

## Appendix D. MPCA Administrative Orders

This appendix contains the administrative orders established between the MPCA and the facilities identified below. The administrative orders establish enforceable requirements for these facilities regarding either retirement/shutdown dates of specific emission units or the control measures that are necessary to make reasonable progress.

The Regional Haze Rule, and as reiterated in U.S. EPA's August 2019 Guidance, requires SIPs to include enforceable emission limitations and/or other measures to address regional haze, compliance deadlines, and provisions to make those measures practicably enforceable including averaging times, monitoring requirements, recordkeeping, and reporting requirements.

This appendix consists of the following administrative orders by consent:

- Administrative Order by Consent - Hibbing Public Utilities Commission
  - Establishes a combined NO<sub>x</sub> emission limit for Boiler 1 and 2
  - Establishes a NO<sub>x</sub> emission limit for Boiler 3
- Administrative Order by Consent - Minnesota Power - Taconite Harbor Energy Center
  - Requires retirement of Boiler 1 by March 2023
  - Requires retirement of Boiler 2 by March 2023
- Administrative Order by Consent - Northshore Mining Company
  - Requires specific actions regarding Power Boiler 1 if the boiler resumes operation prior to 2031
  - Requires specific actions regarding Power Boiler 2 if the boiler resumes operation prior to 2031
- Administrative Order by Consent - Virginia Department of Public Utilities
  - Requires retirement of Boiler 7 by January 2025
- Administrative Order by Consent - Xcel Energy - Allen S. King
  - Requires retirement of Boiler 1 by December 2028
- Administrative Order by Consent - Xcel Energy - Sherburne Generating Plant
  - Requires retirement of Unit 3 by December 2030

**STATE OF MINNESOTA**  
**Minnesota Pollution Control Agency**

**In the Matter of:**  
**Hibbing Renewable Energy Center**  
**Operated by Hibbing Public Utilities Commission and Owned**  
**by the City of Hibbing, Minnesota.**

**ADMINISTRATIVE ORDER BY**  
**CONSENT**

This Administrative Order by Consent (Order) is issued by the Minnesota Pollution Control Agency (MPCA) to the City of Hibbing, Minnesota operating under its duly authorized Public Utilities Commission per *Minn. Stat. Ch. 412* (Regulated Party) pursuant to *Minn. Stat. § 116.07, subd. 9*. The Regulated Party has reviewed the terms of this Order and, by its signature below, agrees to comply with it.

***FINDINGS OF FACTS***

1. The U.S. Environmental Protection Agency (U.S. EPA) has established regulations to address visibility impairment in our nation's largest national parks and wilderness areas ("Class I areas"). This rule is commonly known as the "Regional Haze Rule" (40 CFR §§ 51.300 - 51.309).
2. Minnesota has two Class I areas within its borders, the Boundary Waters Canoe Area Wilderness (BWCA) and Voyageurs National Park (Voyageurs).
3. Minnesota is responsible for developing a regional haze state implementation plan (Regional Haze SIP) that addresses the emission of pollutants that contribute to visibility impairment. Data from visibility monitoring sites in the BWCA and Voyageurs indicate that sulfates and nitrates continue to be the largest contributors to visibility impairment in these areas. The primary precursors of sulfates and nitrates are emissions of sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>).
4. The Regional Haze Rule requires Minnesota to prepare and submit its Regional Haze State Implementation Plan (SIP) to U.S. EPA by July 31, 2021. The Regional Haze SIP is required to identify existing facilities that cause or contribute to visibility impairment; analyze, identify, and apply federally-enforceable control strategies for those sources; and periodically demonstrate reasonable progress toward reaching visibility goals.
5. In the first regional haze planning period, the focus of the Regional Haze Rule was on establishing Best Available Retrofit Technology (BART) for certain older sources and reasonable progress towards national visibility goals. In the second planning period, there are no BART requirements; therefore, the focus is on making reasonable progress.
6. To satisfy the Regional Haze Rule, the MPCA must determine the measures necessary to continue making reasonable progress. The U.S. EPA has defined the methodology that States must use to determine what measures are necessary to make reasonable progress in 40 CFR § 51.308(f)(2). At minimum, the reasonable progress analysis must use the four factors identified in 40 CFR § 51.308(f)(2)(i) to evaluate and determine the emission reduction measures necessary to make reasonable progress. This analysis is commonly known as the "Four Factor Analysis." The four factors are the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of the source.

