



Date: January 23, 2012
Subject: Report of Audit
2011 Coal Pile Inventories

From: J. R. Brooks

To: G. M. Barnett

We have completed our review of AEP's coal pile inventory results for inventories conducted during 2011. A total of 34 inventories were conducted at 21 plants and Cook Coal Terminal during the year. The purpose of our review was to:

- Review the System Power Plants' Spring and Fall coal inventory reports for completeness and propriety.
- Assess the reasonableness of book inventory number at time of survey, which is compared to physical inventory results to determine the coal inventory adjustment.
- Determine whether the coal inventory adjustments reported by the Power Plants were calculated accurately and in compliance with AEP System Accounting Bulletin No. 4. AEP System Accounting Bulletin No. 4 requires recording 100% of the difference between the physical inventory and the book inventory and performing another physical inventory within 6 months, if the difference, as a percent of consumed, is greater than +/- 2%.
- Determine that plants with a variance of +/- 2% investigated the variances and addressed any issues discovered.
- Verify that the accounting entries recording the financial adjustments were reasonable and complete.
- Observe the inventory volume and density measurement activities at one plant to evaluate compliance with AEP Circular Letter CI-O-CL-0084.

Based on our review, we believe that the coal pile inventory results and adjustments are properly stated, in all material respects as of December 31, 2011.

c:	N. K. Akins	S. M. Debord	J. M. Buonaiuto
	R. A. Mueller	M. C. Mills	A. B. Reis
	B. X. Tierney	J. D. LaFleur	F. S. Travis
	R. P. Powers	D. V. Lee	J. W. Hoersdig
	M. C. McCullough	G. C. Knight	T. M. Dooley
	T. K. Light	P. W. Franklin	G. T. Gaffney
	W. L. Sigmon	P. J. Amaya	B. J. Frantz
	S. W. Burge	M. W. Flynn	
	T. V. Riordan		

Project # GE01911

Intra-System

Audit Services Department

2011 Incentive Compensation Plan Review

Date Issued: 2/13/2012

Audit Team:

Rodney Burnham
Sheryl Cleaver
Lesley Dotson
Bob Massago

Distribution:

Andy Carlin

CC:

Nick Akins
Brian Tierney
Dennis Welch
Barbara Radous
Tracy Elich
Richard Mueller

2011 Incentive Compensation Plan Review

BACKGROUND:

Audit Services (ASD) performed a review of various 2011 Incentive Compensation Plan (ICP) results. Audit procedures included a review of the 2011 ICP documents and business rules, along with walkthrough discussions of the plans with appropriate personnel. Supporting documentation was obtained for all plan components, and detailed testing was performed for those performance measures contributing significantly to the respective incentive pools. Supporting documentation for these performance measures was verified to independent sources such as PeopleSoft and Business Objects query results, Corporate Planning and Budget information, the Safety and Health website, the Trading and Plant Information Systems, Quarterly Earnings news releases, etc.

OBJECTIVE:

The objective of this review was to determine if reported results for the plans listed below were accurate and complete, properly supported and in compliance with the respective plans.

SCOPE:

The scope of our review included the following plans:

- Commercial Operations
- Generation
- Nuclear
- River Operations
- Transmission
- Utility Group
- Executive Council and Staff

2011 Incentive Compensation Plan Review

CONCLUSION:

Audit Services concurs with the reported ICP results which include discretionary adjustments approved by management for FEL and several operating companies that resulted in slight reallocation of incentive when compared to calculated scores. This scorecard summarizes our conclusions for each scope area covered in the review

Scope Area	Comments Present	Conclusion Classification
Commercial Operations	N/A	Reported results accurate, complete, and in compliance with incentive compensation plan
Generation	N/A	Same as above
Nuclear	N/A	Same as above
River Operations	N/A	Same as above
Transmission	N/A	Same as above
Utility Group	N/A	Same as above
Executive Council and Staff	N/A	Same as above
OVERALL CONCLUSION FOR REVIEW	N/A	Reported results accurate, complete, and in compliance with incentive compensation plans



Date: January 23, 2013
Subject: 2012 Coal Pile Inventories Audit Report
From: J. R. Brooks
To: G. M. Barnett

We have completed our review of AEP's coal pile inventory results for inventories conducted during 2012. A total of 33 inventories were conducted at 23 plants and Cook Coal Terminal during the year. The purpose of our review was to:

- Review the System Power Plants' Spring and Fall coal inventory reports for completeness and propriety.
- Assess the reasonableness of book inventory number at time of survey, which is compared to physical inventory results to determine the coal inventory adjustment.
- Determine whether the coal inventory adjustments reported by the Power Plants were calculated accurately and in compliance with AEP System Accounting Bulletin No. 4. AEP System Accounting Bulletin No. 4 requires recording 100% of the difference between the physical inventory and the book inventory and performing another physical inventory within 6 months, if the difference, as a percent of consumed, is greater than +/- 2%.
- Determine that plants with a variance of +/- 2% investigated the variances and addressed any issues discovered.
- Verify that the accounting entries recording the financial adjustments were reasonable and complete.

The coal pile survey for the Turk Plant was performed from December 28, 2012 through December 31, 2012 and resulted in a 15,569 ton shortage. The dollar amount associated with the adjustment was placed on the "Passed Adjustments" list for review and disposition by Financial Reporting in accordance with Accounting's Passed Journal Procedure.

Based on our review, we believe that the coal pile inventory results and adjustments are properly stated, in all material respects as of December 31, 2012.

c:	N. K. Akins	J. D. LaFleur	J. M. Buonaiuto
	R. A. Mueller	D. V. Lee	A. B. Reis
	B. X. Tierney	G. C. Knight	F. S. Travis
	R. P. Powers	P. W. Franklin	J. W. Hoersdig
	M. C. McCullough	P. J. Amaya	T. M. Dooley
	T. K. Light	M. W. Flynn	G. T. Gaffney
	W. L. Sigmon		B. J. Frantz
	S. W. Burge		
	T. V. Riordan		

Project # GE02112



Date: January 27, 2014
Subject: 2013 Coal Pile Inventories Audit Report
Regulated Facilities
From: T. J. Festi
To: G. M. Barnett

We have completed our review of AEP's coal pile inventory results for inventories conducted during 2013. A total of 23 inventories were conducted at 15 plants and Cook Coal Terminal during the year. The purpose of our review was to:

- Review the System Power Plants' Spring and Fall coal inventory reports for completeness and propriety.
- Assess the reasonableness of book inventory amount at time of survey, which is compared to physical inventory results to determine the coal inventory adjustment.
- Determine whether the coal inventory adjustments reported by the Power Plants were calculated accurately and in compliance with AEP System Accounting Bulletin No. 4. AEP System Accounting Bulletin No. 4 requires recording 100% of the difference between the physical inventory and the book inventory, and performing another physical inventory within 6 months if the difference, as a percent of consumed, is greater than +/- 2%.
- Determine that plants with a variance of +/- 2% investigated the variances and addressed any issues discovered.
- Verify that the accounting entries recording the financial adjustments were reasonable and complete.

Based on our review, we believe that the coal pile inventory results and adjustments are properly stated, in all material respects as of December 31, 2013.

cc:	N. K. Akins	J. D. LaFleur	J. M. Buonaiuto
	R. A. Mueller	D. V. Lee	D. L. Gregory
	B. X. Tierney	G. C. Knight	F. S. Travis
	R. P. Powers	P. W. Franklin	B. M. Funk
	M. C. McCullough	T. V. Riordan	M. R. Parker
	T. K. Light	P. J. Amaya	T. M. Dooley
		M. W. Flynn	L. Griffin
			B. T. Lysiak

Project # GE02713



Date: January 27, 2014
Subject: 2013 Coal Pile Inventories Audit Report
Non-Regulated Facilities
From: T. J. Festi
To: G. M. Barnett

We have completed our review of AEP's coal pile inventory results for inventories conducted during 2013. A total of 13 inventories were conducted at 8 plants. The purpose of our review was to:

- Review the System Power Plants' Spring and Fall coal inventory reports for completeness and propriety.
- Assess the reasonableness of book inventory amount at time of survey, which is compared to physical inventory results to determine the coal inventory adjustment.
- Determine whether the coal inventory adjustments reported by the Power Plants were calculated accurately and in compliance with AEP System Accounting Bulletin No. 4. AEP System Accounting Bulletin No. 4 requires recording 100% of the difference between the physical inventory and the book inventory, and performing another physical inventory within 6 months if the difference, as a percent of consumed, is greater than +/- 2%.
- Determine that plants with a variance of +/- 2% investigated the variances and addressed any issues discovered.
- Verify that the accounting entries recording the financial adjustments were reasonable and complete.

