCR Operations	Air Impact - Fugitive Dust						0	N/A
Power Plant Operations	Control Equipment and Monitor Operations	ESP/SCR Operations	Well level draw down - depletion of aquifer - high water use						0	N/A
Power Plant Maintenance	Cleaning and Equipment Washing	ESP Washing	High Water Usage						0	activity not planned for 2009
Power Plant Maintenance	Cleaning and Equipment Washing	Fan washing	Spills/releases of oil						0	activity not planned for 2009
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Positive - Reduction of rust and impact to storm water						0	N/A
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	On-site landfills (other than ash)	Ground water impact						0	N/A
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	On-site landfills (other than ash)	Soil impact						0	N/A
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Constructed Wetlands Operation	Potential surface water impact						0	N/A
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Constructed Wetlands Operation	Potential ground water impact						0	N/A
Power Plant Operations	Drinking water	New regulatory requirements	Manpower/ $ to meet new req	0	0	0	0	0	0	No longer produce drinking water
Power Plant Operations	Service Water/Drinking Water	Service Water/Drinking water - chlorination (gas/liquid)	Spills/Releases	0	0	0	0	0	0	No longer produce drinking water

Robinson Plant

2012-2013 Significant Environmental Impacts Scoring Sheet

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure / Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Ash Management	Ash Pond/ Dam Dike	Ground water/surface water impact/fugitive dust	2	4	5	5	5	10	
Power Plant Operations	Ash Management	Operation of Ash Ponds	Ground water/surface water impact/fugitive dust	3	2	4	5	5	12	
Power Plant Maintenance	Asbestos	Abatement, storage, buriel, releases	exposure, OSHA/DEHEC violations	3	4	4	3	3	11	score increase due to off site buriel / transportation
Power Plant Operations	Control Equipment and Monitor Operations	ESP/ROFA/FSI/Dry Ash Operations	Air Impact - Fugitive Dust	2	2	3	4	3	6	
Power Plant Operations	Fuel Oil	Fuel oil tanks - AST/UST	Ground water impact	2	2	3	1	4	5	
Power Plant Operations	Fuel Handling (Coal)	Burning Fuel (Coal)	Air impact (Title V Air Permit)	2	2	2	2	3	5	
Power Plant Operations	Boiler Operation	Fan Operation	Air Impact - Excess Opacity	2	2	3	2	2	5	
Power Plant Operations	Fuel Oil	Fuel oil tanks - AST/UST	Spills/releases	2	1	3	1	3	4	
Power Plant Operations	Locomotive	Burning Fuel	Spills/releases	2	1	3	1	3	4	
Power Plant Operations	Boiler Operation	Fan Operation	Air impact - NOx generation	2	2	3	1	2	4	
Power Plant Operations	Boiler Operation	Fan Operation	Air Impact - Fugitive Dust	2	2	3	1	2	4	
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Potential Haz. Waste generation	2	1	3	1	2	4	
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Pond discharge - ground water impact	1	1	3	1	2	2	Score decrease due to minimual run time boiler cleanings will be less frequent.
Power Plant Operations	Fuel Handling (Coal)	Operating Coal Yard	Air impact(fugitive dust)	2	1	1	2	2	3	
Power Plant Operations	Ash Management	Fly/Bottom Ash Generation	Air Impact - Fugitive Dust	2	3	1	1	2	4	
Power Plant Operations	Ash Management	Fly/Bottom Ash Generation	Pond - Potential ground water impacts	2	1	2	1	2	3	
Power Plant Operations	Boiler Operation	Transformers	Spills/Release potential	2	1	2	1	2	3	
Uncommon Activities and Practices	Plant/Land management communication	Land Management activities	Activity coordination with plant	1	1	3	3	4	3	
Power Plant Operations	Fuel Oil	Unit 2 underground transfer line	Spills/releases	1	1	4	2	3	3	
Power Plant Operations	Fuel Handling (Coal)	Coal Yard Maintenance	Oil spills/release	2	1	1	1	2	3	
Power Plant Maintenance	Cleaning and Equipment Washing	Low volume retention pond diversion box cleaning	Spills/releases	2	1	1	2	2	3	
Power Plant Operations	Wastewater Treatment/handling (domestic waste)	WWTP, lift stations, piping	Spills/releases	2	1	1	1	2	3	
Power Plant Operations	Fuel Oil	Transferring oils/fuels	Spills/releases	1	1	3	1	3	2	
Power Plant Operations	Chemical Handling (Caustic, Hypochlorite, Hydrazine, Lime, etc.)	Loading/Unloading of chemicals	Spills/Releases	1	3	1	1	3	2	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure / Toxicity	Costs	PR	Regulatory	Significance Score	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Dredging canals/ditches/ponds - (process & if does not occur)	Lake-surface water impact SPCC implications - surface water impact	3	1	4	2	3	8	Score Increase excessive silt build -up at end of discharge canal. Noted in 05/09/2012 SCDHEC Inspection
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps/collection system)	Spills/releases	2	2	3	1	2	4	
Common Power Plant Activities	Waste Management	Waste management (haz/non-haz)	Improper management - liability for company	1	1	2	1	3	2	
Common Power Plant Activities	Engineering Activities	Operations, Maintenance or Contractor managed activities	Air, water, waste impact	1	1	3	1	3	2	
Power Plant Operations	Fuel Oil	Unloading fuel (tankers)	Spills/releases	1	1	2	1	2	2	
Power Plant Operations	Fuel Oil	Gasoline and Kerosene Tanks	Spills/releases	1	2	1	1	2	2	
Power Plant Operations	Fuel Oil	Gasoline and Kerosene Tanks	Ground water impact	1	2	1	1	2	2	
Power Plant Operations	Fuel Oil	Burning Fuel (Oil)	Air impact (Title V Air Permit)	1	1	1	1	3	2	
Power Plant Operations	Fuel Oil	Burning Used Oil	Air impact (Title V Air Permit)	1	1	1	1	3	2	
Power Plant Operations	Fuel Oil	Burning Used Oil	Spills/releases	1	1	2	1	2	2	
Power Plant Operations	Boiler Operation	Boiler make-up - pH control	Chemical Spill Potential	1	2	1	1	2	2	
Power Plant Operations	Boiler Operation	PCB electrical contaminated Transformers	Spills/Release potential	1	1	2	1	2	2	
Power Plant Operations	Wastewater Treatment/handling (domestic waste)	WWTP, lift stations, piping	Surface water impact	1	1	1	1	3	2	
Power Plant Operations	Chemical Handling (Caustic, Hypochlorite, Hydrazine, Lime, etc.)	Receive/Store chemicals/oils	Spills/releases	1	3	1	1	2	2	
Power Plant Operations	Chemical Handling (Caustic, Hypochlorite, Hydrazine, Lime etc.)	Storage Tank and chemical/fuel inventory management	Spills/Releases	2	2	1	1	2	3	
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - water front	Spills/releases to surface water	1	1	1	1	3	2	
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Potential Haz. Waste generation	1	1	2	1	2	2	
Power Plant Maintenance	Painting of structures & equipment	Coatings Abatement (Metals)	Hazardous waste generation	1	1	2	1	2	2	
Power Plant Operations	Fuel Oil	Draining of tank containments - storm water collection	Storm water impact	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Coal)	Unloading fuel (train cars)	Spills/releases	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Coal)	Operating Coal Yard	Storm water impact	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Coal)	Operating Coal Yard	Surface Water Impact	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Coal)	Coal Yard Maintenance	Coal run off-surface water impact	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Coal)	Coal Yard Maintenance	Coal run off- storm water impact	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Coal)	Conveying Coal	Air Impact - Fugitive Dust	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Coal)	Conveying Coal	Storm water impact	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Coal)	Conveying Coal	Surface Water Impact	1	1	1	1	2	1	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure / Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Fuel Handling (Coal)	Pulverize Coal	Air Impact - Fugitive Dust	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Ground water impact	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Air impact - Fugitive Dust	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Storm water impact	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Surface water impact	1	1	1	1	2	1	
Power Plant Operations	Ash Management	Fly/Bottom Ash Generation	Storm water impact	1	1	1	1	2	1	
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps/collection system)	Air impact - Fugitive Dust	2	2	2	2	2	4	
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps/collection system)	Storm water impact	2	1	2	1	2	3	
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps/collection system)	Surface water impact	1	1	1	1	2	1	
Power Plant Operations	Closed Cooling Water	Auxillary Cooling water (closed cooling water) - Corrosion Inhibitor addition	Ground water impact	1	1	1	1	2	1	
Power Plant Operations	Boiler Operation	Boiler make-up - consumptive use of water	Well level draw down - depletion of aquifer	1	1	1	1	2	1	
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Spills/releases	1	1	1	1	2	1	
Power Plant Operations	Wastewater Treatment/handling (domestic waste)	WWTP, lift stations, piping	Ground water impact	1	1	1	1	2	1	
Power Plant Operations	Control Equipment and Monitor Operations	ESP/ROFA /FSI/Dry Ash Operations	Spills/Releases-Oil	2	1	2	1	2	3	
Power Plant Operations	Control Equipment and Monitor Operations	ESP/ROFA/FSI/Dry Ash Operations	Potential Haz. Waste generation	1	1	1	1	2	1	
Power Plant Operations	Control Equipment and Monitor Operations	CEMS Operation/maintenance	Hazardous waste generation - Cleaning of umbilical	1	1	1	1	2	1	
Power Plant Maintenance	Equipment Maintenance	Oil Containing mobile equipment use (fork lifts, cranes, etc.)	Spills/releases	1	1	1	1	2	1	
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - non-water front	Spills/releases	1	1	1	1	2	1	
Power Plant Maintenance	Equipment Maintenance	Oil filtering	Spills/releases	1	1	1	1	2	1	
Power Plant Maintenance	Equipment Maintenance	ROFA/ESPFSI/Dry Ash Maintenance	Air Impact - Excess Emissions	1	1	1	1	2	1	
Power Plant Maintenance	Equipment Maintenance	ROFA/ESP/FSI/Dry Ash Maintenance	Air Impact - Fugitive Dust	1	1	1	1	2	1	
Power Plant Maintenance	Equipment Maintenance	ROFA/ESPFSI/Dry Ash Maintenance	Storm water impact	1	1	1	1	2	1	
Power Plant Maintenance	Equipment Maintenance	Vehicle Use & Maintenance	Fuel Consumption	1	1	1	1	2	1	
Power Plant Maintenance	Equipment Maintenance	Vehicle Use & Maintenance	Generation of Used oil and use oil filters and other wastes.	1	1	1	1	2	1	
Power Plant Maintenance	Equipment Maintenance	Batteries	Spills/releases	1	1	1	1	2	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Air Heater Washing	Ground water impact	1	1	1	1	2	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Air Heater Washing	High Water Usage	1	1	1	1	2	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Air Heater Washing	Spills/releases	1	1	1	1	2	1	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure / Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Cleaning and Equipment Washing	ESP Washing	Ground water impact	1	1	1	1	2	1	
Power Plant Maintenance	Cleaning and Equipment Washing	ESP Washing	Spills/releases	1	1	1	1	2	1	
Power Plant Maintenance	Cleaning and Equipment Washing	ESP Washing	High Water Usage	1	1	1	1	2	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Fan washing	Spills/releases of oil	1	1	1	1	2	1	
Power Plant Maintenance	Cleaning and Equipment Washing	General cleaning of sumps/pipes/floors/conveyors	Run off - Surface water impact	1	1	1	1	2	1	
Power Plant Maintenance	Cleaning and Equipment Washing	General cleaning of sumps/pipes/floors/conveyors	Run off - storm water impact	1	1	1	1	2	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Parts cleaning	Hazardous Waste Generation	1	1	1	1	2	1	
Power Plant Maintenance	Outside storage	Laydown yard,metal rack,scrap metal storage, etc. (oil/iron run off)	Surface Water Impact	1	1	1	1	2	1	
Power Plant Maintenance	Outside storage	Laydown yard,metal rack,scrap metal storage, etc. (oil/iron run off)	Storm water impact	1	1	1	1	2	1	
Power Plant Maintenance	Outside storage	Laydown yard,metal rack,scrap metal storage, etc. (oil/iron run off)	Soil impact	1	1	1	1	2	1	
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Positive - Reduction of rust and impact to storm water	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Waste management (haz/non-haz)	Spills/releases	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	On-site landfills (other than ash)	Ground water impact	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	On-site landfills (other than ash)	Soil impact	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Vegetation/Insect Control	Surface water impact	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Vegetation/Insect Control	Storm water impact	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Vegetation/Insect Control	Wildlife impact	1	1	1	1	2	1	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure / Toxicity	Costs	PR	Regulatory	Significance Score	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Storm water discharge	Surface water impact	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Dredging canals/ditches/ponds - (process & if does not occur)	waste - ground water impact	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Dredging canals/ditches/ponds - (process & if does not occur)	Storm water impact	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Refrigerents	Mobile Units	Air impact	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Refrigerents	Stationary Units	Air impact	1	1	1	1	2	1	
Common Power Plant Activities	Contractor Coordination and Control	Operations, Maintenance or Contractior activities	Air, water, waste impact	1	1	1	1	2	1	
Common Power Plant Activities	Laboratory Operations	Operations, Maintenance or Contractior activities	Air, water, waste impact	1	1	1	1	2	1	
Common Power Plant Activities	Office Activities	Disposal / recordkeeping	Air, water, waste impact	1	1	1	1	2	1	
UncommontActivities and Practices	Production wells / Piezometers / Monitoring wells / Recovery wells	Security	Ground water impact	1	1	1	1	2	1	
Power Plant Operations	Boiler Operation	Smoke Stacks	Bird Collisions	1	1	1	1	1	1	
Power Plant Operations	Boiler Operation	Smoke Stacks	Positive - Navigational landmark	1	1	1	1	1	1	

Work Area: Roxboro Plant

2012 Significant Environmental Impacts Scoring Sheet

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Ash Management	Operation of Ash Ponds	Ground water/surface water impact	5	2	4	5	4	19	retention time
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps/collection system/dewatering systems)	Spills/releases	5	2	4	4	4	18	Project ongoing to replace ash piping to ash pond.
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	MACT Standard			5	2	5	4	3	18	TBD
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	NAAQS			5	2	5	4	3	18	TBD
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	CCR			5	2	5	4	3	18	TBD
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	CSAPR rule			5	2	5	4	3	18	TBD
Power Plant Operations	Ash Management	Fly/Bottom Ash Generation	Air Impact - Fugitive Dust	5	2	3	3	4	15	Complaints
Power Plant Operations	Limestone Handling	State Drinking Water Rule Interpretation changes	Replace/refurbish drinking water system	4	4	4	3	4	15	Engineering study underway
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Settling ponds		cleaning of ponds sediment	5	2	5	2	3	15	TBD (future past 12 mnths)
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Flush Pond		cleaning of pond sediment	5	2	5	2	3	15	current issues
Power Plant Operations	Fuel Handling (Fuel Oil)	UST	Spills/releases	4	2	5	4	3	14	At present, not required to remediate fully
Power Plant Operations	Ash Management		Landfill/Pond - Potential ground water impacts	4	3	5	2	3	13	monitoring wells
Power Plant Operations	Fuel Handling (Fuel Oil)	monitoring wells	Ground water impact	4	2	4	2	4	12	Historical spills
Power Plant Operations	Gypsum Management	Conveying gypsum	water impacts	4	1	4	3	4	12	conveying to wallboard plant
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	NPDES	Permit renewel	New limits	4	1	3	4	4	12	New limits/ New requirements
Power Plant Operations	Fuel Handling (Coal)	Burning Fuel (Coal)	Air impact (specify pollutants of concern)	3	4	5	4	2	11	MACT HAPS, CO, Nox, SO2, SO3 (hydraded lime on all units)