7. On August 20, 2019, the U.S. EPA provided guidance to assist states with the preparation of Regional Haze SIPs. Within this guidance document, the U.S. EPA identifies circumstances in which States may rely on a requirement to cease operation before the end of the useful life of the emission unit and controls. To the extent such a requirement is being relied upon as part of a reasonable progress determination, the measure needs to be included in the SIP and/or be federally enforceable.
8. The Regulated Party owns and operates Hibbing Renewable Energy Center, a cogeneration facility that provides steam products, electricity, natural gas, and drinking water for local businesses and residents of Hibbing, Minnesota. The facility is located at 1832 6th Avenue East, Hibbing, Minnesota, hereafter "HPU." HPU is a municipal utility operating under the authority granted by Minn. Stat. Ch. 412 whereas HPU has rights and obligations to serve its customers.
9. On February 14, 2020, the MPCA requested that the Regulated Party prepare a Four Factor Analysis, by July 31, 2020, for three emission units at the facility; Boiler #1A (EQUI 1 / EU 001), Boiler #3A (EQUI 3 / EU 003), and the Wood Fired Boiler (EQUI 7 / EU 007). MPCA requested that the Four Factor Analyses for Boiler #1A and Boiler #3A address emissions of NOX and SO2 and the Four Factor Analysis for the Wood Fired Boiler address emissions of NOX.
10. On June 19, 2020, the MPCA revised its original request that the Regulated Party prepare a Four Factor Analysis to include an additional emission unit at HPU; Boiler #2A (EQUI 2 / EU 002). MPCA requested that the Four Factor Analysis for this emission unit address emissions of NOX and SO2.
11. On July 31, 2020, the Regulated Party provided the requested analyses for Boiler #1A, Boiler #3A, and the Wood Fired Boiler. Boiler #2A was not specifically identified in the requested analyses, but the Regulated Party noted phone conversations with MPCA discussing the inclusion of Boiler #2A in the original request.
12. MPCA reviewed the provided response and requested additional information on April 19, 2021. Additionally, the MPCA requested confirmation that the analysis provided for Boiler #1A was acceptable to use as the analysis for Boiler #2A given that the boilers are identical and the boilers vent emissions to a common stack.
13. On June 18, 2021, the Regulated Party provided the information requested on April 19, 2021, and confirmed that the analysis provided for Boiler #1A was acceptable to use as the analysis for Boiler #2A. MPCA reviewed this additional information from June through December 2021.
14. Based on the analysis and additional information provided for the Wood Fired Boiler, the MPCA determined that additional NOX control measures were not cost effective and were not required to make reasonable progress in this Regional Haze implementation period.
15. Based on the analysis and additional information provided for Boiler #1A, Boiler #2A, and Boiler #3A, the MPCA determined that additional SO2 control measures were not cost effective and were not required to make reasonable progress in this Regional Haze implementation period. However, the MPCA determined that additional NOX control measures were cost effective for each boiler and recommended installation of the NOX control measure for this Regional Haze implementation period.
16. The MPCA shared its assessment of control measures with the Regulated Party at a meeting held on January 27, 2022, and identified that MPCA would consider alternatives to control measures that achieved emission reductions greater than or equal to the reductions that would be achieved by the recommended controls. Subsequently, the Regulated Party indicated that they were considering the future operations of HPU as a whole and specifically the operations of Boiler #1A, Boiler #2A, and Boiler #3A.
17. On May 10, 2022, the Regulated Party presented a revised operations plan for the facility, referred to as the "Hibbing Public Utilities Restorative Plan", to the Hibbing Public Utilities Commission, that outlined the use of renewable resources such as wood alongside with natural gas as the primary fuels for the boilers at HPU. The Hibbing Public Utilities Restorative Plan is an approach to addressing emissions and sustainability while balancing local jobs and impact on the

local economy. Coal was identified as a backup/emergency fuel to manage natural gas price fluctuations and power grid volatility. The Hibbing Public Utilities Commission formally adopted the Hibbing Public Utilities Restorative Plan on May 24, 2022.