Based on our review, we believe that the coal pile inventory results and adjustments are properly stated, in all material respects as of December 31, 2013.

cc: N. K. Akins
R. A. Mueller
B. X. Tierney
R. P. Powers
M. C. McCullough
C. E. Zebula
K.T. Brady
T. M. Myers
J. D. Henry
T. L. Thomas
T. V. Riordan
P. J. Amaya
M. W. Flynn
K. K. Chilcote
N. S. Spracklen
D. J. Devault
C. M. Stutler
B. E. Duckworth
J. M. Buonaiuto
D. L. Gregory
F. S. Travis
B. M. Funk
T. M. Dooley
L. Griffin
B. T. Lysiak

Project # GE02713



Date: January 15, 2015
Subject: 2014 Coal Pile Inventories Audit Report
Regulated Facilities
From: T. J. Festi/S. N. Thomas
To: G. M. Barnett

We have completed our review of AEP's coal pile inventory results for inventories conducted during 2014. A total of 25 inventories were conducted at 16 plants and Cook Coal Terminal during the year. The purpose of our review was to:

- Review the System Power Plants' Spring and Fall coal inventory reports for completeness and propriety.
- Assess the reasonableness of book inventory amount at time of survey, which is compared to physical inventory results to determine the coal inventory adjustment.
- Determine whether the coal inventory adjustments reported by the Power Plants were calculated accurately and in compliance with AEP System Accounting Bulletin No. 4. AEP System Accounting Bulletin No. 4 requires recording 100% of the difference between the physical inventory and the book inventory, and performing another physical inventory within 6 months if the difference, as a percent of consumed, is greater than +/- 2%.
- Determine that plants with a variance of +/- 2% investigated the variances and addressed any issues discovered.
- Verify that the accounting entries recording the financial adjustments were reasonable and complete.

Based on our review, we believe that the coal pile inventory results and adjustments are properly stated, in all material respects as of December 31, 2014.

cc:	N. K. Akins	J. D. LaFleur	J. M. Buonaiuto
	A. B. Reis	D. V. Lee	D. L. Gregory
	B. X. Tierney	G. C. Knight	F. S. Travis
	R. P. Powers	P. W. Franklin	B. M. Funk
	M. C. McCullough	T. V. Riordan	M. R. Parker
	T. K. Light	P. J. Amaya	T. M. Dooley
		M. W. Flynn	J. L. Fischer
			B. T. Lysiak

Project # GE02214

Audit Services Department

Asplundh Tree Experts, LLC. Contract Audit

Date Issued: 12/30/2014

Audit Team:

Jim Brooks
Jon Thiede

Distribution:

Thomas Kirkpatrick

CC:

Nick Akins	Everett Phillips
Robert Powers	Thomas Kratt
Brian Tierney	Selwyn Dias
Craig Rhoades	Steve Baker
Lisa Barton	Albert Smoak
Charles Patton	Allan Wade Smith
Paul Chodak III	Murray Evans
Pablo Vegas	Darren Sheppard
Stuart Solomon	Walter Sherry
Venita McCellon-Allen	Judd Schumacher
Scott Smith	Mike Lamantia
Greg Pauley	Matthew Curtis
Andrew Reis	David Ferguson
Philip Wright	Sonia Pickens



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Project No. AU03414

Asplundh Tree Experts, LLC. Contract Audit

BACKGROUND:

We performed an examination of Contracts 973252, 02577854, 411671, 02577853, 973256, 02576566, 023720, 973257, 02574587, 973258, 02574631, 02576599, 973259, 02590926, 973260, 0257811, 973261, 02574651, 973262, 02574581, 973264, 973265, 02576607, 973266, 02576599, and 02578109 with Asplundh Tree Experts, LLC (“Asplundh”). Asplundh provided vegetation management services for AEP distribution and transmission business units for AEP Texas Central Co., AEP Texas North Co., Appalachian Power Co., Indiana Michigan Power Co., Kentucky Power Co., Kingsport Power Co., Ohio Power Co., Public Service of Oklahoma, Southwest Electric Power Co., Southwest Electric Power Texas Co., and Wheeling Power Co. The contracts’ pricing terms include lump sum, time and materials, and cost-plus pricing provisions. The Asplundh billings totaled approximately \$450 million. This review was performed by Revenew International LLC at the direction of AEP Audit Services.

OBJECTIVE:

The objective of the review was to determine whether Asplundh billings complied with the applicable contract terms.

SCOPE:

We examined payments for work performed January 1, 2012 through April 30, 2014. To accomplish our objective, we examined documentation to determine whether:

- Labor rates agreed with the contracts, were properly applied, and were supported by approved timesheets,
- Material and subcontractor invoices were billed at cost plus the appropriate mark-up,
- Company-owned equipment rates agreed with those stated in the contracts, and
- Travel, living, and other miscellaneous costs were billed in accordance with the contracts.

CONCLUSION:

We identified total overbillings of \$207,134. The identified overbillings consisted of \$171,558 related to labor billings and \$35,576 related to payroll taxes and insurance. The nature of the discrepancies was not indicative of a control weakness in the review and processing of payments. Asplundh agreed with the findings and agreed to refund the overpayments. The overbillings are distributed 33% capital and 67% O&M.

Asplundh Tree Experts, LLC. Contract Audit

CONCLUSION (cont.):

Please refer to the Comments and Resolutions section below for additional details.

The scorecard below summarizes our conclusions for each scope area covered in the review. In addition, comments that relate to each scope area are referenced to the Comments, Risks, and Resolutions section. Please note that the conclusion classifications are defined in Appendix 1 located at the end of this report.

Scope Areas	Comments Reference	Conclusion Classifications
1. Labor rates agreed with the contract, were properly applied, and were supported by approved timesheets.	1, 2	Payments are accurate, minor improvements needed
2. Material and subcontractor invoices were billed at cost plus the appropriate mark-up.		Payments are accurate
3. Company-owned equipment rates were applied as appropriate.		Payments are accurate
4. Travel, living, and other miscellaneous costs were billed in accordance with the contract.		Payments are accurate
OVERALL CONCLUSION FOR REVIEW		Payments are accurate

TOTAL AUDIT RECOVERY	\$207,134
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Asplundh Tree Experts, LLC. Contract Audit

COMMENTS AND RESOLUTIONS

1. Labor Base Wages

Comment – The review of the annual base wage reconciliation for 2012 through the first quarter of 2014 determined that several employees' W-2 rates did not match the contract base rates. AEP and Asplundh are aware this will always be a reconciliation process. Asplundh agreed to monitor classification pay and contract terms for base wages more closely to identify and resolve issues as they become significant. Individual discrepancies noted were both overbillings and under billings, and the net result of the reconciliation for the audit period was an overbilling of \$171,558.

Resolution – Asplundh agreed to refund the overpayment of \$171,558 by January 31, 2015

Responsible Party: Thomas Kirkpatrick

2. Payroll Tax and Insurance Reconciliation

Comment – Asplundh billed payroll taxes and workers compensation at rates in excess of their actual costs. These overbillings were a result of not accounting for the statutory wage cut-offs, and not adjusting billed rates to actual in a timely manner, and do not represent a control weakness in processing the invoices. The reconciliations are a routine control exercised through audits and/or annual letters to the vendor. The overbillings for 2012 and 2013 and was \$35,576.

Resolution – Asplundh agreed to refund the overpayment of \$35,576 by January 31, 2015

Responsible Party: Thomas Kirkpatrick

Asplundh Tree Experts, LLC. Contract Audit

Appendix 1

Classification of Audit Report Conclusions

Conclusion	Definition
Payments are accurate	Payment issues may exist, but are minor.
Payments are accurate, minor improvements needed	Payment errors are 1.0% or less of contract spend and /or include mostly issues with payroll tax and insurance true-ups.
Improvements needed	Contract payment issues exist in multiple pay items or overbillings result from detectable billing errors that exceed 1% but are less than 5% of contract billings audited.
Major improvements needed	Contract payment errors are numerous and exist in multiple pay items. A significant portion of the over billings result from detectable payment errors. The errors are widespread rather than isolated either due to the number of payment errors, nature of payment errors, weaknesses, or significance of overpayments exceeding 5%.

