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February 28, 2014

HAND DELIVERED

Jeff R. Derouen
Executive Director
Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, KY 40602-0615

RE: Annual Mitchell Generating Station Status Report Filed In Conformity With Paragraph 6 of the Commission's October 7, 2013 Order in Case No. 2012-00578

Dear Mr. Derouen:

Enclosed please find and accept for filing the original and four copies of the first annual Mitchell Generating Station Status Report. It is being filed in conformity with Paragraph 6 of the Commission's October 7, 2013 Order in Case No. 2012-00578.

A copy of the report, along with a copy of this letter, is being served on counsel for the intervenors in the case as indicated below.

Very truly yours,

Mark R. Overstreet

MRO
cc: Jennifer B. Hans
Michael L. Kurtz
Shannon Fisk
Kristin Henry

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

FEB 28 2014

PUBLIC SERVICE COMMISSION

In the Matter of:

The Application Of Kentucky Power Company For: (1) A Certificate Of Public Convenience And Necessity Authorizing The Transfer To The Company Of An Undivided Fifty Percent Interest In The Mitchell Generating Station And Associated Assets; (2) Approval Of The Assumption By Kentucky Power Company Of Certain Liabilities In Connection With The Transfer Of The Mitchell Generating Station; (3) Declaratory Rulings (4) Deferral Of Costs Incurred In Connection With The Company's Efforts To Meet Federal Clean Air Act And Related Requirements; And (5) For All Other Required Approvals And Relief	)	Case No. 2012-00578

KENTUCKY POWER MITCHELL GENERATING PLANT: MARCH 1, 2014 ANNUAL PERFORMANCE REPORT AND REPORT ON POTENTIAL IMPACTS OF FUTURE ENVIRONMENTAL REGULATIONS IN CONFORMITY WITH COMMISSION ORDER DATED OCTOBER 7, 2013

February 28, 2014

Table of Contents

1) Introduction

Kentucky Power Company files this report in conformity with the Kentucky Public Service Commission's October 7, 2013 Order in Case No. 2012-00578[1]. Portions of the required information are provided in the following attachments:

a. Attachment 1: Plant Performance Data
   i. Net Capacity Factor
   ii. Equivalent Forced Outage Rate
   iii. Equivalent Availability Factor
   iv. Net Unit Heat Rate

b. Attachment 2: Unplanned System Outages
   i. Forced Outage data for 2013

2) Mitchell Plant Performance

Attachment 1 to this report includes performance data for Mitchell Unit 1 (ML1) & Unit 2 (ML2). The performance of ML1 during 2013 was affected by a planned outage that spanned from February 16, 2013 into July 8, 2013. This outage was used to address necessary major repair work, including work on the low pressure turbine and replacement of the air heater baskets.

The performance of ML2 was impacted, to a lesser extent than ML1, by a planned outage that occurred from May 4, 2013 to June 19, 2013. The ML 2 outage work focused principally on the installation of valves to the ML2 FGD system.

3) Mitchell Plant Unplanned System Outages

Attachment 2 to this report shows the unplanned outage events that occurred at ML1 & ML2 during the 2013 calendar year. This list of outages includes both Forced Outages ("FO") and Maintenance Outages ("MO").

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[1] In the Matter of: *The Application Of Kentucky Power Company For: (1) A Certificate Of Public Convenience And Necessity Authorizing The Transfer To The Company Of An Undivided Fifty Percent Interest In The Mitchell Generating Station And Associated Assets; (2) Approval Of The Assumption By Kentucky Power Company Of Certain Liabilities In Connection With The Transfer Of The Mitchell Generating Station; (3) Declaratory Rulings; (4) Deferral Of Costs Incurred In Connection With The Company's Efforts To Meet Federal Clean Air Act And Related Requirements; And (5) For All Other Required Approvals And Relief.*

A FO is defined by the North American Reliability Company ("NERC") as an outage event that requires the immediate removal of a unit from service, or placing the unit in another outage state, or a Reserve Shutdown state. This type of outage usually results from immediate mechanical/electrical/hydraulic control system trips or operator-initiated trips in response to unit alarms[2].

