



1/27/2023

Ms. Carol Kemker
United States Environmental Protection Agency
Region IV, Air Enforcement Branch
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-8960

Subject: East Kentucky Power Cooperative, Cooper Station Units 1 and 2
Mercury Air and Toxics Standards (MATS) Semiannual Report

Dear Ms. Kemker:

Enclosed please find East Kentucky Power Cooperative, Inc.'s (EKPC) MATS Semiannual Report required by 40 CFR § 63.10031(c) for Cooper Station Units 1 and 2, which has been filed via the Emissions Collection and Monitoring Plan System (ECMPS) in compliance with MATS, 40 CFR Part 63, Subpart UUUUU.

Please let us know if you have any questions.

Sincerely,

Jerry Purvis

Jerry Purvis
Vice President, Environmental Affairs

Enclosure



**East Kentucky Power Cooperative, Inc.
Cooper Units 1 and 2
MATS Semi-Annual Compliance Report**

**John Sherman Cooper Generating Station
670 Cooper Power Plant
Somerset, KY 42501**

**Reporting Period
July 1, 2022 - December 31, 2022**

Submitted to:

**U.S. EPA
via the ECMPS Client Tool
Pursuant to 40 CFR 63.10031(c)**

**Cooper Generating Station
MATS Semiannual Report
2nd Half 2022**

ORIS Code: 1384

Facility Registration System ID: 110041007166

Cooper Unit 1 is a pulverized coal-fired boiler rated at 1080 mmBtu/hr. Control equipment includes low-NO_x burners, ESP, PJFF, and Dry Lime Scrubber. Cooper Unit 2 is a pulverized coal-fired boiler rated at 2089 mmBtu/hr. Control equipment includes low NO_x burners, SCR, PJFF, and Dry Lime Scrubber. Cooper Units 1 and 2 share a common stack.

Hazardous Air Pollutants Monitored and Applicable Emission Limitations

<u>MATS Pollutant</u>	<u>Emission Limit</u>	<u>Averaging Period</u>	<u>Continuous Compliance Method</u>
Mercury (Hg)	1.2 lb/Tbtu	30-Day Rolling	Hg sorbent trap monitoring system
HCl	0.0020 lb/mmbtu	N/A	Every 36 months (LEE Status)
Filterable PM	0.030 lb/MMBtu	30-Day Rolling	PM CEMS

Hazardous Air Pollutants Applicable Operating Limitations

EKPC must operate the Hg sorbent trap monitoring system and PM CEMS during periods of startup and shutdown.

EKPC must comply with the startup and shutdown work practice standards. EKPC is complying with Startup Definition #1. There were no deviations from those standards.

Fuel Usage Information

Cooper Units 1 and 2 burn bituminous coal and fuel oil for startup and stabilization.

EKPC has determined neither to be a waste.

No new fuel was burned during the reporting period.

Month	Coal Burned (tons)		Fuel Oil Used (gals)	
	Unit 1	Unit 2	Unit 1	Unit 2
Jul-22	8,961	37,686	7,570	23,487
Aug-22	3,087	25,076	14,289	19,133
Sep-22	10,043	13,790	4,813	2,211
Oct-22	2,931	0	8,372	0
Nov-22	0	0	4,390	0
Dec-22	9,385	0	6,720	0

Boiler Tune-up Work Practice Standards

Date Last Completed

Cooper Unit 1: 1/6/2022

Cooper Unit 2: 1/6/2022

No deviations from the boiler tune-up work practice standard.

Exceedance Events

Plant: Cooper Power Station

Report Period: 07/01/2022 00:00 Through 12/31/2022 23:59

Time Online Criteria: 1 minute(s)

No Excess Emissions found during the report period for:

Source (s): CP12

Parameter(s): AKHG#T_M, PM#MM_M

Interval: 030D

Reason Code(s): 00, 01, 02, 03, 04, 05, 06, 10, 11, 12, 13, 99

Downtime Events - Duration

Plant: Cooper Power Station
 Report Period: 07/01/2022 00:00 Through 12/31/2022 23:59
 Time Online Criteria: 1 minute(s)

