Message

From: Douglas, Sarah [sarah.douglas@bakerbotts.com]
Sent: 3/31/2025 6:35:37 PM
To: AirAction [AirAction@epa.gov]
CC: Watkins Mallick, Allison [allison.mallick@bakerbotts.com]
Subject: Presidential Exemption: National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review: Rainbow Energy Center - Coal Creek Station
Attachments: Rainbow_MATS Exemption Request_Coal Creek_3.31.2025.pdf

Flag: Follow up

Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Administrator Zeldin:

Please see the attached request for a two-year Presidential exemption from compliance with EPA's MATS Rule for Coal Creek Station, submitted on behalf of Rainbow Energy Center. Rainbow appreciates the opportunity to submit this request.

Please let us know if you have questions or would like additional information related to this request.

Thank you,

Sarah Douglas
Associate

Baker Botts L.L.P.
sarah.douglas@bakerbotts.com
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700 K St NW
Washington, D.C. 20001
United States

Message

From: AirAction [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=FA78B989233840789 95E04A73D258D83-AIRACTION]
Sent: 3/31/2025 6:40:54 PM
To: Douglas, Sarah [sarah.douglas@bakerbotts.com]
CC: Watkins Mallick, Allison [allison.mallick@bakerbotts.com]
Subject: RE: Presidential Exemption: National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review: Rainbow Energy Center - Coal Creek Station

Flag: Follow up

Thank you for emailing the AirAction mailbox to request a Presidential Exemption under section 112(i)(4) of the Clean Air Act and for engaging with EPA in advancing President Trump's Executive Orders and Powering the Great American Comeback. We have received your email and will be in contact soon. If you have Confidential Business Information (CBI) that you'd like to submit, please submit it in electronic version to the CBI@epa.gov inbox or in hardcopy to:

USEPA, OAQPS
CORE CBI Office
4930 Old Page Road
Durham, NC 27703

From: Douglas, Sarah <sarah.douglas@bakerbotts.com>
Sent: Monday, March 31, 2025 2:36 PM
To: AirAction <AirAction@epa.gov>
Cc: Watkins Mallick, Allison <allison.mallick@bakerbotts.com>
Subject: Presidential Exemption: National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review: Rainbow Energy Center - Coal Creek Station

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Message

From: AirAction [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=FA78B989233840789 95E04A73D258D83-AIRACTION]
Sent: 4/2/2025 12:17:20 PM
To: Douglas, Sarah [sarah.douglas@bakerbotts.com]
CC: Watkins Mallick, Allison [allison.mallick@bakerbotts.com]
Subject: CORRECTION: Updated email address for CBI related to the Presidential Exemption

In the previous email, an incorrect email address was provided for the submission of electronic Confidential Business Information (CBI). The email address should be:

OAQPS_CBI@epa.gov

Thank you.

From: AirAction
Sent: Monday, March 31, 2025 2:41 PM
To: Douglas, Sarah <sarah.douglas@bakerbotts.com>
Cc: Watkins Mallick, Allison <allison.mallick@bakerbotts.com>
Subject: RE: Presidential Exemption: National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review: Rainbow Energy Center - Coal Creek Station

Thank you for emailing the AirAction mailbox to request a Presidential Exemption under section 112(i)(4) of the Clean Air Act and for engaging with EPA in advancing President Trump's Executive Orders and Powering the Great American Comeback. We have received your email and will be in contact soon. If you have Confidential Business Information (CBI) that you'd like to submit, please submit it in electronic version to the CBI@epa.gov inbox or in hardcopy to:

USEPA, OAQPS
CORE CBI Office
4930 Old Page Road
Durham, NC 27703

From: Douglas, Sarah <sarah.douglas@bakerbotts.com>
Sent: Monday, March 31, 2025 2:36 PM
To: AirAction <AirAction@epa.gov>
Cc: Watkins Mallick, Allison <allison.mallick@bakerbotts.com>
Subject: Presidential Exemption: National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review: Rainbow Energy Center - Coal Creek Station

Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Administrator Zeldin:

Please see the attached request for a two-year Presidential exemption from compliance with EPA's MATS Rule for Coal Creek Station, submitted on behalf of Rainbow Energy Center. Rainbow appreciates the opportunity to submit this request.