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	ZLD	waste stream / disposal	future state	4	3	5	2	1	11	future new system, will montor
Power Plant Operations	Ash Management	Dry Handling of Bottom Ash	new design & new Regs	3	3	5	2	4	11	Potential New Regulations
Power Plant Operations	Limestone Handling	Coal pile runoff pond pH	regulatory	4	2	3	1	4	10	Permit limits
Power Plant Operations	Cooling Tower Operation	Once-thru cooling water intake	316(b) - Impingement/ Entrainment	3	1	5	2	5	10	Future regs 316(b) Implementation
Power Plant Operations	Fuel Handling (Coal)		Coal Pile (Fugitive dust)	3	2	4	3	3	9	dusting issues with new air permit
Power Plant Operations	Cooling Tower Operation		Surface Water Impact	4	1	3	2	3	9	oil releases
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Bioreactor	performance		3	2	3	3	4	9	current issues
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	ZLD	operation	future state	4	2	5	1	1	9	future new system, will montor
Power Plant Operations	Fuel Handling (Coal)		Storm water impact	3	2	3	2	4	8	CPR pond
Power Plant Operations	Gypsum Management		fugitive dust	3	2	3	3	3	8	Complaints and air permit
Power Plant Operations	Control Equipment and Monitor Operations	upgrade and installlation	Loss of Data, other Regulatory	3	1	2	3	5	8	New CEMS installation
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Title V Permit	Permit renewel	New limits/requirements	3	1	3	3	4	8	New requirements
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Bioreactor	surface water impacts	leaks	3	2	3	2	4	8	current issues
Power Plant Operations	Fuel Handling (Coal)		ILB, NAP, coal	3	2	3	2	3	8	
Power Plant Operations	Cooling Tower Operation		waste disposal	3	2	4	2	2	8	
Power Plant Operations	Fuel Handling (Fuel Oil)	Fuel oil tanks - AST	Spills/releases	2	2	5	4	3	7	
Power Plant Operations	Ash Management		Storm water impact	2	2	4	4	4	7	
Power Plant Operations	Wastewater Treatment		Surface Water Impact	2	4	4	3	3	7	
Power Plant Operations	Chemical Handling (**Anhydrous Ammonia, Sodium Hydroxide, Aluminum Hydroxide, Ammonium Hydroxide, Hydrazine, Limestone)**	Loading/Unloading of chemicals	Spills/Releases	2	4	3	4	3	7	decreased railcar unloading and truck loading. Year-round operation.
Power Plant Operations	Chemical Handling (**Anhydrous Ammonia, Sodium Hydroxide, Aluminum Hydroxide, Ammonium Hydroxide, Hydrazine, Limestone)**	truck movement	truck traffic	2	4	3	4	3	7	will continue to monitor

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Waste management (haz/non-haz)	Improper management - liability for company	2	3	4	3	4	7	
Power Plant Operations	Gypsum Management	Stockpile stability	water impacts, disposal	3	1	3	3	2	7	Pile manangement
Power Plant Operations	Cooling Tower Operation	Boiler make-up - consumptive use of water	Lake consumption	3	1	3	4	1	7	Plant expansion / Extended drought
Power Plant Maintenance	Cooling Tower Maintenance	Cooling Towers - Equipment leaks (piping, etc)	Spills/Releases	3	2	2	2	3	7	oil leaks
Power Plant Operations	Wastewater Treatment	Ash pond classification	waste disposal and plant operation	2	1	5	4	3	7	Future regulations
Power Plant Operations	Chemical Handling (**Anhydrous Ammonia, Sodium Hydroxide, Aluminum Hydroxide, Ammonium Hydroxide, Hydrazine, Limestone)**	Receive/Store chemicals	Spills/releases	2	4	2	4	3	7	Storing and moving railcars, truck loading
Power Plant Operations	Chemical Handling (**Anhydrous Ammonia, Sodium Hydroxide, Aluminum Hydroxide, Ammonium Hydroxide, Hydrazine, Limestone)**	Storage Tank and chemical/fuel inventory management	Spills/Releases	2	4	2	4	3	7	Storing and moving railcars, truck loading
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Ability to permit	Plant operation	2	1	5	4	3	7	future regulations
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Landfill classification	Plant operation	2	1	5	4	3	7	future regulations
Power Plant Operations	Ash Management		Air impact - Fugitive Dust	3	2	3	1	2	6	
Power Plant Maintenance	Painting of structures & equipment		Air - VOC generation	4	2	2	1	1	6	
Power Plant Operations	Fuel Handling (Fuel Oil)	Oily waste line	oil leak potetial	2	3	3	2	3	6	tank farm line
Power Plant Operations	Cooling Tower Operation		Potential Haz. Waste generation	2	2	4	1	3	5	
Power Plant Operations	Control Equipment and Monitor Operations	CEMS Operation/maintenance	Hazardous waste generation - Cleaning of umbilical	4	2	1	1	1	5	
Power Plant Operations	Fuel Handling (Coal)		Mag Ox / Calcium Carbonate	3	1	2	1	2	5	
Power Plant Operations	Ash Management		Off-site deposition - trucks	2	2	1	4	2	5	
Power Plant Operations	Mayo Ash	Truck hauling	Off & on-site deposition - trucks	2	2	3	2	2	5	dusting, traffic, compliants
Power Plant Operations	Gypsum Management		Surface Water Impact	3	1	2	2	1	5	will continue to monitor
Power Plant Operations	Gypsum Management	Truck hauling	Off-site deposition - trucks	2	2	1	4	2	5	
Power Plant Maintenance	Equipment Maintenance	Oil Containing mobile equipment use (fork lifts, cranes, etc.)	Spills/releases	3	1	1	1	3	5	
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - water front	Potential Haz. Waste generation with oil change	3	1	1	1	3	5	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Equipment Maintenance	SCR catalyst change-out;	sell / regeneration	2	2	5	1	1	5	approved by legal
Power Plant Maintenance	Cleaning and Equipment Washing		Surface Water Impact	3	2	2	1	1	5	Increased AH washes due to ABS deposits and year-round operation. Retention time
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Reduction of rustand impact to storm water	3	1	3	1	1	5	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Dam Maintenance	upkeep and inspections of dams	3	1	3	1	1	5	
Power Plant Operations	Fuel Handling (Coal)	Conveying Coal	Air Impact - Fugitive Dust	2	2	3	1	2	4	Janitorial cost
Power Plant Operations	Fuel Handling (Coal)	Pulverize Coal	Air Impact - Fugitive Dust	2	2	3	1	2	4	
Power Plant Operations	Ash Management	Higher LOI; Higher sulfer coal	Surface water impact ;	2	2	2	2	2	4	Higher mercury
Power Plant Operations	Wastewater Treatment	FGD Wastewater Treatment System(Wastewater Settling Pond, Bioreactor Operation	Ground water impact	1	2	5	5	4	4	Current issues; will continue to monitor (follow-up w/ Rob Miller)
Power Plant Operations	Wastewater Treatment		Surface Water Impact	1	2	5	5	4	4	Current issues; will continue to monitor
Power Plant Operations	Wastewater Treatment		Spills/releases	1	2	5	5	4	4	Current issues; will continue to monitor
Power Plant Operations	Control Equipment and Monitor Operations	ESP/FGD/SCR Operations	air quality impacts	1	3	5	4	4	4	graded positive
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Settling ponds	surface water impacts	leaks	2	2	2	2	2	4	Monitor
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Flush Pond	surface water impacts	leaks	2	2	2	2	2	4	current issues
Power Plant Maintenance	Cooling Tower Maintenance	Cooling Towers - Structural Issues - basin leaks	Spills/Releases	3	2	1	1	1	4	
Power Plant Operations	Fuel Handling (Coal)	Operating Coal Yard	Air impact(fugitive dust)	2	2	2	1	2	4	
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Landfill/ponds - Ground water impact	2	2	2	1	2	4	
Power Plant Operations	Gypsum Management	Gypsum Collection, Dewatering, Storage and Disposal	Spills/releases	2	2	2	1	2	4	will continue to monitor
Power Plant Operations	Fuel Handling (Coal)		mill reject recycling	2	1	3	1	1	3	New piping on Unit 2 pyrite
Power Plant Operations	Gypsum Management		Groundwater impact	2	1	2	2	1	3	will continue to monitor
Power Plant Operations	Cooling Tower Operation		(closed-loop) - reduction of impingement/entrainment 316(b)	2	1	3	1	1	3	
Power Plant Maintenance	Equipment Maintenance	FGD/SCR/ESP Maintenance	Air Impact - Excess Emissions	2	1	1	1	3	3	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Cleaning and Equipment Washing	Oil water sep. cleaning	Spills/releases	2	1	3	1	1	3	Cleaning basin
Power Plant Maintenance	Cleaning and Equipment Washing	duct work washing	Surface water impact	2	2	2	1	1	3	neutralizing as being washed
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Dredging canals/ditches/ponds - (process & if does not occur)	surface water impact (TSS impact	2	1	2	1	2	3	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Hydraded lime injection		spill releases	3	1	1	1	1	3	new system, will montor
Power Plant Operations	Ash Management	DFA reliability	Loose DFA	1	3	4	1	3	3	
Power Plant Operations	Fuel Handling (Coal)		Surface Water Impact	1	2	3	2	3	3	TSS with CPR pond
Power Plant Operations	Cooling Tower Operation	Boiler chemical cleaning	Spills/releases	1	3	3	1	3	3	
Power Plant Operations	Wastewater Treatment	Waste water - Operation of Elementary Neutralization System/	Ground water impact	2	2	1	1	1	3	
Power Plant Operations	Control Equipment and Monitor Operations		Potential Haz. Waste generation	1	2	4	2	2	3	
Power Plant Maintenance	Equipment Maintenance	Oil filtering	Spills/releases	2	1	1	1	2	3	
Power Plant Maintenance	Equipment Maintenance		Generation of Used oil and use oil filters and other wastes.	2	1	2	1	1	3	
Power Plant Operations	Fuel Handling (Fuel Oil)	Unloading fuel (Barges, train cars, tankers)	Spills/releases	1	2	2	2	3	2	
Power Plant Operations	Fuel Handling (Fuel Oil)	Transferring oils/fuels	Spills/releases	1	2	2	2	3	2	
Power Plant Operations	Wastewater Treatment	Waste water tanks	Spills/releases	1	3	2	1	3	2	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management		Spills/releases	1	2	2	2	3	2	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Flush Pond		Flush pond/settling pond short circutting	1	2	3	2	2	2	Managing by pumping
Power Plant Operations	Fuel Handling (Coal)	Coal Yard Maintenance	Coal run off-surface water impact	1	2	2	1	3	2	
Power Plant Operations	Fuel Handling (Coal)		Coal run off- storm water impact	1	2	2	1	3	2	
Power Plant Operations	Fuel Handling (Coal)		Oil spills/release	1	2	2	1	3	2	
Power Plant Operations	Fuel Handling (Coal)		Storm water impact	1	2	2	1	3	2	
Power Plant Operations	Fuel Handling (Coal)		Surface Water Impact	1	2	2	1	3	2	
Power Plant Operations	Ash Management		ground water impact	1	1	2	1	4	2	monitoring wells
Power Plant Operations	Cooling Tower Operation	Transformers	Spills/Release potential	1	2	3	1	2	2	
Power Plant Operations	Service Water/Drinking Water	Service Water/Drinking water - chlorination (gas/liquid)	Spills/Releases	1	3	1	1	3	2	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Control Equipment and Monitor Operations		Air Impact - Fugitive Dust	1	2	3	1	2	2	Dust leaks
Power Plant Operations	Control Equipment and Monitor Operations		Spills/Releases - chemical use	1	3	1	1	3	2	
Power Plant Maintenance	Equipment Maintenance		Air Impact - Fugitive Dust	2	1	1	1	1	2	
Power Plant Maintenance	Equipment Maintenance		Storm water impact	2	1	1	1	1	2	
Power Plant Maintenance	Equipment Maintenance	Vehicle Use & Maintenance	Fuel Consumption	2	1	1	1	1	2	Spills during filling / transfer
Power Plant Maintenance	Painting of structures & equipment	Coatings Abatement (Metals)	Hazardous waste generation	1	3	2	1	2	2	
Power Plant Operations	Cooling Tower Operation		Wildlife Impact	1	2	1	1	3	2	
Power Plant Operations	Cooling Tower Operation		Positive - Navigational landmark	1	1	3	2	1	2	
Power Plant Operations	Limestone Handling	Unloading	fugitive dust	1	1	1	1	4	2	Monthly VE requirements
Power Plant Maintenance	Cleaning and Equipment Washing	Parts cleaning	Hazardous Waste Generation	1	2	2	1	2	2	
Power Plant Operations	Fuel Handling (Fuel Oil)	Burning Fuel (Oil)	Air impact (specify pollutants of concern)	1	2	2	1	1	2	CO, NOx, SO2, Partic., CO2
Power Plant Maintenance	Cleaning and Equipment Washing		Spills/releases	1	2	2	1	1	2	
Power Plant Maintenance	Cleaning and Equipment Washing		Spills/releases	1	2	2	1	1	2	
Power Plant Maintenance	Painting of structures & equipment		Potential Haz. Waste generation	1	2	1	1	2	2	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	On-site landfills (other than ash)	Ground water impact	1	1	2	2	1	2	Manage LCID renewal in 2012
Power Plant Operations	Fuel Handling (Fuel Oil)	Draining of tank containments - storm water collection	Storm water impact	1	2	1	1	1	1	
Power Plant Operations	Fuel Handling (Fuel Oil)	Burning Used Oil	Air impact (specify pollutants of concern)	1	2	1	1	1	1	Metals, CO, CO2
Power Plant Operations	Fuel Handling (Fuel Oil)		Spills/releases	1	2	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)	Unloading fuel (Barges, train cars)	Spills/releases	1	2	1	1	1	1	Use of dust suppression
Power Plant Operations	Cooling Tower Operation	Boiler make-up - Resin Regen	Discharge to Pond - groundwater impact	1	1	2	1	1	1	
Power Plant Operations	Cooling Tower Operation	Boiler make-up - pH control	Chemical Spill Potential	1	1	2	1	1	1	
Power Plant Operations	Cooling Tower Operation	Boiler make-up - Wastes - (resin, filter media)	Improper waste management by contractor - liability for Company	1	1	2	1	1	1	
Power Plant Operations	Cooling Tower Operation	Boiler make-up - RO Treatment	Ground water impact	1	1	2	1	1	1	
Power Plant Operations	Control Equipment and Monitor Operations	Particulate Monitors (PM)	Data collection	1	1	1	1	2	1	New monitors
Power Plant Maintenance	Cleaning and Equipment Washing	Air Heater Washing	Ground water impact	1	2	1	1	1	1	neutralizing as being washed

