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Via email at airaction@epa.gov

March 31, 2025



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

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 (MATS RTR)*, 89 Fed. 38508 (May 7, 2024): **Big Stone Plant, Near Big Stone City, South Dakota**

Dear Administrator Zeldin:

Otter Tail Power Company (Otter Tail), as operator on behalf of Co-owners of Big Stone Plant (Big Stone)¹, respectfully requests a Presidential Exemption under Section 112(i)(4) of the Clean Air Act from compliance with the revised standards and requirements finalized in the above-referenced MATS RTR rule (MATS RTR or the Rule). Otter Tail² and the Co-owners^{3,4} are seeking a two-year exemption from the current compliance date of July 6, 2027 (as calculated, July 6, 2029) for Big Stone, with the potential for a further extension, as allowed under Section 112(i)(4).

I. Executive Summary

Otter Tail and the Co-owners seek an exemption from compliance with the MATS RTR emissions standards for Big Stone, which combusts subbituminous coal. Otter Tail and the Co-owners seek an exemption for a two-year period from the current compliance date, extending to July 6, 2029. We support this request with information regarding the following:

¹ Otter Tail is a co-owner and the operating agent for Big Stone. The other co-owners are Montana-Dakota Utilities Co. and NorthWestern Energy Public Service Corporation (the Co-owners). Otter Tail makes this request as the operating agent for the Plant and has authority make this request on behalf of the Co-owners.

² Otter Tail is an electric utility that provides generation, transmission, and distribution of electricity and energy services for approximately 133,000 residential, commercial, and industrial customers across 70,000 square miles in Minnesota, North Dakota, and South Dakota.

³ Montana-Dakota Utilities Co. is a subsidiary of MDU Resource Group, Inc. engaged in the distribution of natural gas and the generation, transmission, and distribution of electricity in the states of North Dakota, South Dakota, Montana, and Wyoming. Montana-Dakota provides electric service at retail, serving 145,686 residential, commercial, industrial and municipal customers in 185 communities and adjacent rural areas as of 2024.

⁴ NorthWestern Energy Public Service Corporation, a wholly owned subsidiary of NorthWestern Energy Group, Inc., has provided electricity and / or natural gas to customers in South Dakota and Nebraska since 1923.

- The particulate matter continuous emissions monitors (PM CEMS) required by the Rule at Big Stone are not reliable at Big Stone's low levels of PM. The lack of reliable monitoring causes the technology to implement the standard to be unavailable on or after the compliance date. Aside from accuracy, it is highly uncertain whether CEMS can be installed and correlated by the compliance deadline. Big Stone has achieved low emitting EGU (LEE) status under the current MATS Rule, and the plant currently uses periodic stack testing as its compliance measure. In addition, granting the exemption would avoid PM CEMS installation costs to the tune of \$400,000, if EPA were to reconsider the MATS RTR and provide relief from the PM CEMS monitoring requirements.

II. Background

A. About Big Stone

Otter Tail co-owns the Big Stone Plant, an approximate 475 MW coal-fired electrical generating unit (EGU) located near Big Stone City, South Dakota. Big Stone has one unit that combusts subbituminous coal, which has been providing reliable, economical, and environmentally responsible power since 1975. Big Stone generates electricity to support the Midcontinent Independent System Operator (MISO) and the Southwest Power Pool (SPP) portions of our national electrical grid. The station is equipped with efficient and cost-effective environmental controls, including a state-of-the-art fabric filter baghouse for PM control installed in 2016. Big Stone is subject to the MATS RTR requirements.

B. MATS RTR and Presidential Exemption Section 112(i)(4)

1. The MATS RTR

EPA promulgated MATS under CAA Section 112 which regulates hazardous air pollutant (HAP) emissions. Congress defines EPA's scope of review for the RTR under the CAA in Sections 112(d)(6) and 112(f)(2). CAA Section 112(d)(6) defines the technology review for air toxics standards such as MATS as follows:

The Administrator shall review, and revise as necessary (taking into account developments in practices, processes, and control technologies), emission standards promulgated under this section no less often than every 8 years.⁵

EPA originally finalized the RTR for MATS on May 22, 2020 (the 2020 MATS RTR).⁶ In that rulemaking, EPA determined that the residual risks from coal-fired and oil-fired EGUs were acceptable and did not identify any new technologies to control HAPs for these units. EPA finalized the RTR without any changes to emissions standards or work practices.

