We Energies
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Milwaukee, WI 53203
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December 17, 2025

Mr. Nate Willis
Wastewater Section Manager
Wisconsin Department of Natural Resources
PO Box 7921
Madison, WI 53707-7921

SUBJECT: WISCONSIN ELECTRIC POWER COMPANY
OAK CREEK POWER PLANT & ELM ROAD GENERATING STATION
WPDES PERMIT NO. WI-0000914
NOTICE OF PLANNED PARTICIPATION UNDER 40 CFR 423
PERMANENT CESSATION OF COAL COMBUSTION BY DECEMBER 31, 2034

Dear Mr. Willis:

Oak Creek Power Plant ("OCPP") and Elm Road Generating Station ("ERGS"), operated by Wisconsin Electric Power Company (d/b/a We Energies) ("We Energies" or the "Company"), discharge wastewater under the authority of Wisconsin Pollutant Discharge Elimination System ("WPDES") Permit No. WI-0000914-08-2. Oak Creek Power Plant and Elm Road Generating Station (collectively referred to as "OCER") are subject to wastewater effluent limitations guidelines ("ELG") for the steam electric power generating point source category, federally regulated under 40 CFR Part 423 and state regulated under Wisconsin Administrative Code chapter NR 290. The federal steam electric ELG Rule was revised in 2015, 2020, and 2024, and established new technology-based limitations and associated compliance timelines for wastewater discharges from coal fueled facilities. While the state version of this ELG regulation set forth at chapter NR 290 was last updated in 1986, Wisconsin Administrative Code NR 220.13 authorizes the Wisconsin Department of Natural Resources to incorporate the updated federal effluent limitations guidelines in the WPDES Permit for OCER.

As required by the facility's WPDES Permit, We Energies recently completed wastewater treatment upgrades at OCER and is fully compliant with the 2015 and 2020 ELG Rules. A $10 million bottom ash transport water modification at Oak Creek Power Plant Units 7 and 8 was completed and placed in service in mid-2021. A $90 million project, completed at Elm Road Generating Station in November 2023, involved installation of additional technologies at the flue gas desulfurization wastewater treatment system and upgrades to the wastewater treatment system for other site wastewaters.

The 2024 ELG Rule revision[1] of the regulations at 40 CFR 423 established zero-discharge limitations for three coal-related wastewaters, but provided an alternative compliance pathway for facilities. The 2024 ELG Rule established a compliance subcategory for electric generating unit(s) ("EGU") that will permanently cease coal combustion by December 31, 2034. EGUs seeking to qualify for this subcategory must submit a Notice of Planned Participation ("NOPP") by December 31, 2025, submit subsequent annual progress reports, and continue to meet the 2020 ELG Rule limitations for coal-related wastewaters until permanent cessation of coal combustion is achieved by either retirement or fuel conversion. After permanent cessation of coal combustion is achieved, EGUs must meet combustion residual leachate limitations as outlined in 40 CFR 423.13(l)(2)(i)(A).

[1]Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, 89 FR 40198 (May 9, 2024)

We Energies is implementing plans to modernize the company's fleet of electrical generating facilities. These modernization plans coincide with eliminating coal as an energy source at OCER in the future. Therefore, pursuant to 40 CFR 423.19(h)(1), We Energies submits the enclosed NOPP seeking to qualify Oak Creek Power Plant Units 7 and 8 and Elm Road Generating Station Units 1 and 2 as EGUs that will achieve permanent cessation of coal combustion by December 31, 2034.

We Energies staff are closely following proposed changes to the ELG Rule. On October 2, 2025, the United States Environmental Protection Agency ("USEPA") published a Direct Final Rule[2] and Proposed Rule[3] to extend certain compliance deadlines associated with the 2024 ELG Rule. In addition to the specific extensions to regulatory deadlines, USEPA proposed to update the existing transfer provisions in 40 CFR 423.13(o) to allow facilities to switch between compliance alternatives and create authority in 40 CFR 423.18 for alternative applicability dates and paperwork submission dates, based on site-specific factors. USEPA also announced its intent to undertake a further reconsideration of certain aspects of the existing regulations and conduct a subsequent rulemaking. On November 28, 2025, USEPA withdrew its October 2025 Direct Final Rule.[4] As of the date of submission, USEPA has not yet finalized its October 2025 Proposed Rule. We Energies will continue to monitor the ELG Rule revision developments.

We Energies does not waive, and expressly reserves, all rights or options available to it pursuant to 40 CFR Part 423, and any revisions thereto, including 40 CFR 423.13(o) (regarding transferring to another compliance option), 40 CFR 423.18 (regarding qualifying events), the ability to withdraw this NOPP submission to the extent permitted by law, or any other provision of state or federal law that may apply.

If you have any questions regarding this submittal, please contact me by phone at (414) 221-4337 or by email at alison.castronovo@wecenergygroup.com.

Sincerely,

Alison Castronovo, P.E.
Principal Engineer

Enclosure

cc: Sawyer Hanson, WDNR – Madison
Jacob Van Susteren-Wedesky, WDNR – Milwaukee

[2]Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category – Initial Notification Date Extension, 90 FR 47617 (Oct. 2, 2025).
[3]Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category – Deadline Extensions, 90 FR 47693 (Oct. 2, 2025).
[4]Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category – Initial Notification Date Extension; Withdrawal of Direct Final Rule, 90 FR 54588 (Nov. 28, 2025).

Notice of Planned Participation under 40 CFR 423
Permanent Cessation of Coal Combustion by December 31, 2034
We Energies – Oak Creek Power Plant/Elm Road Generating Station
WPDES Permit No. WI-0000914

Pursuant to 40 CFR 423.19(h), Wisconsin Electric Power Company (d/b/a We Energies) ("We Energies" or the "Company") submits this Notice of Planned Participation ("NOPP") for Oak Creek Power Plant ("OCPP") and Elm Road Generating Station ("ERGS"), collectively referred to as Oak Creek/Elm Road ("OCER"). We Energies hereby notifies the Wisconsin Department of Natural Resources ("Department") of its plans to achieve permanent cessation of coal combustion ("PCCC") at Oak Creek Power Plant Units 7 and 8 and Elm Road Generating Station Units 1 and 2 by December 31, 2034.[1]

We Energies does not waive, and expressly reserves, all rights or options available to it pursuant to 40 CFR Part 423, and any revisions thereto, including 40 CFR 423.13(o) (regarding transferring to another compliance option), 40 CFR 423.18 (regarding qualifying events), the ability to withdraw this NOPP submission to the extent permitted by law, or any other provision of state or federal law that may apply.

In accordance with 40 CFR 423.19(h)(2), elements required to be submitted with this notice are provided in italicized font, followed by the Company's response.

Unit Identification
Identify the electric generating units intended to achieve the permanent cessation of coal combustion.

- Oak Creek Power Plant Unit 7
- Oak Creek Power Plant Unit 8
- Elm Road Generating Station Unit 1
- Elm Road Generating Station Unit 2

Projected Dates
The expected date that each electric generating unit is projected to achieve permanent cessation of coal combustion.

- OCPP Unit 7 is expected to achieve PCCC on or before September 30, 2029.*†
- OCPP Unit 8 is expected to achieve PCCC on or before September 30, 2029.*†
- ERGS Unit 1 is expected to achieve PCCC on or before December 31, 2034.*
- ERGS Unit 2 is expected to achieve PCCC on or before December 31, 2034.*

*All dates and timelines included in this NOPP are subject to unexpected changes in regional capacity market prices, unexpected changes in local demand, unexpected supply chain issues, and any other circumstances outside the Company's ability to control or plan for. In any such case, We Energies reserves the right to seek revisions to its projected dates and timelines. These projected dates have been selected to maximize the Company's ability to react and respond to inherent uncertainties and unexpected developments that can arise in the context of such decisions. To the extent We Energies is reasonably able (consistent with proper planning and system reliability) to implement these decisions in a more expedited manner, it will undertake to do so. We Energies will disclose any change in the projected date(s) by and through the Annual Progress Reports required by 40 CFR 423.19(h)(3) & (4).

†On February 13, 2024, pursuant to Wisconsin Administrative Code NR 111.40(4)(b), We Energies submitted to the Department a signed certification statement to provide notice that OCPP Units 5-8 will be retired within the next five-year WPDES Permit term and the last operating date for the facility will be on or before September 30, 2029. Therefore, the expected dates on which OCPP Unit 7

[1]Oak Creek Power Plant Units 1-6 retired prior to July 8, 2024, the effective date of the 2024 ELG Rule; therefore, the 2024 ELG Rule is not applicable to Oak Creek Units 1-6.

and Unit 8 are projected to achieve PCCC, provided in this NOPP, remain unchanged from the previously submitted certification statement. OCPP Units 5 and 6 retired on May 31, 2024.