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Cleaning and Equipment Washing	ESP Washing	Ground water impact	1	2	1	1	1	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Vegetation/Insect Control	Surface water impact	1	2	1	1	1	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance		Storm water impact	1	2	1	1	1	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance		Wildlife impact	1	2	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)		Air impact - Fugitive Dust	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)		Storm water impact	1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Coal)		Surface water impact	1	1	1	1	1	1	
Power Plant Operations	Cooling Tower Operation	Chemical Treatment - Cooling Towers	Reduction of Cooling water temperature	1	1	1	1	1	1	
Power Plant Operations	Cooling Tower Operation	Biocide Use - Cooling water	Surface Water Impact	1	1	1	1	1	1	
Power Plant Operations	Cooling Tower Operation		Wildlife Impact	1	1	1	1	1	1	
Power Plant Operations	Cooling Tower Operation	Auxiliary Cooling water (closed cooling water) - Corrosion Inhibitor addition	Ground water impact	1	1	1	1	1	1	
Power Plant Operations	Cooling Tower Operation	Auxiliary Cooling water (closed cooling water) - Pond discharge	Ground water impact	1	1	1	1	1	1	
Power Plant Operations	Cooling Tower Operation		Pond discharge - ground water impact	1	1	1	1	1	1	
Power Plant Operations	Cooling Tower Operation	Smoke Stacks	Bird Collisions	1	1	1	1	1	1	
Power Plant Operations	Limestone Handling	Limestone crushing/prep	fugitive dust	1	1	1	1	1	1	will continue to monitor
Power Plant Operations	Limestone Handling		spills/releases	1	1	1	1	1	1	will continue to monitor
Power Plant Operations	Limestone Handling	Limestone injection	spills/releases	1	1	1	1	1	1	will continue to monitor
Power Plant Operations	Limestone Handling	Service Water/Drinking water/Aux. cooling water - consumptive Use of water	depletion of aquifer	1	1	1	1	1	1	
Power Plant Maintenance	Cooling Tower Maintenance	Cooling Towers - Management of Waste (sludge, sediment)	Storm water impact	1	1	1	1	1	1	
Power Plant Maintenance	Cooling Tower Maintenance		Ground water impact	1	1	1	1	1	1	
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - non-water front	Spills/releases	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing		High Water Usage	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing		High Water Usage	1	1	1	1	1	1	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Cleaning and Equipment Washing	Fan washing	Spills/releases of oil	1	1	1	1	1	1	neutralizing as being washed
Power Plant Maintenance	Cleaning and Equipment Washing	General cleaning of sumps/pipes/floors/conveyors	Run off - Surface water impact	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing		Run off - storm water impact	1	1	1	1	1	1	
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)	Surface Water Impact	1	1	1	1	1	1	
Power Plant Maintenance	Scrap metal storage		Storm water impact	1	1	1	1	1	1	
Power Plant Maintenance	Scrap metal storage		Soil impact	1	1	1	1	1	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management		Soil impact	1	1	1	1	1	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Storm water discharge	Surface water impact	1	1	1	1	1	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	DAM Safety & inspections			1	1	1	1	1	1	
Power Plant Operations	Fuel Handling (Fuel Oil)								0	
Power Plant Operations	Fuel Handling (Coal)								0	
Power Plant Operations	Cooling Tower Operation	Fan Operation	Air impact - NOx generation						0	
Power Plant Operations	Cooling Tower Operation		Air Impact - Fugitive Dust						0	
Power Plant Operations	Cooling Tower Operation		Air Impact - Excess Opacity						0	
Power Plant Operations	Wastewater Treatment								0	
Power Plant Operations	Chemical Handling (**Anhydrous Ammonia, Sodium Hydroxide, Aluminum Hydroxide, Ammonium Hydroxide, Hydrazine, Limestone)**	NH3 rail movement	rail traffic	0	0	0	0	0	0	
Power Plant Maintenance	Painting of structures & equipment								0	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Hydrogen							0	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Batteries	recycling						0	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Glycol	recycling						0	
Power Plant Operations	Ash Management									
Power Plant Operations	Ash Management	ASH Pond (dredging)								Ash Pond
Power Plant Operations	Cooling Tower Operation									
Power Plant Operations	Cooling Tower Operation									
Power Plant Operations	Limestone Handling									
Power Plant Operations	Limestone Handling									
Power Plant Operations	Chemical Handling (**Anhydrous Ammonia, Sodium Hydroxide, Aluminum Hydroxide, Ammonium Hydroxide, Hydrazine, Limestone)**									
Power Plant Operations	Chemical Handling (**Anhydrous Ammonia, Sodium Hydroxide, Aluminum Hydroxide, Ammonium Hydroxide, Hydrazine, Limestone)**									
Power Plant Operations	Control Equipment and Monitor Operations									
Power Plant Maintenance	Scrap metal storage									
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance									
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										

WORK AREA: Sherwood Smith Energy Complex
For YR 2013: Significant Environmental Impacts Scoring Sheet

Secondary Activity, Product, or Service	Aspect	Potential Impact	Significance Ratings					Total	Comment
				Consequence					
			Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Facility Operation (Generating Power)	Equipment Operation/Failure	1. Air	3	4	3	5	4	12	operational mistakes, uncontrolled catastrophic air release; U7/8 Compressor Upgrade - actual vs
Facility Operation (Generating Power)	Equipment Operation/Failure	3. Water	3	4	4	4	4	12	uncontrolled catastrophic spills and releases, waste generation; equipment failure affecting dechlor
Facility Maintenance	Draining Equipment	1. Waste Generation	5	2	3	1	2	10	normal activity generation
Administrative Process	CEMS	1. Noncompliance	3	3	3	3	4	10	maintaining CEMS monitor availability %
Facility Maintenance	Equipment Cleaning	2. Hazardous Waste Generation	4	3	3	1	2	9	normal activity generation
Facility Maintenance	Projects	2. Hazardous Waste Generation	4	3	3	1	2	9	hot gas path, CI and BOP outage
Facility Maintenance	Projects	3. Spills/releases	3	1	3	4	4	9	outage LO/EHC replacements
Staffing	Training/Awareness	1. Noncompliance	3	3	3	2	4	9	increased headcount / turnover
Facility Maintenance	Routine Maintenance (PM)	1. Solid Waste Generation	5	2	2	1	2	9	normal activity generation
Facility Maintenance	Painting Activities	2. Hazardous Waste Generation	5	2	2	1	2	9	normal activity generation
Facility Maintenance	Equipment Cleaning	1. Solid Waste Generation	5	1	2	1	2	8	normal activity generation
Facility Maintenance	Projects	1. Solid Waste Generation	5	1	2	1	2	8	hot gas path, CI and BOP outage
Facility Operation (Generating Power)	Equipment Operation/Failure	2. Land - contamination	2	4	3	3	4	7	uncontrolled catastrophic chemical spills and releases, waste generation
Facility Operation (Generating Power)	Receive/Store/Ship Chemicals and Materials	1. Land - contamination	2	4	3	4	3	7	Considering worst case spill for both petroleum and chemical storage, tanker transfer and site tote transportation; waste generation
Facility Operation (Generating Power)	BOP and auxillary equipment	2. Land - contamination	2	4	3	3	4	7	waste generation
Facility Maintenance	Replace/Repair Equipment	4. Solid / Universal Waste Generation	3	3	3	1	2	7	

Secondary Activity, Product, or Service	Aspect	Potential Impact	Significance Ratings					Total	Comment
				Consequence					
			Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Facility Operation (Generating Power)	Burn Fuel (NG, FO)	1. Air	2	2	3	4	4	7	permit limit compliance
Facility Operation (Generating Power)	Fuel Storage (AST 3mil gal FO)	1. Air	5	2	1	1	1	6	fugitive voc releases from tank vent or spill
Facility Operation (Generating Power)	Fuel Storage (AST 3mil gal FO)	3. Waste generation	3	2	3	1	2	6	Bottoms / sludges
Facility Maintenance	Draining Equipment	2. Land - contamination	2	3	3	2	4	6	spills and releases for both petroleum and chemicals
Facility Maintenance	Routine Maintenance (PM)	3. Land - contamination	2	3	3	2	4	6	spills and releases for both petroleum and chemicals
Administrative Process	Agency / Regulatory Reporting, correspondence and notifications	1. Adminstrative Errors / Resubmittals	2	3	2	2	4	6	Permit Driven Reporting
Facility Operation (Generating Power)	Fuel Unloading	2. Land	3	2	2	1	2	5	waste generation
Facility Maintenance	Groundskeeping / Janitorial	1. Solid / Universal Waste Generation	3	2	2	1	2	5	normal activity generation
Facility Maintenance	Routine Maintenance (PM)	2. Hazardous Waste Generation/Universal Waste Generation	2	3	3	1	2	5	normal activity generation
Facility Maintenance	Painting Activities	1. Solid Waste Generation	2	3	3	1	2	5	normal activity generation
Facility Maintenance	Boiler Cleaning	1. Solid Waste Generation	2	2	3	1	3	5	HRSG rust clean-out
Facility Operation (Generating Power)	BOP and auxillary equipment	3. Water	1	4	4	4	4	4	spills and releases, waste generation
Facility Operation (Generating Power)	Fuel Storage (AST 3mil gal FO)	1. Land - contamination	1	4	4	3	4	4	spills and releases, waste generation
Facility Operation (Generating Power)	Fuel Storage (AST 3mil gal FO)	4.Fire emergency	1	4	4	3	4	4	
Administrative Process	Agency / Regulatory Reporting, correspondence and notifications	2. Reporting Violations	1	4	3	3	5	4	Failure to report information
Facility Maintenance	Replace/Repair Equipment	1. Permit Impact	1	2	4	2	4	3	
Facility Maintenance	Replace/Repair Equipment	3. Asbestos disposal	1	2	4	2	3	3	
Facility Maintenance	Boiler Cleaning	2. Hazardous Waste Generation	1	2	4	1	4	3	

Secondary Activity, Product, or Service	Aspect	Potential Impact	Significance Ratings					Total	Comment
				Consequence					
			Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Facility Maintenance	Painting Activities	3. Spills/releases	1	3	3	2	2	3	Considering worst case spill destination for both petroleum and chemicals
Facility Maintenance	Equipment Cleaning	3. Spills/releases	1	3	3	2	2	3	Considering worst case spill destination for both petroleum and chemicals
Administrative Process	Regulatory changes	1. Noncompliance	1	2	3	1	4	3	MACT Boiler impact?
Facility Operation (Generating Power)	Fuel Unloading	1. Air	1	2	2	1	4	2	Fuel specs verification
Facility Operation (Generating Power)	Receive/Store/Ship Chemicals and Materials	2. Water	1	2	2	2	2	2	spills and releases, waste generation
Facility Operation (Generating Power)	Receive/Store/Ship Chemicals and Materials	4. Pesticide	1	2	2	1	3	2	proper storage, inventory, containment for registered tank
Facility Operation (Generating Power)	BOP and auxillary equipment	1. Air	1	2	2	1	3	2	air permit exceedance
Administrative Process	Chemical control	1. Waste Generation	1	2	2	2	2	2	Lack or failure of process
Facility Operation (Generating Power)	Receive/Store/Ship Chemicals and Materials	3. DOT Ship Compl	1	1	2	1	3	2	proper DOT Trans Sec for empty placarded totes
Facility Operation (Generating Power)	Fuel Unloading	3. Water	1	2	2	1	2	2	spill at fuel unloading to reach water
Facility Maintenance	Replace/Repair Equipment	2. Air Emissions	1	2	2	1	2	2	
Facility Maintenance	Groundskeeping / Janitorial	2. Spills/releases	1	2	2	1	2	2	Considering worst case spill destination for both petroleum and chemicals
Facility Maintenance	Land Management	1. Sedimentation and erosion	1	2	2	1	2	2	should not have an open ECP; maintain
Facility Maintenance	Boiler Cleaning	3. Spills/releases	1	2	2	1	2	2	

Objectives:

- Operate within issued air permit limitations and general conditions.
- Operate with no reportable releases of oil to soil or water.
- Operate with no reportable releases of chemical to soil or water.
- Operate within issued water permit limitations and general conditions.
- Manage the generation of hazardous waste within the site generator status.
- Operate in compliance with all federal, state and local environmental regulations.

L. V. Sutton Energy Complex
2012 Significant Environmental Impacts Scoring Sheet

updated on 6/29/2012

all answers based on permit conditions

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Ash Management	Ash Pond Operation	Groundwater Water Impact	5	3	5	5	4	21	BBL had investigated under the REC program. PGN asked to discontinue REC and area put back on Inactive Hazardous Site list. Boron and Manganese in monitoring wells. Catlin installed and sampled 21 temporary wells.
Common Power Plant Activities	Past Practices	Unlined 1984 ash pond	Groundwater, soil, and/or surface water impacts	5	4	5	4	4	21	BBL had investigated under the REC program. PGN asked to discontinue REC and area put back on Inactive Hazardous Site list. Boron and Manganese in monitor wells.
Power Plant Operations	Ash Management	Ash Pond Operation	Useful/remaining Life to Remain in Compliance	5	3	5	4	4	20	Fuel Handling moving ash in ponds to make additional storage space.
Common Power Plant Activities	Past Practices	Oil in soil	Groundwater, soil, and/or surface water impacts	5	3	4	3	4	18	state notified several times in 1990s about earthen containment
Power Plant Operations	Control Equipment and Monitor Operations	Lake Wildlife	Arsenic and Selinium level in Fish Tissue	4	4	3	5	3	15	Metal affects fish in Sutton cooling pond and in Cape Fear River. Sutton cooling pond is only fresh water lake in area and receives media attention.
Common Power Plant Activities	Past Practices	1954 ash disposal	Groundwater, soil, and/or surface water impacts	4	3	4	4	3	14	drawings state ash sent to wet lands, BBL had investigated under the REC program. PGN asked to discontinue REC and area put back on Inactive Hazardous Site list. Boron and Manganese in monitor wells. Investigation still in progress
Common Power Plant Activities	Past Practices	Oil sprayed on soil under tanks for rust protection	Groundwater, soil, and/or surface water impacts	5	3	3	2	3	14	general industry practice when tanks were built
Common Power Plant Activities	Past Practices	Equipment buried & solid refuge near South Retention Pond	Groundwater, soil, and/or surface water impacts	4	4	3	3	3	13	unknown items buried, exact location not verified but was close to 1-story building when #3 was built. Items such as piping, wiring, and suspect ACM material has been found.
Power Plant Operations	Ash Management	Ash Pond Operation	Surface Water Impact	5	3	3	2	2	13	High ash pond flow rates affecting metals in lake.
Power Plant Operations	Ash Management	Ash Generation	Air Impact (fugitive dust)	4	2	3	3	3	11	Wind blows ash in pond, business built close to property line, limit in air permit; water truck used and seeding done to minimize
Power Plant Maintenance	Boiler Operation	Transformers	PCB	4	3	3	2	3	11	3 suspected PCB contaminated transformers based on previous testing, multiple reclassified TF on site

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
				Likelihood	Consequence					
					Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Control Equipment and Monitor Operations	Precipitator Operations (Unit 1)	Air Impact (Title V Air Permit non-compliance)	4	2	3	2	4	**11**	Unit 1 hot-side ESP built approx 1974, 14% CAM limit is lower than anticipated, have caused unit to shut down several times
Power Plant Maintenance	Painting of structures & equipment	Coatings Abatement (Metals)	Hazardous waste generation	4	3	3	2	3	**11**	lead paint on site (stacks, structural steel, tanks). Stacks land mark in area.
Power Plant Operations	Boiler Operation	Transformers	Spills/Release potential	3	3	4	3	3	**10**	addressed in SPCC Plan
Common Power Plant Activities	Lake Maintenance	Lake Vegetation Control	Surface Water Impact	3	2	4	3	3	**9**	lake vegetation treatment and herbicide treatment, need to follow plan developed in 2004
Power Plant Operations	Fuel Source (coal)	Coal Pile Inventory	Air Impact (fugitive dust)	4	2	2	2	3	**9**	fugitive dust remain on site, less rainfall than normal.
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - river front	Spills and/or Releases to Surface Water	3	2	3	4	3	**9**	Barge slip and lake make up pumps. Cape Fear River is waters of the state.
Repower	Demolition	Hazardous Waste Generatition	Exceed Small Quantity Generator Status	4	1	3	2	3	**9**	lead paint on site (stacks, structural steel, tanks). Stacks land mark in area.
Power Plant Operations	Control Equipment and Monitor Operations	Precipitator Operations (Unit 2)	Air Impact (Title V Air Permit non-compliance)	3	2	3	2	4	**8**	Unit 2 hot-side ESP built approx 1997, 17% CAM limit is lower than anticipated
Power Plant Operations	Fuel Source (coal)	Burning coal	Air Impact (Title V Air Permit non-compliance)	2	3	3	5	5	**8**	CEMS/COMS monitor parameters. CMMS (mercury) has been deferred
Common Power Plant Activities	Past Practices	Vanadium ash area	Groundwater, soil, and/or surface water impacts	2	4	4	4	4	**8**	used when burning #6 oil, pit is concrete
Power Plant Operations	Wastewater Treatment	Yard Drainage and Oily Waste Lift Stations	Spills and/or Releases	3	3	2	2	3	**8**	includes spare pumps at lift stations
Power Plant Maintenance	Equipment Maintenance	Asbestos Abatement	Release	2	4	3	4	4	**8**	asbestos PM performed quarterly
Power Plant Maintenance	Equipment Maintenance	Locomotive Pit	Spills and/or Releases	3	3	2	2	3	**8**	can overflow during excessive rain events. Oil/Water system being evaluated due to CC project
Common Power Plant Activities	Past Practices	Creosote post used as footings when CTs constructed	Ground water and Surface water impacts	3	2	3	2	3	**8**	cause sheen similar to oil sheen.
Repower	New Construction	Air Permit	Noncompliance	3	1	3	3	3	**8**	fugitive dust remain on site from increased groundbreaking activities, part of work performed next to CF River (which is also the property boundary)
Repower	New Construction	Wetlands	Noncompliance	2	3	3	5	4	**8**	3 areas west of South Retention Pond could not be mitigated
Repower	Demolition	SPCC	Noncompliance	2	3	4	4	4	**8**	oil could get in cooling pond. May be reportable due to high visibility of pond
Power Plant Operations	Fuel Source (coal)	Unloading coal from trucks	Air Impact (fugitive dust)	4	2	1	1	3	**7**	this process rarely done, fire hose used to minimize dust while trucks traveling between barge slip and coal pile
Power Plant Maintenance	Equipment Maintenance	Mobile Equipment Use & Maintenance	Generation of Used oil, filters, and other wastes.	4	2	2	1	2	**7**	vehicles include dozers, jeni-lift; most maintenance performed by contractor
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps/collection system/dewatering systems)	Spills and/or Releases	3	2	2	2	3	**7**	EC # 55923 on ash piping wear out
Power Plant Operations	Fuel Source (coal)	Generation of mill rejects	Disposal capacity shortage	3	2	3	2	2	**7**	placed around coal pile
Power Plant Operations	Fuel Source (oil)	Fuel oil tanks - AST	Spills and/or Releases	2	3	3	3	4	**7**	tank in containment, underground lines are in casement, all other lines in trench boxes.