When President Biden took office, he directed EPA to reconsider the 2020 MATS RTR. On May 7, 2024, EPA published the final MATS RTR. The MATS RTR lowers the PM emission standard from 0.030 lb/MMBtu to 0.010 lb/MMBtu. The Rule also tightens the

⁵ 42 U.S.C. § 7412(d)(6).

⁶ 85 Fed. Reg. 31286 (May 22, 2020).

standard for emissions of mercury from lignite-fired EGUs from 4.0 lb/TBtu to 1.2 lb/TBtu. The MATS RTR requires that existing coal-fired EGUs use PM CEMS to demonstrate compliance with the PM emission standard, eliminating the stack testing option. The LFE status option for PM, total non-Hg HAP metals, and individual non-Hg HAP metals for coal-fired and solid-oil derived fuel-fired EGUs has also been removed. The compliance deadline for both of these requirements is July 6, 2027.

On March 12, 2025, the Trump Administration announced its intention to reconsider the MATS RTR. In a fact sheet released that day, EPA cited concerns regarding the Rule. EPA stated that the Rule may be inconsistent with the authority granted under CAA and will require large estimated costs to comply, given that industry has already successfully reduced emissions of mercury and other HAPs.⁷ Otter Tail supports EPA's decision to reconsider the MATS RTR for the reasons identified in our comments⁸ in the MATS RTR docket.

2. The Presidential Exemption

CAA 112(i) sets a schedule for compliance. In Section 112(i)(4), Congress provided the President with executive discretion to exempt a stationary source from compliance with standards and limitations provided under Section 112.

The President may exempt any stationary source from compliance with any standard or limitation under this section 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. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years. The President shall report to Congress with respect to each exemption (or extension thereof) made under this paragraph.

The President's discretion may be exercised upon satisfying a showing that (1) the technology is not available for implementing the standard, and (2) the national security interests of the United States warrant the President's exercise of the discretion.

On March 12, 2025, EPA released a fact sheet⁹ regarding the MATS RTR as part of "Powering the Great American Comeback" (the Fact Sheet). The Fact Sheet recognizes the regulatory uncertainty for coal plants. It offers the opportunity for "any source interested in a Presidential exemption, [to] provide their recommendations to EPA by March 31, 2025." This

⁷ EPA, *Mercury and Air Toxics Standards (MATS): Powering the Great American Comeback Fact Sheet*, (Mar. 12, 2025), <https://www.epa.gov/system/files/documents/2025-03/fact-sheet-reconsideration-of-mercury-and-air-toxics-standards.pdf>.

⁸ *Otter Tail Power Company Comments on: National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review; Proposed Rule*, Docket No. EPA-HQ-OAR-2018-0794-5975 (June 23, 2023), https://downloads.regulations.gov/EPA-HQ-OAR-2018-0794-5975/attachment_1.pdf (Otter Tail Comments).

⁹ <https://www.epa.gov/system/files/documents/2025-03/fact-sheet-reconsideration-of-mercury-and-air-toxics-standards.pdf>.

letter responds to EPA's invitation. EPA also announced on its website the availability of exemptions and directed requests for exemption be submitted by March 31.¹⁰

Accordingly, Otter Tail and the Co-owners are seeking a two-year exemption from the MATS RTR standards at Big Stone, due to technological unavailability related to PM CEMS requirements and the time and cost necessary to meet the requirements. Section III explains that the technology required to meet the Rule's that PM standard is not available because of the infeasibility of CEMS as the compliance measure. Section IV finds that it is in the national security interest to issue an exemption from compliance with the MATS RTR for Big Stone.