Method to Achieve Permanent Cessation of Coal Combustion

Whether each date represents a retirement or fuel conversion.

- OCPP Unit 7 is expected to achieve PCCC through retirement.
- OCPP Unit 8 is expected to achieve PCCC through retirement.
- ERGS Unit 1 is expected to achieve PCCC through fuel conversion.
- ERGS Unit 2 is expected to achieve PCCC through fuel conversion.

Regulatory Approval

Whether each retirement or fuel conversion has been approved by a regulatory body, and what the relevant regulatory body is.

Pursuant to Wis. Stat. 196, We Energies is subject to regulation by the Public Service Commission of Wisconsin ("PSC"). Formal PSC approval of a unit decision (e.g., retirement or fuel conversion) is not required under Wisconsin law. However, pursuant to Wis. Stat. 196.491(2)(b)(9) and Wisconsin Administrative Code PSC 111.21, on a biennial basis, electricity providers, including We Energies, must submit to the PSC certain data, including units that intend to be retired or switched to a different fuel source. In turn, the PSC prepares a Strategic Energy Assessment that evaluates the adequacy and reliability of the state's current and future electrical supply. We Energies submitted data to the PSC in Fall 2025 regarding the anticipated retirement at OCPP Units 7 and 8 and the planned fuel conversion at ERGS Units 1 and 2. We Energies also provided its modeling assumptions for utility resources planning, including anticipated retirements and fuel conversions. Data and modeling assumptions provided to PSC as part of the Strategic Energy Assessment process are expectations of future conditions and are non-binding. Following its independent analysis, the PSC will publish results of the Strategic Energy Assessment in 2026.

For a planned unit retirement, We Energies follows a process governed by the Midcontinent Independent System Operator ("MISO") to ensure that retirement does not negatively impact transmission system reliability. MISO is a Regional Transmission Organization ("RTO") responsible for overseeing and managing the electric power transmission grid across central United States. MISO is an independent, not-for-profit, member-based organization responsible for keeping the power flowing across its region reliably and cost effectively. Before unit retirement occurs, an electricity provider submits an Attachment Y Notice to MISO requesting studies to be completed to verify that the transmission system is not negatively impacted by the retirement or suspension of a unit. MISO then conducts a study to assess grid operations in the absence of the requested unit. If MISO's analysis concludes that retirement of a unit would not have negative effects on the reliability of the regional grid, then MISO issues an approval of unit retirement or suspension to the electricity provider. However, if MISO identifies reliability concerns and solutions cannot be completed by the stated retirement/suspension date, the facility will be designated as a System Support Resource ("SSR"). This will require the facility to continue operating until a solution to resolve the reliability concern is completed. Anticipated unit retirements may be potentially foregone or delayed in response to findings that continued operation is needed. We Energies filed an Amended Attachment Y Notice with MISO in June 2025 regarding OCPP Units 7 and 8 and received MISO approval on July 21, 2025.

For a planned fuel conversion, if the estimated project cost exceeds the cost threshold in Wis. Stat. 196.49(5g)(ar), as revised under Wis. Stat. 196.49(5g)(b), then, pursuant to Wisconsin Administrative Code PSC 112.05, We Energies will need to submit an application to the PSC seeking a Certificate of

Authority ("CA"). The PSC must issue an Order approving the expenditures associated with the fuel conversion before We Energies can commence construction. On October 20, 2025, We Energies, along with Madison Gas and Electric and WPPI Energy, filed a CA Application with the PSC seeking approval to modify the existing coal-fired boilers at ERGS to add natural gas capability. If approved, 25 coal burner assemblies from each unit will be retrofitted with new dual fuel burners to allow operation using natural gas, coal, or a range of co-fire conditions using both natural gas and coal. As of the date of submission, We Energies has not received an Order from the PSC approving the fuel flexibility project.

Pursuant to the requirements specified in Wisconsin Administrative Code Chapter NR 406, We Energies submitted a Minor Air Pollution Control Construction Permit Application to the Wisconsin Department of Natural Resources for the ERGS fuel flexibility project, as well as other anticipated changes at the OCER campus. On June 17, 2025, the Department issued Air Pollution Control Construction Permit No. 24-JAM-065 authorizing modification to ERGS Units 1 and 2 to allow for use of natural gas up to the full rated capacity of the units. Additionally, this permit authorized the construction of five natural gas-fueled simple cycle combustion turbines and a liquefied natural gas facility. A condition of this permit requires We Energies to make OCPP Units 5, 6, 7, and 8 permanently and physically inoperable no later than 180 days after the date on which any new emissions units authorized by construction permit 24-JAM-065 becomes operational.

Supporting Documentation

Include a copy of the most recent integrated resource plan for which the applicable state agency approved the retirement or repowering of the unit subject to the ELGs, or other documentation supporting that the electric generating unit will permanently cease the combustion of coal by December 31, 2034.

In Wisconsin, utilities are not required to submit Integrated Resource Plans to the PSC or any other state agency. However, as outlined above, as part of the Strategic Energy Assessment, PSC staff may request additional information from electricity providers on their resource planning analysis, including anticipated retirements and fuel conversions. The PSC will conduct an independent staff analysis on statewide resource planning consideration and provide its results in the next Strategic Energy Assessment, expected to be published in 2026. Information provided by We Energies in Fall 2025 as part of the Strategic Energy Assessment is publicly available on the PSC's website under Docket Number 5-ES-113. Supporting documentation regarding the anticipated retirement of OCPP Units 7 and 8 and the anticipated fuel conversion of ERGS Units 1 and 2, included with the Strategic Energy Assessment, is provided, as follows.

- Attachment 1 is an excerpt of the We Energies response regarding the 5-ES-113 Strategic Energy Assessment 2026-2032 (PSC Ref. #: 567877). The redacted spreadsheet is publicly available at https://apps.psc.wi.gov/pages/viewdoc.htm?docid=567877.
- Attachment 2 is an excerpt of a We Energies response to a data request regarding utility resource planning (PSC Ref. #: 567881). The redacted response is publicly available at https://apps.psc.wi.gov/ERF/ERFview/viewdoc.aspx?docid=567881.

Additional supporting documentation includes the following:

- Attachment 3 is an excerpt of the October 20, 2025, CA Application requesting PSC approval to install equipment to enable ERGS Units 1 and 2 to operate on natural gas. Documents associated with the proceeding are publicly available on the PSC's website under Docket

Number 5-CE-161. The full application (PSC Ref #: 568352) is publicly available at https://apps.psc.wi.gov/ERF/ERFview/viewdoc.aspx?docid=568352.

- Attachment 4 is an excerpt of the June 17, 2025, Air Pollution Control Construction Permit No. 24-JAM-065 authorizing the modification of ERGS Units 1 and 2 to operate on natural gas. Permit Condition I.YYYa.5.(a)(1) requires We Energies to make OCPP Units 5, 6, 7, and 8 permanently and physically inoperable no later than 180 days after the date on which any new emissions units authorized by construction permit 24-JAM-065 becomes operational. The complete permit is available upon request.
- Attachment 5 is an excerpt of the February 27, 2025, Analysis and Preliminary Determination for Air Pollution Control Construction Permit No. 24-JAM-065. The document describes We Energies plans to permanently retire and remove from operation OCPP Units 5, 6, 7, and 8, includes a Department emissions analysis, and concludes that the permit will require existing OCPP Units 5 – 8 to permanently cease operation 180 days after the natural gas-fueled simple cycle combustion turbines commence operation. The document also describes We Energies proposal to increase the use of natural gas in ERGS Units 1 and 2 to their full rated capacity, includes a Department emissions analysis, and concludes that the construction permit will authorize 100% natural gas combustion in the ERGS boilers.

Timeline

Include, for each such electric generating unit, a timeline to achieve the permanent cessation of coal combustion. Each timeline shall include interim milestones and the projected dates of completion.

Table 1 below presents a timeline with interim milestones and projected dates to achieve permanent cessation of coal combustion at Oak Creek Power Plant Units 7 and 8. We Energies reserves the right to update/supplement the timelines for each unit, including by and through the Annual Progress Report requirement for the permanent cessation of coal combustion by December 31, 2034 subcategory.