Within the classification of Forced Outages there are three types that differ as follows:

U1 - An automatic or manual immediate separation of a generating unit from the grid

U2 - An outage that requires removal from the grid within six hours of the event

U3 -An outage that can be postponed beyond six hours but that requires a unit to be removed from the in-service state before the end of the next weekend.

A MO is defined by NERC as an outage that can be deferred beyond the end of the next weekend, but requires that the unit be removed from service, or placed in another outage state, or placed in Reserve Shutdown state before the next Planned Outage ("PO")[3].

4) Mitchell Plant Operations & Maintenance Expenses

The 2013 budgeted and actual O&M expenses for the Mitchell Plant, as well as the budgeted O&M expenses for the Mitchell Plant for 2014 are included in the following table (Table 1). As depicted in Table 1, the actual O&M expense in 2013 was approximately $8.7 million over the budgeted amount. This increase was due primarily to increased spending for scheduled outages, forced outages, and base cost of operations expenses. These increases were partially, but not completely, offset by decreases from budget in straight time labor and non-outage maintenance expenses.

The 2014 budgeted O&M expense of $42.7 million is approximately $13 million below 2013 actuals. This decrease is driven primarily by decreases in O&M expense budgeted for scheduled outages in 2014.

[2] NERC GADS Generating Availability Data System Data Reporting Instructions, January 2012.
[3] NERC GADS Generating Availability Data System Data Reporting Instructions, January 2012.

Table 1

Mitchell Plant O&M Expense		
2013		2014
Actuals	Budget	Budget
$55,971,167	$47,267,814	$42,745,506

Note: Totals reflect 100% Mitchell Actuals and Budgets and do not reflect ownership interests

Ownerships: 2013 - Ohio Power Co (100%)

Ownerships: 2014 - Kentucky Power Co and AEP Generation Resources LLC (50% each)

5) Mitchell Plant Capital Investments

The 2013 actual and budgeted capital investments for the Mitchell Plant, as well as the forecasted capital spend for 2014 are included in the following table (Table 2).

In 2013, capital project spending at the Mitchell Plant was approximately $111 million, which was $19.4 million under the budgeted amount for the year. The principal reason for the difference was that the 2013 capital investment in environmental projects of approximately $95.6 million was $18.6 million below the amount originally budgeted for the year.

The 2014 budget for capital investment at the Mitchell Plant is approximately $89.1 million. This decrease is largely due to a decrease in planned capital expenditures for the Mitchell dry fly ash conversion, a major environmental project that is projected to be completed in 2014.

Table 2

Mitchell Plant Capital Investsment		
2013		2014
Actuals	Budget	Budget
$110,999,753	$130,351,126	$89,126,511

Note: Totals reflect 100% Mitchell Actuals and Budgets and do not reflect ownership interests

Ownerships: 2013 - Ohio Power Co (100%)

Ownerships: 2014 - Kentucky Power Co and AEP Generation Resources LLC (50% each)

6) Discussion of Environmental Regulations and Potential Future Impacts on the Mitchell Plant

The Mitchell Plant is a fully controlled unit, meaning that it has been retrofitted with Electrostatic Precipitators ("ESPs") for the removal of approximately 99% of particulate matter, Selective Catalytic Reduction ("SCR") systems for reduction of approximately 90% of nitrogen oxide ("NOx") emissions, as well as flue gas desulfurization systems ("FGD") for reduction of sulfur dioxide ("SO2") emissions by approximately 98%. In conjunction with Mitchell Plant's ESPs, the installed Mitchell SCR and FGD systems, which also remove mercury, are expected to permit the Mitchell Plant to comply with the Mercury and Air Toxics Standards ("MATS Rule").

While the Mitchell Plant is well-equipped to meet these and other existing environmental regulations, there are multiple future regulations that may affect the plant. These rules are discussed in greater detail below. This discussion contains only minor updates from the information included in the Integrated Resource Plan that Kentucky Power filed with this Commission on December 20, 2013 (Case No. 2013-00475).