18. On July 1, 2022, the Regulated Party prepared and provided a memorandum identifying the adopted Hibbing Public Utilities Restorative Plan; indicating that HPU plans to make coal a backup fuel for Boiler #1A and Boiler #3A, and that Boiler #2A is not currently able to combust coal without additional maintenance, which HPU is not pursuing at this time. The currently allowable fuels for Boiler #1A, Boiler #2A, and Boiler #3A are coal, used oil, natural gas, and oily cellulose-based sorbents (including rags) as identified in Air Emissions Permit No. 13700027-102.
19. The Hibbing Public Utilities Restorative Plan is not a federally or state-enforceable agreement that would limit the operations or emissions of Boiler #1A, Boiler #2A, and Boiler #3A.
20. The MPCA estimated the installation of NOX control measures on Boiler #1A, Boiler #2A, and Boiler #3A would achieve a 40% reduction from the baseline emission rate used in the Four Factor Analysis for each boiler:
  - a. Boiler #1A's baseline emission rate of 112 tons per year would be reduced by 45 tons per year to 67 tons per year post-control installation.
  - b. Boiler #2A's baseline emission rate of 112 tons per year would be reduced by 45 tons per year to 67 tons per year post-control installation.
  - c. Boiler #3A's baseline emission rate of 133 tons per year would be reduced by 53 tons per year to 80 tons per year post-control installation.
21. The Regulated Party enters into this Order to ensure that NOX emissions from Boiler #1A, Boiler #2A, and Boiler #3A remain limited to the post-control emission rates identified in paragraph 20 while combusting primarily natural gas with coal as a backup/emergency fuel.

### ***ORDER***

#### **NOW, THEREFORE, IT IS ORDERED AND AGREED:**

1. Beginning on January 1, 2023, the Regulated Party must limit combined NO<sub>x</sub> emissions from Boiler #1A (EQUI 1 / EU 001) and Boiler #2A (EQUI 2 / EU 002) to less than or equal to 134 tons per year on a 12-month rolling sum to be calculated by the 15<sup>th</sup> day of each month for the previous 12-month period as described in this Order.
2. Beginning on January 1, 2023, the Regulated Party must limit NOX emissions from Boiler #3A (EQUI 3 / EU 003) to less than or equal to 80 tons per year on a 12-month rolling sum to be calculated by the 15<sup>th</sup> day of each month for the previous 12-month period as described in this Order.
3. The Regulated Party must calculate and record the first month of the 12-month rolling emissions sum no later than the 15<sup>th</sup> day of February 2023 and must continue to calculate and record the 12-month rolling emissions sum no later than the 15<sup>th</sup> day following the end of each month thereafter.
4. The Regulated Party must calculate and record the following by the 15<sup>th</sup> day of each month:
  - a. The type and amount of each fuel combusted in each individual boiler (Boiler #1A, Boiler #2A, and Boiler #3A) during the previous month.
  - b. The NO<sub>x</sub> emissions for each individual boiler (Boiler #1A, Boiler #2A, and Boiler #3A) for the previous month by using the type and amount of each fuel combusted to calculate NO<sub>x</sub> emissions from each fuel combusted.
  - c. The 12-month rolling sum of NO<sub>x</sub> emissions for the limits described in Order Paragraphs 1 and 2, and for the previous 12-month period by summing the monthly NO<sub>x</sub> emissions data for the previous 12 months.

5. The Regulated Party must submit an annual report, due annually by the 31st of January (for the previous calendar year), beginning January 31, 2024. The report must document the NOX 12-month rolling sum calculations for the previous calendar year. The report must be submitted with the annual Compliance Certification required by the Regulated Party's air emissions permit. As part of the annual report, the Regulated Party must verify and certify that the boilers have maintained NOX emissions below the limits described in Order Paragraphs 1 and 2.

**RESERVATION OF AUTHORITY**

Nothing in this Order shall prevent the MPCA from taking action to enforce the requirements of this Order, or from requiring additional action by the Regulated Party if necessary to ensure compliance with MPCA rules and statutes. In addition, the issuance of this Order is not an exclusive action or remedy by the MPCA, and it does not limit in any way the MPCA's authority to bring an enforcement action against or to seek and collect penalties from the Regulated Party. This Order does not limit or preclude any other action, including the issuance of further orders, pursuit of injunctive or other relief, or commencement of enforcement actions and collection of penalties.

This Order is effective upon the date that it is signed by the MPCA Commissioner or designee.