Table 1: Timeline to achieve permanent cessation of coal combustion at OCPP Units 7 & 8

Milestone	Status	Projected Date
Submit information to the PSC as part of the Strategic Energy Assessment process	In Progress	Biennially, Fall of odd years
Review PSC's independent analysis on resource planning consideration, as part of the Strategic Energy Assessment	In Progress	Biennially, Summer/Fall of even years
Submit Amended Attachment Y Notice to MISO	Complete	June 26, 2025
MISO approval, following MISO study and analysis of transmission grid reliability	Complete	July 21, 2025
OCPP Unit 7 achieves PCCC through retirement		On or before 9/30/2029
OCPP Unit 8 achieves PCCC through retirement		On or before 9/30/2029

Table 2 below presents a timeline with interim milestones and projected dates to achieve permanent cessation of coal combustion at Elm Road Generating Station Units 1 and 2. We Energies reserves the right to update/supplement the timelines for each unit, including by and through the Annual Progress Report requirement for the permanent cessation of coal combustion by December 31, 2034 subcategory.

Table 2: Timeline to achieve permanent cessation of coal combustion at ERGS Units 1 & 2

Milestone	Status	Projected Date
Submit information to the PSC as part of the Strategic Energy Assessment process	In Progress	Biennially, Fall of odd years
Review PSC's independent analysis on resource planning consideration, as part of the Strategic Energy Assessment	In Progress	Biennially, Summer/Fall of even years
Conduct engineering/design	In Progress	Ongoing

Milestone	Status	Projected Date
Submit Air Pollution Control Construction Permit Application, plans and specifications and additional information to Department	Complete	4/17/24 through 12/4/24
Receive Air Pollution Control Construction Permit No. 24-JAM-065	Complete	6/17/25
Submit application to PSC to request Certificate of Authority for fuel conversion (Docket No. 5-CE-161)	Complete	10/20/25
Receive Order providing Certificate of Authority from PSC		TBD – Anticipating Q4 2026
Commence construction		TBD
Start-up and Commissioning of natural gas burners		2028
ERGS Unit 1 achieves PCCC through fuel conversion		On or before 12/31/2034
ERGS Unit 2 achieves PCCC through fuel conversion		On or before 12/31/2034

Certification Statement

Include, for each such electric generating unit, a certification statement that the facility is in compliance with the following limitations or standards: (i) the applicable limitations or standards for FGD wastewater in §423.13(g)(1) or (g)(2)(ii) or (iii) or §423.16(e)(1) or (2); and (ii) the applicable limitations or standards for bottom ash transport water in §423.13(k)(1) or (k)(2)(i) or (iii) or §423.16(g)(1) or (2).

OCER is in compliance with all applicable ELG limitations.

FGD Wastewater

Flue Gas Desulfurization ("FGD") wastewater from OCPP Units 7 and 8 and ERGS Units 1 and 2 is treated in the FGD Wastewater Treatment System (Sampling Point 107). The original industrial wastewater treatment system consisted of physical/chemical treatment utilizing an alkali-sulfide process. Modifications to the wastewater treatment system were required to comply with the 2020 ELG Rule and the Compliance Schedule in Permit Condition 4.1. A $90 million project, authorized by the Public Service Commission of Wisconsin (Docket 5-CE-152) and Wisconsin Department of Natural Resources (Approval Number S-2021-0607), involved installation of biological treatment equipment and ultrafiltration membranes at the FGD Wastewater Treatment System. The upgraded treatment system went into operation on November 30, 2023. Permit Condition 2.2.3 contains Sampling Point 107 limitations for Total Recoverable Arsenic, Total Recoverable Mercury, Total Recoverable Selenium, and Nitrate/Nitrite as N that are equivalent to the federal ELG limitations for FGD wastewater in 40 CFR 423.13(g)(1). These limitations became effective on December 14, 2023. Sampling Point 107 monitoring results, reported to the Department on monthly discharge monitoring reports, demonstrate that OCER is in compliance with the FGD limitations in 40 CFR 423.13(g)(1).

Bottom Ash Transport Water

OCER does not have bottom ash transport water ("BATW"), and therefore, limitations or standards for BATW discharge in 40 CFR 423.13(k) and 40 CFR 423.16(g) do not apply. ERGS Units 1 and 2 were originally designed and constructed with drag chain conveyors (mechanical drag systems) for bottom ash handling. As stated in the 2015 ELG Rule, USEPA considers this technology a dry bottom ash handling system because the ash transport mechanism is mechanical removal by drag chain, not water.[2] Further, USEPA concluded that bottom ash quench water, used in mechanical drag systems, is considered low volume waste subject to low volume waste limitations.[3] USEPA reaffirmed this conclusion in the 2024 ELG Rule.[4] Thus, ERGS does not produce bottom ash transport water. For

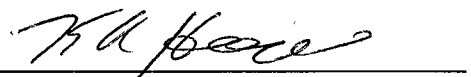
[2] Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, 80 FR 67838, 67892 (Nov. 3, 2015).
[3] Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, 78 FR 34432, 34449 (June 7, 2013).
[4] Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Plant Generating Point Source Category, 89 FR 40198, 40225 (May 9, 2024).

OCPP Units 7 and 8, We Energies completed a $10 million project to install compact submerged conveyors (mechanical drag systems) to manage bottom ash. OCPP ceased discharge of BATW in May 2021 and the new bottom ash handling systems were placed in service in June 2021. The technology installation was completed prior to the WPDES Permit deadline of December 31, 2021. Permit Condition 4.2 acknowledges compliance with Federal ELG for BATW. Therefore, OCPP no longer produces bottom ash transport water.

Certification Statement

I hereby certify that Oak Creek Power Plant Units 7 and 8 and Elm Road Generating Station Units 1 and 2, operated by Wisconsin Electric Power Company, are subject to 40 CFR 423 and Wisconsin Administrative Code NR 290 requirements applicable to steam electric power generating facilities. In accordance with 40 CFR 423.19(h)(1), I am providing notice that Oak Creek Power Plant Units 7 and 8 will achieve permanent cessation of coal combustion on or before September 30, 2029. Further, I am providing notice that Elm Road Generating Station Units 1 and 2 will achieve permanent cessation of coal combustion on or before December 31, 2034. In accordance with 40 CFR 423.19(h)(2), I certify that Oak Creek Power Plant Units 7 and 8 and Elm Road Generating Station Units 1 and 2 are in compliance with the applicable limitations or standards for FGD wastewater in 40 CFR 423.13(g)(1). I further certify that Oak Creek Power Plant Units 7 and 8 and Elm Road Generating Station Units 1 and 2 do not generate bottom ash transport water, and therefore, the limitations or standards for bottom ash transport water in 423.13(k)(1) or (k)(2)(i) or (iii) do not apply.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Kyle Hoops
Senior Vice President Power Generation

12-17-25
Date

Attachments

1 – Wisconsin Electric Power Company, November 17, 2025, 5-ES-113 SEA 2026-2032 WEPCO_CONFIDENTIAL (REDACTED COPY), PSC Ref. #: 567877 (Excerpt)

2 – Wisconsin Electric Power Company, November 17, 2025, Response-Data Request-PSCW-Stein-Utility Resource Planning_CONFIDENTIAL-WE (REDACTED COPY), PSC Ref. #: 567881 (Excerpt)

3 – Wisconsin Electric Power Company, October 20, 2025, Joint Application of Wisconsin Electric Power Company, Madison Gas and Electric, and WPPI Energy for Authority for the Elm Road Generating Station Gas Fuel Flexibility Project, Docket Number 5-CE-161, PSC Ref. #: 568352 (Excerpt)

4 – Wisconsin Department of Natural Resources, June 17, 2025, Air Pollution Control Construction Permit No. 24-JAM-065 (Excerpt)

5 – Wisconsin Department of Natural Resources, February 27, 2025, Analysis and Preliminary Determination for Air Pollution Control Construction Permit No. 24-JAM-065 (Excerpt)

Attachment 1

Wisconsin Electric Power Company, November 17, 2025, 5-ES-113 SEA 2026-2032 WEPCO_CONFIDENTIAL (REDACTED COPY), PSC Ref. #: 567877 (Excerpt)

Unit Retirements, Upgrades, Fuel Switching

Instructions

Provide data for plants expected to be retired, upgraded, or switched to a different fuel by December 2030. Add lines as needed to included all applicable plants.

Provide information on facilities with 10 MW or more in capacity. This includes facilities where the combined capacity of units to be retired or upgraded is 10 MW or more, even though individual units may have a smaller capacity rating.