Classification of Audit Comments

Risk Significance	Risk Definition
High	Identified billing errors must be more than remote and potential impact must be significant in relationship to the contract payments and underlying financial information, overall objectives, or level of compliance of the function or process audited.
Medium	Likelihood of the condition occurring must be more than remote or potential impact must be significant in relationship to the underlying financial information, overall objectives, or level of compliance of the function or process audited.
Low	Enhancement to a current process that would add value, but not necessarily have a significant impact to the company from a financial, compliance, effectiveness, or efficiency standpoint. Would entail process improvement or have a relatively small monetary impact.

Audit Services Department

2012 Incentive Compensation Plan Review

Date Issued: 2/12/2013

Audit Team:

Rodney Burnham
Greg Taylor
Sheryl Cleaver

Distribution:

Andy Carlin

CC:

Nick Akins
Brian Tierney
Lana Hillebrand
Tracy Elich
Richard Mueller

Audit Services Department

BACKGROUND:

Audit Services (ASD) performed a review of various 2012 Incentive Compensation Plan (ICP) results. Audit procedures included a review of the 2012 ICP documents and business rules, along with walkthrough discussions of the plans with appropriate personnel. Supporting documentation was obtained for all plan components, and detailed testing was performed for those performance measures contributing significantly to the incentive plan scores. Supporting documentation for these performance measures was verified to independent sources such as PeopleSoft and Business Objects query results, Corporate Planning and Budget information, the Safety and Health website, the Trading and Plant Information Systems, Quarterly Earnings news releases, etc.

OBJECTIVE:

The objective of this review was to determine if reported results for the plans listed below were accurate and complete, properly supported and in compliance with the respective plans.

SCOPE:

The scope of our review included the following plans:

- Generation
- Nuclear
- River Operations
- Transmission
- Utility Group
- Executive Council and Staff

Audit Services Department

CONCLUSION:

Audit Services concurs with the reported ICP results which include discretionary adjustments approved by management for APCO and SWEPCO that resulted in slight reallocation of incentives when compared to calculated scores. This scorecard summarizes our conclusions for each scope area covered in the review.

Scope Area	Comments Present	Conclusion Classification
Generation		Reported results accurate, complete, and in compliance with incentive compensation plan
Nuclear		Same as above
River Operations		Same as above
Transmission		Same as above
Utility Group		Same as above
Executive Council and Staff		Same as above
OVERALL CONCLUSION FOR REVIEW		Reported results accurate, complete, and in compliance with incentive compensation plans

Audit Services Department

2013 Incentive Compensation Plan Review

Date Issued: 2/13/2014

Audit Team:

Rodney Burnham
Greg Taylor
Terry Youngman

Distribution:

Andy Carlin

CC:

Nick Akins
Bob Powers
Brian Tierney
Lana Hillebrand
Tracy Elich
Richard Mueller

Audit Services Department

BACKGROUND:

Audit Services (ASD) performed a review of various 2013 Incentive Compensation Plan (ICP) results. Audit procedures included a review of the 2013 ICP documents and business rules, along with walkthrough discussions of the plans with appropriate personnel. Supporting documentation was obtained for all plan components, and detailed testing was performed for those performance measures contributing significantly to the incentive plan scores. Supporting documentation for these performance measures was verified to independent sources such as PeopleSoft and Business Objects query results, Corporate Planning and Budget information, the Safety and Health website, Quarterly Earnings news releases, etc.

OBJECTIVE:

The objective of this review was to determine if reported results for the plans listed below were accurate and complete, properly supported and in compliance with the respective plans.

SCOPE:

The scope of our review included the following plans:

- Generation
- Nuclear
- River Operations
- Transmission
- Utility Group

Audit Services Department

CONCLUSION:

This scorecard summarizes our conclusions for each scope area covered in the review.

Scope Area	Comments Present	Conclusion Classification
Generation	1	Reported results accurate, complete, and in compliance with incentive compensation plan
Nuclear		Same as above
River Operations		Same as above
Transmission		Same as above
Utility Group		Same as above
OVERALL CONCLUSION FOR REVIEW		Reported results accurate, complete, and in compliance with incentive compensation plan

COMMENTS, RISKS, AND RESOLUTIONS:

In the following portion of the report, we have detailed the issues identified during our audit, their risk, and significance to the business. Also included are the planned action steps, responsible parties, and target dates for completion as provided by management.

Audit Services Department

1) Inaccurate Weighting Used for Generation ICP Scorecard Performance Measures

Comment – Weights related to the Average Employee Severity Rate and the Fleet Availability performance measures were incorrectly entered into the year-end Generation ICP scorecard. The Average Employee Severity and Fleet Availability measures were weighted 15% and 10%, respectively, in the Generation ICP Scorecard. However the ICP document provides that Average Employee Severity Rate is to be weighted 10% and Fleet Availability 15%.

By applying the inaccurate weights, Generation's ICP score was overstated by 0.038 points (the overall Generation reported score was 1.475 versus the corrected score of 1.437).

Risk – The assignment of incorrect weights to ICP performance measures causes performance scores to be inaccurately calculated and not in accordance with plan provisions.

Resolution – Management has revised the ICP performance scorecard to reflect the approved plan document performance measure weights.

Significance: Medium Risk	Responsible Party: Randy Gaudio	Target Date: Complete
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Audit Services Department

Asplundh Contract Compliance Review

Date Issued: June 27, 2012

Audit Team:

Greg Taylor

Distribution:

Walter Sherry

CC:

Nick Akins
Bob Powers
Venita McCellon-Allen
Charles Patton
Paul Chodak
Gregory Pauley
Wade Smith
Stuart Solomon
Pablo Vegas
Craig Rhoades
Tom Jobes
Alice Bonning
Rich Mueller

Asplundh Contract Compliance Review

BACKGROUND:

Asplundh Tree Expert (Asplundh) provides vegetation management services for distribution and transmission operations across all eleven states served by AEP. There are various agreements with each of the operating companies that form the contractual basis for the relationship between AEP and Asplundh.

During the period January 2010 through December 2011, AEP paid approximately \$410 million to Asplundh under the various agreements. The review was conducted by Renew International, LLC (Renew) on behalf of AEP.

OBJECTIVES:

The objectives of this review were to determine if:

- Controls were in place to ensure the contract terms were applied appropriately; and that
- Contract payments were accurate.

SCOPE:

We reviewed the following scope areas in relation to the objectives noted above:

- A sample of 110 invoices, totaling approximately \$1.7 million which were issued during the period January 2010 through December 2011.

Asplundh Contract Compliance Review

CONCLUSION:

This scorecard summarizes our conclusions for each scope area covered in the review. In summary, we achieved **monetary recoveries of \$377,837** on expenditures of approximately **\$410 million** during the scope period. The overbillings were primarily related to payroll tax and worker's compensation reconciliations for the calendar years 2010 through 2011. Two other low risk issues, that are not included in this report, also resulted in minor overbillings.

The comments that relate to each scope area are referenced to the Comments, Risks and Resolutions section below. Please note that the conclusion classifications are defined in Appendix One located at the end of this report.

Scope Area	Comments Present	Conclusion Classification
Controls were in place to ensure the contract terms were applied appropriately	(1)	Well-controlled but minor improvements needed
Contract payments were accurate	(1)	Payments accurate with minor adjustments of \$377,837
OVERALL CONCLUSION FOR REVIEW		Well-controlled but minor improvements needed; Payments accurate with minor adjustments of \$377,837

COMMENTS, RISKS, AND RESOLUTIONS

In the following portion of the report, we have addressed the areas for improvement identified during our audit, their risk, and significance to the business. Also included are the planned actions steps, responsible parties, and target dates for completion as provided by management. The significance level is based on our assessment of the combined impact and likelihood for each condition noted.