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
				Likelihood	Consequence					
					Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Fuel Source (oil)	Transferring oil	Spills and/or Releases	2	3	3	3	4	**7**	all tanks in containment
Power Plant Operations	Fuel Source (oil)	Unloading fuel oil from tankers	Spills and/or Releases	2	3	3	3	4	**7**	unloaded on concrete, addressed in SPCC Plan
Power Plant Maintenance	Equipment Maintenance	Low volume retention pond (West Pond)	Effluent discharge to ash pond - NPDES parameters impact	3	2	3	1	2	**6**	starting to get some oil into West Retention Pond.
Power Plant Operations	Fuel Source (coal)	Unloading coal from rail cars	Spills and/or Releases	3	2	2	1	3	**6**	coal not a hazardous waste
Power Plant Maintenance	Equipment Maintenance	Generator Hydrogen System (piping, tank)	Spills and/or Releases	2	4	3	2	3	**6**	CAA RQ is 10,000 lbs. which is more than we have on site
Power Plant Maintenance	Equipment Maintenance	Heating coils on Unit 3	Groundwater Impact- Spills and/or Releases	4	2	2	1	1	**6**	Ethylene Glycol identified in NPDES
Common Power Plant Activities	Past Practices	#1 bowser containment drains straight to the South Retention Pond and not the oily waste system.	Groundwater, soil, and/or surface water impacts	2	2	3	3	4	**6**	visual check on retention pond prior to pumping to ash pond, pond normally has ash causing difficulty in seeing oil, generator provided during hurricane; overflow would go into wetlands.
Repower	Demolition	Air Permit	Noncompliance	2	2	3	3	4	**6**	fugitive dust suspected to be greater chance of noncompliance
Repower	Demolition	NPDES Permit	Noncompliance	2	2	3	3	4	**6**	
Power Plant Operations	Chemical Handling	Receive/Store oils	Spills and/or Releases	2	2	3	2	4	**6**	Housekeeping concern with Oil Storage Rack
Common Power Plant Activities	Lake Maintenance	Lake Vegetation Control	Wildlife Impact (animal and vegetation)	2	2	3	3	3	**6**	treatment concentration monitored, algae bloom could cause fish kill
Common Power Plant Activities	Past Practices	Septic system at picnic area	Groundwater, soil, and/or surface water impacts	2	2	2	4	3	**6**	unsure method used to abandoned system when lake was built.
Power Plant Maintenance	Equipment Maintenance	Low volume retention pond (South Pond)	Effluent discharge to ash pond - NPDES parameters impact	3	2	2	1	2	**5**	all flows directed to West Retention Pond now.
Power Plant Operations	Fuel Source (coal)	Pulverize Coal	Air Impact (fugitive dust)	3	2	2	1	2	**5**	coal leaks, should remain on property
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Air - VOC generation	3	2	2	1	2	**5**	
Common Power Plant Activities	Facility/Grounds Maintenance	Gasoline pump	Spills and/or releases	3	2	2	1	2	**5**	Pump not in containment, would spill to ground, valve on pump supply should be closed when pump not in use.
Power Plant Operations	Chemical Handling	Loading/Unloading of chemicals	Spills and/or Releases	2	3	2	2	3	**5**	truck operator unloads acid, caustic, urea
Power Plant Operations	Chemical Handling	Receive/Store chemicals	Spills and/or Releases	2	3	2	2	3	**5**	minimal amount of non-bulk items
Power Plant Operations	Fuel Source (oil)	Draining of tank containments - storm water collection	Groundwater Impact	2	3	2	2	3	**5**	drains to ground, addressed in SPCC Plan
Power Plant Operations	Fuel Source (oil)	No. 6 fuel oil	Spills and/or Releases	2	3	3	3	1	**5**	#6 fuel oil in old lines, causes housekeeping issues
Power Plant Maintenance	Equipment Maintenance	ESP Maintenance	Air Impact - Excess Emissions	2	2	3	3	2	**5**	follow MAM to minimize emissions
Power Plant Maintenance	Equipment Maintenance	Mobile Equipment Use & Maintenance	Spills and/or Releases from fueling equipment	2	3	2	2	3	**5**	overfilling equipment, ground barriers under mobile equipment
Power Plant Maintenance	Equipment Maintenance	Mobile Equipment Use & Maintenance	Spills and/or Releases	2	3	2	2	3	**5**	ground barriers under mobile equipment
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - lake front	Spills and/or Releases to Surface Water	2	2	2	3	3	**5**	Sutton cooling pond is a cooling pond and not waters of the state but would have high public visibility
Common Power Plant Activities	Past Practices	Abandoned #1 deep well	Groundwater, soil, and/or surface water impacts	2	2	3	2	3	**5**	process used to abandoned this well is not known.

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
				Likelihood	Consequence					
					Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Common Power Plant Activities	Facility/Grounds Maintenance	Designing/Engineering of Projects	Violation of Environmental Regulations	2	1	3	2	4	**5**	Projects not having appropriate environmental review.
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps/collection system/dewatering systems)	Air Impact (fugitive dust)	3	2	1	1	2	**5**	Leaks in precipitator piping, fugitive dust should remain on property
Power Plant Operations	Fuel Source (coal)	Coal Pile Inventory	Storm water Impact	2	2	2	2	3	**5**	water sent to ash pond and monitored by NPDES permit
Power Plant Operations	Fuel Source (coal)	Coal Pile Inventory	Surface Water Impact	2	2	2	2	3	**5**	coal not hazardous waste
Power Plant Operations	Fuel Source (coal)	Coal Yard Maintenance	Coal run off- storm water Impact	2	2	2	2	3	**5**	water sent to ash pond and monitored by NPDES permit
Power Plant Operations	Fuel Source (coal)	Coal Yard Maintenance	Coal run off-Surface Water Impact	2	2	2	2	3	**5**	coal not hazardous waste
Power Plant Operations	Fuel Source (oil)	Burning Supplemental (Used) Oil	Air Impact (Title V Air Permit non-compliance)	2	2	2	2	3	**5**	maximum 300 gal/hr burned allowed in air permit, normally get Noble Oil to remove from site
Power Plant Operations	Fuel Source (oil)	Burning Supplemental (Used) Oil	Spills and/or Releases	2	2	3	2	2	**5**	tank in containment, lines underground to boiler, system inspected in 2007 outage, normally get Noble Oil to remove from site
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)	Surface Water Impact	2	2	2	2	3	**5**	scrap metal dumpster emptied when full, all oil should be removed.
Common Power Plant Activities	Past Practices	Asbestos buried on site	Groundwater, soil, and/or surface water impacts	1	4	4	5	5	**5**	west of CTs, area covered with asphalt to prevent exposure
Common Power Plant Activities	Past Practices	Boiler acid cleaning material land filled on site	Groundwater, soil, and/or surface water impacts	1	4	4	5	5	**5**	put in sandy area close to ash ponds exact location not verified
Common Power Plant Activities	Past Practices	Used oil dumped on coal pile	Groundwater, soil, and/or surface water impacts	2	2	2	2	3	**5**	unsure if oil contact soil
Power Plant Operations	Dam Regulations	1971 Ash Pond	Dam Failure	1	4	4	4	5	**4**	classified as low hazard by Land Quality Section
Power Plant Operations	Dam Regulations	1984 Ash Pond	Dam Failure	1	4	4	4	5	**4**	classified as low hazard by Land Quality Section
Power Plant Operations	Boiler Operation	Boiler Make-up - Chemicals for pH/purity control	Chemical release/ spill potential	2	3	1	1	3	**4**	PO_4, ammonia, hydrazine, and all Extremely Hazardous Substances at minimal quantities
Power Plant Operations	Chemical Handling	Chemical Control	Hazardous waste generation	2	2	2	2	2	**4**	minimal products on site to generate hazardous waste
Power Plant Operations	Control Equipment and Monitor Operations	Lake Thermal Cooling Capability	Water Impact (NPDES lake discharge temperature non-compliance)	1	4	4	4	4	**4**	interior Lake dikes are deteriorating. More emphasis on dam/dikes since TVA ash incident.
Power Plant Operations	Fuel Source (oil)	Fuel oil tanks - AST	Groundwater Impact	1	4	4	4	4	**4**	all tanks in containment
Power Plant Maintenance	Equipment Maintenance	Air Heater Washing	Spills and/or Releases	2	3	2	1	2	**4**	goes to drains, covered by NPDES
Power Plant Maintenance	Equipment Maintenance	Station batteries	Spills and/or Releases	2	3	2	1	2	**4**	broken batteries disposed as Hazardous Waste.
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Haz. Waste generation	2	3	2	1	2	**4**	cleaning painting equipment (brushes, etc)
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)	Soil Impact	2	2	2	2	2	**4**	scrap metal dumpster is not water tight and does not sit in containment
Repower	New Construction	Hazardous Waste Generatition	Exceed Small Quantity Generator Status	2	1	2	2	3	**4**	all hazardous waste to be approved by facility ES prior to generation

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
				Likelihood	Consequence					
					Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Fuel Source (oil)	Fuel oil tanks - piping	Spills and/or Releases	1	3	4	4	4	**4**	underground lines are in casement, all other lines in trench boxes.
Power Plant Operations	Boiler Operation	Boiler Make-up - Resin Regeneration	Effluent discharge to pond - groundwater Impact	2	2	2	1	2	**4**	Acid and caustic is identified in NPDES application
Power Plant Operations	Fuel Source (coal)	Coal Yard Maintenance	Oil spills/release off site	2	1	2	2	2	**4**	oil drips from locomotive
Power Plant Operations	Fuel Source (coal)	Coal Yard Maintenance	Oil spills/release on site	2	1	2	2	2	**4**	oil drips from equipment
Power Plant Operations	Fuel Source (coal)	Conveying Coal	Air Impact (fugitive dust)	2	2	2	1	2	**4**	conveyor hoods installed, coal not hazardous waste
Power Plant Operations	Control Equipment and Monitor Operations	CEMS Operation/maintenance	Hazardous waste generation - Cleaning of umbilical	2	2	2	1	2	**4**	minimal amount generated
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - non-water front	Spills and/or Releases	2	2	2	1	2	**4**	
Repower	New Construction	Erosion and Sedimentation	Noncompliance	2	1	2	1	3	**4**	Inspections performed after qualifying rain event
Power Plant Operations	Dam Regulations	1972 Cooling Pond	Dam Failure	1	2	3	5	3	**3**	classified as low hazard by Land Quality Section, dam no longer jurisdictional
Power Plant Maintenance	Equipment Maintenance	Radioactive Materials	Release/ dose exposure	1	4	3	3	3	**3**	source will not go airborne unless grinded.
Power Plant Maintenance	Equipment Maintenance	Radioactive Materials	Source not recoverable	1	4	3	3	3	**3**	securely attached to structure
Common Power Plant Activities	Waste Management	Waste management (hazardous and non-hazardous)	Improper management - liability for company	1	3	3	3	4	**3**	waste managed in accordance with corporation policy and procedures
Common Power Plant Activities	Waste Management	Waste management (hazardous and non-hazardous)	Spills and/or Releases	1	3	3	3	4	**3**	
Repower	New Construction	SPCC	Noncompliance	1	2	3	4	4	**3**	spills within 100 feet of navigable waters
Repower	Demolition	Wetlands	Noncompliance	1	2	4	3	4	**3**	no known wetlands around coal facility.
Power Plant Operations	Ash Management	Ash Reuse	Ash Reuse Permit non-compliance	1	2	4	2	4	**3**	ash is not being re-used at this time.
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Air permit condition/limits/notifications.	1	2	3	3	4	**3**	Unit 1 cleaned in 2008, Unit 2 in 1993, Unit 3 in 2006. Do not expect any more before coal units retired. Possible chemical cleaning on CC units due to "lessons learned" from other facilities.
Power Plant Operations	Control Equipment and Monitor Operations	ROFA/SNCR Operations	Air Impact (Title V Air Permit non-compliance)	1	2	3	3	4	**3**	ROFA and SNCR installed in 2005, Running on as-needed basis.
Power Plant Operations	Fuel Source (oil)	Burning #2 fuel oil	Air Impact (Title V Air Permit non-compliance)	1	2	3	3	4	**3**	oil for startup, shutdown, and flame stabilization in coal units
Power Plant Operations	Fuel Source (oil)	Burning #2 fuel oil	Air Impact (Title V Air Permit non-compliance)	1	2	3	3	4	**3**	oil combusted in CT units.
Power Plant Maintenance	Equipment Maintenance	Forced oil coolers on U-3 ash pump	Spills and/or Releases	1	3	3	3	3	**3**	potential release into Sutton cooling pond.
Power Plant Maintenance	Equipment Maintenance	Forced oil coolers on U-1, 2, 3 circulating water pumps	Spills and/or Releases	1	3	3	3	3	**3**	potential release into Sutton cooling pond.
Power Plant Maintenance	Equipment Maintenance	HVAC maintenance	Release of Class I/II CFCs	2	2	1	1	2	**3**	Contractors perform work
Power Plant Maintenance	Equipment Maintenance	Low volume retention pond cleaning	Spills and/or Releases	2	2	2	1	1	**3**	dump trucks are lined to minimize spills
Common Power Plant Activities	Facility/Grounds Maintenance	Use and Dispositon of Records	Violation of Environmental Record Retention Requirements	1	2	3	2	5	**3**	Maintain environmetal records in compliance with EVC-SUBS-00211
Repower	New Construction	NPDES Permit	Noncompliance	1	2	3	3	4	**3**	spills to land/water