SEA data collection pursuant to Wis. Admin. Code § PSC 111.21

Nothing on this form is expected to be confidential

	Name of Facility	Capacity Change	Unit #	Location	Primary Fuel Type	Nameplate Capacity (MW)	Expected Annual Generation (kWh)	Expected Year	Expected CO2 (lbs/kWh)	Nameplate Added Capacity (MW)	Expected Nameplate Capacity (MW)	New Primary Fuel Type
Retirement	Oak Creek	Retirement	7	Oak Creek, WI	Coal	317.6		2026				
Retirement	Oak Creek	Retirement	8	Oak Creek, WI	Coal	324		2026				
Upgrade	Port Washington	Upgrade	1	Port Washington, WI	Natural Gas	575		2028		86		
Upgrade	Port Washington	Upgrade	2	Port Washington, WI	Natural Gas	575		2028		86		
Fuel Change	Elm Road	Fuel Change	1	Oak Creek, WI	Coal	634		2029				Natural Gas
Fuel Change	Elm Road	Fuel Change	2	Oak Creek, WI	Coal	634		2029				Natural Gas

Attachment 2

Wisconsin Electric Power Company, November 17, 2025, Response-Data Request-PSCW-Stein-Utility Resource Planning_CONFIDENTIAL-WE (REDACTED COPY), PSC Ref. #: 567881 (Excerpt)

Wisconsin Electric Power Company
Docket 5-ES-113
Strategic Energy Assessment (SEA) for the Years
January 1, 2026 through December 31, 2032
Supplemental Data Request – Stein – 09/12/2025

REQUEST: Utility resource planning

Providers must submit (as one or more documents) the following information:

- A narrative description of the driving factors behind additions, extensions, and retirements, including an explanation of the rationales for each extension and retirement, and the role of new generation additions, as well as other considerations such as forecasted customer demand, in ensuring the utility meets future capacity and generation needs. This narrative should also explain the influence of utilities' carbon reduction goals on their decisions.
- An explanation of the analysis procedures used by the utility to determine addition, extension, and retirement decisions, including the analytical models used, the rationale for selection of those models, and the methods used by the utility to ensure accurate and reliable modeling results.
- A description of the goals and standards used by the utility to set initial parameters for modeling, which may include but should not be limited to its definition of standards for maintaining system reliability, required reserve margins for resource adequacy, and the application of utility carbon reduction goals.
- Specification of the key input assumptions used to model system and market conditions, as well as any alternative assumptions used to conduct sensitivity analysis on the effects of different generation alternatives. This specification shall include a detailed description of how the model accounts for any existing renewable energy offerings, including but not limited to community solar and renewable energy riders.
- A specific description of all generation scenarios considered in analysis.
- A presentation of modeling results that explains how the utility selected the proposed generation scenario reflected in its reported additions, extensions, and retirements, and how the utility concluded this scenario was superior to other scenarios considered.

RESPONSE:

Response by: Brandon Gerlikowski

WEC Energy Group ("WEC"), and its subsidiaries Wisconsin Public Service Corporation ("WPSC") and Wisconsin Electric Power Company, doing business as We Energies, ("Wisconsin Electric")[1] have long been leaders in providing safe and reliable energy to their Wisconsin customers. Since 2005, Wisconsin Electric has been recognized thirteen times as the most reliable utility in the Midwest.

Over the same period, WEC has prioritized a measured and methodical transition to clean energy. By converting the Valley Power Plant to clean natural gas, installing Wisconsin's largest wind energy facilities, constructing the first utility-scale solar fields and utility scale battery energy storage system ("BESS") project in Wisconsin, testing hydrogen blending in reciprocating internal combustion engine ("RICE") generators, retiring multiple coal plants, and testing new long-duration organic batteries, WEC

[1] Collectively, Wisconsin Electric and WPSC are referred to as the "WEC Utilities."

BESS (Hybrid) [redacted]

** Values shown in 2029 dollars*

Generation Retirement Assumptions

The following retirement date assumptions are included in all modeling runs:

- Wisconsin Electric: Oak Creek units 7-8 retire December 31, 2026.
- WPSC: Columbia units 1-2 retire December 31, 2029.
- WPSC: Weston 3 retires December 31, 2031.

New Generation and Storage Projects

New units, including those that have been recently commissioned, have full approval, or have applications pending before the Commission, are included in the base generation fleet for both utilities. This includes the following projects:

Approved Projects:

- Paris Solar and BESS
- Darien Solar and BESS
- Koshkonong Solar and BESS
- High Noon Solar and BESS
- Oak Creek Combustion Turbine ("OCCT")
- Paris RICE

Projects Pending Approval:

- Badger Hollow Wind
- Whitetail Wind
- Dawn Harvest Solar and BESS
- Good Oak Solar
- Gristmill Solar
- Saratoga Solar and BESS
- Ursa Solar

New Projects:

- Elm Road Generating Station ("ERGS") – ERGS is retrofitted to allow use of 100 percent natural gas to be classified as a natural gas-fueled steam unit for compliance with the existing USEPA GHG rule.
- Port Washington Generation Station ("PWGS") – PWGS includes upgrades of the combustion turbine units to maximize seasonal capacity ratings currently de-rated based on ambient temperature.
- Weston 4 – Wisconsin Electric is seeking approval to purchase Dairyland Cooperative's 30 percent ownership of Weston 4. Weston 4 is retrofitted to use 100 percent natural gas/fuel oil to classify as a natural gas-fueled steam unit for compliance with the existing USEPA GHG rule.
- [redacted]
- New Thermal Units – Red Oak Ridge is designed very similarly to the OCCT project, consisting of 5-GE 7FA.05 combustion turbines with an in-service date of January 2031. Foundry Ridge consists of 3-GE 7EA combustion turbines with an in-service date of January 2029.

Attachment 3

Wisconsin Electric Power Company, October 20, 2025, Joint Application of Wisconsin Electric Power Company, Madison Gas and Electric, and WPPI Energy for Authority for the Elm Road Generating Station Gas Fuel Flexibility Project, Docket Number 5-CE-161, PSC Ref. #: 568352 (Excerpt)

Joint Application of Wisconsin Electric Power Company, Madison Gas and Electric, and WPPI Energy for Authority for the Elm Road Generating Station Gas Fuel Flexibility Project in the City of Oak Creek, Milwaukee County, Wisconsin

Docket Number: 5-CE-161

10/20/2025

1.0 PROJECT PROPOSAL

Wisconsin Electric Power Company (Wisconsin Electric or WEPCO), Madison Gas and Electric (MGE), and WPPI Energy (WPPI) (collectively, the "Applicants") submit this application to the Public Service Commission of Wisconsin (PSCW) for a Certificate of Authority (CA) pursuant to Wis. Stat. § 196.49 and Wis. Admin. PSC § 112.05 to modify the existing coal-fired boilers at the Elm Road Generating Station (ERGS) in Oak Creek, Wisconsin (the Project). The Project will consist of modifications to fuel burning equipment on the Unit 1 and 2 coal-fired boilers to add gas firing capability. The Project will be located on land owned by Wisconsin Electric within the existing ERGS facility (**Volume I Appendix A – Location Map**).

1.1 Project Facilities

The following sections provide information related to proposed Project facilities.

1.1.1 Owner and Operator of Proposed Facility

The Applicants will be primarily responsible for the Facility's design, construction, startup testing, and operation and maintenance.

Wisconsin Electric is located at:

231 W. Michigan Street
Milwaukee, Wisconsin 53203

1.1.2 Cities, Villages, Townships, and Counties Directly Impacted

The Project will be constructed in the City of Oak Creek, Wisconsin, located in Milwaukee County. The Project is just south of Milwaukee, surrounded by several other cities and villages including the Cities of Franklin, Milwaukee, and South Milwaukee, and the Villages of Raymond and Caledonia.

1.1.3 Contractual Agreements

All contractual agreements, including the existing generator interconnection agreement with American Transmission Company (ATC) will remain unchanged.

1.1.4 Type of Power Facility Proposed

The Project will add gas firing capability to fire Unit 1 and 2 boilers up to 100% heat input on natural gas while maintaining the ability to co-fire with heat input from coal. Twenty-five (25) of each unit's coal burner assemblies will be retrofitted with new dual fuel burners. The heat input of the fuel gas portion of each burner will allow for full load from gas or coal and a range of co-fire with both gas and coal.

Further details of the Project are provided in Chapter 4.

The proposed Oak Creek LNG Project will add to the Site an LNG storage tank with capacity of 2 BCF. This can support approximately 7 days of full load operation burning 100% gas in both of the boilers.

Service water, cooling water, and potable water will be provided by the existing water source at the ERGS facility. The Project is not anticipated to require modifications to existing water supply or discharge systems.

2.3.8 Utility Pipeline Owner

WE-GO owns the natural gas transmission pipeline that supplies fuel to the OCPP, which will also supply natural gas to the ERGS facility. The City of Oak Creek municipal water supply system owns potable water pipelines and sewage pipelines near the Site.

2.3.9 Utility Pipeline Correspondence

The existing pipeline agreements between Wisconsin Electric and WE-GO will not be altered for the Facility initially. As firm pipeline transportation service is identified for the Facility, pipeline agreements may be altered for the purpose of re-allocating firm capacity to the interconnection point that serves the Facility.