**IT IS SO ORDERED.**

**HIBBING PUBLIC UTILITIES COMMISSION**

**STATE OF MINNESOTA  
POLLUTION CONTROL AGENCY**

By: Luke Peterson

By: Doug Wetzstein

**Luke J. Peterson  
General Manager**

**Doug Wetzstein  
Director  
Industrial Division**

Date: 8/19/2022

Date: 8/19/2022

**STATE OF MINNESOTA  
Minnesota Pollution Control Agency**

**In the Matter of:  
Taconite Harbor Energy Center  
Operated by Minnesota Power and Owned by Minnesota  
Power, A division of ALLETE, Inc.**

**FIRST AMENDMENT TO  
ADMINISTRATIVE ORDER  
BY CONSENT**

This Administrative Order by Consent (Order) is issued by the Minnesota Pollution Control Agency (MPCA) to Minnesota Power, A division of ALLETE, Inc. (Regulated Party) pursuant to Minn. Stat. § 116.07, subd. 9. The Regulated Party has reviewed the terms of this Order and, by its signature below, agrees to comply with it.

***FINDINGS OF FACTS***

1. The MPCA issued an Administrative Order by Consent (Order) to the Regulated Party on May 27, 2021, which required the Regulated Party to permanently retire EQUI 64/ EU 001 and EQUI 5/ EU 002 no later than March 31, 2022.
2. The MPCA affirms the Findings of Fact in the May 27, 2021 Order and makes the following additional Findings of Fact below.
3. The IRP filing requires a MN PUC decision approving or disapproving the Regulated Party's IRP recommendations, including the September 30, 2021, end of operating life for the THEC units. The MN PUC decision was expected in late 2021 to early 2022.
4. MN PUC referred the IRP filing to the Office of Administrative Hearings (OAH) for public meetings in its March 9, 2021 Order. A series of four public hearings were held on May 17, 2021, and May 18, 2021.
5. Initial comments on the Regulated Party's IRP were originally due by June 1, 2021. The comment period was later extended to March 30, 2022.
6. On January 24, 2022, the Regulated Party notified the MPCA that they did not expect MN PUC to issue an approval of Minnesota Power's IRP recommendations by February 1, 2022.
7. The MN PUC decision is tentatively expected by the end of calendar year 2022.
8. As a result, MPCA and the Regulated Party are amending the Order, signed on May 27, 2021, to account for the revised timeframe for a MN PUC decision on the Regulated Party's IRP recommendations.

**ORDER**

**NOW, THEREFORE, IT IS ORDERED AND AGREED:**

Paragraphs 1-5, under the heading "ORDER" of the Administrative Order by Consent issued May 27, 2021 is hereby deleted and replaced in its entirety with the following:

1. The Regulated Party shall permanently retire EQUI 64/ EU 001 no later than March 31, 2023.
2. The Regulated Party shall permanently retire EQUI 5/ EU 002 no later than March 31, 2023.
3. The Regulated Party shall submit a notification of equipment retirement: Due 15 calendar days after retiring EQUI 64/ EU 001 and EQUI 5/ EU 002. This notification shall specify which Subject Items (by ID#) were removed and on what date. The notification shall also detail the actions taken to render the Subject Items inoperable (e.g., removal of fuel piping and operating controls).

4. If by February 1, 2023, MN PUC does not issue an approval of Minnesota Power's IRP recommendations to establish end of operating life for THEC Boilers No. 1 and 2, the MPCA and Minnesota Power shall revisit and revise this agreement as needed.
5. The Regulated Party shall notify MPCA within 7 working days of MN PUC decision on IRP filling on end of operating life for THEC units.

**RESERVATION OF AUTHORITY**

Nothing in this Order shall prevent the MPCA from taking action to enforce the requirements of this Order, or from requiring additional action by the Regulated Party if necessary to ensure compliance with MPCA rules and statutes. In addition, the issuance of this Order is not an exclusive action or remedy by the MPCA, and it does not limit in any way the MPCA's authority to bring an enforcement action against or to seek and collect penalties from the Regulated Party. This Order does not limit or preclude any other action, including the issuance of further orders, pursuit of injunctive or other relief, or commencement of enforcement actions and collection of penalties.

This Order is effective upon the date that it is signed by the MPCA Commissioner or designee.