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
				Likelihood	Consequence					
					Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Ash Management	Acid/Caustic Tank(s) for Ash Pond pH Adjustment	Spills and/or Releases	1	3	3	2	3	**3**	tank is inside containment
Power Plant Operations	Ash Management	Acid/Caustic Tank(s) for Ash Pond pH Adjustment containment draining	Groundwater Impact	1	3	3	2	3	**3**	drain valve locked in closed position.
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps/collection system/dewatering systems)	Surface Water Impact	1	2	3	3	3	**3**	EC #55412 on pipes over discharge canal, pipes "rolled" during 2006
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Pond discharge - Groundwater Impact	1	2	3	2	4	**3**	Allowed in ash pond by NPDES, chemicals evaporated by air permit. Do not expect any more before coal units retired.
Power Plant Operations	Control Equipment and Monitor Operations	CEMS Equipment	Air Impact (Title V Air Permit non-compliance)	1	2	3	2	4	**3**	CEMS software will change from Spectrum to VIMMS with CC units
Power Plant Operations	Control Equipment and Monitor Operations	COMS Equipment	Air Impact (Title V Air Permit non-compliance)	1	2	3	2	4	**3**	Unit 1 replaced in 2009. Unit 2 replaced in 2010. Unit 3 was replaced in 2007
Power Plant Operations	Control Equipment and Monitor Operations	Precipitator Operations (Unit 3)	Air Impact (Title V Air Permit non-compliance)	1	2	3	2	4	**3**	Unit 3 cold-side ESP rebuilt in 1997, 28% CAM limit is lower than anticipated
Power Plant Operations	Fuel Source (biomass)	Burning biomass	Air Impact (Title V Air Permit non-compliance)	1	2	3	2	4	**3**	Biomass trial in September 2006, questions if burning biomass makes you NSPS facility, not pursueing.
Power Plant Operations	Fuel Source (coal)	Unloading coal from barges	Air Impact (fugitive dust)	1	2	3	3	3	**3**	monthly observations required by air permit, fugutive dust in air permit, we do not expect to receive any more coal by barge
Common Power Plant Activities	Facility/Grounds Maintenance	Dredging canals/ditches/ponds - (process & if does not occur)	Groundwater, Storm Water/ Surface Water Impact	1	2	4	2	3	**3**	dredge barge slip, spoils go to ash pond
Power Plant Operations	Fuel Source (biomass)	Transferring biomass	Spills and/or Releases	2	1	2	1	1	**3**	use existing conveying system as coal, not actively burning biomass and no equipment installed
Power Plant Operations	Fuel Source (coal)	Unloading coal from barges	Spills and/or Releases	1	2	3	2	3	**3**	coal not a hazardous waste, barge slipped dredged, we do not expect to receive any more coal by barge
Power Plant Operations	Fuel Source (coal)	Unloading coal from trucks	Spills and/or Releases	2	2	1	1	1	**3**	coal not a hazardous waste, this process rarely done
Power Plant Operations	Fuel Source (natural gas)	Natural gas system (piping/gas station)	Spills and/or Releases	1	3	2	2	3	**3**	CT had capability for NG. NG not used since 1984. Piping has been removed.
Power Plant Operations	Service Water/Drinking Water	Service Water/Drinking water/Aux. cooling water - consumptive Use of water	Well level draw down - depletion of aquifer	1	1	3	5	1	**3**	use lake water if wells depleted in drought condition AND lake CL- less than 200ppm, EC #50742 to limit #5 well to 150 gpm.
Power Plant Maintenance	Equipment Maintenance	ESP Maintenance	Air Impact (fugitive dust)	1	2	3	3	2	**3**	depends if ESP washed or not
Power Plant Maintenance	Equipment Maintenance	Gasoline and Kerosene tanks	Spills and/or Releases	1	3	2	2	3	**3**	including piping
Power Plant Maintenance	Equipment Maintenance	Oil water separator cleaning	Spills and/or Releases	1	3	2	2	3	**3**	lift station #4 could overflow depending on amount of rain fall during this maintenance
Common Power Plant Activities	Facility/Grounds Maintenance	Vegetation/Insect Control (not lake)	Storm Water/ Surface Water Impact	1	3	2	3	2	**3**	applied by licensed personnel
Power Plant Operations	Ash Management	Ash Reuse	Spills and/or Releases	1	2	2	2	3	**2**	Transport in covered vehicles

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
				Likelihood	Consequence					
					Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Hazardous waste generation	1	2	2	2	3	**2**	Use citric acid or EDTA, perform extra rinses if necessary. Do not expect any more before coal units retired. Possible chemical cleaning on CC units due to "lessons learned" from other facilities.
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Spills and/or Releases	1	2	2	2	3	**2**	visual inspections performed, equipment leaked during previous cleanings. Do not expect any more before coal units retired. Possible chemical cleaning on CC units due to "lessons learned" from other facilities.
Power Plant Maintenance	Equipment Maintenance	Catch Basin at 1&2 stack for yard drainage system is covered with soil	Storm Water/ Surface Water Impact	1	2	2	2	3	**2**	this CB accepts water from CB south of #2 precipitator building.
Power Plant Operations	Wastewater Treatment	Septic system (at CT Building)	Spills and/or Releases	1	3	2	1	3	**2**	tank installed circa 2000
Power Plant Operations	Wastewater Treatment	Septic system (at Fuel Handling Building)	Spills and/or Releases	1	3	2	1	3	**2**	tank installed circa 1950s
Power Plant Operations	Wastewater Treatment	Septic system (existing plant and CC facilities)	Spills and/or Releases	1	3	2	1	3	**2**	Septic system in service Sep 2011. New buildings for CC will be added to this system
Power Plant Maintenance	Equipment Maintenance	Stack chimney cap deteriorated	Air Impact (due to structure damage)	1	2	3	2	2	**2**	Unit 3 chimney cap replaced in 2007
Common Power Plant Activities	Past Practices	Mercury monometers washed in sinks	Groundwater, soil, and/or surface water impacts	1	2	2	2	3	**2**	Septic system sludge is not hazardous per TCLP (8 RCRA metals)
Power Plant Maintenance	Equipment Maintenance	Air Heater Washing	Groundwater Impact	1	2	2	2	2	**2**	water sent to ash pond and monitored by NPDES permit
Power Plant Maintenance	Equipment Maintenance	Air Heater Washing	High Water Usage	2	1	1	1	1	**2**	lake water used for AH washing
Power Plant Maintenance	Equipment Maintenance	ESP Washing	High Water Usage	2	1	1	1	1	**2**	lake water used for ESP washing, water sent to ash ponds which discharge into the lake
Power Plant Maintenance	Equipment Maintenance	Drain gasoline and Kerosene tank containments	Groundwater Impact	1	2	2	1	3	**2**	drains to ground, addressed in SPCC Plan
Power Plant Maintenance	Equipment Maintenance	Mobile Equipment Use & Maintenance	Groundwater Impact	1	2	2	2	2	**2**	ground barriers under mobile equipment
Power Plant Maintenance	Equipment Maintenance	Parts cleaning	Hazardous Waste Generation	1	3	2	1	2	**2**	Safety Kleen performs maintenance and test fluid; minimal products on site to generate hazardous waste
Common Power Plant Activities	Facility/Grounds Maintenance	Vegetation/Insect Control (not lake)	Wildlife Impact (animal and vegetation)	1	2	2	3	1	**2**	endangered/ threatened species on site, awareness training provided to employees
Power Plant Operations	Boiler Operation	Smoke Stacks	Collisions from aircraft or wildlife	1	2	1	1	3	**2**	Stacks are navigation landmark and appropriately marked or lighted
Power Plant Operations	Fuel Source (coal)	Conveying Coal	Storm water Impact	1	2	2	1	2	**2**	water sent to ash pond and monitored by NPDES permit
Power Plant Operations	Fuel Source (coal)	Conveying Coal	Surface Water Impact	1	2	2	1	2	**2**	conveyor over intake canal, coal not hazardous waste
Power Plant Operations	Fuel Source (coal)	Generation of mill rejects	Groundwater Impact	1	2	1	2	2	**2**	placed around coal pile
Power Plant Operations	Fuel Source (coal)	Generation of mill rejects	Storm water Impact	1	2	1	2	2	**2**	water sent to ash pond and monitored by NPDES permit
Power Plant Operations	Fuel Source (coal)	Generation of mill rejects	Surface Water Impact	1	2	1	2	2	**2**	stored around coal pile

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
				Likelihood	Consequence					
					Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Fuel Source (marijuana)	Burning marijuana in Unit 1	Air Impact (Title V Air Permit non-compliance)	1	2	1	1	3	**2**	air permit allows 5.4 tons/hr, has not been done in years
Power Plant Maintenance	Equipment Maintenance	General cleaning of sumps/pipes/floors/conveyors	Run off - Surface Water Impact	1	2	2	1	2	**2**	goes to drains, covered by NPDES
Power Plant Operations	Fuel Source (biomass)	Operating Biomass Yard	Air Impact (fugitive dust)	1	1	2	1	2	**2**	monthly observations required by air permit, not actively burning biomass and no equipment installed
Power Plant Maintenance	Equipment Maintenance	Closed cooling water maintenance	Groundwater Impact- Spills and/or Releases	1	2	2	1	1	**2**	Corrosion inhibitor identified in NPDES application
Power Plant Maintenance	Equipment Maintenance	ESP Washing	Groundwater Impact	1	2	2	1	1	**2**	goes to drains, covered by NPDES
Power Plant Maintenance	Equipment Maintenance	ESP Washing	Spills and/or Releases	1	2	2	1	1	**2**	goes to drains, covered by NPDES
Power Plant Operations	Fuel Source (biomass)	Operating Biomass Yard	Storm water Impact	1	1	2	1	1	**1**	none expected, not actively burning biomass and no equipment installed
Power Plant Operations	Fuel Source (biomass)	Operating Biomass Yard	Surface Water Impact	1	1	2	1	1	**1**	minimal expected in ash ponds, not actively burning biomass and no equipment installed
Power Plant Operations	Fuel Source (coal)	Generation of mill rejects	Air Impact (fugitive dust)	1	2	1	1	1	**1**	placed around coal pile
Power Plant Operations	Fuel Source (oil)	Burning On-Spec Used #2 Oil	Air Impact (Title V Air Permit non-compliance)	1	1	1	1	2	**1**	no longer burn at site due to maintenance issues.
Power Plant Operations	Boiler Operation	Boiler Make-up Wastes (resin)	Improper waste management by contractor - liability for Company	1	1	1	1	1	**1**	Resins approved for disposal in NH County landfill
Power Plant Operations	Control Equipment and Monitor Operations	CMMS Equipment	Continuous Mercury Monitoring Equipment not be certified by 1/1/2009	1	1	1	1	1	**1**	Ruling was vacaded and equipment not required to be certified by 1/1/2009
Power Plant Operations	Fuel Source (biomass)	Unloading biomass from trucks	Spills and/or Releases	1	1	1	1	1	**1**	unload biomass in coal pile area, not actively burning biomass and no equipment installed
Power Plant Operations	Fuel Source (oil)	Fuel oil tanks - UST	Spills and/or Releases	1	1	1	1	1	**1**	no known UST on site
Power Plant Operations	Fuel Source (oil)	Fuel oil tanks - UST	Groundwater Impact	1	1	1	1	1	**1**	no known UST on site
Power Plant Operations	Fuel Source (oil)	Unloading fuel oil from rail cars	Spills and/or Releases	1	1	1	1	1	**1**	this capability has been removed from site
Power Plant Operations	Service Water/Drinking Water	Service Water/Drinking water - chlorination (gas/liquid)	Spills and/or Releases	1	1	1	1	1	**1**	no chlorination by plant, potable water from Cape Fear Public Utility Authority
Repower	New Construction	FRP	Noncompliance	1	1	1	1	1	**1**	not applicable until 2x1 oil tanks built
Repower	Demolition	Erosion and Sedimentation	Noncompliance	1	1	1	1	1	**1**	this parameter has not been decided yet

Key to Likelihood

5- Very likely/ high probability (90% or more that an aspect will result in the described impact.
4- Likely/ strong probability (66%-89%) that an aspect will result in the described impact.
3- Moderate/ reasonable probability (34%-65%) that an aspect will result in the described impact.
2- Low/ low probability (11%-33%) that an aspect will result in the described impact.
1- Remote/ very unlikely (10% or less) that an aspect will result in the described impact.

Key to Exposure/Toxicity

5- Severe- Impact is catastrophic, very harmful or potentially fatal to humans or large portions of the ecosystem
4- Serious- Impact is harmful
3- Moderate- Impact is somewhat harmful
2- Mild- Impact has little potential for harm
1- Harmless- Impact has no potential for harm

Key to Cost

5- Major impact- over $1,000,000
4- High cost- $100,000 to $1,000,000
3- considerable cost- $10,000 to $100,000
2- Moderate cost- $1,000 to $10,000
1- Minimal cost- $0 to $1,000

Key to Public Relations (PR)

5- Primary concern to all/ most stakeholders
4- Primary concern/ to few/ one stakeholder
3- Secondary concern to all/ most stakeholders
2- Secondary concern to few/ one stakeholder
1- Little/ no concern to stakeholders

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings						Comments
				Likelihood	Consequence				Total	
					Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	

Key to Regulatory

5- Government fines and/or Criminal Activity- impact reportable to federal/state/local authority and involving criminal activity, NOV issued, and/or fine
4- Government administrative action- impact reportable to federal/state/local authority, NOV issued and/or fine likely.
3- Government- impact reportable to federal/state/local authority.
2- Supervisor- impact reportable to line supervisor/management.
1- Not reportable- impact covered by procedure, Best Management Practice, routine work practices.

Work Area: Tillery Hydro Plant

2012 Significant Environmental Impacts Scoring Sheet

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Waste management (haz/non-haz)	Improper management - liability for company	1	2	2	1	2	2	
Power Plant Operations	Wastewater Treatment	Waste water - Operation of Elementary Neutralization System	Ground water impact	1	1	2	1	2	2	
Power Plant Operations	Wastewater Treatment	Waste water tanks	Spills/releases	1	1	2	1	2	2	Septic Tank
Power Plant Operations	Chemical Handling	Loading/Unloading of chemicals	Spills/Releases	1	1	2	1	2	2	At the LOX Facility with LOX
Power Plant Operations	Chemical Handling	Receive/Store chemicals/oils	Spills/releases	1	1	2	1	2	2	LOX Facility
Power Plant Operations	Chemical Handling	Storage Tank and chemical/fuel inventory management	Spills/Releases	1	1	2	1	2	2	
Power Plant Maintenance	Equipment Maintenance	Oil Containing mobile equipment use (fork lifts, cranes, etc.)	Spills/releases	1	2	1	1	2	2	Forklift, tractor, lawn mower, mule, misc. equipmen, boat motor
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - water front	Spills/releases to surface water	1	1	2	1	2	2	
Power Plant Maintenance	Painting of structures & equipment		Potential Haz. Waste generation	1	2	1	1	2	2	
Power Plant Maintenance	Painting of structures & equipment		Air - VOC generation	1	2	1	1	2	2	
Power Plant Maintenance	Painting of structures & equipment	Coatings Abatement (Metals)	Hazardous waste generation	1	2	1	1	2	2	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management		Spills/releases	1	2	1	1	2	2	
Power Plant Operations	Fuel Handling (Fuel Oil)	Fuel oil tanks - AST/UST	Spills/releases	1	1	1	1	2	1	(diesel fuel tank)
Power Plant Operations	Fuel Handling (Fuel Oil)	Draining of tank containments - storm water collection	Storm water impact	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Fuel Oil)	Used Oil Storage	Spills	1	1	1	1	2	1	tested used oil collections
Power Plant Operations	Service Water/Drinking Water	Service Water/Drinking water/Aux. cooling water - consumptive Use of water	Well level draw down - depletion of aquifer	1	1	1	1	2	1	
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - non-water front	Spills/releases	1	1	1	1	2	1	
Power Plant Maintenance	Equipment Maintenance	Oil filtering	Spills/releases	1	1	1	1	2	1	Bearing oil
Power Plant Maintenance	Equipment Maintenance		Generation of Used oil and used oil filters and other wastes.	1	1	1	1	2	1	
Power Plant Maintenance	Cleaning and Equipment Washing	General cleaning of sumps/pipes/floors/conveyors	Run off - Surface water impact	1	1	1	1	2	1	
Power Plant Maintenance	Cleaning and Equipment Washing		Run off - storm water impact	1	1	1	1	2	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Oil water sep. cleaning	Spills/releases	1	1	1	1	2	1	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Cleaning and Equipment Washing	Parts cleaning	Hazardous Waste Generation	1	1	1	1	2	1	
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)	Surface Water Impact	1	1	1	1	2	1	
Power Plant Maintenance	Scrap metal storage		Soil impact	1	1	1	1	2	1	
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Positive - Reduction of rust and impact to storm water	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Vegetation/Insect Control	Surface water impact	1	1	1	1	2	1	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance		Wildlife impact	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Fuel Oil)	Unloading fuel (Barges, train cars, tankers)	Spills/releases	1	1	1	1	2	1	Diesel Fuel
Power Plant Operations	Fuel Handling (Fuel Oil)	~~Transferring oils/fuels~~	~~Spills/releases (To Water)~~	0	0	0	0	0	0	n/a
Power Plant Operations	Fuel Handling (Fuel Oil)		~~Ground water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	Fuel Handling (Fuel Oil)	~~No. 6 oil heating~~	~~Spills/releases~~	0	0	0	0	0	0	n/a
Power Plant Operations	Fuel Handling (Fuel Oil)	~~Burning Fuel (Oil)~~	~~Air impact (specify pollutants of concern)~~	0	0	0	0	0	0	n/a
Power Plant Operations	Fuel Handling (Fuel Oil)	~~Burning Used Oil~~	~~Air impact (specify pollutants of concern)~~	0	0	0	0	0	0	n/a
Power Plant Operations	Fuel Handling (Fuel Oil)		~~Spills/releases~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~	~~Unloading fuel (Barges, train cars)~~	~~Spills/releases~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~	~~Operating Coal Yard~~	~~Air impact(fugitive dust)~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Surface Water Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~	~~Coal Yard Maintenance~~	~~Coal run off-surface water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Coal run off- storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Oil spills/release~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~	~~Conveying Coal~~	~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Surface Water Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~	~~Pulverize Coal~~	~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~	~~Generation of mill rejects~~	~~Landfill/ponds - Ground water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Air impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Surface water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~	~~Burning Fuel (Coal)~~	~~Air impact (specify pollutants of concern)~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Fuel Handling (Coal)~~			0	0	0	0	0	0	n/a
Power Plant Operations	~~Ash Management~~	~~Fly/Bottom Ash Generation~~	~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	n/a