Source: CP12
 Parameter: AKHG#T_M
 Interval: 001H

Incident ID	Start Date/Time	End Date/Time	Duration (dd:hh:mm)	Reason Code - Description Action Code - Description
1 *	07/01/2022 00:00	07/05/2022 15:59	4d - 16h - 0m	10 - Monitor Equipment Malfunction 58 - Continuous Emissions Monitor maintenance.
2	07/06/2022 03:00	07/06/2022 06:59	0d - 4h - 0m	11 - Non-Monitor Malfunction 58 - Continuous Emissions Monitor maintenance.
3	07/08/2022 09:00	07/08/2022 23:59	0d - 15h - 0m	10 - Monitor Equipment Malfunction 58 - Continuous Emissions Monitor maintenance.
4	07/19/2022 06:00	07/19/2022 08:59	0d - 3h - 0m	12 - Monitor Calibration 57 - Continuous Emissions Monitor Q/A test.
5	09/12/2022 07:00	09/12/2022 07:59	0d - 1h - 0m	12 - Monitor Calibration 58 - Continuous Emissions Monitor maintenance.
6	10/10/2022 08:00	10/10/2022 08:59	0d - 1h - 0m	12 - Monitor Calibration 57 - Continuous Emissions Monitor Q/A test.
7	10/10/2022 16:00	10/10/2022 17:59	0d - 2h - 0m	11 - Non-Monitor Malfunction 58 - Continuous Emissions Monitor maintenance.
8	10/12/2022 08:00	10/12/2022 09:59	0d - 2h - 0m	12 - Monitor Calibration 57 - Continuous Emissions Monitor Q/A test.

Number of Events: 8
Total Duration: 5d - 20h - 0m

Source: CP12
 Parameter: PM#MM_M
 Interval: 001H

Incident ID	Start Date/Time	End Date/Time	Duration (dd:hh:mm)	Reason Code - Description Action Code - Description
9	07/06/2022 03:00	07/06/2022 06:59	0d - 4h - 0m	11 - Non-Monitor Malfunction 58 - Continuous Emissions Monitor maintenance.
10	09/12/2022 07:00	09/12/2022 07:59	0d - 1h - 0m	12 - Monitor Calibration 58 - Continuous Emissions Monitor maintenance.
11	10/12/2022 08:00	10/12/2022 09:59	0d - 2h - 0m	11 - Non-Monitor Malfunction 57 - Continuous Emissions Monitor Q/A test.

Number of Events: 3
Total Duration: 0d - 7h - 0m

* Indicates duration incident could have additional data prior to the start date or following the end date.

CMS Downtime Deviation Events

Plant: Cooper Power Station
 Report Period: 07/01/2022 00:00 Through 12/31/2022 23:59
 Time Online Criteria: 1 minute(s)

Source: CP12
Parameter: AKHG#T_M
Interval: 001H

Incident ID	Start Date/Time	End Date/Time	Duration (dd:hh:mm)	Reason Code - Description Action Code - Description
1 *	07/01/2022 00:00	07/05/2022 15:59	4d - 16h - 0m	10 - Monitor Equipment Malfunction 58 - Continuous Emissions Monitor maintenance.
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4	10/10/2022 16:00	10/10/2022 17:59	0d - 2h - 0m	11 - Non-Monitor Malfunction 58 - Continuous Emissions Monitor maintenance.

Number of Events: 4
Total Duration: 5d - 13h - 0m

Source: CP12
Parameter: PM#MM_M
Interval: 001H

Incident ID	Start Date/Time	End Date/Time	Duration (dd:hh:mm)	Reason Code - Description Action Code - Description
5	07/06/2022 03:00	07/06/2022 06:59	0d - 4h - 0m	11 - Non-Monitor Malfunction 58 - Continuous Emissions Monitor maintenance.
6	10/12/2022 08:00	10/12/2022 09:59	0d - 2h - 0m	11 - Non-Monitor Malfunction 57 - Continuous Emissions Monitor Q/A test.

Number of Events: 2
Total Duration: 0d - 6h - 0m

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**Cooper Generating Station
MATS Semiannual Report
2nd Half 2022**

Summary of HCl Quarterly Stack Testing

Test Method: EPA Method 26A
Emission Limit: 0.0020 lb/mmbtu

Cooper Units 1 & 2 qualified for LEE Status on 6/13/2019. Test results for the last 3 years are listed below. Tests were conducted on the common stack while Units 1 and 2 were at full load.