Coal Combustion Residuals ("CCR") Rule

The proposed rule includes specific design and monitoring standards for new and existing landfills and surface impoundments, as well as measures to ensure and maintain the structural integrity of surface impoundment/ponds. The proposed CCR rulemaking would require the conversion of most "wet" ash impoundments to "dry" ash landfills, the relining or closing of any remaining ash impoundment ponds, and result in the construction of additional wastewater treatment facilities by approximately the second half of 2019. Kentucky Power anticipates that the CCR Rule—based on the preliminary assumption that these residual materials may be categorized as "Subtitle D," or non-hazardous materials—would require plant modifications and capital expenditures to address these requirements by approximately 2019. The final rule is scheduled to be complete by December 19, 2014. It should be noted that the Mitchell Plant is in the process of a dry fly ash conversion and dry ash landfill construction to meet current permit requirements however these projects will also position the Mitchell Plant well for future compliance with the CCR rulemaking.

Effluent Limitation Guidelines and Standards ("ELG")

EPA proposed an update to the ELG for the steam electric power generating category in the Federal Register on June 7, 2013. The proposed ELG would require more stringent controls on certain discharges from certain electric generating units, and will set technology-based limits for wastewater discharges from power plants. The main focus of the update is on process wastewater from the FGD, fly ash sluice water, bottom ash sluice water and landfill/pond leachate. Kentucky Power anticipates that wastewater treatment projects will be necessary at the Mitchell units and these have been considered as part of the respective long-term unit evaluations. EPA is currently required to finalize the rule by May 22, 2014; however, EPA has indicated its desire to issue the ELG rule concurrent with the CCR rule. The compliance timeframe for the ELG rule will be tied to the renewal cycle of the plant's wastewater discharge permit and will be established through negotiation with the permit agency. Similar to the future impact from the anticipated CCR rule, Mitchell Plant's existing wastewater treatment plant for FGD blowdown and dry fly ash conversion and dry ash landfill construction will position the Mitchell Plant well for future compliance with the final ELG rulemaking.

Clean Water Act ("316(b)") Rule

A proposed rule under Section 316(b) of the Clean Water Act was issued by EPA on March 28, 2011, and final rulemaking is now expected by April 17, 2014 (after a series of extensions over the past three years). The proposed rule prescribes technology standards for cooling water intake structures that would decrease interference with fish and other aquatic organisms. Given that the Mitchell units are equipped with closed cycle cooling systems with natural draft, hyperbolic cooling towers, the most significant potential impact of the proposed rule would be the need to install additional fish screening at the front of the water intake structure. This may require additional capital investment, but this amount is expected to be small compared to the cost that would be needed if the plant were not equipped with cooling towers. The compliance timeframe based on the proposed rule is no later than 2022.

Ambient Air Quality Standards ("NAAQS")

The Clean Air Act requires EPA to establish and periodically review the NAAQS designed to protect public health and welfare. Several NAAQS have been recently revised or are under review, which could lead to more stringent SO2 and NOx limits. These include the NAAQS for SO2 (revised in 2010), NO2 (revised in 2010), fine particulate matter (revised in 2012), and ozone (expected to be revised in 2014). The scope and timing of potential requirements is uncertain. However, because both units at the Mitchell Plant have already been retrofitted with SCR and FGD systems, the risk from more stringent SO2 and NOx limits is expected to be manageable.

Greenhouse Gas ("GHG") Regulations

Potential requirements to reduce greenhouse gas emissions, including carbon dioxide, have been among the most significant issues facing Kentucky Power and AEP. EPA has been working on a regulatory program for greenhouse gas emissions from existing power plants since December 2010. More recently, on June 25, 2013, President Obama announced a climate action plan to address GHG emissions from all fossil-fired power plants which included a specific schedule for EPA to issue a greenhouse gas proposal. Under President Obama's direction, the EPA issued a revised proposal for the GHG NSPS for new sources on September 20, 2013, and must finalize the proposal in a "timely fashion." For existing sources, EPA was directed to propose guidelines by June 1, 2014, and finalize those standards by June 1, 2015. States would develop and submit a plan to EPA for implementing the existing source standards by June 30, 2016. The scope and timing of these requirements have not yet been determined. GHG rules pose a potential for impact in the future but the degree of that impact is unknown at this time.