Asplundh Contract Compliance Review

(1) Federal (FUTA) and State (SUTA) Unemployment Payroll Tax and Worker's Compensation Reconciliations

- **Comment** – The Pricing Section of each Asplundh contract requires that the “*Contractor shall calculate the actual costs of the social security and state and federal unemployment taxes paid during the year. Those actual costs shall be compared to the invoiced costs billed to and paid by Owner for that year. If there is a difference, Contractor shall prepare an invoice adjustment that must be received by Owner prior to March 31 of the following year. If the actual costs exceed the invoiced costs, the invoice adjustment will be added to the amount invoiced on the first weekly invoice received by Owner after March 31. If the invoiced costs exceed the actual costs, the invoice adjustment will be deducted from the amount invoiced on the first weekly invoice received by Owner after March 31.*” The contract also provides for a similar reconciliation of worker’s compensation rates by August 31 of each year.

While Asplundh did review and adjust their payroll tax and worker’s compensation rates for 2010 and 2011, no billing adjustments were made in accordance with the above contract provisions. As a result, Renew identified approximately \$270,000 in overbillings related to payroll tax and worker’s compensation costs billed in 2010 and 2011.

- **Risk** – AEP may overpay for services rendered due to billings that are not in accordance with the contract or supporting documentation.
- **Resolution** – Asplundh has reimbursed AEP \$377,837 for all audit issues noted.

Going forward, AEP Forestry personnel have agreed to ensure that payroll tax reconciliations, worker’s compensation rate adjustments and any corresponding billing adjustments are performed by Asplundh each year in accordance with the contract provisions. While these annual reconciliations and adjustments will still be subject to audit by Renew on behalf of AEP, the audit fees paid by AEP to Renew will be reduced due to the fact that they are based upon identified recoveries.

Significance: **Medium**
Target Date: **Complete**
Responsible Party: **Walter Sherry**

Asplundh Contract Compliance Review

Appendix One

Classification of Audit Report Conclusions

Operational/Financial (Internal Controls Reviews):

Conclusion	Definition
Well-controlled	Controls are appropriately designed and are operating effectively to manage risks. Control issues may exist, but are minor.
Well-controlled but minor improvements needed	Medium-level control issues (either design or operating effectiveness) are present but do not compromise achievement of important control objectives.
Improvements in controls needed	High or medium-level control weaknesses are present that compromise achievement of one or more important control objectives but do not prevent the process or function from achieving its overall purpose. While important weaknesses exist, their impact on the management of risks is limited rather than widespread.
Major improvements in controls needed	High-level control weaknesses exist across numerous control objectives that potentially prevent the process or function from achieving its overall purpose. The impact of weaknesses on management of risks is widespread rather than isolated either due to the number or nature of control weaknesses.

Classification of Audit Comments

Financial Audits:

Risk Significance	Risk Definition
High	Likelihood of the condition occurring must be more than remote and potential impact must be significant in relationship to the underlying financial information, overall objectives, or level of compliance of the function or process audited.
Medium	Likelihood of the condition occurring must be more than remote or potential impact must be significant in relationship to the underlying financial information, overall objectives, or level of compliance of the function or process audited.
Low	Enhancement to a current process that would add value, but not necessarily have a significant impact to the company from a financial, compliance, effectiveness, or efficiency standpoint. Would entail process improvement or have a relatively small monetary impact.



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**Audit of selected Environmental, Safety, Health
and Dam Inspection Programs at the
Big Sandy Plant
Louisa, Kentucky**

Date Issued Final: October 6, 2014

Nate Francis

April Lilly

Kirk Nofzinger

Carmen Ortega

Justin Tolpa

**Audit of the Big Sandy Plant
 May to October, 2014**

1. SUMMARY

An audit of selected ESH programs was conducted during the period of May to October, 2014 at the Big Sandy Plant, Louisa, Kentucky. The audit site visit occurred on June 16 – 20, 2014. Environmental audit and safety and health audits were last conducted at this site in 2009 and 2007, respectively.

One exemplary practice is recognized in this report related to pre-shift employee notifications regarding personnel assigned to emergency roles.

Five medium risk comments were identified during this audit in the asbestos, CEMS, fire protection, hearing conservation and respiratory protection programs. In the auditors' judgment, improvements in controls are needed in the Safety and Health programs. It should be noted that, since the previous audit in 2009, the plant has experienced multiple changes in personnel responsible for program oversight. This is believed to have contributed to the comments identified in this report but appears to be directly connected to the asbestos comment where documentation of inspections of asbestos projects by plant personnel is no longer being maintained as stated in the corrective actions to the 2009 Environmental audit.

An additional twenty low risk comments were also identified in the report. Several of the comments noted appear to stem from the changes noted above. However, the large number of comments is indicative of a need for further evaluation and action by Plant Management to address each of the common root cause(s) that may be identified. Although low risk comments are not included in the final report, corrective actions have been provided for all comments identified during the audit. Actions for any items that remain open at the issuance of this final report will be tracked by Audit Services until they are completed.

The ESH Programs reviewed during this audit and the associated program evaluations are summarized in the tables below. Please note that the conclusion classifications are defined in Appendix B located at the end of this report.

ENVIRONMENTAL/ DIMP PROGRAMS	CONTROLLED BUT MINOR IMPROVEMENTS NEEDED
SAFETY & HEALTH PROGRAMS	IMPROVEMENTS IN CONTROLS NEEDED

Status	Comment Present	Program	Comment Present	Status	Program
Environmental and DIMP Programs					
	X	Air Permitting	X		Groundwater
	X	Continuous Emission Monitoring (CEMS/COMS)	X		National Pollutant Discharge Elimination System (NPDES)
	X	Dam Inspection and Maintenance Program Dam Inspection and Maintenance Program (per AEP Circular Letter #CI-M-CL-010C issued by AEP Civil Engineering).	X		Spill Prevention Control & Countermeasure Plans (SPCC)
		Greenhouse Gas Reporting (GHG)			Storm Water
Safety and Health Programs					

**Audit of the Big Sandy Plant
 May to October, 2014**

Status	Comment Present	Program	Comment Present	Status	Program
	X	Asbestos	X		Hearing Conservation
	X	Combustible Dust Management Program	X		Machinery and Machine Guarding
		Confined Space Entry	X		Respiratory Protection
	X	Excavations			Welding, Cutting, and Brazing
	X	Fire Protection			

- Definition of color code can be found in Appendix B.

The auditors note the following items related to ESH compliance at the plant:

- Housekeeping in the coal handling areas was exemplary. A single minor combustible dust accumulation was noted (Comment #10). To help in continuing this effort, the plant is utilizing a contract crew solely dedicated to daily vacuuming/wash down activities in the coal handling areas.
- During the course of this audit, questions arose regarding the use of a project design for asbestos removal projects, as discussed in the AEP KY AIM (Section 64C). This section of the corporate policy indicates that there is typically a project design required, however, consultation with KY Department of Environmental Protection (KYDEP) inspector, indicated that such designs were not required (albeit if one is generated, it must be produced by a licensed Project Designer). Consultations with AEP Corporate Industrial Hygiene indicate there is no clear regulatory requirement to execute design plans. However, as the term “design plan” is not defined in either the federal or KY regulation, it is also unclear as to what would constitute a design plan requiring a licensed designer. As a consequence, Corporate Industrial Hygiene is consulting with AEP Legal regarding precedent in determining what activities are encompassed by the term “design plan” in order to determine what activities would require development by a licensed Project Designer. Until a determination is made, Big Sandy Plant will continue to follow the guidance from the KY DEP inspector that design plans are not required for each project.

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2. AUDIT OBJECTIVE & SCOPE

ESH audits conducted at Company owned and/or operated facilities are designed to evaluate the effectiveness of the controls in place to assure compliance with federal, state, and local ESH requirements. Through identification of weaknesses in compliance, the audits seek to identify areas where ESH performance and the associated management systems affecting that performance may be improved.

The period of review for each of the selected ESH programs is generally inclusive of the time since the previous audit or the retention requirement by the applicable regulation. The period may be adjusted to accommodate time constraints and to address those programs having the greatest potential impact on a given facility.

Variations from scope:

CEMS/COMS review was limited to the last four quarters (2th Quarter 2013 – 1st Quarter 2014). DOT review was limited to the asbestos program.