2.4 General Construction Schedule

2.4.1 Anticipated General Construction Schedule

The general schedule, including construction activities, is provided below in Section 2.4.3.

2.4.2 Pipeline Operator Correspondence

The natural gas pipeline interconnection is a WE-GO distribution lateral, so there is no specific correspondence to be included within this application.

2.4.3 Major Construction Activities

The following list provides a general schedule of major milestones for the Project:

- Air Construction Permit — Received 6/17/2025
- CA Submitted — 10/20/2025
- CA Approval — Q4, 2026
- Burners Delivered — 1st Unit Winter 2028 – 2nd Unit Spring 2028
- Commercial Operation Date — 1st Unit Spring 2028 – 2nd Unit Fall 2028

Attachment 4

Wisconsin Department of Natural Resources, June 17, 2025, Air Pollution Control Construction Permit No. 24-JAM-065 (Excerpt)

FINAL AIR POLLUTION CONTROL CONSTRUCTION PERMIT

EI FACILITY NO: 241007690

CONSTRUCTION PERMIT NO(s): 24-JAM-065

TYPE: Construction Permit for Process(es): P401-P405, P410, P411-P414, P415, P416, P417, P418, P421-P422, P423-P424, P425-P428, P429

In compliance with the provisions of Chapter 285, Wis. Stats., and Chapters NR 400 to NR 499, Wis. Adm. Code,

Name of Source:	We Energies-Oak Creek Power Plant
Street Address:	11060 S Chicago Rd, Oak Creek, Milwaukee County, Wisconsin
Responsible Official, & Title:	Kyle Hoops, Vice President Generation

is authorized to construct five (5) simple cycle combustion turbine electric generating units (CTGs) with a total electric generating capacity of approximately 1,100 MW; a 2.0 billion standard cubic foot Liquified Natural Gas (LNG) storage facility; other equipment required to support this new generation; and increase the use of natural gas in the Elm Road Generating Station Units 1 and 2 to the full rated capacity of these unit; and to operate an electric power generation facility in conformity with the plans and specifications dated April 17 2024 through December 4, 2024 and the conditions herein. The authorization to construct, reconstruct, replace and/or modify any process covered by this construction permit is valid for **forty-eight (48) months** from the date of issuance, unless the permit is revoked or suspended. The department may extend the time period to construct, reconstruct, replace or modify for up to 18 additional months for purposes of commencing or completing construction, reconstruction, replacement or modification, on written request upon satisfactory showing that an extension is justified. [ss. 285.60(1) and 285.66, Wis. Stats.; s. NR 406.12, Wis. Adm. Code] The conditions in a construction permit are permanent unless revised through a revision of the construction permit condition, revision of a construction permit, or through the issuance of a new construction permit. [s. 285.66(1), Wis. Stats.] The permit conditions included in air pollution control construction permit 24-JAM-065 are identified by the citation of 24-JAM-065 in square brackets [] at the end of the permit condition

Conditions of the permit marked with an asterisk (*) have been created outside of Wisconsin's federally approved State Implementation Plan (SIP) and are not federally enforceable.

This authorization requires compliance by the permit holder with the emission limitations, monitoring requirements and other terms and conditions set forth in all Parts hereof.

Dated at Milwaukee, Wisconsin June 17, 2025

STATE OF WISCONSIN

DEPARTMENT OF NATURAL RESOURCES

For the Secretary

By Ronald Binzley

Ronald Binzley, Permits and Stationary Source Modeling Section Manager

Part I - Elm Road Generating Station (ERGS)

BA. Stack S18, Process B18, Control Device C18 - Super Critical Pulverized Coal (SCPC) Boiler Unit No. 1 (Acid Rain Unit 1), 6,750 MMBtu/hr, wall-fired, commenced construction on June 29, 2005, initially operated on July 23, 2009, modified in 2013
Stack S19, Process B19, Control Device C19 - Super Critical Pulverized Coal (SCPC) Boiler Unit No. 2 (Acid Rain Unit 2), 6,750 MMBtu/hr, wall-fired, commenced construction on June 29, 2005, initially operated on April 20, 2010, modified in 2013

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Particulate Matter/PM_{10} /$PM_{2.5}$	(1) Emissions of the total PM, PM_{10}, and $PM_{2.5}$ each from any stack may not exceed 0.012 pound per million Btu of heat input averaged over any consecutive 3–hour period. **[s. 285.65(3), Wis. Stats., s. NR 405.08(2), Wis. Adm. Code (Permit 12-SDD-047)]** (2) The total PM emissions from any stack may not exceed 0.10 pounds per million Btu heat input. **[s. NR 415.06(2)(c), Wis. Adm. Code (Permit 12-SDD-047)]** (3) Emissions of $PM_{2.5}$ for both boilers (Processes B18 and B19) combined may not exceed 43.75 tons in any month, averaged over any 12 consecutive month period. **[ss. 285.65(3) and (7), Wis. Stats. (Permit 12-SDD-047)]** (4) Except during periods of startup and shutdown, no owner or operator of an affected facility that commenced modification after May 3, 2011, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of one of the following: (a) 18 ng/J (0.14 lb/MWH) gross energy output; or (b) 6.4 ng/J (0.015 lb/MMBtu) heat input derived from the combustion of solid, liquid, or	(1) The permittee shall use coal, coal/ash fuel blend, and/or natural gas in Processes B18 and B19. The amount of ash fired in the boilers may not exceed 5% by weight averaged over any consecutive 30-day period. **[s. 285.65(3), Wis. Stats., s. NR 407.09(4)(a)1., Wis. Adm. Code (Permit 22-JAM-039)]** (2) The permittee shall perform compliance emission tests every 24 months. Each biennial test shall be performed within 90 days from the date of the initial stack test. **[s. NR 439.075(3), Wis. Adm. Code (Permit 12-SDD-047-R2)]** (3) Stack Parameters:[23] The exhaust stacks (S18 and S19) for Processes B18 and B19 shall meet the following: (a) The stack height shall be at least 550 feet above ground level. **[s. 285.65(3), Wis. Stats., s. NR 407.09(4)(a)1., Wis. Adm. Code (Permit 12-SDD-047)]** (4) The permittee shall control particulate matter/PM_{10}/$PM_{2.5}$ emissions using a fabric filter baghouse system in combination with a flue gas desulfurization and a wet electrostatic precipitator to meet the BACT emission limit in I.BA.1.a.(1). **[s. NR 405.08(2), Wis. Adm. Code (Permit 12-SDD-047)]** (5) The fabric filter baghouse system and the wet ESP shall be in line and shall be operated at all times when the associated process is in operation and coal is being fired. **[s. NR 407.09(4)(a).1, Wis. Adm. Code (Permit 12-SDD-047)]**	(1) Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Method 5B including backhalf (Method 202) shall be used to demonstrate compliance or an alternate method approved in writing by the Department, shall be used. **[s. NR 439.06(1), Wis. Adm. Code (Permit 12-SDD-047)]** (2) When conducting performance tests to determine compliance with the PM emissions limits in I.BA.1.a.(4), the permittee shall comply with the compliance determination procedures and methods in I.ZZZ.1c.a.(1)(b) of this permit. **[40 CFR §60.50Da(b), s. 285.65(13), Wis. Stats.]** (3) The permittee shall record and maintain a record of the times each boiler operates, including a record of the types of the fuels burned and all periods of startup, shutdown and malfunction. **[s. NR 439.04(1)(d), Wis. Adm. Code]** (4) The permittee shall keep and maintain the following records for each boiler: (a) amount of ash burned on each day, in tons per day; (b) amount of coal burned on each day, in tons per day; (c) the percentage of ash burned by weight on each day; and (d) the 30-day rolling average percentage of ash burned. **[s. NR 439.04(1)(d), Wis. Adm. Code]**

[23] These requirements were included because the source was reviewed with these stack parameters and it was determined that no increments or ambient air quality standards will be violated.