RAINBOW

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March 31, 2025

Honorable Lee Zeldin
Office of the Administrator (1101A)
United States Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460
airaction@epa.gov

RE: Presidential Exemption: National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review: Rainbow Energy Center - Coal Creek Station

Dear Administrator Zeldin:

Rainbow Energy Center ("Rainbow") respectfully requests that EPA grant a two-year Presidential Exemption from compliance with the National Emission Standards for Hazardous Air Pollutants ("NESHAP") for coal- and oil-fired electric utility steam generating units ("EGUs") — i.e., the Mercury and Air Toxics Standards ("MATS Rule").[1] Specifically, Rainbow seeks relief from the requirement to demonstrate continuous compliance with the revised filterable particulate matter ("fPM") emission limits using a particulate matter continuous emissions monitoring system ("PM CEMS") for Coal Creek Station.[2]

Background

Rainbow is a wholesale power generation company headquartered in Bismarck, North Dakota. Rainbow is the owner and operator of Coal Creek Station, a 1,151 MW lignite coal-fired power plant near Underwood, North Dakota, and participates in the Midcontinent Independent System Operator ("MISO") market as an Independent Power Producer. Coal Creek Station has been generating and distributing energy in North Dakota and the upper Midwest region of the United States since 1979. Coal Creek Station produces up to 1,151 megawatts of electricity per hour by combusting over seven million tons of beneficiated lignite (coal

[1] National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review, 89 Fed. Reg. 38,508 (May 7, 2024) ("MATS Rule"), codified at 40 C.F.R. Part 63, Subpart UUUUU.

[2] *See* 40 C.F.R. § 63.69991 and Subpart UUUUU Table 2 (establishing emissions limits); § 63.10007(c) (requiring demonstration of continuous compliance through use of a PM CEMS on or after July 6, 2027).

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originally purchased from Falkirk Mining Company which then gets beneficiated in-house with a patented pollution control technology, "DryFining™").

Since it began its commercial operation in 1979, Coal Creek Station has continuously improved its methods for controlling air pollution. Coal Creek Station stands out from other coal-fired power plants to the point that it has been acknowledged by the federal government multiple times for its environmental stewardship.[3] For example, its multi-pollutant control technology, "DryFining™," improves the heating value of the coal while removing constituents that cause harmful pollution, mainly nitrogen oxide ("NOx") and sulfur dioxide ("SO_2"). This technology is the first of its kind and remains a pioneering technology in the industry. Further, Rainbow is investigating the technical and economic feasibility of carbon capture and sequestration ("CCS") at Coal Creek Station. CCS would virtually eliminate all fPM emissions from Coal Creek Station.

Coal Creek Station is subject to the MATS rule. Among other requirements, Coal Creek Station must comply with a fPM emission limit of 0.010 lb/MMBtu and demonstrate continuous compliance using a PM CEMS by July 6, 2027.[4] EPA has indicated that it will consider requests for a two-year compliance exemption from MATS requirements pursuant to CAA Section 112(i)(4), which provides that "[t]he President may exempt any stationary source from compliance... for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so." EPA requested that affected sources submit requests for a Presidential exemption by March 31, 2025.[5]

Rainbow appreciates EPA's consideration of the implementation challenges associated with meeting the compliance deadlines in the final MATS Rule, especially in light of EPA's announcement that it intends to reconsider the rule's requirements. Rainbow lacks sufficient information to ensure that it can demonstrate continuous compliance with the recently lowered fPM emission rate using commercially available PM CEMS. Accordingly, Rainbow requests a two-year exemption for Coal Creek Station Units 1 and 2 from the following requirements:

- 40 C.F.R. § 63.69991 and Subpart UUUUU Table 2, Section 1(a): Meet an emission standard of 1.0E-2 lb/MMBtu or 1.0E-1 lb/MWh for filterable particulate matter on or after July 6, 2027.

[3] *See, e.g.*, 76 Fed. Reg. 58,570, 58,584 (Sept. 21, 2011) (discussing Coal Creek Station's involvement in the Clean Coal Power Initiative).

[4] 89 Fed. Reg. at 38,510.

[5] EPA, *Clean Air Act Section 112 Presidential Exemption Information* (Mar. 24, 2025), https://www.epa.gov/stationary-sources-air-pollution/clean-air-act-section-112-presidential-exemption-information.

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- 40 C.F.R. § 63.10007(c): "On and after [July ,6 2027], you must demonstrate continuous compliance with the applicable filterable PM emission standard through the use of a PM CEMS."