During the audit site visit, there were locations at the plant where respiratory protection was required in order to enter the area(s). As Audit personnel have not been qualified to wear respiratory protection through a medical surveillance and fit testing program, site observations in these areas were not performed. As a result, audit comments in this report are based on the observations conducted in other plant areas as well as normal records review and interviews with site personnel.

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3. EXEMPLARY PRACTICE(s) AND SELF ASSESSMENT:

The following actions have been implemented as a result of continuous improvement activities implemented by site management and personnel in the form of program enhancement or self-assessment of compliance objectives.

EXEMPLARY PRACTICE – <i>An action or procedure, which exceeds regulatory and policy requirements and facilitates compliance with ESH requirements. Such practices should be shared with other AEP facilities.</i>	
Description	
The plant identified the risk that reduced staffing, staffing movement across departments and increased contractor presence poses to emergency management. As a result, Big Sandy implemented a practice during each pre-shift meeting, to announce the employee(s) who will be fulfilling the role of incident commander, fire truck captain, and fire truck driver to all shift employees and contractors.	

4. COMMENTS, RISKS AND RESOLUTIONS:

In the following portion of the report, we have addressed the areas for improvement identified during the audit, their risk, and significance to the business. Also included are the corrective action plans developed by responsible Business Unit management. Low-risk compliance and operating efficiency comments are not included within the final report, but have been documented and management has provided a response with corrective actions taken to address these comments. All comments are being tracked to completion by Audit Services and are subject to review in future audits.

HIGH/MEDIUM RISK COMMENTS – <i>Weaknesses or deficiencies in the ESH Management System or non-conformance with regulatory requirements or company policy that present more than an isolated or minor risk (see Appendix B). Corrective action is required and is tracked to completion by Audit Services.</i>			
No., Status, and Significance	Comment/Risk	Responsible Organization	Corrective Action
Asbestos			
1 OPEN MEDIUM RISK	Improvement in the asbestos management program oversight is warranted. Specifically, the following items, required by OSHA, EPA regulations, and/or the AEP Asbestos Implementation Manual, are not being fulfilled: <ul style="list-style-type: none"> • Documentation of AHERA Project Inspections • Employment of third party air monitoring contractors 	Plant	Corrective Action: <u>AHERA Project Inspection Documentation:</u> The Onsite Contractor for each project will complete/verify the following: (Note: this documentation will be verified by the Plant Asbestos Coordinator) 1) State notifications 2) All air monitoring reports

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HIGH/MEDIUM RISK COMMENTS – Weaknesses or deficiencies in the ESH Management System or non-conformance with regulatory requirements or company policy that present more than an isolated or minor risk (see Appendix B). Corrective action is required and is tracked to completion by Audit Services.

No., Status, and Significance	Comment/Risk	Responsible Organization	Corrective Action
	<ul style="list-style-type: none"> • Tracking of Waste Shipment Records • Record retention and accuracy <p>See Appendix A for details.</p> <p>Risk: AEP Policy Conformance</p>		<ul style="list-style-type: none"> 3) Contractor foremen's daily report 4) Contractor daily inspection form 5) Air sample analysis report 6) All worker qualifications <p>In addition, the plant asbestos coordinator (himself) will document the following activities as they occur utilizing the forms found on the AEP Asbestos Policy web site:</p> <ul style="list-style-type: none"> 1) Daily worker and Supervisor checklist 2) Final inspection checklist 3) Asbestos removal checklist 4) Daily inspection form for work involving the use of glove bags 5) Daily inspection checklist for work involving containments, pre-abatement inspection for work involving containments, asbestos worker qualifications and the floor/tile mastic removal inspection <ul style="list-style-type: none"> • <u>Employment of the third party air monitor contractors:</u> The third party air monitoring contractor will work directly for Big Sandy Plant and will report to the Plant Asbestos Coordinator. • <u>Tracking of Waste Shipment Records:</u> Each bag of ACM removed is now being recorded on the daily checklist form. The Receipt Manifests are now being tracked within the required 45 days and being matched up with the original. • <u>Record retention and accuracy:</u> To assure that

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No., Status, and Significance	Comment/Risk	Responsible Organization	Corrective Action
			<p>proper record retention is taking place, the contractor keeps an asbestos journal in his office, which the plant has access to at any time. The records for each project are being kept separate inside of that journal. In addition, the plant asbestos coordinator is keeping a hard copy, as well as an electronic copy, as the individual projects are completed.</p> <p>Preventative Measure:</p> <ul style="list-style-type: none"> • A monthly Enviance task has been set up for the Plant Asbestos Coordinator to review the all of the previous month's documentation to ensure all required documentation elements are present, which will include reviewing all of the above forms. • A task has been added to the asbestos abatement standing work order to include the third party air monitoring contractor working directly for the plant. This will be ensured during the review of the associated monthly Enviance task. • Each individual asbestos waste bag removed from each project will be included on the daily inspection sheet completed by the abatement contractor. This practice will be confirmed by the checklist inside of the monthly Enviance task. • A bi-weekly Enviance task has been set up for the Plant Environmental Coordinator to review open waste manifests to ensure 45 day return of receipt. • An overall record verification - monthly Enviance

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HIGH/MEDIUM RISK COMMENTS – Weaknesses or deficiencies in the ESH Management System or non-conformance with regulatory requirements or company policy that present more than an isolated or minor risk (see Appendix B). Corrective action is required and is tracked to completion by Audit Services.

No., Status, and Significance	Comment/Risk	Responsible Organization	Corrective Action
			<p>task for the Plant Environmental Coordinator to review each record to insure retention and compliance.</p> <p>Responsible Person: William Bradley, Production Services Leader and Steve Sargent, Plant Environmental Coordinator/Safety & Health Supervisor</p> <p>Date: November 3, 2014</p>

CEMS

<p>2 CLOSED MEDIUM RISK</p>	<p>The following CEMS data QA requirements are not being implemented, as required by the CEMS QA/QC Manual:</p> <ul style="list-style-type: none"> Responsible plant personnel interviewed indicated that they were not aware of the need to verify the operation of the SCR is normal before applying the standard missing data substitution algorithms, as defined in the Section 3.2.1 of Volume B of the QA/QC Manual. A data QA logbook was not being maintained for changes made to Data Acquisition and Handling Systems (DAHS) parameters, as required by the Section 8.2 of Volume A of the QA/QC Manual. <p><i>Note: The logbook was initiated after the audit notification on June 6, 2014.</i></p> <p>Risk: Compliance Risk</p>	<p>Plant</p>	<p>Corrective Action: 1) The CEMS Supervisor and the Senior CEMS Technician reviewed the missing data substitution requirements outlined in Section 3.2.1 of Volume B of the QA/QC Manual. A PI diagram has been created to verify that the SCR inlet temperature, ammonia flow and the outlet NOx are within the specified range outlined in the QA/QC Manual prior to using the standard missing data substitution algorithms. These values will be recorded in the data QA logbook.</p> <p>2) The data QA logbook was initiated on June 6, 2014 per Section 8.2 of Volume A of the QA/QC Manual. An electronic log is also being maintained.</p> <p>Preventative Measure: The data QA logbook and the electronic log are now being checked weekly by the CEMS Supervisor to verify the data is being maintained per section 3.2.1 of Volume B of the QA/QC Manual. An Enviaance Task has been established for the Maintenance Supervisor to document this check.</p>
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HIGH/MEDIUM RISK COMMENTS – Weaknesses or deficiencies in the ESH Management System or non-conformance with regulatory requirements or company policy that present more than an isolated or minor risk (see Appendix B). Corrective action is required and is tracked to completion by Audit Services.