YYYa. Construction Permit 24-JAM-065 Requirements	
Condition Type	**a.** Requirements
	[s. NR 439.03(1), Wis. Adm. Code; 24-JAM-065]
3. Completion of Operation Permit Application	**(1)** The permittee shall update the operation permit application if any changes occur which are not specified or described in the plans and specifications approved under construction permit 24-JAM-065. The updates shall be made within 60 days of the date of the change. [ss. NR 407.05(9) and NR 439.03(1), Wis. Adm. Code; 24-JAM-065]
4. Operation Authorization	**(1)** The emission units authorized in 24-JAM-065 may only operate if both of the following are met: **(a)** The emission units are constructed and/or modified in accordance with the application as approved by the department, and **(b)** The construction and/or modification of the emission units is completed prior to expiration of the authority provided by the construction permit 24-JAM-065 to construct, modify, replace and/or reconstruct these emission units. [ss. NR 406.10, and 406.12, Wis. Adm. Code; ss. 285.65 and 285.66(1), Wis. Stats.; 24-JAM-065] **(2)** The continued operation of the modified and new emission units addressed in this construction permit are prohibited once the authorization to construct expires, unless any required updates have been submitted in accordance with I.YYYa.3. and the permittee has satisfied the notification requirements of Condition I.YYYa.2.[126] [s. 285.62(8), Wis. Stats.; 24-JAM-065]
5. Shutdown of Existing Emissions Units and Operation of New Emissions Units[127]	**(1)** Oak Creek Power Plant Emissions Unit(s) B25, B26, B27, and B28 (Units 5, 6, 7, and 8, respectively): The permittee shall make the Oak Creek Power Plant Emissions Unit(s) B25, B26, B27, and B28 permanently and physically inoperable no later than 180 days after the date on which any new emissions unit authorized by construction permit 24-JAM-065 becomes operational. For purposes of this permit, "operational" shall be defined as the first time any process related air contaminant is emitted into the ambient air. [s. 285.65(7), Wis. Stats.; 24-JAM-065] **(2)** Within 15 days of making Emissions Unit(s) B25, B26, B27, and B28 permanently and physically inoperable, the permittee shall submit notification of the event to the department in writing. [s. 285.65(7), Wis. Stats.; 24-JAM-065] **(3)** The permittee shall keep and maintain records describing how each Emissions Unit(s) B25, B26, B27, and B28 has been physically shutdown. [s. 285.65(7), Wis. Stats.; 24-JAM-065] **(4)** New Emissions Units P401, P402, P403, P404, P405, P410, P411, P412, P413, P414, P415, P416, P417, P418, P421, P422, P423, P424, P425, P426, P427, P428, and P429: The permittee shall operate any emissions unit(s) constructed and/or modified under permit 24-JAM-065 in accordance with the applicable conditions of permit 24-JAM-065 starting on the date the new and/or modified emissions unit(s) becomes operational. For purposes of this permit, "operational" shall be defined as the first time of any process related air contaminant is emitted into the ambient air. [s. 285.65(7), Wis. Stats.; 24-JAM-065]

[126] To maintain the operation permit application shield.

[127] The permittee has requested the conditions in this section to render these units inoperable so that the project is minor under PSD and NAA permitting.

Attachment 5

Wisconsin Department of Natural Resources, February 27, 2025, Analysis and Preliminary Determination for Air Pollution Control Construction Permit No. 24-JAM-065 (Excerpt)

ANALYSIS AND PRELIMINARY DETERMINATION
FOR THE CONSTRUCTION PERMIT FOR
THE PROPOSED CONSTRUCTION OF : FIVE (5) SIMPLE CYCLE COMBUSTION TURBINE ELECTRIC GENERATING UNITS (CTGS) WITH A TOTAL ELECTRIC GENERATING CAPACITY OF APPROXIMATELY 1,200 MW; A 2.0 BILLION STANDARD CUBIC FOOT LIQUIFIED NATURAL GAS (LNG) STORAGE FACILITY; AND OTHER EQUIPMENT REQUIRED TO SUPPORT THIS NEW GENERATION; THE INCREASE OF THE USE OF NATURAL GAS IN THE ELM ROAD GENERATING STATION UNITS 1 AND 2 TO THE FULL RATED CAPACITY OF THE UNITS

AND

ANALYSIS AND PRELIMINARY DETERMINATION
FOR THE OPERATION PERMIT FOR
AN ELECTRIC POWER GENERATION FACILITY

FOR
WE ENERGIES-OAK CREEK POWER PLANT,
LOCATED AT
11060 S CHICAGO RD,
OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

Construction Permit No.: 24-JAM-065
Operation Permit No.: 24100769A-P43
Facility ID No.: 241007690

This review was performed by the Wisconsin Department of Natural Resources, Air Management Program, in accordance with Chapter 285, Wis. Stats., and Chapters NR 400 to NR 499, Wis. Adm. Code.

Copies of the permit application, the department's analysis, preliminary determination and draft permit, and other materials considered by the department when making its preliminary determination can be viewed by using the Air Permit Search Tool located at http://dnr.wi.gov/topic/AirPermits/Search.html or by contacting Jordan Munson at (608) 733-0174 or by e-mail at jordan.munson@wisconsin.gov.

Approved by:	Michael Szabo	02/27/2025
	(Regional Supervisor or Designee)	*(date)*
Prepared by:	Jordan Munson	
Peer review by:	Beth Perk	
Compliance review by:	Mike Griffin	
Stationary source modeling by:	John Roth	

1 INTRODUCTION

Sections 285.60 through 285.69, Wis. Stats. and chapters NR 405 through NR 409, Wis. Adm. Code require certain types of stationary sources that emit or may emit air contaminants to obtain air pollution control permits. The Wisconsin Department of Natural Resources (hereinafter "department") issues air pollution control permits to new and existing sources of air pollution.

Stationary sources that are not exempt from the requirement to obtain a construction permit under ss. 285.60(2g), (3), (5m) and (6), Wis. Stats. or ch. NR 406, Wis. Adm. Code may not commence construction, reconstruction, replacement, relocation or modification unless a construction permit for the project has been issued by the department. Sources that are not exempt from the requirement to obtain an operation permit under s. NR 407.03, Wis. Adm. Code, are required to obtain or renew an air pollution control permit to continue operation. Changes made at a source of air pollution may require a revision of a previously issued permit in accordance with chs. NR 406.11 and/or NR 407.11 through NR 407.14 and NR 407.16, Wis. Adm. Code.

Owners or operators subject to air pollution control permit requirements submit the appropriate permit application(s) to the department. The applications are reviewed following the provisions set forth in ss. 285.60 to 285.67, Wis. Stats. The criteria for permit approval are outlined in s. NR 285.63, Wis. Stats. and vary depending on whether the source is major or minor and whether the source is or is proposed to be located in an attainment or nonattainment area.

Prior to issuance of an air pollution control permit, the department is required to prepare an analysis regarding the effect of the proposed construction, reconstruction, replacement or modification and/or operation of the source on ambient air quality and make a preliminary determination on the approvability of the permit application based on the criteria in s. 285.63, Wis. Stats. This document is the department's analysis and preliminary determination for the air pollution control permit action(s) described herein and sets forth the legal and factual basis for the draft permit conditions. The analysis is based on the information contained in the permit application(s) and any additional information requested by the department related to the emissions of air pollutants sufficient to verify which requirements are applicable to the source. The analysis explains why the application(s) should be approved, conditionally approved, or disapproved and identifies the department's authority for the permit action(s) described herein. Any conditions for approval are contained in the draft permit prepared by the department. The conditions in the draft permit may be revised in any final permit issued based on comments received or further evaluation by the department.

A final decision will not be made on any permit until the applicable notification, public comment and hearing requirements in ss. 285.61 and/or 285.62, Wis. Stats. and/or ss. NR 406.11 and/or NR 407.11 through NR 407.14, Wis. Adm. Code have been met.

Part 70 operation permits, a final permit will not be issued until after the US EPA has an opportunity to review a proposed permit for 45 days. The department will provide a proposed permit to US EPA and post the start date of the US EPA 45-day review period on the Internet at http://dnr.wi.gov/topic/AirPermits/Search.html. Unless the US EPA objects in writing within the 45-day review period, the department will issue the final permit as proposed. Any person may petition the US EPA under 40 CFR Part 70.8(d) within 60 days after the expiration of the 45-day review period to make an objection to a Part 70 operation permit.

2 GENERAL APPLICATION INFORMATION

Owner/Operator:	We Energies-Oak Creek Power Plant 11060 S Chicago Rd Oak Creek, Milwaukee County, WI 53154-7308

Responsible Official:	Kyle Hoops Vice President Generation 231 W Michigan St, Milwaukee, WI 53203-2918 (414) 221-5350 kyle.hoops@wisconsinpublicservice.com
Application submittal date:	April 17, 2024
Additional Information Submitted:	May 21, 2024 through December 4, 2024
Date of Complete Application:	December 19, 2024

3 PROJECT DESCRIPTION

We Energies has proposed to construct and operate a Natural Gas-Fired Electric Generation and Gas Storage Project at the Oak Creek Site. The project will consist of five (5) natural gas-fired General Electric (GE) Model 7F.05 simple cycle combustion turbine generators (CTG), a 2.0 billion standard cubic foot (BSCF) Liquified Natural Gas (LNG) storage facility, natural gas-fired natural gas dew point heaters, and ancillary support equipment including natural gas piping systems, electric substation equipment, and natural gas space heating equipment.