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	~~Ash Management~~		~~Landfill/Pond - Potential ground water impacts~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Ash Management~~		~~Off-site deposition - trucks~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Ash Management~~		~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Ash Management~~	~~Ash Handling system (piping/pumps/collection system/dewatering systems)~~	~~Spills/releases~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Ash Management~~		~~Air impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Ash Management~~		~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Ash Management~~		~~Surface water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Ash Management~~	~~Operation of Ash Ponds~~	~~Ground water/surface water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Ash Management~~			0	0	0	0	0	0	n/a
Power Plant Operations	~~Cooling Tower Operation~~	~~Chemical Treatment - Cooling Towers~~	~~Positive: Reduction of Cooling water temperature~~	0	0	0	0	0	0	n/a
Power Plant Operations			~~Positive - (closed-loop) -- reduction of impingement/entrainment 316(b)~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Cooling Tower Operation~~		~~Surface Water Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Cooling Tower Operation~~		~~Wildlife Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Cooling Tower Operation~~	~~Salt Drift - Cooling Towers~~	~~Impact to vegetation~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Cooling Tower Operation~~	~~Once-thru cooling water intake~~	~~316(b) - Impingement/ Entrainment~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Cooling Tower Operation~~	~~Biocide Use - Cooling water~~	~~Surface Water Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Cooling Tower Operation~~		~~Wildlife Impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Cooling Tower Operation~~	~~Auxillary Cooling water (closed cooling water) - Corrosion Inhibitor addition~~	~~Ground water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Cooling Tower Operation~~	~~Auxillary Cooling water (closed cooling water) - Pond discharge~~	~~Ground water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Cooling Tower Operation~~			0	0	0	0	0	0	n/a
Power Plant Operations	~~Boiler Operation~~	~~Boiler make-up - Resin Regen~~	~~Discharge to Pond - groundwater impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Boiler Operation~~	~~Boiler make-up - pH control~~	~~Chemical Spill Potential~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Boiler Operation~~	~~Boiler make-up - Wastes - (resin, filter media)~~	~~Improper waste management by contractor - liability for Company~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Boiler Operation~~	~~Boiler make-up - RO Treatment~~	~~Ground water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Boiler Operation~~	~~Boiler make-up - consumptive use of water~~	~~Well level draw down - depletion of aquifer~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Boiler Operation~~	~~Fan Operation~~	~~Air impact - NOx generation~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Boiler Operation~~		~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Boiler Operation~~		~~Air Impact - Excess Opacity~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Boiler Operation~~	~~Boiler chemical cleaning~~	~~Spills/releases~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Boiler Operation~~		~~Potential Haz. Waste generation~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Boiler Operation~~		~~Pond discharge - ground water impact~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Boiler Operation~~	~~Smoke Stacks~~	~~Bird Collisions~~	0	0	0	0	0	0	n/a

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	~~Boiler Operation~~		~~Positive - Navigational landmark~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Boiler Operation~~	~~Transformers~~	~~Spills/Release potential~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Boiler Operation~~			0	0	0	0	0	0	n/a
Power Plant Operations	Service Water/Drinking Water	~~Service Water/Drinking water - chlorination (gas/liquid)~~	~~Spills/Releases~~	0	0	0	0	0	0	n/a
Power Plant Operations	Chemical Handling		~~Air impact (chlorine)~~	0	0	0	0	0	0	n/a
Power Plant Operations	~~Control Equipment and Monitor Operations~~	~~ESP/FGD/SCR Operations~~	~~Positive: Reduction of air impacts~~	0	0	0	0	0	0	na
Power Plant Operations	~~Control Equipment and Monitor Operations~~		~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	na
Power Plant Operations	~~Control Equipment and Monitor Operations~~		~~Spills/Releases - chemical use~~	0	0	0	0	0	0	na
Power Plant Operations	~~Control Equipment and Monitor Operations~~		~~Potential Haz. Waste generation~~	0	0	0	0	0	0	na
Power Plant Operations	~~Control Equipment and Monitor Operations~~		~~Well level draw down - depletion of aquifer - high water use~~	0	0	0	0	0	0	na
Power Plant Operations	~~Control Equipment and Monitor Operations~~	~~CEMS Operation/maintenance~~	~~Hazardous waste generation - Cleaning of umbilical~~	0	0	0	0	0	0	na
Power Plant Operations	~~Control Equipment and Monitor Operations~~								0	na
Power Plant Maintenance	~~Cooling Tower Maintenance~~	~~Cooling Towers - Equipment leaks (piping, etc)~~	~~Spills/Releases~~	0	0	0	0	0	0	na
Power Plant Maintenance	~~Cooling Tower Maintenance~~	~~Cooling Towers - Structural Issues - basin leaks~~	~~Spills/Releases~~	0	0	0	0	0	0	na
Power Plant Maintenance	~~Cooling Tower Maintenance~~	~~Cooling Towers - Management of Waste (sludge, sediment)~~	~~Storm water impact~~	0	0	0	0	0	0	na
Power Plant Maintenance	~~Cooling Tower Maintenance~~		~~Ground water impact~~	0	0	0	0	0	0	na
Power Plant Maintenance	Equipment Maintenance	~~FGD/SCR/ESP Maintenance~~	~~Air Impact - Excess Emissions~~	0	0	0	0	0	0	n/a
Power Plant Maintenance	Equipment Maintenance		~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	n/a
Power Plant Maintenance	Equipment Maintenance		~~Storm water impact~~	0	0	0	0	0	0	n/a
Power Plant Maintenance	Equipment Maintenance	~~Vehicle Use & Maintenance~~	~~Fuel Consumption~~	0	0	0	0	0	0	n/a
Power Plant Maintenance	Cleaning and Equipment Washing	~~Air Heater Washing~~	~~Ground water impact~~	0	0	0	0	0	0	na/
Power Plant Maintenance	Cleaning and Equipment Washing		~~High Water Usage~~	0	0	0	0	0	0	na/
Power Plant Maintenance	Cleaning and Equipment Washing		~~Spills/releases~~	0	0	0	0	0	0	na/
Power Plant Maintenance	Cleaning and Equipment Washing	~~ESP Washing~~	~~Ground water impact~~	0	0	0	0	0	0	na/
Power Plant Maintenance	Cleaning and Equipment Washing		~~Spills/releases~~	0	0	0	0	0	0	na/

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Cleaning and Equipment Washing		~~High Water Usage~~	0	0	0	0	0	0	na/
Power Plant Maintenance	Cleaning and Equipment Washing	~~Fan washing~~	~~Spills/releases of oil~~	0	0	0	0	0	0	na/
Power Plant Maintenance	Scrap metal storage		~~Storm water impact~~	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	~~On-site landfills (other than ash)~~	~~Ground water impact~~	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management		~~Soil impact~~	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance		~~Storm water impact~~	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	~~Storm water discharge~~	~~Surface water impact~~	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Dredging canals/ditches/ponds - (process & if does not occur)	SPCC implications - surface water impact	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance		waste - ground water impact	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance		Storm water impact	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Constructed Wetlands Operation	Potential surface water impact	0	0	0	0	0	0	n/a
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)			Potential ground water impact	0	0	0	0	0	0	n/a
Power Plant Operations	Service Water/Drinking Water									
Power Plant Operations	Wastewater Treatment									
Power Plant Operations	Chemical Handling									
Power Plant Maintenance	Equipment Maintenance									
Power Plant Maintenance	Cleaning and Equipment Washing									

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Scrap metal storage									
Power Plant Maintenance	Painting of structures & equipment									
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)										

Work Area: Walters Plant & Dam

2012 Significant Environmental Impacts Scoring Sheet

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Fuel Handling (Fuel Oil)	Transferring oils/fuels	Spills/releases (To Water)	1	4	2	2	4	3	Diesel Tank/Pontoon, misc. plant equip.
Power Plant Maintenance	Equipment Maintenance	Oil Containing mobile equipment use (fork lifts, cranes, etc.)	Spills/releases	1	2	2	2	3	2	Gate Hoist/misc. mobile equip.
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Vegetation/Insect Control	Surface water impact	1	3	1	1	2	2	Dam/Village/Hemlock treatment
Power Plant Operations	Chemical Handling	Loading/Unloading of chemicals	Spills/Releases	1	2	2	1	2	2	Cleaning supplies
Power Plant Operations	Chemical Handling	Receive/Store chemicals/oils	Spills/releases	1	2	2	1	2	2	Lubricating oils
Power Plant Operations	Chemical Handling	Storage Tank and chemical/fuel inventory management	Spills/Releases	1	2	2	1	2	2	Used Oil Storage Tank
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - water front	Spills/releases to surface water	1	2	2	1	2	2	Pontoon/Headgate/gate hoist
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Waste management (haz/non-haz)	Improper management - liability for company	1	2	2	1	2	2	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance		Wildlife impact	1	3	1	1	2	2	Hemlock treatment
Power Plant Operations	Wastewater Treatment	Waste water tanks	Spills/releases	1	1	2	1	2	2	septic tank
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)	Surface Water Impact	1	2	1	1	2	2	Outside Storage
Power Plant Maintenance	Scrap metal storage		Soil impact	1	2	1	1	2	2	Outside Storage
Power Plant Maintenance	Painting of structures & equipment		Potential Haz. Waste generation	1	2	1	1	2	2	
Power Plant Maintenance	Painting of structures & equipment	Coatings Abatement (Metals)	Hazardous waste generation	1	2	1	1	2	2	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management		Spills/releases	1	2	1	1	2	2	
Power Plant Operations	Service Water/Drinking Water	Service Water/Drinking water - chlorination (gas/liquid)	Spills/Releases	1	1	1	1	2	1	Chlorination of non-potable water
Power Plant Operations	Service Water/Drinking Water	Service Water/Drinking water/Aux. cooling water - consumptive Use of water	Well level draw down - depletion of aquifer	1	1	1	1	2	1	Non-potable water only
Power Plant Operations	Wastewater Treatment	Waste water - Operation of Elementary Neutralization System	Ground water impact	1	1	1	1	2	1	
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - non-water front	Spills/releases	1	1	1	1	2	1	
Power Plant Maintenance	Equipment Maintenance	Oil filtering	Spills/releases	1	1	1	1	2	1	Lube Oil/Gov. Oil Tanks/thurst oil

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Equipment Maintenance		Generation of Used oil and used oil filters and other wastes.	1	1	1	1	2	1	plant/dam/misc. equipment
Power Plant Maintenance	~~Cleaning and Equipment Washing~~	General cleaning of sumps/pipes/floors/conveyors	Run off - Surface water impact	1	1	1	1	2	1	plant sump
Power Plant Maintenance	~~Cleaning and Equipment Washing~~		Run off - storm water impact	1	1	1	1	2	1	
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Positive - Reduction of rust and impact to storm water	1	1	1	1	2	1	Tainter Gates/Handrails/Etc…
Power Plant Maintenance	Painting of structures & equipment		Air - VOC generation	1	1	1	1	2	1	
Power Plant Operations	Fuel Handling (Fuel Oil)	~~Unloading fuel (Barges, train cars, tankers)~~	~~Spills/releases~~	0	0	0	0	0	0	
Power Plant Operations	Fuel Handling (Fuel Oil)	~~Fuel oil tanks - AST/UST~~	~~Spills/releases~~	0	0	0	0	0	0	N/A
Power Plant Operations	Fuel Handling (Fuel Oil)		~~Ground water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	Fuel Handling (Fuel Oil)	~~Draining of tank containments - storm water collection~~	~~Storm water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	Fuel Handling (Fuel Oil)	~~No. 6 oil heating~~	~~Spills/releases~~	0	0	0	0	0	0	N/A
Power Plant Operations	Fuel Handling (Fuel Oil)	~~Burning Fuel (Oil)~~	~~Air impact (specify pollutants of concern)~~	0	0	0	0	0	0	N/A
Power Plant Operations	Fuel Handling (Fuel Oil)	~~Burning Used Oil~~	~~Air impact (specify pollutants of concern)~~	0	0	0	0	0	0	N/A
Power Plant Operations	Fuel Handling (Fuel Oil)		~~Spills/releases~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~	~~Unloading fuel (Barges, train cars)~~	~~Spills/releases~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~	~~Operating Coal Yard~~	~~Air impact(fugitive dust)~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Storm water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Surface Water Impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~	~~Coal Yard Maintenance~~	~~Coal run off-surface water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Coal run off- storm water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Oil spills/release~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~	~~Conveying Coal~~	~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Storm water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Surface Water Impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~	~~Pulverize Coal~~	~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~	~~Generation of mill rejects~~	~~Landfill/ponds - Ground water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Air impact - Fugitive Dust~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Storm water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~		~~Surface water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~	~~Burning Fuel (Coal)~~	~~Air impact (specify pollutants of concern)~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Fuel Handling (Coal)~~			0	0	0	0	0	0	N/A
Power Plant Operations	~~Ash Management~~	~~Fly/Bottom Ash Generation~~	~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Ash Management~~		~~Landfill/Pond - Potential ground water impacts~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Ash Management~~		~~Off-site deposition - trucks~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Ash Management~~		~~Storm water impact~~	0	0	0	0	0	0	N/A