Unavailability of Required Technology

Coal Creek Station will be required to demonstrate continuous compliance with the fPM standard using PM CEMS.[6] However, serious concerns remain about whether a PM CEMS can accurately estimate emission rates at such low levels. The results from the currently required fPM stack testing at Coal Creek Station have demonstrated emission rates below the MATS Rule's emissions limit, but it is not technologically sound to assume that Coal Creek could demonstrate compliance with the emissions limit on a continuous basis with a reasonable margin of compliance using PM CEMS.

fPM emissions test results indicate variability in fPM emissions, based on numerous operational parameters which include fuel quality, load, coal drying operations and ash resistivity. By design, stack tests measure unit performance under a strict set of operating conditions—not during periods of startup, shutdown, malfunction, and the cycling driven by the high penetration of renewables within MISO. Coal Creek Station does not operate at a single, baseload level, or even at predictable levels, due to these factors. Thus, testing performed under controlled conditions does not adequately reflect real world unit operation.

Compared to stack tests, PM CEMS are a more expensive and less accurate method of measuring compliance with low emission rates. Unlike stack tests, which take a direct measurement of the flue gas to measure the actual amount of particulate matter it may contain, PM CEMS do not take direct measurements. Instead, they rely on measuring some other characteristic of the flue gas to estimate fPM based on changes in that characteristic, such as light scatter or beta attenuation. Also, the indirect nature of the PM CEMS necessitates a correlation test consisting of a minimum of 15 parallel stack test runs spanned across three different fPM levels to ensure the readings of the CEMS are as closely correlated as possible to actual fPM emission rates measured via Method 5.[7] This recuring testing is necessary for the PM CEMS's periodic calibration and certification and will lead to increased fPM emissions to the system, which will complicate removal of the fPM.

Ultimately, the inaccuracy of the PM CEMS combined with the lower fPM emission limit presents a compound situation for Rainbow. The difficulty in demonstrating achievement of the new standard will be exacerbated by the requirement to use the less accurate PM CEMS, and the difficulty in using PM CEMS will be exacerbated by the dramatically lower standard. It is unknown whether a PM CEMS can effectively estimate emission rates at such low levels, or whether emissions that low will be too small for a PM CEMS to differentiate

[5] *See* 89 Fed. Reg. at 38,510.

[7] 40 C.F.R. Part 60 App. B, Performance Specification 11.

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compliance from a false reading. EPA has not identified any sources that have successfully used PM CEMS to demonstrate continuous achievement of an 0.010 lb/mmBtu fPM emission rate.

Indeed, EPA has recognized that PM CEMS presents technical challenges that may impact the feasibility of compliance by 2027. EPA agrees that "measuring very low and non-normal high fPM emissions can be challenging."[8] In developing the 2012 MATS Rules, EPA emphasized that PM CEMS may impose unique compliance challenges because their operation is site-specific and must be individually calibrated against an accepted reference test, where each PM CEMS must be tested multiple times against a wide range of PM emissions to determine the correlation between the CEMS output and the PM standard.[9]

Given these calibration challenges, Rainbow cannot conclude that achieving compliance with the MATS Rule's monitoring requirements is feasible. Other continuous monitoring methods to measure non-mercury hazardous air pollutant metals directly, such as non-mercury sorbent trap technology, is still being developed and is not currently available on the market.[10] In the absence of available technologies that can achieve the MATS Rule's monitoring requirements for fPM emissions, EPA should grant a two-year compliance exemption.

National Security Interests

The requested extension would be in the national security interest of the United States, as it would avoid a significant threat to affordable and reliable energy. The MATS Rule requires Coal Creek Station to demonstrate continuous compliance with the fPM standard using PM CEMS. Units previously retained flexibility to demonstrate compliance using stack testing fPM data. As noted above, stack tests measure unit performance under a strict set of operating conditions—not during periods of startup, shutdown, malfunction, and the cycling driven by the high penetration of renewables within MISO.[11] Coal Creek Station does not operate at a single, baseload level, or even at predictable levels. Thus, testing performed under controlled conditions does not adequately reflect real world unit operation, which would be captured by a PM CEMS.

[8] EPA, *Summary of Public Comments and Responses on Proposed Rule*, 58 (Apr. 2024), https://www.regulations.gov/document/EPA-HQ-OAR-2018-0794-6922.