As part of this Project, We Energies is planning to permanently retire and remove from operation the existing Oak Creek coal-fired units B25, B26, B27 and B28. Based on the proposed emission limits and operating restrictions and the permanent shutdown of the Oak Creek units, this Project will result in net reductions to emissions from the Oak Creek Site for all criteria air pollutants except for VOC's.

We Energies states that with the retirement of this coal-fired capacity, the substantial shift to renewable generation and subsequent retirement of coal-fired capacity significantly changes the production curve and makes it more difficult to provide the continuous energy production and the reliability their customers require. With the construction of five new CTGs, this Project provides the capacity, base load, and peaking generation We Energies will need and provides additional benefits such as rapid electric power ramping capability, dynamic voltage control, system inertia, and frequency response necessary for electric system stability. To further support capacity and base load needs, and to ensure compliance with Subparts TTTT and proposed TTTTa to Part 60 of Title 40 of the Code of Federal Regulations, this Project also includes increasing the use of natural gas in the existing We Energies – Elm Road Generating Station (ERGS) Units 1 and 2 to their full rated capacity. ERGS Units 1 and 2 are currently coal-fired units that can combust natural gas at up to 60 percent (%) of their rated capacity. Post-project, coal will be used as a back-up fuel in these units.

The proposed LNG storage facility will meet the greater long-term gas demand and supply requirements of We Energies Generation Reshaping Plan. Further, the proposed LNG facility will allow We Energies to meet short-duration summer and winter peaks more efficiently and economically. The proposed LNG facility will ensure sufficient natural gas for the simple cycle units and Elm Road units during periods when, due to weather conditions, renewable generation and battery storage cannot provide sufficient firm capacity to meet customer demand.

Other Actions:

This construction permit will be processed with a significant revision to operation permit 24100769A-P37 which covers operations at the entire facility. Operation permits are a vehicle for compiling air quality control requirements from other clean air act (CAA) programs and for providing conditions necessary to assure compliance with such requirements. Each operation permit includes the applicable requirements[1] as they apply to the emissions units at the facility, and such other conditions as are necessary to assure compliance with the requirements of ch.

[1] "Applicable requirement" is defined in s. NR 400.02(26), Wis. Adm. Code and 40 CFR 70.2, and lists all of the types of requirements which are considered applicable requirements for the purpose of inclusion in an operation permit.

NR 407, Wis. Adm. Code and 40 CFR Part 70.

4 SOURCE DESCRIPTION

The facility is an electrical power generating facility located in Oak Creek, Wisconsin, operated by Wisconsin Electric Power Company (We Energies). The facility is internally divided into three operating units, namely, two electric power generating plants (Oak Creek Power Plant and Elm Road Generating Station) and a shared support and materials handling operation (Site Bulk Material Handling). The three operating units are regulated as one source or facility.

Oak Creek Power Plant (OCPP) is the older of the two power plants. OCPP is a 1120-megawatt electric power generating plant. The plant currently operates four pulverized coal utility boilers installed in the 1960s. Emissions from the boilers are controlled using electrostatic precipitation (ESP), selective catalytic reduction (SCR), and wet flue gas desulfurization (WFGD). OCPP primarily burns subbituminous coal, but has the ability to burn bituminous coal. After completion of the project associated with construction permit 24-JAM-065, the OCPP boilers will be removed.

Elm Road Generating Station (ERGS) is the newer of the two power plants. The plant commenced construction on June 25, 2005. ERGS is a 1230-megawatt electric power generating plant and operates two supercritical pulverized coal (SCPC) utility boilers. Emissions from the boilers are controlled using selective catalytic reduction (SCR), fabric filter filtration (baghouses), wet flue gas desulfurization (WFGD), and wet electrostatic precipitation (wet ESP). ERGS currently burns subbituminous coal, but has the ability to burn bituminous coal. Construction permit 24-JAM-065 will authorize 100% natural gas combustion in the ERGS boilers.

Site Bulk Materials Handling (SBMH) is the material handling, storage, and disposal operations for the two power plants and site. SBMH handles, maintains, and manages the delivery and storage of coal, limestone, and the liquid fuels (off road diesel fuel oil and unleaded gasoline) for the site. SBMH also handles the storage and transportation of gypsum from the site, maintains the common roadways, and maintains the emergency equipment associated with SBMH. Personnel at OCPP and ERGS retain the majority of the oversight over the removal of fly and bottom ash from the utility boilers. SBMH is also responsible for keeping the two types of coal (bituminous and subbituminous) segregated. Coal is delivered to the site by rail car, mechanically dumped, and mechanically conveyed to either of the power plants, active storage (inside storage piles), or inactive storage (outside storage piles).

The plant is located in the city of Oak Creek, Milwaukee County, approximately 20 miles south of Milwaukee. The site occupies more than 400 acres of land on the shore of Lake Michigan. Milwaukee County is currently classified serious nonattainment for ozone and attainment for all remaining air pollutants.

4.1 Description of New or Modified Units

Process/Stack	Description	Capacity (each)	Control Device	Control Description
P401/S401-P405/S405	GE Combustion Turbine Generators (5)	220 MWe	DLN	Dry Low NOx Combustion
P410/S410	LNG Regeneration Gas Heater	3.0 MMBtu/hr	--	--
P411/S411-P414/S414	LNG Vaporizer Heaters (4)	98 MMBtu/hr	Low NOx Burners	Low NOx Burners
P415/S415	Amine Steam Boiler	5.5 MMBtu/hr	Low NOx Burners	Low NOx Burners

Circuit Breakers - EPA Investigates Potential Greenhouse Gas Emission Source, J. Blackman, Program Manager, EPA and M. Averyt, ICF Consulting, and Z. Taylor, ICF Consulting.

SF6 Global Warming Potential from 40 CFR Part 98 Subpart A, Table A-1

5.4 B18 and B19

The Elm Road Generating Station (ERGS) Units 1 and 2 (B18 and B19) are high efficiency, supercritical pressure, pulverized coal-fired electric generating units. These units are equipped with an advanced suite of air quality control systems including low NOx burners and selective catalytic reduction (SCR) for NO_x control, and the combined use of fabric filter baghouses, wet limestone forced oxidation flue gas desulfurization (FGD) systems, and wet electrostatic precipitators (ESP) for particulate matter (PM), sulfur dioxide (SO_2), acid gas, and sulfuric acid mist control. In December 2022, air pollution control construction permit No. 22-JAM-039 was issued which authorized the use of natural gas as a primary or supplemental fuel for the generation of electricity and/or steam in the Unit 1 and Unit 2 boilers, Boilers B18 and B19. This permit was based on physical and operational changes to Boilers B18 and B19 which would achieve approximately 60% of the boiler heat input from natural gas. With this application, We Energies is proposing additional physical and operational changes which would allow 100% of the rated boiler heat input capacity firing natural gas.

5.4.1 Emissions from Natural Gas Combustion.

In general, other than CO and VOC, the emission rates of NSR regulated air contaminants and hazardous air pollutant (HAP) emissions from natural gas combustion are expected to be less than or equal to the emission rates, expressed in pounds per MMBtu or pounds per MWh, from combustion of coal and coal/ash blends. Table 5-19 summarizes the current Best Available Control Technology (BACT) emission limits for Boilers B18 and B19 and the expected emission rates when firing 100% natural gas. The combustion of natural gas in these boilers will not affect compliance with any of these limits. Further, there will be no changes to the maximum heat input capacity of these units when firing 100% natural gas. No significant increase in emissions is projected as a result of the increased firing of natural gas. Therefore, no changes are proposed to the current emission limits for these boilers.

5.4.2 Potential Physical Changes to Utilize Natural Gas at 100% of the Rated Heat Input Capacity.

The following is a list of potential changes to the Elm Road Boilers B18 and B19 and plant equipment to utilize natural gas as a primary or supplemental fuel for the production of electricity. As this Project proceeds, it is possible that other changes may be required which are not identified below.

1. Modify or upgrade plant natural gas equipment and piping systems.
2. Modify or upgrade fuel firing equipment including new or modified natural gas burners.
3. Modify or upgrade controls and logic.
4. Modify or upgrade steam temperature control systems.
5. Modify or upgrade heat transfer surface within boilers.
6. Modify or upgrade environmental control equipment.
7. Modify or upgrade gas paths.
8. Additional or modified air heater baskets to maintain unit performance.
9. Distributed control system (DCS) or controls modifications.
10. New primary air fan and motor to achieve required combustion air.
11. New induced draft fan motor to achieve boiler pressure requirements.
12. High velocity mist eliminators in the scrubber to minimize moisture carryover.
13. Calcium bromide injection system for mercury oxidation and control.
14. Additional controls and logic for all new mechanical equipment.