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	~~Ash Management~~	~~Ash Handling system (piping/pumps/collection system/dewatering systems)~~	~~Spills/releases~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Ash Management~~		~~Air impact - Fugitive Dust~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Ash Management~~		~~Storm water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Ash Management~~		~~Surface water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Ash Management~~	~~Operation of Ash Ponds~~	~~Ground water/surface water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Ash Management~~			0	0	0	0	0	0	N/A
Power Plant Operations	~~Cooling Tower Operation~~	~~Chemical Treatment - Cooling Towers~~	~~Positive: Reduction of Cooling water temperature~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Cooling Tower Operation~~		~~Positive - (closed-loop) - reduction of impingement/entrainment 316(b)~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Cooling Tower Operation~~		~~Surface Water Impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Cooling Tower Operation~~		~~Wildlife Impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Cooling Tower Operation~~	~~Salt Drift - Cooling Towers~~	~~Impact to vegetation~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Cooling Tower Operation~~	~~Once-thru cooling water intake~~	~~316(b) - Impingement/ Entrainment~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Cooling Tower Operation~~	~~Biocide Use - Cooling water~~	~~Surface Water Impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Cooling Tower Operation~~		~~Wildlife Impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Cooling Tower Operation~~	~~Auxillary Cooling water (closed cooling water) - Corrosion Inhibitor addition~~	~~Ground water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Cooling Tower Operation~~	~~Auxillary Cooling water (closed cooling water) - Pond discharge~~	~~Ground water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Cooling Tower Operation~~			0	0	0	0	0	0	N/A
Power Plant Operations	~~Boiler Operation~~	~~Boiler make-up - Resin Regen~~	~~Discharge to Pond - groundwater impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Boiler Operation~~	~~Boiler make-up - pH control~~	~~Chemical Spill Potential~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Boiler Operation~~	~~Boiler make-up - Wastes - (resin, filter media)~~	~~Improper waste management by contractor - liability for Company~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Boiler Operation~~	~~Boiler make-up - RO Treatment~~	~~Ground water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Boiler Operation~~	~~Boiler make-up - consumptive use of water~~	~~Well level draw down - depletion of aquifer~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Boiler Operation~~	~~Fan Operation~~	~~Air impact - NOx generation~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Boiler Operation~~		~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Boiler Operation~~		~~Air Impact - Excess Opacity~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Boiler Operation~~	~~Boiler chemical cleaning~~	~~Spills/releases~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Boiler Operation~~		~~Potential Haz. Waste generation~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Boiler Operation~~		~~Pond discharge - ground water impact~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Boiler Operation~~	~~Smoke Stacks~~	~~Bird Collisions~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Boiler Operation~~		~~Positive - Navigational landmark~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Boiler Operation~~	~~Transformers~~	~~Spills/Release potential~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Boiler Operation~~			0	0	0	0	0	0	N/A
Power Plant Operations	Chemical Handling		~~Air impact (chlorine)~~	0	0	0	0	0	0	N/A

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	~~Control Equipment and Monitor Operations~~	~~ESP/FGD/SCR Operations~~	~~Positive: Reduction of air impacts~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Control Equipment and Monitor Operations~~		~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Control Equipment and Monitor Operations~~		~~Spills/Releases - chemical use~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Control Equipment and Monitor Operations~~		~~Potential Haz. Waste generation~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Control Equipment and Monitor Operations~~		~~Well level draw down - depletion of aquifer - high water use~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Control Equipment and Monitor Operations~~	~~CEMS Operation/maintenance~~	~~Hazardous waste generation - Cleaning of umbilical~~	0	0	0	0	0	0	N/A
Power Plant Operations	~~Control Equipment and Monitor Operations~~								0	N/A
Power Plant Maintenance	~~Cooling Tower Maintenance~~	~~Cooling Towers - Equipment leaks (piping, etc)~~	~~Spills/Releases~~	0	0	0	0	0	0	N/A
Power Plant Maintenance	~~Cooling Tower Maintenance~~	~~Cooling Towers - Structural Issues - basin leaks~~	~~Spills/Releases~~	0	0	0	0	0	0	N/A
Power Plant Maintenance	~~Cooling Tower Maintenance~~	~~Cooling Towers - Management of Waste (sludge, sediment)~~	~~Storm water impact~~	0	0	0	0	0	0	N/A
Power Plant Maintenance	~~Cooling Tower Maintenance~~		~~Ground water impact~~	0	0	0	0	0	0	N/A
Power Plant Maintenance	Equipment Maintenance	~~FGD/SCR/ESP Maintenance~~	~~Air Impact - Excess Emissions~~	0	0	0	0	0	0	N/A
Power Plant Maintenance	Equipment Maintenance		~~Air Impact - Fugitive Dust~~	0	0	0	0	0	0	N/A
Power Plant Maintenance	Equipment Maintenance		~~Storm water impact~~	0	0	0	0	0	0	N/A
Power Plant Maintenance	Equipment Maintenance	~~Vehicle Use & Maintenance~~	~~Fuel Consumption~~	0	0	0	0	0	0	Vehicles Taken off site
Power Plant Maintenance	~~Cleaning and Equipment Washing~~	~~Air Heater Washing~~	~~Ground water impact~~	0	0	0	0	0	0	N/A
Power Plant Maintenance	~~Cleaning and Equipment Washing~~		~~High Water Usage~~	0	0	0	0	0	0	N/A
Power Plant Maintenance	~~Cleaning and Equipment Washing~~		~~Spills/releases~~	0	0	0	0	0	0	N/A
Power Plant Maintenance	~~Cleaning and Equipment Washing~~	~~ESP Washing~~	~~Ground water impact~~	0	0	0	0	0	0	N/A
Power Plant Maintenance	~~Cleaning and Equipment Washing~~		~~Spills/releases~~	0	0	0	0	0	0	N/A
Power Plant Maintenance	~~Cleaning and Equipment Washing~~		~~High Water Usage~~	0	0	0	0	0	0	N/A
Power Plant Maintenance	~~Cleaning and Equipment Washing~~	~~Fan washing~~	~~Spills/releases of oil~~	0	0	0	0	0	0	N/A
Power Plant Maintenance	~~Cleaning and Equipment Washing~~	~~Oil water sep. cleaning~~	~~Spills/releases~~	0	0	0	0	0	0	N/A

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	~~Cleaning and Equipment Washing~~	~~Parts cleaning~~	~~Hazardous Waste Generation~~	0	0	0	0	0	0	N/A
Power Plant Maintenance	Scrap metal storage		~~Storm water impact~~	0	0	0	0	0	0	N/A
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	~~On-site landfills (other than ash)~~	~~Ground water impact~~	0	0	0	0	0	0	N/A
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management		~~Soil impact~~	0	0	0	0	0	0	N/A
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance		~~Storm water impact~~	0	0	0	0	0	0	N/A
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	~~Storm water discharge~~	~~Surface water impact~~	0	0	0	0	0	0	N/A
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	~~Dredging canals/ditches/ponds - (process & if does not occur)~~	~~SPCC implications - surface water impact~~	0	0	0	0	0	0	N/A
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance		~~waste - ground water impact~~	0	0	0	0	0	0	N/A
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance		~~Storm water impact~~	0	0	0	0	0	0	N/A
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance	Constructed Wetlands Operation	Potential surface water impact	0	0	0	0	0	0	N/A
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Facility/Grounds Maintenance		Potential ground water impact	0	0	0	0	0	0	N/A
Power Plant Operations	Fuel Handling (Fuel Oil)									
Power Plant Operations	Service Water/Drinking Water									
Power Plant Operations	Wastewater Treatment									
Power Plant Operations	Chemical Handling									
Power Plant Maintenance	Equipment Maintenance									
Power Plant Maintenance	~~Cleaning and Equipment Washing~~									

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Scrap metal storage									
Power Plant Maintenance	Painting of structures & equipment									

Activity: Wayne County CT
2012 Significant Environmental Impacts Scoring Sheet

Secondary Activity, Product, or Service	Aspect	Potential Impact	Significance Ratings					Total	Comment
				Consequence					
			Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Facility Operation (Generating Power)	Burn Fuel	1. Air emissions/ pollution	5	4	3	4	4	19	Burn down of piles
Facility Operation (Generating Power)	Burn Fuel	2. Depletion of Natural Resources	4	3	5	2	3	13	
Facility Maintenance	Replace/Repair Equipment	3. Asbestos disposal	4	3	4	2	3	12	At Lee Plant
Administrative Process	Agency / Regulatory Reporting, correspondence and notifications	2. Reporting Violations	3	4	3	3	5	11	Failure to report information
New Construction and Projects	Permitting	1. Noncompliance	3	4	3	3	4	11	Oversight and end product impact; Lack or failure of process; turnover. 2012 Wayne County
Staffing	Training/Awareness	1. Noncompliance	3	3	3	2	4	9	
New Construction and Projects	Storm Water Issues	3. NOV	3	3	3	2	4	9	Oversight and end product impact; Lack or failure of process; turnover. 2006 Wayne County unit addition and possible Craven County.
Facility Maintenance	Painting Activities	2. Hazardous Waste Generation	3	3	3	2	3	8	
Facility Maintenance	Draining Equipment	1. Waste Generation	4	2	3	1	2	8	
Facility Maintenance	Boiler Cleaning	3. Spills/releases	4	3	1	2	2	8	
Facility Operation (Generating Power)	Equipment Operation/Failure	1. Land spills/releases	2	4	3	3	4	7	Considering uncontrolled catastrophic release
Facility Operation (Generating Power)	Receive/Store/Ship Chemicals and Materials	1. Spills/releases	2	4	3	4	3	7	Considering worst case spill destination for both petroleum and chemicals

Secondary Activity, Product, or Service	Aspect	Potential Impact	Significance Ratings					Total	Comment
				Consequence					
			Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Facility Maintenance	Painting Activities	1. Solid Waste Generation	4	2	2	1	2	7	
Facility Maintenance	Equipment Cleaning	1. Solid Waste Generation	4	2	2	1	2	7	
Facility Operation (Generating Power)	Fuel Storage	2. Air emissions/ pollution	5	2	1	1	1	6	
Facility Operation (Generating Power)	BOP and auxillary equipment	2. Waste generation	3	2	3	1	2	6	
Facility Operation (Generating Power)	Fuel Storage	3. Waste generation	3	2	3	1	2	6	Bottoms / sludges
Administrative Process	Agency / Regulatory Reporting, correspondence and notifications	1. Adminstrative Errors / Resubmittals	2	4	2	2	4	6	Permit Driven Reporting
New Construction and Projects	Haz Waste Generation	2. Increase Generator Classification	2	3	2	3	4	6	Oversight and end product impact; Lack or failure of process; turnover. 2006 Wayne County unit addition and possible Craven County.
Facility Maintenance	Equipment Cleaning	2. Hazardous Waste Generation	2	3	3	2	3	6	
Facility Maintenance	Replace/Repair Equipment	1. Permit Impact	2	2	4	1	4	6	
Administrative Process	CEMS/PEMS	1. Noncompliance	2	3	2	2	4	6	Lack or failure of process
Facility Maintenance	Replace/Repair Equipment	4. Solid / Universal Waste Generation	3	2	2	1	2	5	
Facility Maintenance	Groundskeeping / Janitorial	1. Solid / Universal Waste Generation	3	2	2	1	2	5	Includes office waste
Facility Maintenance	Painting Activities	3. Spills/releases	2	3	2	2	2	5	Considering worst case spill destination for both petroleum and chemicals

Secondary Activity, Product, or Service	Aspect	Potential Impact	Significance Ratings					Total	Comment
				Consequence					
			Likelihood	Severity	Costs	PR	Regulatory	Significance Score	
Facility Maintenance	Equipment Cleaning	3. Spills/releases	2	3	2	2	2	5	Considering worst case spill destination for both petroleum and chemicals
Facility Operation (Generating Power)	Equipment Operation/Failure	2. Water spills/releases	1	4	4	4	4	4	
Facility Operation (Generating Power)	Equipment Operation/Failure	3. Chemical spills/releases	1	4	4	3	5	4	Worst case
Facility Maintenance	Land Management	1. Sedimentation and erosion	2	2	2	1	3	4	
Administrative Process	Chemical control	1. Waste Generation	2	2	2	2	2	4	Lack or failure of process
New Construction and Projects	NSR review	4. NOV	1	2	4	4	5	4	Oversight and end product impact; Lack or failure of process; turnover. 2006 Wayne County unit addition and possible Craven County.
Facility Operation (Generating Power)	Fuel Storage	4. Air emissions (fire/emergency)	1	3	4	3	4	4	
Facility Operation (Generating Power)	Unload Fuel	3. Waste generation	2	2	2	1	2	4	
Facility Operation (Generating Power)	Fuel Storage	1. Spills/releases	1	3	3	2	5	3	Worst case is catastrophic
Facility Operation (Generating Power)	Unload Fuel	1. Spills/releases (petroleum)	1	3	3	2	3	3	Considering worst case spill destination
Facility Maintenance	Routine Maintenance (PM)	2. Hazardous Waste Generation/Universal Waste Generation	1	3	3	2	3	3	
Administrative Process	Regulatory changes	1. Noncompliance	1	2	3	1	4	3	
Facility Operation (Generating Power)	Unload Fuel	2. Air emissions/ pollution	1	2	2	1	4	2	Fuel specs verification
Facility Operation (Generating Power)	Equipment Operation/Failure	4. Air releases	1	2	2	1	3	2	Considering uncontrolled catastrophic release

Work Area: Plant WH WEATHERSPOON PLANT
2012 Significant Environmental Impacts Scoring Sheet

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power PlantOperations	Fuel Handling (Fuel Oil)	Fuel oil tanks - AST/UST. Cathodic Protection system	Spills/releases from corroded eroded underground piping.	3	3	3	3	4	16	The cathodic protection system should remain operative and in good repair to ensure minimization of corrosion to piping and associated equipment. Test in 06'
Power Plant Operations	Ash Management	Operation of Ash Ponds / Management of Ash Reuse Project.	Useful/remaining life issues (capacity). Political & public pressure against coal use as fuel source. TVA incident.	2	2	3	4	3	12	Geotube Ash restack project completed in 2005. Engineering estimates gain of two years life on pond , however, will require continued monitoring and ash removal projects future years. As of 7/14/06 use life will be much less.
		Coatings Abatement (Metals)	Hazardous waste generation	3	2	2	2	3	12	
Power Plant Operations	Ash Management	Operation of Ash Ponds	Ground water/surface water impact	3	2	4	4	3	12	Groundwater will be required to be monitored for years.
Power Plant Operations	Chemical Handling	Storage Tank and chemical/fuel inventory management	Spills/Releases	2	2	3	4	4	11	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
		Receive/Store chemicals/oils	Spills/releases	3	1	2	3	2	9	Homeland Security Chemicals of Interest and 3E access
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Waste management (haz/non-haz)	Improper management - liability for company	3	2	2	2	4	9	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Storm water discharge	Surface water impact	1	1	1	3	3	9	
Power Plant Maintenance	Cleaning and Equipment Washing	Parts cleaning	Hazardous Waste Generation	3	2	1	1	4	8	
Power Plant Operations	Operation of Cooling Ponds	Elevated pH - NPDES Compliance	Wildlife Impact	2	1	1	2	2	8	Warmer summers - Algea blooms.
Power Plant Operations	Boiler Operation	Potable Water	depletion of aquifer	1	1	2	2	1	7	Applicable Drought Procedures
Power Plant Maintenance	Equipment Maintenance	Oil Containing mobile equipment use (fork lifts, cranes, Backhoes, etc.)	Spills/releases	2	1	1	1	2	7	Equipment should be parked on impervious surface when not in use and have a plastic sheet under oil-filled portions while in use.
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - non-water front	Spills/releases	2	1	1	1	2	7	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Fuel Handling (Fuel Oil)	Unloading fuel (~~train ,~~ tankers)	Spills/releases	2	1	1	1	2	7	
Power Plant Operations	Fuel Handling (Fuel Oil)	Transferring oils/fuels	Spills/releases	2	1	1	1	2	7	Includes remediation fuel oil
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Positive - Reduction of rust and impact to storm water	2	1	1	1	2	7	CT(s) will remain
Power Plant Operations	Operation of Cooling Ponds	Auxillary Cooling water (closed cooling water) - Pond discharge	Surface/Ground water impact	1	1	1	1	3	7	
Power Plant Maintenance	Equipment Maintenance	Vehicle Use & Maintenance	Generation of Used oil and use oil filters and other wastes.	2	1	1	1	2	7	
Power Plant Operations	Fuel Handling (Fuel Oil)	Fuel oil tanks - AST/UST	Ground water impact	1	1	2	1	2	7	
Power Plant Operations	Fuel Handling (Fuel Oil)	Burning Fuel (No. 2 Oil)	Air impact (specify pollutants of concern)	1	1	1	1	3	7	CT(s) remain -Pollutants calculated from fuel use. SO2, Nox, RCRA metals
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Dredging canals/ditches /ponds - (process & if does not occur)	SPCC implications - surface water impact	1	1	2	1	1	6	
Power Plant Operations	Fuel Handling (Coal)	Unloading fuel , train cars	Spills/releases	1	1	2	1	1	6	No longer have coal trains