**IT IS SO ORDERED.**

**MINNESOTA POWER**

By:  \_\_\_\_\_

**Josh Skelton**  
**COO**

Date: 05-04-22 \_\_\_\_\_

**STATE OF MINNESOTA**  
**POLLUTION CONTROL AGENCY**

By:  \_\_\_\_\_

**Doug Wetzstein**  
**Director**  
**Industrial Division**

Date: 5/17/2022 \_\_\_\_\_

**STATE OF MINNESOTA**  
**Minnesota Pollution Control Agency**

**In the Matter of:**  
**Taconite Harbor Energy Center**  
**Operated by Minnesota Power and Owned by Minnesota**  
**Power, A division of ALLETE, Inc.**

**ADMINISTRATIVE ORDER**  
**BY CONSENT**

This Administrative Order by Consent (Order) is issued by the Minnesota Pollution Control Agency (MPCA) to Minnesota Power, A division of ALLETE, Inc. (Regulated Party) pursuant to *Minn. Stat. § 116.07, subd. 9*. The Regulated Party has reviewed the terms of this Order and, by its signature below, agrees to comply with it.

***FINDINGS OF FACTS***

1. The U.S. Environmental Protection Agency (U.S. EPA) has established regulations to address visibility impairment in our nation's largest national parks and wilderness areas ("Class I areas"). This rule is commonly known as the "Regional Haze Rule" [40 CFR §§ 51.300 - 51.309].
2. Minnesota has two Class I areas within its borders, the Boundary Waters Canoe Area Wilderness (BWCA) and Voyageurs National Park (Voyageurs).
3. Minnesota is responsible for developing a regional haze state implementation plan (Regional Haze SIP) that addresses the emission of pollutants that contribute to visibility impairment. Data from visibility monitoring sites in the BWCA and Voyageurs indicate that sulfates and nitrates continue to be the largest contributors to visibility impairment in these areas. The primary precursors of sulfates and nitrates are emissions of sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>).
4. The Regional Haze Rule requires Minnesota to prepare and submit its Regional Haze State Implementation Plan (SIP) to U.S. EPA by July 31, 2021. The Regional Haze SIP is required to identify existing facilities that cause or contribute to visibility impairment; analyze, identify, and apply federally-enforceable control strategies for those sources; and periodically demonstrate reasonable progress toward reaching visibility goals.
5. In the first regional haze planning period, the focus of the Regional Haze Rule was on establishing Best Available Retrofit Technology (BART) for certain older sources and reasonable progress towards national visibility goals. In the second planning period, there are no BART requirements; therefore, the focus is on making reasonable progress.
6. To satisfy the Regional Haze Rule, the MPCA must determine the measures necessary to continue making reasonable progress. The U.S. EPA has defined the methodology that States must use to determine what measures are necessary to make reasonable progress in 40 CFR § 51.308(f)(2). At minimum, the reasonable progress analysis must use the four factors identified in 40 CFR § 51.308(f)(2)(i) to evaluate and determine the emission reduction measures necessary to make reasonable progress. This analysis is commonly known as the "Four Factor Analysis." The four factors are the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of the source.



7. On August 20, 2019, the U.S. EPA provided guidance to assist states with the preparation of Regional Haze SIPs. Within this guidance document, the U.S. EPA identifies circumstances in which States may rely on a requirement to cease operation before the end of the useful life of the emission unit and controls. To the extent such a requirement is being relied upon as part of a reasonable progress determination, the measure needs to be included in the SIP and/or be federally enforceable.
8. The Regulated Party is a domestic business that owns and operates Taconite Harbor Energy Center, a coal-fired electric utility steam generating plant located at 8124 West Highway 61, Schroeder, Minnesota, hereafter "THEC".
9. On January 29, 2020, the MPCA requested that Minnesota Power-THEC prepare a Four Factor Analysis, by July 31, 2020, for two emission units at the facility; Boiler No. 1 (EQUI 64/ EU 001) and Boiler No. 2 (EQUI5/ EU 002).
10. Both Boiler No. 1 and 2 at Minnesota Power-THEC have been idled since late-2016, but remain permitted to operate, and as a result Minnesota Power prepared and provided the requested analyses on July 31, 2020.
11. On February 1, 2021, Minnesota Power filed its 2021 Integrated Resource Plan (IRP) with the Minnesota Public Utilities Commission (MN PUC) for approval. Within that filing, Minnesota Power recommended that Boilers No. 1 and 2 at Minnesota Power-THEC be retired no later than September 30, 2021.
12. The IRP filing requires a MN PUC decision approving or disapproving Minnesota Power's IRP recommendations, including the September 30, 2021 end of operating life for the THEC units. The MN PUC decision is tentatively expected in the late 2021 to early 2022 timeframe.