III. PM CEMS Are Not Technologically Able to Assure Compliance with the Revised PM Standard

The MATS RTR requires the installation of PM CEMS to demonstrate compliance with the revised 0.010 lb/MMBtu PM standard. Big Stone has easily achieved LEE status under the current MATS rule and currently complies with MATS using periodic PM stack testing. PM CEMS are not installed on its unit. For the reasons identified below, CEMS are not a technology that is available due to inaccuracies and correlation challenges at low PM levels.

The accuracy of PM CEMS at low PM emissions levels is not proven. PM CEMS do not directly measure PM emissions. In other words, the instrument does not measure the mass of PM and the volume of flue gas from which that mass of PM was sampled. Instead, commercially available PM CEMS measure some property (i.e., light scatter or beta attenuation) that must be correlated to actual stack PM measurements.¹¹ At lower emissions levels, PM CEMS have not been demonstrated to have the sensitivity needed to accurately account for lower emissions levels. Technological feasibility has not been proven at low PM emissions levels.¹²

Due to the indirect measurements, PM CEMS correlation testing must ensure the measurements are true to the actual PM emission rates.¹³ PS-11 correlation testing requires PM spiking to create a correlation curve. EPA requires that PM CEMS undergo the certification testing outlined in Performance Specification 11 - Specifications and Test Procedures for Particulate Matter Continuous Emissions Monitoring Systems at Stationary Sources.¹⁴ This procedure requires sources to test emissions at three levels to create a correlation curve: (1) 0 to 50% of the maximum particulate matter concentration, (2) 25 to 75% of the maximum particulate matter concentration, and (3) 50 to 100% of the maximum particulate matter concentration. If sources cannot vary PM emissions through process operations or by varying

¹⁰ <https://www.epa.gov/stationary-sources-air-pollution/clean-air-act-section-112-presidential-exemption-information>.

¹¹ The EPA statement at 88 Fed. Reg. at 24872, that a beta gauge "detector measures the amount of radiation emitted by the sample" is categorically incorrect and illustrative of several uninformed statements (e.g., cost estimates) about PM CEMS in the preamble to the proposed rule.

¹² See *PG&E Comments on EPA's Proposed Rule: NESHA Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review*, Docket No. EPA-HQ-OAR-2018-0794-5994, at 22 (June 28, 2023) (PG&E Comments) (citing and attaching Ralph L. Roberson, *Technical Comments on EPA's Proposed Rule: Mercury and Air Toxics Standards Risk and Technology Review*, at 3 (2023) (PM CEMS Technical Memo)).

¹³ *Id.*

¹⁴ https://www.epa.gov/sites/default/files/2019-06/documents/performance_specification_11.pdf

PM control devices, they are required to use PM spiking. However, the low PM standard in the Rule makes developing this correlation curve “virtually impossible.”¹⁵ Similarly, the Quality Assurance/Quality Control (QA/QC) criteria for CEMS are extremely difficult to meet at such low levels.¹⁶

At the time of the proposed rule, no commercially available PM CEMS would have been able to meet the tight confidence and tolerance intervals associated with the low proposed PM standard.¹⁷ EPA was, thus, forced to address these issues in the final MATS RTR by adjusting the QA criterion and correlation procedures.¹⁸ These changes are not enough to address the fundamental issue that PM CEMS are simply not able to reliably measure such low PM levels the error rates of the instrument prohibit it.¹⁹ Therefore, the CEMS technology to demonstrate compliance with the new PM standard is unavailable.

Big Stone has been able to demonstrate very low PM emission rates with its current control technology. It initially demonstrated compliance via quarterly stack testing. After meeting the criteria to attain LEE status under the MATS Rule for PM, Big Stone has demonstrated compliance on an every 3-year basis. Notably, Big Stone Plant’s previous two LEE qualification stack test results have been 0.0003 lb/MMBtu and 0.0005 lb/MMBtu, respectively. These test results are at least 95% less than the 0.010 lb/MMBtu limit being advanced by the MATS RTR. Big Stone cannot accurately demonstrate compliance using PM CEMS because CEMS cannot reliably verify its low levels of PM that would comply with the new standard.²⁰