No., Status, and Significance	Comment/Risk	Responsible Organization	Corrective Action
			Responsible Person: Tom Pettrey, Maintenance Supervisor and Mike Cannoy, Control Technician Date: September 26, 2014
Fire Protection			
3 OPEN MEDIUM RISK	<p>The following elements of annual performance testing for the U1 and U2 fire pumps (6 total) were not available to meet the requirements of NFPA 25 – 8.3.3 (KY Fire Code adoption) and AEP Fire Protection Engineering:</p> <ul style="list-style-type: none"> Performance testing of U1 fire pumps (3 total pumps) was not conducted during 2012 and 2013. Test results were not evaluated to quantify degradation of pump performance for U1 fire pumps in 2012 & 2013 and for U2 fire pumps in 2013. <p>Note: Performance testing for all unit fire pumps was completed for 2014. However, adjustments and additional testing/maintenance were required and all of the pumps should be in satisfactory operation by November 30, 2014...</p> <p>Risk Statement: Compliance Risk; potential for fire pump underperformance and inability to support system during activation</p>	Plant	<p>Corrective Action: Fire pump testing and evaluation by Regional Engineering was completed on Unit 1 for the current year. The pumps were not performing properly. As a result, all three impellers were adjusted and are awaiting retesting. Unit 1's retest will be conducted by October 15, 2014. Unit 2 will be tested, evaluated, and repaired if necessary during the upcoming fall outage.</p> <p>Preventative Measure: An annual Enviance task assigned to the Plant Environmental Coordinator/Safety & Health Supervisor has been set up for February of each year to schedule all of the fire pumps for testing. Another has been set up for November of each year to confirm proper completion of testing, analysis, maintenance activities to ensure pump readiness.</p> <p>Responsible Person: Steve Sargent, Plant Environmental Coordinator/Safety & Health Supervisor and Brian Eagan, Maintenance Supervisor</p> <p>Date: November 3, 2014</p>
Hearing Conservation			
4 OPEN	The following hearing conservation requirements regarding retesting/retraining were not performed as required:	Plant	<p>Corrective Action: All employees who had a threshold shift have been retested and retrained on hearing conservation. We will be going back and</p>

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HIGH/MEDIUM RISK COMMENTS – Weaknesses or deficiencies in the ESH Management System or non-conformance with regulatory requirements or company policy that present more than an isolated or minor risk (see Appendix B). Corrective action is required and is tracked to completion by Audit Services.

No., Status, and Significance	Comment/Risk	Responsible Organization	Corrective Action
MEDIUM RISK	<ul style="list-style-type: none"> Six employees who had an OSHA Recordable Standard Threshold Shift (STS) during annual PHS testing in 2013 were not retested within 30 days, as required by 29 CFR 1910.95(g)(7)(ii) and AEP Hearing Conservation Policy §10.1. Since the STS were not identified by the plant, they were not reported on the plant's 2013 OSHA 300 logs. Further, refit/retraining was not completed for the 6 employees identified as having an STS in 2013, as required by AEP Hearing Conservation Policy §10.2 and 29 CFR 1910.95(g)(8)(ii)(B). Records were not available to demonstrate that refitting and retraining were conducted for two employees who had a recordable standard threshold shift (STS) in 2011 and 2012, as required by AEP Hearing Conservation Policy §10.2 and 29 CFR 1910.95(g)(8)(ii)(B). Personnel indicated that the testing and training were performed but not documented. <p>Risk: Compliance Risk</p>		<p>reporting these STS's on the OSHA 300 log, as recordable for 2013.</p> <p>Preventative Measure: PHS was contacted to send the test results directly to the Safety & Health Supervisor, so that this can be addressed, when an STS occurs. An annual SHEMS task has been established for the month after PHS is on site, to alert the Safety & Health Supervisor to verify compliance with respect to Threshold Shifts, and the associated individual requirements. A second SHEMS task has also been assigned to the Safety & Health Supervisor to verify the reports have been received with all issues including training have been resolved.</p> <p>Responsible Person: Steve Sargent, Plant Environmental Coordinator/ Safety & Health Supervisor</p> <p>Date: November 3, 2014</p>
Respiratory Protection			
5 CLOSED MEDIUM RISK	Respirator fit testing was conducted for personnel who had not been medically qualified by the AEP Medical Physician or licensed health care provider (PLHCP) to wear the equipment as required by AEP Respiratory Protection Policy Section 8.2 and 29 CFR 1910.134(e)(6)(i). Specifically,	Plant	<p>Corrective Action: These three employees, as well as their supervisors, were notified immediately as to their restrictions.</p> <p>Preventative Measure: In the future, the testing protocols from PHS will be sent to the Safety & Health Supervisor, and no testing will be performed until this</p>

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HIGH/MEDIUM RISK COMMENTS – Weaknesses or deficiencies in the ESH Management System or non-conformance with regulatory requirements or company policy that present more than an isolated or minor risk (see Appendix B). Corrective action is required and is tracked to completion by Audit Services.			
No., Status, and Significance	Comment/Risk	Responsible Organization	Corrective Action
	<ul style="list-style-type: none"> Two employees who were not medically cleared to wear a SCBA respirator by the AEP Medical Director were fit tested for a SCBA respirator in 2013. One employee who was medically disqualified in 2013 was fit tested for a half and full face respirator but was not medically cleared to wear any respirator by the AEP Medical Director. <p>Risk: Compliance and AEP Policy Conformance; potential for use of respirators by unqualified personnel</p>		<p>has been received and reviewed for any employee restrictions. An annual SHEMS task has been created to alert the Safety & Health Supervisor to verify compliance as part of the annual testing.</p> <p>Responsible Person: Steve Sargent, Plant Environmental Coordinator/Safety & Health Supervisor</p> <p>Date: August 21, 2014</p>

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Appendix A

Asbestos

Comment #1:

Asbestos management controls need to be enhanced to assure that the following gaps is addressed:

- Inspections required to be performed by an AHERA Project Supervisor employed by the plant have not been documented as required by the AEP Asbestos Implementation Manual (AIM) § 38.
 - During conversations with the responsible individual and plant management, it was indicated that the inspections were being performed. However, no records regarding the inspections are maintained to show the elements included in the inspection or the results of the inspections, as the Policy requires. A checklist was developed to document the execution of the oversight tasks preliminary and during abatement in response to the prior audit but is no longer being used at the site.
- Third party air monitoring is being conducted by a consultant hired by the abatement contractor (Pinnacle Environmental Consulting).
 - This is contrary to the requirements of the AEP KY AIM § 42 which requires that third party contractors performing clearance and perimeter monitoring be hired directly by AEP. [The abatement contractor may hire a contractor to conduct the personal monitoring of the contractor's employees.]
- A review process is not in place to confirm that waste shipment records for regulated quantities of ACM were received from the landfill within 45 days from the waste disposer as required by 40 CFR 61.149(e)(3).
 - Any manifests that exceeded the 45 days must be reported to the state, local, or EPA regional office responsible for the asbestos program. *Note: No specific instances were identified where the manifests were not received within the regulatory period. Per interview with personnel formerly responsible for this task, a process for this tracking was in place prior to the personnel changes that occurred in 2013.*
- Not all of the records associated with abatement projects are being maintained as required. A selection of four individual projects (<10%) during the period from 2010-2014 were selected for review. The following exceptions to the recordkeeping requirements were noted.
 - Although the plant is executing an Enviance task each month, in part to verify that the required documentation of AEP KY AIM § 74 is provided by the contractor, enhancement in the form of more specificity in the task checklist should be considered to assure that all of the required documentation is available.
 - Records for 2013 could not be located during the audit site visit. These records were later located in the contractor's files at the plant and were provided to the auditors during the week of August 4th.
 - Records for the limited review of the four projects below did not include the following. These projects were a small portion of the projects conducted during the period of review.
 - Unit 2 Basement 1st Reheat pipe insulation abatement (3/7/14 to 3/9/14) 146 LF
 - The results of inspections conducted by an AHERA Project Supervisor
 - The contractor's notification to AEP of the location and quantity of ACM and PACM remaining
 - The number of bags, drums, boxes, etc. of waste from the project to where they were taken for storage and/or disposal.
 - Documentation of the inspection of the encapsulant application