Mitchell Unit 1

Net Maximum Capacity: 770 MW

MONTH	FORCED OUTAGE RATE (%)	EQUIV FORCED OUTAGE RATE (%)	EQUIV AVAIL FACTOR (%)	NET CAPACITY FACTOR MWH (%)	HEAT RATE ACTUAL (BTU / KWH)
JAN 13	1.38	8.30	90.90	68.90	10,521
FEB 13	16.46	26.23	21.92	17.88	12,729
MAR 13	0.00	0.00	0.00	0.00	0
Q1 Total	4.48	11.99	38.15	29.31	11,374
APR 13	0.00	0.00	0.00	0.00	0
MAY 13	0.00	0.00	0.00	0.00	0
JUN 13	0.00	0.00	0.00	0.00	0
Q2 Total	0.00	0.00	0.00	0.00	0
JUL 13	43.84	46.80	41.77	15.40	12,361
AUG 13	2.75	5.60	93.53	70.46	10,979
SEP 13	0.00	8.54	73.17	53.80	11,268
Q3 Total	10.84	15.70	69.45	46.47	10,537
OCT 13	51.30	55.83	47.50	28.21	10,627
NOV 13	25.95	26.97	73.89	45.04	10,182
DEC 13	100.00	100.00	7.66	0.00	0
Q4 Total	40.98	43.26	42.70	24.20	10,368
YTD TOTAL	18.96	23.63	37.67	25.04	10,794

Mitchell Unit 2

Net Maximum Capacity: 790 MW

MONTH	FORCED OUTAGE RATE (%)	EQUIV FORCED OUTAGE RATE (%)	EQUIV AVAIL FACTOR (%)	NET CAPACITY FACTOR MWH (%)	HEAT RATE ACTUAL (BTU / KWH)
JAN 13	0.00	3.27	78.48	64.63	9,947
FEB 13	0.00	0.62	98.49	89.77	9,192
MAR 13	0.00	4.51	95.02	87.62	9,883
Q1 Total	0.00	2.85	90.40	80.36	9,815
APR 13	24.81	30.00	70.39	62.80	9,627
MAY 13	6.74	11.46	8.57	7.62	10,094
JUN 13	0.00	0.34	67.66	57.07	9,972
Q2 Total	14.12	17.40	48.43	42.11	9,810
JUL 13	12.13	15.08	77.78	55.72	10,193
AUG 13	18.89	19.68	81.06	57.62	9,737
SEP 13	0.00	0.35	98.04	73.23	9,352
Q3 Total	10.17	11.44	85.49	62.07	9,209
OCT 13	15.28	15.56	74.43	60.77	9,643
NOV 13	0.00	0.39	98.90	83.85	9,263
DEC 13	37.21	37.59	62.64	43.07	9,634
Q4 Total	17.60	17.98	78.44	62.34	9,474
YTD TOTAL	10.19	11.97	75.68	61.67	9,573