Further compounding the problem, the Big Stone baghouse does not have the ability to increase PM emissions by varying process operations or detuning PM control devices due to the efficiency and permanence of the plant’s installed pollution control equipment. The baghouse does not have a bypass.²¹ To comply with the MATS RTR PM CEMS requirements, Otter Tail and the Co-owners will need to perform PM spiking, but have identified only one single provider of this service in the country. Considering that approximately 60% of existing coal-fired facilities will need to perform PS-11 testing in the next two years, there is a significant chance that this single company will not have the capacity to provide testing services to all affected facilities. This is especially true when considering monitor fabrication, installation, and operational timelines. Otter Tail and the Co-owners expect to encounter significant difficulty in acquiring these services by the July 6, 2027 compliance deadline.

¹⁵ PGEN Comments at 22.

¹⁶ See *Comments of the Class of '85 Regulatory Response Group on the Proposal on National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review*, Docket No. EPA-HQ-OAR-2018-0794-5989, at 16 (June 28, 2024) (Class of '85 Comments).

¹⁷ PM CEMS Technical Memo at 5.

¹⁸ See 89 Fed. Reg. at 38528-29.

¹⁹ See PGEN Comments at 23 (finding insurmountable the “uncertainties inherent the in the measurement device” and the “problems associated with relative size of the uncertainty to the limited data range of fPM concentrations and the confidence levels and tolerances”); see also Class of '85 Comments at 18.

²⁰ See Otter Tail Comments at 10.

²¹ Adding a bypass would likely require an engineering study and then control device modifications. These efforts would be expensive and likely not achievable before the 2027 compliance date.

Additionally, there are high costs associated with procuring, installing, certifying, testing, and operating PM CEMS.²² Assuming that the technology would somehow be feasible to install, Otter Tail and the Co-owners have budgeted \$400,000 to install PM CEMS in 2026 at Big Stone. Granting this exemption would avoid these costs if EPA were to reconsider the MATS RTR and provide relief from the PM CEMS requirement.

Finally, PM CEMS must be installed and tested by vendors that are certified, and there are only a limited number of vendors that are available. As two-thirds of coal-fired EGUs have not yet installed PM CEMS, the MATS RTR requirement will overwhelm the current supply of PM CEMS and the availability of vendors to perform the necessary work.²³ For these reasons, and because CEMS technology is unavailable at low PM levels, Big Stone should receive a two-year exemption from compliance with the MATS RTR.

IV. National Security Interests Support an Exemption

Compliance with the requirements in the MATS RTR is not in the national security interest of the nation. President Trump's Executive Order (E.O.) 14156 declares a national energy emergency and confirms that energy generation and grid reliability are issues of national security.²⁴ The MATS RTR is one of the "policies of the previous administration" that will contribute to the "inadequate and intermittent energy supply" and "increasingly unreliable grid."²⁵ Similarly, in E.O. 14154, *Unleashing American Energy*, President Trump acknowledged that the past administration's regulations—which include this Rule—have "limited the generation of reliable and affordable electricity" and, in turn, "weaken[ed] our national security."²⁶ The E.O. calls for the review and potential rescission of rules like this one, which "impose an unburden on the . . . use of domestic energy resources."²⁷ To ensure "an abundant supply of reliable energy" that will help "protect the United States's economic and national security and military preparedness," the MATS RTR should be subject to exemption.²⁸

The Rule's stringent new limits and the high costs associated with compliance, in combination with other prior rulemakings impacting coal-fired EGUs, could force source owners to prematurely retire coal-fired EGUs before there is sufficient new dispatchable generation to replace them, seriously endangering grid reliability. Further, grid reliability is already in jeopardy in South Dakota: The North American Electric Reliability Corporation (NERC) estimates continued future resource adequacy concerns in South Dakota in both the MISO and

²² See PGEN Comments at 26; see also Class of '85 Comments at 18 (estimating \$180,000 to \$400,000 for "site preparation and engineering analysis, analyzer equipment and installation costs, and initial PS-11 correlation testing").

²³ See Class of '85 Comments at 16.