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- The work practices and controls including applicable project specifications, work scope, and drawings utilized in the abatement
- Unit 0 conveyor and associated building demolition (Q1 2014) 528 LF RACM, 300 LF Cat 2, 60,872 SF Cat 2
 - The results of inspections conducted by an AHERA Project Supervisor
 - The contractor's notification to AEP of the location and quantity of ACM and PACM remaining
 - The number of bags, drums, boxes, etc. of waste from the project to where they were taken for storage and/or disposal.
- Unit 2 LP Heater 2 ground floor insulation glovebag (11/1/11) 22 LF
 - The work practices and controls including applicable project specifications, work scope, and drawings utilized in the abatement
 - Air monitoring data (Ambient samples, personal samples)
 - The contractor's notification to AEP of the location and quantity of ACM and PACM remaining
 - Type and quantity of any replacement material installed
 - Documentation of the inspection of the encapsulant application
 - The results of inspections conducted by an AHERA Project Supervisor
- Unit 1 Air Preheaters and associated ductwork insulation (3/9/10 to 4/30/10) 5,000 SF
 - Amended notification due to delay in start date (required by 40 CFR 61.145(b)(3)(iv))
 - The results of inspections conducted by an AHERA Project Supervisor
 - The work practices and controls including applicable project specifications, work scope, and drawings utilized in the abatement
 - The contractor's notification to AEP of the location and quantity of ACM and PACM remaining
 - Ambient air samples (Outside decontamination & Outside waste load out)

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**APPENDIX B
 Classification of Audit Report Conclusions (Overall and Program specific)**

Well Controlled	Processes and controls are well designed and operating effectively with all (or virtually all) of the objectives achieved. For those limited areas where isolated exceptions are noted, the departures are determine to be occasional, outside of normal conditions and minor in comparison to the overall level of compliance achieved.
Controlled but Minor Improvements Needed	There may be several minor exceptions to regulatory or AEP Policy requirements or minor level control issues (either design or operating effectiveness) resulting in exceptions to requirements that do not compromise achievement of process objectives. The exceptions normally would not 1) result in serious injury or illness – damage beyond first aid is extremely remote; 2) cause a negative impact on the environment; 3) result in formal enforcement action or reputational harm. Overall conclusions may fit this category even though there may be isolated areas where improvements in controls (in these cases this should be used as a modifier as noted below.) A conclusion in this category will not be applied when there are any areas that require significant improvement.
Improvements in Controls Needed	Medium to high level compliance exceptions or control weaknesses exist that are more than isolated anomalies but do not prevent the process or function from achieving its overall purpose. These may result in 1) significant departures from established criteria or lapses in program implementation; 2) potential to result in injury or illness that would not be serious; 3) limited impact to the environment; 4) potential for minimum to moderate enforcement action or reputational harm. <i>(This may be applied as a modifier to a specific program if the facility is believed to have a generally controlled overall ESH program).</i>
Requires Significant Improvement	High level compliance exception(s) or control weakness(es) exist that could result in either 1) death, severe injury, serious illness of employees or the public or place employees/public in serious imminent danger; 2) serious impact to the environment; 3) substantial enforcement action or reputational harm; or 4) interruption of facility operations.

Classification of Audit Comments

Low Risk	Isolated or minor exceptions to regulatory or AEP Policy requirements or minor level control issues (either design or operating effectiveness) that do not compromise the achievement of process objectives. The exceptions normally would not 1) result in serious injury or illness – damage beyond first aid is extremely remote; 2) cause a negative impact on the environment; 3) result in formal enforcement action or reputational harm.
Medium Risk	An exception that can moderately impact overall ESH control or compliance objectives. These exceptions may result in one of the following: 1) significant departures from established criteria or lapses in program implementation; 2) potential to result in injury or illness but the injury or illness would not cause serious or lasting harm; 3) limited impact to the environment; or 4) potential for minimum to moderate enforcement action or reputational harm. Repeated exceptions from prior audits may cause the comment to fall into this category. A Medium risk comment may exist in an otherwise controlled program if the comment is believed to have a minor impact on overall program effectiveness.
High Risk	An exception that can result in serious impacts to overall ESH control or compliance objectives. These exceptions have the potential to result in one or a combination of the following: 1) death, severe injury, serious illness of employees or the public or place employees/public in serious imminent danger; 2) serious impact to the environment; 3) substantial enforcement action or reputational harm; or 4) interruption of facility operations.

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Audit Services Department

NERC CIP Version 3 Advisory Services Memorandum

Date Issued: 10/29/2014

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NERC CIP Version 3 Advisory Services

BACKGROUND

The North American Electric Reliability Corporation (NERC) developed a set of Critical Infrastructure Protection (CIP) standards (CIP-002 through CIP-009) to protect the Bulk Electric System from cyber-attacks (e.g., exploits of vulnerabilities or weaknesses in computers and networks used for monitoring or control). AEP operates in three of the seven NERC regions as a number of distinct entities and therefore adheres to these standards, which are monitored by three regional entities: Reliability First Corporation (RFC), Southwest Power Pool (SPP), and the Texas Reliability Entity (TRE). These entities will perform an onsite audit from November 10th through November 14th, 2014 to evaluate AEP's adherence to the CIP standards. The scope period includes the time since AEP's last CIP audit conducted in June of 2011.

OBJECTIVES

Regulatory Services requested Audit Services (ASD) to assist in AEP's preparation for the audit. This audit memorandum summarizes ASD's effort to complete the objectives below:

1. **Audit Evidence Review** – Evaluate the completeness of AEP's audit evidence to meet CIP requirements;
2. **RSAW Review** – Evaluate the sufficiency of AEP's Reliability Standard Audit Worksheets (RSAWs) to meet CIP requirements; and
3. **Mock Audit** – Simulate an actual audit environment for Lead Witnesses and Subject Matter Experts (SME) to practice the presentation of RSAWs and Audit Evidence.

SCOPE

The scope of the advisory services included the following CIP Standards:

1. CIP-002 – Critical Cyber Asset Identification;
2. CIP-003 – Security Management Controls;
3. CIP-004 – Personnel & Training;
4. CIP-005 – Electronic Security Perimeter;
5. CIP-006 – Physical Security of Critical Cyber Assets;
6. CIP-007 – Systems Security Management;
7. CIP-008 – Incident Reporting of Response Planning; and
8. CIP-009 – Recovery Plans for Critical Cyber Assets.

CONCLUSION

From June through October of 2014, ASD provided advisory services and worked in conjunction with Regulatory Services to help Lead Witnesses, RSAWs owners, and SMEs improve the presentation of RSAW responses and demonstrate adherence with the NERC CIP Version 3 Standards.

Please refer to **APPENDIX A** for a detailed description of the services that ASD performed.

NERC CIP Version 3 Advisory Services

APPENDIX A

Audit Evidence Review – From July 15th through July 18th and July 22nd through July 24th of 2014, Audit Services served on a panel of reviewers to evaluate AEP's RSAW responses and audit evidence. Along with ASD, the panel consisted of external reviewers from Southwest Power Pool, Kansas City Power and Light, and consultants from Network & Security Technologies, Inc. (N&ST), as well as internal reviewers from the Transmission Reliability Compliance team. For each standard, SMEs were asked to describe AEP's policies, procedures, and evidence to meet CIP-002 through CIP-009 standards. Over 100 recommendations were raised by the panel reviewers and addressed by AEP from August through September of 2014.

RSAW Review – ASD performed a second analysis of RSAW responses (after the Audit Evidence Review up to the September 9th RSAW submissions to Regional Entities) to ensure all in-scope standards and sub-requirements had been addressed. Recommendations for modifications to RSAW responses – including the creation of additional “back pocket” evidence – were communicated to RSAW owners for remediation.

Mock Audit – From October 6th through October 10th of 2014, a Mock Audit was conducted to allow Lead Witnesses and SMEs perform in a simulated audit environment. ASD served as a Mock Auditor on a panel with consultants from N&ST and members of AEP's Transmission Reliability Compliance and Cyber Security Assessment teams. The review covered all CIP Standards, including Mitigation Plans from previous violations, and knowledge sharing from other entities audit experiences. To prepare for the Mock Audit, ASD reviewed over 21,000 pages of RSAW documentation, including data populations and samples requested by Regional Entities.

During the Mock Audit, an evaluation was given for each standard to provide feedback to Lead Witnesses and SMEs. After the Mock Audit was completed, additional feedback sessions were held to share observations with Lead Witnesses.

As a result of the feedback sessions, over 60 recommendations were logged and planned to be remediated prior to the audit on November 10th, 2014. The Mock Audit identified areas of improvement including the development of opening statements to describe AEP's complex technical environment (especially for CIP-005 and CIP-007), better coordination between Lead Witnesses and SMEs in fielding questions, increased familiarity in navigating RSAWs and Audit Evidence, and improved visual communication (e.g. body language). Individual coaching services were provided by N&ST and ASD for Lead Witnesses and SMEs to ensure that concerns raised in the Mock Audit were addressed.