[9] Memorandum from Conniesue Oldham, Group Leader, OAQPS/AQAD, to Bob Schell, Group Leader, OAQPS/SPPD, *Particulate Matter Continuous Emissions Monitoring System (PM CEMS) Capabilities*, 3 (Jun. 13, 2023), https://www.regulations.gov/document/EPA-HQ-OAR-2018-0794-5828.

[10] *See, e.g.*, EPRI, *Demonstration of Sorbent Traps for Continuous Measurement of Metal Hazards Air Pollutants (HAPS)* (Oct. 2024), https://msites.epri.com/spn/research/056617/demonstration-of-sorbent-traps-for-continuous-measurement-of-metal-hazards-air-pollutants-haps.

[11] *See* EPA, *Memorandum re Issuance of the Clean Air Act National Stack Testing Guidance*, 14-17 (Apr. 27, 2009), https://www.epa.gov/sites/default/files/2013-09/documents/stacktesting_1.pdf (excluding start up, shutdown, malfunction, and other non-representative operating conditions).

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By requiring measured continuous compliance without demonstrating that such compliance is achievable for affected units, EPA runs the risk of significantly restricting a unit's operational flexibility. Operational flexibility is critical for EGUs, which might be called on to operate by their balancing authority based on fluctuations in demand, unexpected downtime of other units in the region, extreme weather, and other scenarios that are outside of an individual EGU operator's control. EGUs might need to take derates for a significant period of time to comply with the proposed fPM limit, creating additional reliability risks.

President Trump has emphasized that "[a]n affordable and reliable domestic supply of energy is a fundamental requirement for the national and economic security of any nation" and that "[t]he United States' insufficient energy production, transportation, refining, and generation constitutes an unusual and extraordinary threat to our Nation's economy, national security, and foreign policy."[12] Based on these concerns, President Trump declared a National Energy Emergency pursuant to the National Emergencies Act (50 U.S.C. § 1601 *et seq.*), and 3 U.S.C. § 301.[13] President Trump has further emphasized that "high energy costs devastate American consumers by driving up the cost of transportation, heating, utilities, farming, and manufacturing, while weakening our national security," and highlighted the need to "protect the United States's economic and national security and military preparedness by ensuring that an abundant supply of reliable energy is readily accessible in every State and territory of the Nation."[14]

In addition, in announcing the Executive Order on Removing Barriers to American Leadership in Artificial Intelligence, the White House stated that "[t]he United States must act decisively to retain leadership in AI and enhance our economic and national security."[15] Retaining sources of reliable electricity is essential for the U.S. to meet its AI goal.

Consistent with these national security concerns, North Dakota regulators have attested to the MATS Rule's significant and foreseeable impacts on grid reliability. Achieving compliance with the MATS Rule's low emissions standards by 2027 will require operational changes that may "compromise the inherent flexibility of lignite power plants to respond effectively to fluctuating load conditions and grid demands."[16] As a North Dakota grid regulator explained, "[t]he need for continuous operation of emission control systems, coupled with potential limitations in responsiveness, may impede a plant's ability to ramp up or down quickly in

[12] Executive Order 14156, *Declaring a National Energy Emergency*, 90 Fed. Reg. 8,433 (Jan. 29, 2025).

[13] *See id.*

[14] Executive Order 14154, *Unleashing American Energy*, 90 Fed. Reg. 8,353 (Jan. 29, 2025).

[15] The White House, *Fact Sheet: President Donald J. Trump Takes Action to Enhance America's AI Leadership* (Jan. 23, 2025), https://www.whitehouse.gov/fact-sheets/2025/01/fact-sheet-president-donald-j-trump-takes-action-to-enhance-americas-ai-leadership/.

[16] *See* Declaration of Claire Vigesaa, Executive Director of the North Dakota Transmission Authority, in Support of Motion to Stay, *North Dakota v. EPA*, No. 24-1119 (D.C. Cir., Jun. 7, 2024) ("Vigesaa Declaration") ¶ 21.

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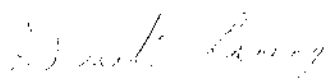
response to changes in electricity demand or supply. Consequently, the reliability of lignite power plants to maintain grid stability and meet grid operator requirements may be compromised."[17]

***

Rainbow appreciates the opportunity to submit this request for a two-year exemption for Coal Creek Station. Please do not hesitate to contact me if you have questions or would like additional information related to this request.

Dated: March 31, 2025

Respectfully submitted,



Derek Laning
Manager, Engineering & Environmental
Rainbow Energy Center

[17] *Id.*