²⁴ See 90 Fed. Reg. 8433, 8433 (Jan. 29, 2025) ("generation capacity of the United States [is] . . . far too inadequate to meet our Nation's needs" and "a reliable, diversified, and affordable supply of energy" is necessary to ensure "military preparedness").

²⁵ *Id.* at 8433.

²⁶ 90 Fed. Reg. 8353, 8353 (Jan. 29, 2025).

²⁷ *Id.* at 8354.

²⁸ *Id.* at 8353.

SPP portions of the grid.²⁹ NERC reports that, with respect to the MISO region, “[r]esource additions are not keeping up with generator retirements and demand growth” and “[r]eserve margins fall below Reference Margin Levels (RML) in winter and summer.”³⁰ Although NERC finds SPP is in better shape, NERC has flagged the SPP portion of the grid in the upper Midwest as “elevated risk” and states that “[c]urrently, there are over 8 GW of coal and gas-fired generators that have indicated that they may retire within the next 10 years, making the resource outlook unclear.”³¹

The potential for unit retirements in South Dakota’s portion of the grid places more pressure on existing resources to provide reliable and affordable energy—including providing energy to the military installations in the state. The interruption of power delivery from a grid failure causes damage to public health. Affordable and consistent power allows medical providers to provide essential services to the elderly, infirm, and to vulnerable individuals with chronic health conditions. Evidence from grid failures during Winter Storm Elliott in another region (PJM) documents health impacts and morbidity caused by those events.³²

As to the national defense,³³ reliable power is crucial to sustain the following functions:

- Power military bases;
- Power emergency services to enable quick responses to emergencies, such as acts of war, weather catastrophes, and cybersecurity threats;
- Power essential government functions that prevent threats to the country;
- Allow fast deployment of military resources; and
- Power manufacturing facilities that make military weapons, vehicles, vessels, and aircraft infrastructure.

The Department of Defense runs global military operations from domestic bases. Operations require a resilient and dependable power supply for mission readiness. Back home, on-base generation and microgrids are necessary to support the thousands of military workers working and living on- and off-base, including the goods and services that support those communities.³⁴ Power outages destabilize the military defense.

South Dakota is home to Ellsworth Air Force Base and the 28th Bomb Wing, which provides critical combat air power and support. Ellsworth AFB is also the largest employer in western South Dakota and the second largest employer in the State. Accordingly, it serves the

²⁹ NERC, *2024 Long-term Reliability Assessment* (Dec. 2024),

https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_Long%20Term%20Reliability%20Assessment_2024.pdf

³⁰ *Id.* at 6.

³¹ *Id.* at 14.

³² See, e.g., Hanchey, “Mortality Surveillance During Winter Storm Uri, United States – 2021,” *Disaster Med Public Health Prep* (Dec. 2023), <https://pubmed.ncbi.nlm.nih.gov/37974501/>; Sharma, “Winter Storm Elliott death toll climbs to 56 as thousands still without power in -40 temperatures,” *Yahoo News* (Dec. 26, 2022), <https://www.yahoo.com/news/winter-storm-elliott-power-outages-154557710.html>.

³³ See <https://www.utilitydive.com/news/aging-grid-threatens-national-security-reliability-cyber-threat-transmission/705362/>.

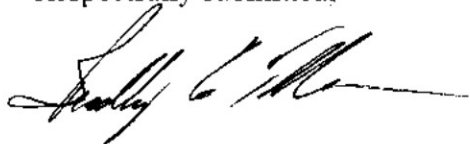
³⁴ https://acore.org/wp-content/uploads/2021/10/MGI_National_Security_Transmission_Factsheet.pdf

national security interests to ensure that this base has reliable power delivery. Clearly, maintaining the supply of reliable, affordable energy in South Dakota and across the country is crucial to national security.

V. Conclusion

Otter Tail and the Co-owners appreciate the opportunity to present reasons for which the Big Stone Plant should be exempt from MATS RTR compliance requirements for a two-year period. We respectfully request your consideration and are happy to answer any questions.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Bradley E. Tollerson", with a long horizontal flourish extending to the right.

Bradley E. Tollerson
Vice-President, Energy Supply
Otter Tail Power Company
Designated Representative, Big Stone Plant