Stack Test Results

Year	Test Dates	Test Results	50% Limit Threshold
2020	No test required. Qualified for LEE Status.		0.0010 lb/mmbtu
2021	No test required. Qualified for LEE Status.		0.0010 lb/mmbtu
2022	6/9/2022	0.00004	0.0010 lb/mmbtu

No deviations during the reporting period. No operational changes since the last stack test that could increase emissions.

SIGNATURE BLOCK

I, THE UNDERSIGNED, HEREBY CERTIFY UNDER PENALTY OF LAW, THAT I AM A RESPONSIBLE OFFICIAL, AND THAT I HAVE PERSONALLY EXAMINED, AND AM FAMILIAR WITH, THE INFORMATION SUBMITTED IN THIS DOCUMENT AND ALL ITS ATTACHMENTS. BASED ON MY INQUIRY OF THOSE INDIVIDUALS WITH PRIMARY RESPONSIBILITY FOR OBTAINING THE INFORMATION, I CERTIFY THAT THE INFORMATION IS ON KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE OR INCOMPLETE INFORMATION, INCLUDING THE POSSIBILITY OF FINE OR IMPRISONMENT.

BY *Jerry Purvis* 1/27/2023
Authorized Signature Date

Jerry Purvis Vice President, Environmental Affairs
Typed or Printed Name of Signatory Title of Signatory



7/27/2023

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**East Kentucky Power Cooperative, Inc.
Cooper Units 1 and 2
MATS Semi-Annual Compliance Report**

**John Sherman Cooper Generating Station
670 Cooper Power Plant
Somerset, KY 42501**

**Reporting Period
January 1, 2023 - June 30, 2023**

Submitted to:

**U.S. EPA
via the ECMPS Client Tool
Pursuant to 40 CFR 63.10031(c)**

**Cooper Generating Station
MATS Semiannual Report
1st Half 2023**

ORIS Code: 1384

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EKPC must operate the Hg sorbent trap monitoring system and PM CEMS during periods of startup and shutdown.

EKPC must comply with the startup and shutdown work practice standards. EKPC is complying with Startup Definition #1. There were no deviations from those standards.

Fuel Usage Information

Cooper Units 1 and 2 burn bituminous coal and fuel oil for startup and stabilization.

EKPC has determined neither to be a waste.

No new fuel was burned during the reporting period.

Month	Coal Burned (tons)		Fuel Oil Used (gals)	
	Unit 1	Unit 2	Unit 1	Unit 2
Jan-23	0	13,579	858	28,316
Feb-23	2,226	7,162	7,102	8,073
Mar-23	0	35,668	0	14,967
Apr-23	11,631	17,352	8,337	10,220
May-23	0	0	3,145	4,057
Jun-23	0	11,384	0	9,880

Boiler Tune-up Work Practice Standards

Date Last Completed

Cooper Unit 1: 1/6/2022

Cooper Unit 2: 1/6/2022

No deviations from the boiler tune-up work practice standard.

Exceedance Events

Plant: Cooper Power Station

Report Period: 01/01/2023 00:00 Through 06/30/2023 23:59

Time Online Criteria: 1 minute(s)

No Excess Emissions found during the report period for:

Source (s): CP12

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 Parameter: AKHG#T_M
 Interval: 001H

Incident ID	Start Date/Time	End Date/Time	Duration (dd:hh:mm)	Reason Code - Description Action Code - Description
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2	01/24/2023 12:00	01/24/2023 12:59	0d - 1h - 0m	11 - Non-Monitor Malfunction 58 - Continuous Emissions Monitor maintenance.

Number of Events: 2
Total Duration: 0d - 5h - 0m

Source: CP12
 Parameter: PM#MM_M
 Interval: 001H

Incident ID	Start Date/Time	End Date/Time	Duration (dd:hh:mm)	Reason Code - Description Action Code - Description
3	01/02/2023 14:00	01/02/2023 16:59	0d - 3h - 0m	10 - Monitor Equipment Malfunction 56 - Continuous Emissions Monitor Problem; Notified Envir. Dept.
4	01/24/2023 03:00	01/24/2023 06:59	0d - 4h - 0m	11 - Non-Monitor Malfunction 58 - Continuous Emissions Monitor maintenance.
5	01/24/2023 12:00	01/24/2023 12:59	0d - 1h - 0m	11 - Non-Monitor Malfunction 58 - Continuous Emissions Monitor maintenance.

Number of Events: 3
Total Duration: 0d - 8h - 0m

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**Cooper Generating Station
MATS Semiannual Report
1st Half 2023**

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