Table 6-11: Contemporaneous emissions installations, projects and retirements

Permit No.	Emission Unit(s)	Date of Initial Operation or Retirement
19-POY-115-EXM 241007690-P31	Fly ash conditioning bunker.	Not Installed
	Screening bottom ash at the Caledonia landfill.	3/30/2020
	Reclaim of fuel ash from the DMA landfill.	Not Undertaken
	Delivery of limestone by truck to the Elm Road units.	6/1/2021
	Five (5) portable vacuum machines.	4/1/2020
	Maintenance paint and fiber reinforced plastic booth.	Not Installed
24100769A-P32	Unit 7 and 8 bottom ash handling systems added as insignificant emissions units.	Unit 7: 6/26/2021 Unit 8: 6/19/2021
24100769A-P33	Addition of wastewater treatment system as an insignificant emissions unit (source of H_2S).	5/20/2023
21-DMM-147-EXM	Use of alternate mercury control enhancement additives in OCPP 5, 6, 7, 8, and ERGS 1 & 2.	Not Installed or Undertaken
22-JAM-039	Authorized use of natural gas as a primary fuel in the Elm Road Units 1 and 2.	Unit 1: 1/26/2023 Unit 2: 9/3/2023
24-POY-015	Revision to the fly ash unloading activity, Process F143A at the Caledonia Landfill.	New Change
This Project (Requested)	Natural Gas-Fired Electric Generation Project, including shutdown of OCPP Units 5, 6, 7, and 8.	Within 180 days of operation of new CTGs.

6.3.1 Contemporaneous projects

We Energies submitted a construction permit application in February 2024 to revise the current operation permit requirements for Emission Unit F143A, *Truck Dump or Drop of Fly Ash at the Caledonia Landfill*. Construction permit 24-POY-015 was issued on August 21, 2024. This process involves the transfer of ash generated at the ERGS to the Caledonia Landfill. The permit requires that these activities may only operate from 7:00 am and 7:00 pm. We Energies requested that this condition be revised to allow transfer of ash at any time. Although the current permit requirement was included to ensure that the Oak Creek Site would not cause an exceedance of the PM_{10} ambient air quality standards, the regulatory basis for this requirement as cited in the permit is the PSD BACT requirement in s. NR 405.08, Wis. Adm. Code.

The requirement to limit operation of this process from 7:00 am to 7:00 pm does not restrict the maximum potential emissions for this emissions unit. Under normal operating conditions, ash generated from the combustion of coal in the Elm Road units is shipped offsite for beneficial reuse, and only a very small percentage of ash is sent to the Caledonia Landfill. However, during unit outages and at other times that equipment is maintained, it may be necessary to take ash to the landfill. To facilitate these maintenance activities which may occur during evening hours, We Energies requested that this transfer be allowed at any time. We Energies also proposed to reduce the amount of ash hauled in this process from the current potential allowable operation of 357,000 tons per year to 7,500 tons per year. This will result in a reduction in potential PM, PM_{10}, and $PM_{2.5}$ emissions of 0.041, 0.019, and 0.003 tons per year, respectively.

An existing major stationary source triggers major NSR permitting requirements when it undergoes a “major modification” which occurs when a source undertakes a physical change or change in method of operation (i.e., a “project”) that would result in (1) a significant emissions increase from the project, and (2) a significant net emissions increase from the source. This approach to applicability makes it necessary to accurately define what constitutes the “project” under review to ensure that the proper emissions increase resulting from the project is used when comparing it with the applicable NSR significance threshold in Step 1 of the NSR applicability analysis. Determining what constitutes the “project” is a case-by-case decision that is both site-specific and fact-driven.

For the new emissions units in this analysis, including Screen Bottom Ash, Limestone Delivery, Vacuum Units, OCPP convenience space heating, and Bottom Ash Loadout, the baseline actual emissions for purposes of determining the emissions increase that will result from the initial construction and operation of the unit shall equal zero. In this analysis, the Caledonia Landfill Project is also treated as a new emissions unit; the baseline actual emissions are assumed to be zero, and the projected actual emissions are equal to the new potential to emit. The total baseline actual emissions for the Step 2 contemporaneous changes are summarized in the table below.

6.3.3 Post-Project Actual Emissions.

For purposes of computing the creditable amount of a decrease in actual emissions from an existing emissions unit, the post-project actual emissions are equal to the unit's allowable or potential emissions. As part of this project, We Energies is proposing to permanently shut down and remove from service the existing Oak Creek Units 5, 6, 7, and 8 within 180 days of the new emissions units in this application becoming operational. Therefore, the post project actual emissions for Units 5, 6, 7, and 8 will be zero.

For the boilers B18 and B19, the post-project actual emissions are described in Step 1 of this analysis. For the contemporaneous new emissions units, the post-project actual emissions are included in this analysis based on each of these unit's potential to emit. For detailed emissions calculations, please see the associated permit action identified with the emissions unit in table 6-12. The post-project actual emissions for the Step 2 contemporaneous changes are summarized in the table below.

generator with nameplate capacity of more than 25 MWe producing electricity for sale, pursuant to 40 CFR 97.604. Emission unit(s) P401-P405 do not meet any of the exceptions in 40 CFR 97.604(b).

Emissions unit(s) P401-P405 at We Energies Oak Creek Power Plant (ORIS/Facility Code 4041) are subject to the requirements of the Transport Rule (TR) NO_x Annual Trading Program, the TR NO_x Ozone Season Trading Program, and the TR SO_2 Group 1 Trading Program of CSAPR. These requirements are included in section I.ZZZ.12. and Part VI of the draft permit.

7.1.7 Retired Unit Exemption Requirements

The permit will require existing boilers B25-B28 to permanently cease operation 180 days after combustion turbines P401-P405 commence operation. When B25-B28 are permanently retired, the permittee is required to submit an U.S. EPA Retired Unit Exemption form (retired_unit_exemption_final.pdf (epa.gov)) to the U.S. EPA and the department. Because existing boilers B25-B28 are affected units under the CSAPR NOx Annual, CSAPR NOx Ozone Season, and CSAPR SO_2 Group 1 trading programs, these units will continue to be subject to the Retired Unit Exemption requirements in 40 CFR 97.405, 97.505, 97.605, 97.805, and 97.1005. Because existing boilers B25-B28 are subject to acid rain requirements, they will be subject to the retired unit exemption (RUE) requirements in 40 CFR 72.8 and s. NR 409.05, Wis. Adm. Code after they cease operation when combustion turbines P401-P405 commence operation. The applicable programs for B25-B28 are shown in the following table. Part XIII of the draft permit includes the applicable Retired Unit Exemption requirements for the appropriate programs that will apply when B25-B28 are permanently retired.

Unit ID#	Date Unit Retired	Date of Submittal	Program(s) Unit is Subject To	Federal Retired Unit Provisions
B25-B28	180 days after P401-P405 commences operation	Not yet submitted	☒ Acid Rain	40 CFR 72.8
			☒ CSAPR NOx Annual	40 CFR 97.405
			☒ CSAPR NOx Ozone Season Group 1	40 CFR 97.505
			☒ CSAPR NOx Ozone Season Group 2	40 CFR 97.805
			☒ CSAPR NOx Ozone Season Group 3	40 CFR 97.1005
			☒ CSAPR SO_2 Group 1 †	40 CFR 97.605

† The final CSAPR divides the states required to reduce SO_2 into two groups. Both groups must reduce their SO_2 emissions beginning in Phase I. Group 1 states must make significant additional reductions in SO_2 emissions for Phase II in order to eliminate their significant contribution to air quality problems in downwind areas. Wisconsin falls under Group 1 States as per: http://www3.epa.gov/airtransport/CSAPR/stateinfo.html. As a result, CSAPR SO_2 Group 2 Trading Program requirements are not included in the permit.

7.1.7 New Source Performance Standards (NSPS)

7.1.7.1 NSPS for Stationary Combustion Turbines (40 CFR Part 60, Subpart KKKK)

NSPS 40 CFR Part 60, Subpart KKKK is applicable to all stationary combustion turbines that commenced construction, modification, or reconstruction after February 18, 2005, and have a heat input equal to or greater than 10.7 gigajoules per hour (10 MMBtu/hr), based on the higher heating value of fuel. Per 40 CFR 60.4305(a), since the combustion turbines are greater than 10 MMBtu/hr and will be constructed after February 18, 2005, the combustion turbines are subject to Subpart KKKK.

The Administrator of the U.S. EPA proposed standards for a new NSPS subpart KKKKa on December 13, 2024. At the time of this review, the final standard had not yet been published in the Federal Register and had not yet become effective. Subpart KKKKa will have similar applicability as subpart KKKK for units that commence construction or modification after December 13, 2024. The applicable requirements from subpart KKKKa will be added to the facility's operation permit through the next operation permit renewal.