Audit Services Department

Review of Controls over Storm Restoration Costs

Date Issued: 4/19/13

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Review of Controls over Storm Restoration Costs

BACKGROUND:

In all jurisdictions, AEP's ability to recover significant storm restoration costs through applicable rate mechanisms can have significant impacts on the results of operations. Effective controls and processes are necessary in order to substantiate the validity and accuracy of costs AEP seeks to recover. AEP incurred \$388 million in costs from storms over the past 3 years. As of December 31, 2012, AEP had \$195 million in deferred storm related costs, not yet being recovered and \$63 million in deferred storm related costs being recovered.

When AEP provides mutual assistance to another utility, well-controlled tracking of the costs incurred and the invoicing process can also have a significant impact on operations. In 2012, AEP provided an estimated \$36.5 million in assistance to other utilities.

Although the key control objectives are similar for each of AEP's operating companies, the specific procedures followed in tracking costs and billings and verifying invoices for storm costs differs somewhat among the companies. Emergency Restoration Planning is the centralized group that assists the operating companies in obtaining resources and provides some overall procedural guidance. Procurement assists the operating companies in negotiating the related contracts.

OBJECTIVE:

The objective of this review was to evaluate the adequacy of controls over storm restoration costs.

SCOPE:

The scope of this review included the following:

- Providing Assistance, including:
 - Negotiating contracts and rates
 - Tracking time, location, and expenses for resources provided to others
 - Billing outside parties
- Receiving Assistance, including:
 - Negotiating contracts and rates
 - Tracking time, location, and expenses of outside parties
 - Verifying invoices received prior to payment

Review of Controls over Storm Restoration Costs

CONCLUSION:

This scorecard summarizes our conclusions for each scope area covered in the review. In addition, comments that relate to each scope area are referenced to the Comments, Risks and Resolutions section below. Please note that the conclusion classifications are defined in Appendix 1 located at the end of this report.

Scope Area	Comments Present	Conclusion Classification
Providing Assistance	None	Well-controlled
Receiving Assistance	1, 2	Improvements in controls needed
OVERALL CONCLUSION FOR REVIEW		Improvements in controls needed

COMMENTS, RISKS, AND RESOLUTIONS

In the following portion of the report, we have addressed the areas for improvement identified during our audit, their risks, and significance to the business. Also included are the planned action steps, responsible parties, and target dates for completion as provided by management. The significance level is based on our assessment of the combined impact and likelihood for each condition noted. The criteria for classification of issues and conclusions are contained in Appendix 1 at the end of this report.

Review of Controls over Storm Restoration Costs

1) Inconsistent Time Monitoring During a Storm

Comment – The hours worked associated with labor received from outside contractors and other utilities is not always monitored.

Labor usually represents more than half of the total costs of any given storm; therefore, it is important for AEP personnel to have processes in place to assure an accurate capture of the hours worked by all parties when performing storm work on AEP's behalf. AEP does not have formal guidelines established to direct operating companies in defining and monitoring time. This has resulted in inconsistent procedures among operating companies. The various procedures that are currently being followed do not provide adequate assurance that the time charged by contractors and outside utilities is accurate. Specifically, contractors and non-affiliated utilities are not always required to provide daily time sheets showing hours worked, and even when provided, these are not always signed and retained by AEP personnel. Also, there does not appear to be a common understanding among the operating companies as to what "hours worked" or "duty hours" represents, which could impact the reimbursable hours. In some cases this is interpreted as the total time between leaving and returning to the staging area, while in other cases it is being considered as the time between leaving and returning to the hotel.

Risk – Unless time is consistently reported and monitored there is the potential for erroneous charges to be billed and paid.

Resolution – Distribution Management has approval from Executive Management for a 3 year Storm Preparedness Strategy project. Resolution to the risks identified during this audit will be incorporated into the 3 year project. However, the risks and increased oversight of the current processes will be communicated to operating companies immediately.

Management will establish a common definition of "hours worked" or "duty hours", to be utilized by all operating companies in the absence of a specific overriding contractual agreement. Additionally, guidance will be provided to the operating companies identifying the minimum requirements regarding the monitoring of time reporting and retention of daily time sheets to support subsequent billings.

Review of Controls over Storm Restoration Costs

<u>Significance:</u> Medium Risk	<u>Responsible Party:</u> Tom Kirkpatrick	<u>Target Date:</u> 12/31/2013
Storm Response Team creates a consistent and standardized manual process for capturing labor of contractors during storms		
Storm Response Team creates consistent and standardized manual process for capturing labor of IOU crews during storms		6/30/2014
Potential Automation of labor units and costs monitoring control investigated and proposed if cost effective		9/30/2014

Review of Controls over Storm Restoration Costs

2) Invoice Submittal Process and Review

Comment – Controls over the receipt and payment of invoices from outside parties need to be enhanced.

The responsibility for review and approval of invoices from outside parties is not clearly defined. The operating companies indicated they rely on T&D Procurement (previously C&DS Contract Management) to review the accuracy of the rates in the invoice. Procurement maintains the accuracy of the rates within the Contract Administration Tracking System (CATS) and provides the established rates to the operating companies, but does not review the invoiced rates submitted outside of CATS. Although the Manager Emergency Restoration Planning performs a high level review of all invoices, he does not have the detailed information, or time, to validate them. Thus, in some cases the invoices from outside parties are not receiving the appropriate level of scrutiny prior to being paid.

Currently, invoices for storm work can be submitted to AEP by contractors via hardcopy, email or electronically through the Contract Administration Tracking System (CATS). Because each contractor can submit multiple invoices for storm assistance, through any of the three channels, the possibility of receiving and paying duplicate charges is increased. This opportunity for error is further increased by the fact that invoices submitted through CATS are assigned a unique invoice number for processing through accounts payable, thus preventing the detection of a duplicate invoice number. There is no subsequent comparison of the estimated and actual billings from each contractor, which would help to identify large variances.

Risk – Inaccurate and/or duplicate payments could occur.

Resolution – Distribution Management has approval from Executive Management for a 3 year Storm Preparedness Strategy project. Resolution to the risks identified during this audit will be incorporated into the 3 year project. However, the risks and increased oversight of the current processes will be communicated to operating companies immediately.

AEP Emergency Restoration Planning and AEP T&D Procurement personnel in conjunction with the Operating Companies will develop guidelines for invoice submission and review that clearly identify each group's responsibilities as well as requiring a variance analysis in order to detect significant variances from the original estimate and determine whether they are appropriate.

Review of Controls over Storm Restoration Costs

Significance: Medium Risk T&D Procurement and Storm Response Team create consistent and standardized manual review based policy related to the submission and review of contractor invoices during storms.	Responsible Party: Craig Rhoades and Tom Kirkpatrick	Target Date: 12/31/13
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Review of Controls over Storm Restoration Costs

Appendix 1

Classification of Audit Report Conclusions

Operational/Financial (Internal Controls Reviews):

Conclusion	Definition
Well-controlled	Controls are appropriately designed and are operating effectively to manage risks. Control issues may exist, but are minor.
Well-controlled but minor improvements needed	Medium-level control issues (either design or operating effectiveness) are present but do not compromise achievement of important control objectives.
Improvements in controls needed	High or medium-level control weaknesses are present that compromise achievement of one or more important control objectives but do not prevent the process or function from achieving its overall purpose. While important weaknesses exist, their impact on the management of risks is limited rather than widespread.
Major improvements in controls needed	High-level control weaknesses exist across numerous control objectives that potentially prevent the process or function from achieving its overall purpose. The impact of weaknesses on management of risks is widespread rather than isolated either due to the number or nature of control weaknesses.

Classification of Audit Comments

Financial Audits:

Risk Significance	Risk Definition
High	Likelihood of the condition occurring must be more than remote and potential impact must be significant in relationship to the underlying financial information, overall objectives, or level of compliance of the function or process audited.
Medium	Likelihood of the condition occurring must be more than remote or potential impact must be significant in relationship to the underlying financial information, overall objectives, or level of compliance of the function or process audited.
Low	Enhancement to a current process that would add value, but not necessarily have a significant impact to the company from a financial, compliance, effectiveness, or efficiency standpoint. Would entail process improvement or have a relatively small monetary impact.