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Fuel Handling (Fuel Oil)	Draining of tank containments - storm water collection	Storm water impact	1	1	1	1	2	6	
Power Plant Operations	Fuel Handling (Coal)	Operating Coal Yard	Air impact(fugitive dust)	1	1	1	1	2	6	No longer receive trains
Power Plant Operations	Fuel Handling (Coal)	Operating Coal Yard	Storm water impact	1	1	1	1	2	6	drains to cooling pond
Power Plant Operations	Fuel Handling (Coal)	Coal Yard Maintenance	Oil spills/release	3	1	2	2	2	5	
Power Plant Maintenance	Equipment Maintenance	Vehicle Use & Maintenance	Fuel Consumption	1	1	1	1	1	5	Fueling process
Power Plant Operations	Fuel Handling (Coal)	Operating Coal Yard	Surface Water Impact	1	1	1	1	1	5	
Power Plant Operations	Fuel Handling (Coal)	Coal Yard Maintenance	Coal run off- surface water impact	1	1	1	1	1	5	
Power Plant Operations	Fuel Handling (Coal)	Coal Yard Maintenance	Coal run off- storm water impact	1	1	1	1	1	5	
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Landfill/ponds - Ground water impact	1	1	1	2	1	5	Historically , mill rejects have been placed into Ash pond. Leaching concern
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Storm water impact	1	1	1	1	1	5	Potential leaching concern
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Surface water impact	1	1	1	1	1	5	Potential leaching concern

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Ash Management	Fly/Bottom Ash Generation	Landfill/Pond - Potential ground water impacts	1	1	1	1	1	5	Potential leaching concern
Power Plant Operations	Ash Management	Fly/Bottom Ash Generation	Off-site deposition - trucks	1	1	1	1	1	5	Presently do not transport any Ash off site
Power Plant Operations	Ash Management	Fly/Bottom Ash Generation	Storm water impact	1	1	1	1	1	5	
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps /collection system/dewat ering systems)	Storm water impact	1	1	1	1	1	5	
Power Plant Operations	Operation of Cooling Ponds	Biocide Use - Cooling water (Sodium Hypochlorite Solution)	Surface Water Impact	1	1	1	1	1	5	
Power Plant Operations	Boiler Operation	Smoke Stacks	Bird Collisions	1	1	1	1	1	5	
Power Plant Operations	Boiler Operation	Smoke Stacks	Positive - Navigational landmark	1	1	1	1	1	5	
Power Plant Operations	Service Water/Drinkin g Water	Service Water/Drinkin g water - chlorination (gas/liquid)	Spills/Releases	1	1	1	1	1	5	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Service Water/Drinking Water	Service Water/Drinking water/Aux. cooling water - consumptive Use of water	Well level draw down - depletion of aquifer	1	1	1	1	1	5	
Power Plant Operations	Wastewater Treatment	Waste water tanks (septic tanks)	Spills/releases	1	1	1	1	1	5	
Power Plant Maintenance	Cleaning and Equipment Washing	General cleaning of sumps/pipes/floors/conveyors	Run off - Surface water impact	1	1	1	1	1	5	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	~~On-site landfills (other than ash)~~	Surface water impact	1	1	1	1	1	5	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	~~On-site landfills (other than ash)~~	Storm water impact	1	1	1	1	1	5	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	~~On-site landfills (other than ash)~~	Wildlife impact	1	1	1	1	1	5	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Dredging canals/ditches /ponds - (process & if does not occur)	waste - ground water impact	1	1	1	1	1	5	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Dredging canals/ditches /ponds - (process & if does not occur)	Storm water impact	1	1	1	1	1	5	
Power Plant Maintenance	Equipment Maintenance	Removal/changing equipment oils - water front	Spills/releases to surface water	2	2	2	3	2	5	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	Waste management (haz/non-haz)	Spills/releases	2	2	2	2	2	4	
Power Plant Maintenance	Cleaning and Equipment Washing	General cleaning of sumps/pipes/floors/conveyors	Run off - storm water impact	1	1	1	1	1	1	
Power Plant Maintenance	Cleaning and Equipment Washing	Oil water seperator cleaning	Spills/releases	1	1	1	1	1	1	
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)	Surface Water Impact	1	1	1	1	1	1	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)	Storm water impact	1	1	1	1	1	1	
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)	Soil impact	1	1	1	1	1	1	
Power Plant Maintenance	Scrap metal storage	Scrap metal storage (oil/iron run off)		1	1	1	1	1	1	
Power Plant Maintenance	Equipment Maintenance	/ESP Maintenance	Air Impact - Excess Emissions	0	0	0	0	0	0	Operate Units and maintain ESP & associated equipment in timely manner to ensure no excess emissions due to equipment deterioration. Repair Unit 1 06/06. CAMs in Permit T14.
Power Plant Operations	Fuel Handling (Coal)	Burning Fuel (Coal)	Air impact (specify pollutants of concern)	0	0	0	0	0	0	Manage coal fuel and combstion processes to not exceed Air Permit Limits. Effectively manage balance between NOX ,SO2, HG, and future CO2 legislation.
Power Plant	Equipment Maintenance	Title V CAMs & GHG	Air Permit Conditions/Limits/Notifications	0	0	0	0	0	0	As regulations continue to tighten as with CAMs and future GHG restrictions PE must modify actions

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Control Equipment and Monitor Operations	ESP Flue gas conditioningl; Operations	Positive: Reduction of air impacts	0	0	0	0	0	0	ESP Flue Gas Conditioning System has become high maintenance item and reliability has deteriorated. System has been written in new permit T15 as must be available and maintenance log kept.
Power Plant Operations	Equipment Maintenance	Burning Fuel (Coal)	NSR- Cost prohibitve to operate plant	0	0	0	0	0	0	Manage projects with review for this potential issue.
		Boiler chemical cleaning	Spills/releases	0	0	0	0	0	0	
Power Plant Operations	Boiler Operation	Transformers	Spills/Release potential	0	0	0	0	0	0	Units 1,2,&3 115Kv Swyd step up transformers have PCB compound bushings installed (original). Bushings need to be replaced with non-pcb equipment. Unit No. 3 Bushings were scheduled for replacement in Fall 2005
Power Plant Operations	Chemical Handling	Loading/Unloading of chemicals	Spills/Releases	0	0	0	0	0	0	Bulk Storage Tanks (loading/unloading)
Power Plant Operations	Boiler Operation	Boiler make-up - pH control	Chemical Spill Potential	0	0	0	0	0	0	handling water treatment chemicals

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps /collection system/dewat ering systems)	Spills/releases	0	0	0	0	0	0	
Power Plant Maintenance	Equipment Maintenance	Oil filtering	Spills/releases	0	0	0	0	0	0	
Power Plant Operations	Operation of Cooling Ponds	Elevated temperatures of 100 to 103F	Fish Kills	0	0	0	0	0	0	hotter summers with higher process exit temps cause stress and DO concerns with fish.
Power Plant Operations	Control Equipment and Monitor Operations	CEMS Operation/mai ntenance	Hazardous waste generation - Cleaning of umbilical	0	0	0	0	0	0	
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Potential Haz. Waste generation	0	0	0	0	0	0	
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Potential Haz. Waste generation	0	0	0	0	0	0	
Power Plant Operations	Fuel Handling (Coal)	Pulverize Coal	Air Impact - Fugitive Dust	0	0	0	0	0	0	This has been added as a permit condition in T15 Permit.
Power Plant Operations	Boiler Operation	Boiler make-up - consumptive use of water	Well level draw down - depletion of aquifer	0	0	0	0	0	0	applicable Drought Procedures
Power Plant Operations	Control Equipment and Monitor Operations	ESP/Flue gas conditioningl Operations	Spills/Releases - chemical use	0	0	0	0	0	0	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Fuel Handling (Coal)	Generation of mill rejects	Air impact - Fugitive Dust	0	0	0	0	0	0	
Power Plant Operations	Fuel Handling (Fuel Oil)	Burning Used Oil	Spills/releases	0	0	0	0	0	0	
Power Plant Operations	Fuel Handling (Fuel Oil)	Burning Used Oil	Air impact (specify pollutants of concern)	0	0	0	0	0	0	Plant no longer burns used oil,nor has the capacity to.Oil was recycled thru Noble Oil Services
Power Plant Operations	Fuel Handling (Coal)	Conveying Coal	Air Impact - Fugitive Dust	0	0	0	0	0	0	Plant no longer conveys coal
Power Plant Operations	Fuel Handling (Coal)	Conveying Coal	Storm water impact	0	0	0	0	0	0	Plant no longer conveys coal
Power Plant Operations	Fuel Handling (Coal)	Conveying Coal	Surface Water Impact	0	0	0	0	0	0	Plant no longer conveys coal
Power Plant Operations	Ash Management	Fly/Bottom Ash Generation	Air Impact - Fugitive Dust	0	0	0	0	0	0	
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps /collection system/dewat ering systems)	Air impact - Fugitive Dust	0	0	0	0	0	0	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Ash Management	Ash Handling system (piping/pumps /collection system/dewat ering systems)	Surface water impact	0	0	0	0	0	0	
Power Plant Operations	Operation of Cooling Ponds	Auxillary Cooling water (closed cooling water) - Corrosion Inhibitor addition	Surface/Ground water impact	0	0	0	0	0	0	Sulfuric Acid used for ph control
Power Plant Operations	Boiler Operation	Boiler make-up - Resin Regen	Discharge to Ash Pond - groundwater impact	0	0	0	0	0	0	
Power Plant Operations	Boiler Operation	Boiler make-up - Wastes - (resin, filter media)	Improper waste management by contractor - liability for Company	0	0	0	0	0	0	
Power Plant Operations	Boiler Operation	Boiler make-up - RO Treatment	Ground water impact Discharge to Ash Pond	0	0	0	0	0	0	
Power Plant Operations	Boiler Operation	Fan Operation	Air impact - NOx generation	0	0	0	0	0	0	
Power Plant Operations	Boiler Operation	Fan Operation	Air Impact - Fugitive Dust	0	0	0	0	0	0	
Power Plant Operations	Boiler Operation	Fan Operation	Air Impact - Excess Opacity	0	0	0	0	0	0	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Boiler Operation	Boiler chemical cleaning	Pond discharge - ground water impact	0	0	0	0	0	0	
Power Plant Operations	Control Equipment and Monitor Operations	ESP/Flue gas conditioningl Operations	Air Impact - Fugitive Dust	0	0	0	0	0	0	
Power Plant Operations	Control Equipment and Monitor Operations	ESP/Flue gas conditioningl; Operations	Potential Haz. Waste generation	0	0	0	0	0	0	
Power Plant Maintenance	Equipment Maintenance	ESP Maintenance	Air Impact - Fugitive Dust	0	0	0	0	0	0	
Power Plant Maintenance	Equipment Maintenance	ESP Maintenance	Storm water impact	0	0	0	0	0	0	
Power Plant Maintenance	Cleaning and Equipment Washing	Air Heater Washing	Ground water impact	0	0	0	0	0	0	
Power Plant Maintenance	Cleaning and Equipment Washing	Air Heater Washing	High Water Usage	0	0	0	0	0	0	
Power Plant Maintenance	Cleaning and Equipment Washing	Air Heater Washing	Spills/releases	0	0	0	0	0	0	
Power Plant Maintenance	Cleaning and Equipment Washing	ESP Washing	Ground water impact	0	0	0	0	0	0	
Power Plant Maintenance	Cleaning and Equipment Washing	ESP Washing	Spills/releases	0	0	0	0	0	0	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Cleaning and Equipment Washing	ESP Washing	High Water Usage	0	0	0	0	0	0	
Power Plant Maintenance	Cleaning and Equipment Washing	Fan washing	Spills/releases of oil	0	0	0	0	0	0	
Power Plant Maintenance	Painting of structures & equipment	Painting of structures & equipment	Air - VOC generation	0	0	0	0	0	0	
Power Plant Operations	Fuel Handling (Fuel Oil)	Burning Used Oil							0	
Power Plant Operations	Fuel Handling (Coal)								0	
Power Plant Operations	~~Cooling Tower Operation~~	~~Chemical Treatment - Cooling Towers~~	~~Positive: Reduction of Cooling water temperature~~						0	N/A
Power Plant Operations	~~Cooling Tower Operation~~	~~Chemical Treatment - Cooling Towers~~	~~Positive - (closed-loop) - reduction of impingement/entrainment 316(b)~~						0	Presently, weatherspoon not affected by Phase II of 316(b)
Power Plant Operations	~~Cooling Tower Operation~~	~~Chemical Treatment - Cooling Towers~~	~~Surface Water Impact~~						0	N/A
Power Plant Operations	~~Cooling Tower Operation~~	~~Chemical Treatment - Cooling Towers~~	~~Wildlife Impact~~						0	N/A
Power Plant Operations	~~Cooling Tower Operation~~	~~Salt Drift - Cooling Towers~~	~~Impact to vegetation~~						0	N/A

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Operation of Cooling Ponds	~~Once-thru cooling water intake~~	~~316(b) - Impingement/ Entrainment~~						0	Presently, weatherspoon not affected by Phase II of 316(b)
									0	
Power Plant Operations	Boiler Operation	Transformers							0	
Power Plant Operations	Service Water/Drinking Water	Service Water/Drinking water/Aux. cooling water - consumptive Use of water							0	
Power Plant Operations	Wastewater Treatment	~~Waste water - Operation of Elementary Neutralization System~~	~~Ground water impact~~						0	
Power Plant Operations	Wastewater Treatment	Waste water tanks (septic tanks)							0	
Power Plant Operations	Chemical Handling	Receive/Store chemicals/oils	~~Air impact (chlorine)~~						0	
Power Plant Operations	Chemical Handling	Storage Tank and chemical/fuel inventory management							0	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Operations	Control Equipment and Monitor Operations	ESP/~~FGD~~/Flue gas conditioningl; ~~SCR~~ Operations	~~Well level draw down - depletion of aquifer - high water use~~						0	
									0	
Power Plant Maintenance	~~Cooling Tower Maintenance~~	~~Cooling Towers – Equipment leaks (piping, etc)~~	~~Spills/Releases~~						0	N/A
Power Plant Maintenance	~~Cooling Tower Maintenance~~	~~Cooling Towers – Structural Issues - basin leaks~~	~~Spills/Releases~~						0	N/A
Power Plant Maintenance	~~Cooling Tower Maintenance~~	~~Cooling Towers – Management of Waste (sludge, sediment)~~	~~Storm water impact~~						0	N/A
Power Plant Maintenance	~~Cooling Tower Maintenance~~	~~Cooling Towers – Management of Waste (sludge, sediment)~~	~~Ground water impact~~						0	N/A
Power Plant Maintenance	Equipment Maintenance	Vehicle Use & Maintenance							0	
Power Plant Maintenance	Cleaning and Equipment Washing	Parts cleaning							0	

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Power Plant Maintenance	Painting of structures & equipment	Coatings Abatement (Metals)							0	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	~~Constructed Wetlands Operation~~	~~Potential surface water impact~~						0	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	~~Constructed Wetlands Operation~~	~~Potential ground water impact~~						0	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	~~Constructed Wetlands Operation~~							0	
Power Plant Operations	Fuel Handling (Fuel Oil)	~~No. 6 oil heating~~	~~Spills/releases~~							N/A
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	~~On-site landfills (other than ash)~~	~~Ground water impact~~							No landfills on site
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	~~On-site landfills (other than ash)~~	~~Soil impact~~							No landfills on site

Primary Activity	Secondary Activity	Aspect	Potential Impact	Significance Ratings					Total	Comments
					Consequence					
				Likelihood	Exposure/ Toxicity	Costs	PR	Regulatory	Significance Score	
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	~~Constructed Wetlands Operation~~								
Common Power Plant Activities (May be Operations, Maintenance or Contractor managed activities)	Waste Management	~~Constructed Wetlands Operation~~								
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