Generating Unit	Event Start Date/Time	Event End Date/Time	Event Duration (Hours)	Event Type	Event Description
Mitchell 1	12/29/2012 1:23	1/1/2013 8:00	8	MO	Hydrogen leak repair
Mitchell 1	1/2/2013 7:10	1/2/2013 12:43	5.55	U1	Stator Water Pressure
Mitchell 1	1/2/2013 13:41	1/2/2013 17:59	4.3	U1	Emergency leak valve opened
Mitchell 1	2/6/2013 16:03	2/7/2013 22:30	30.45	U1	ID Fan
Mitchell 1	2/7/2013 22:30	2/8/2013 11:48	13.3	MO	Maintenance outage to address various items
Mitchell 1	2/9/2013 17:10	2/16/2013 0:00	150.83	MO	Pre-planned outage work
Mitchell 1	7/8/2013 0:00	7/13/2013 7:02	127.03	U1	Stack Liner Repairs
Mitchell 1	7/18/2013 3:38	7/18/2013 13:41	10.05	U1	High Main Steam Temperature
Mitchell 1	7/23/2013 11:35	7/24/2013 12:00	24.42	U1	Steam leak on DMO 203 (turbine drain)
Mitchell 1	7/24/2013 12:00	7/28/2013 9:58	93.97	MO	Turbine balance shot placement and balance program
Mitchell 1	7/28/2013 15:50	7/28/2013 23:04	7.23	MO	Turbine balance shot placement and balance program
Mitchell 1	7/29/2013 3:34	7/29/2013 13:48	10.23	MO	Turbine balance shot placement and balance program
Mitchell 1	8/24/2013 4:52	8/25/2013 1:00	20.13	U1	stator water leak
Mitchell 1	9/25/2013 1:01	10/2/2013 0:10	167.15	MO	#11 ID Fan + Expansion Joint Repairs
Mitchell 1	10/14/2013 16:02	10/22/2013 11:45	187.72	U1	Turbine Vibration
Mitchell 1	10/23/2013 13:27	10/28/2013 15:30	122.05	U1	Tube Leak
Mitchell 1	10/28/2013 15:30	10/29/2013 20:30	29	MO	Additional inspection for tube thinining
Mitchell 1	11/11/2013 17:49	11/15/2013 22:51	101.03	U1	Condenser Tube Leak
Mitchell 1	11/27/2013 10:29	11/29/2013 8:46	46.28	U1	Turbine vibration
Mitchell 1	11/29/2013 8:46	12/28/2013 0:00	687.23	MO	Turbine inspection
Mitchell 1	12/30/2013 10:30	1/4/2014 20:52	37.5	U1	due to #5 turbine bearing possibly being wiped.
Mitchell 2	1/11/2013 2:13	1/16/2013 20:14	138.02	MO	Air Heater Cleaning and Precipitator duct inspection
Mitchell 2	4/11/2013 1:17	4/18/2013 8:29	175.2	U1	Stack Liner Inspection/Stabilization due to the failed liner on Unit 1.
Mitchell 2	5/3/2013 19:09	5/4/2013 0:00	4.85	U1	Blown packing on BM03 division valve
Mitchell 2	7/8/2013 0:00	7/10/2013 19:00	67	MO	ARV-542 Valve Repairs
Mitchell 2	7/12/2013 9:48	7/13/2013 17:50	32.03	U1	UMO-1 problems.
Mitchell 2	7/20/2013 21:33	7/22/2013 2:00	28.45	U2	Oil leak under turbine
Mitchell 2	7/30/2013 0:41	7/30/2013 12:00	11.32	U2	#1 Control Valve Failed
Mitchell 2	8/4/2013 23:12	8/10/2013 12:40	133.47	U2	#11 Main Turbine Bearing Oil Leak
Mitchell 2	10/19/2013 14:13	10/23/2013 17:40	99.45	U3	Forced outage - Tube leak
Mitchell 2	10/23/2013 17:40	10/27/2013 2:45	81.08	MO	Inspect additional boiler tubes
Mitchell 2	12/5/2013 11:57	12/16/2013 17:31	269.57	U3	1st RH tube leak. The leaks have been identified in the 1st RH south side of elevation 116 . Maintenance is currently developing a timeline

Event Type	NERC Oescription
MO	Maintenance Outage - can be deferred beyond the end of the next weekend but must occur before the next planned outage
U1	Unplanned (Forced) Outage - requires immediate removal from service
U2	Unplanned (Forced) Outage - required removal from service within 6 hours
U3	Unplanned (Forced) Outage - can be postponed beyond 6 hours but requires removal from service before the end of the next weekend