**ORDER**

**NOW, THEREFORE, IT IS ORDERED AND AGREED:**

1. The Regulated Party shall permanently retire EQUI 64/ EU 001 no later than March 31, 2022.
2. The Regulated Party shall permanently retire EQUI 5/ EU 002 no later than March 31, 2022.
3. The Regulated Party shall submit a notification of equipment retirement: Due 15 calendar days after retiring EQUI 64/ EU 001 and EQUI 5/ EU 002. This notification shall specify which Subject Items (by ID#) were removed and on what date. The notification shall also detail the actions taken to render the Subject Items inoperable (e.g., removal of fuel piping and operating controls).
4. If by February 1, 2022 MN PUC does not issue an approval of Minnesota Power's IRP recommendations to establish end of operating life for THEC Boilers No. 1 and 2, the MPCA and Minnesota Power shall revisit and revise this agreement as needed.
5. The Regulated Party shall notify MPCA within 7 working days of MN PUC decision on IRP filing on end of operating life for THEC units.

**RESERVATION OF AUTHORITY**

Nothing in this Order shall prevent the MPCA from taking action to enforce the requirements of this Order, or from requiring additional action by the Regulated Party if necessary to ensure compliance with MPCA rules and statutes. In addition, the issuance of this Order is not an exclusive action or remedy by the MPCA, and it does not limit in any way the MPCA's authority to bring an enforcement action against or to seek and collect penalties from the Regulated Party. This Order does not limit or preclude any other action, including the issuance of further orders, pursuit of injunctive or other relief, or commencement of enforcement actions and collection of penalties.

This Order is effective upon the date that it is signed by the MPCA Commissioner or designee.

**IT IS SO ORDERED.**

**MINNESOTA POWER**

By: Josh Skelton

Name: Josh Skelton

Title: COO

Date: 5/27/2021

**STATE OF MINNESOTA  
POLLUTION CONTROL AGENCY**

By: Doug Wetzstein

Doug Wetzstein  
Director  
Industrial Division

Date: 5/27/2021

**STATE OF MINNESOTA**  
**Minnesota Pollution Control Agency**

**In the Matter of:**  
**Northshore Mining - Silver Bay Facility**  
**Operated by Northshore Mining Company and Silver Bay**  
**Power Company and Owned by Cleveland-Cliffs Inc.**

**ADMINISTRATIVE ORDER BY**  
**CONSENT**

This Administrative Order by Consent (Order) is issued by the Minnesota Pollution Control Agency (MPCA) to Northshore Mining Company, Silver Bay Power Company, and Cleveland-Cliffs Inc. (Regulated Parties) pursuant to *Minn. Stat. § 116.07, subd. 9*. The Regulated Parties have reviewed the terms of this Order and, by its signature below, agrees to comply with it.

***FINDINGS OF FACTS***

1. The U.S. Environmental Protection Agency (U.S. EPA) has established regulations to address visibility impairment in our nation's largest national parks and wilderness areas ("Class I areas"). This rule is commonly known as the "Regional Haze Rule" (40 CFR §§ 51.300 - 51.309).
2. Minnesota has two Class I areas within its borders, the Boundary Waters Canoe Area Wilderness (BWCA) and Voyageurs National Park (Voyageurs).
3. Minnesota is responsible for developing a regional haze state implementation plan (Regional Haze SIP) that addresses the emission of pollutants that contribute to visibility impairment. Data from visibility monitoring sites in the BWCA and Voyageurs indicate that sulfates and nitrates continue to be the largest contributors to visibility impairment in these areas. The primary precursors of sulfates and nitrates are emissions of sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>).
4. The Regional Haze Rule requires Minnesota to prepare and submit its Regional Haze State Implementation Plan (SIP) to U.S. EPA by July 31, 2021. The Regional Haze SIP is required to identify existing facilities that cause or contribute to visibility impairment; analyze, identify, and apply federally-enforceable control strategies for those sources; and periodically demonstrate reasonable progress toward reaching visibility goals.
5. In the first regional haze planning period, the focus of the Regional Haze Rule was on establishing Best Available Retrofit Technology (BART) for certain older sources and reasonable progress towards national visibility goals. In the second planning period, there are no BART requirements; therefore, the focus is on making reasonable progress.
6. To satisfy the Regional Haze Rule, the MPCA must determine the measures necessary to continue making reasonable progress. The U.S. EPA has defined the methodology that States must use to determine what measures are necessary to make reasonable progress in 40 CFR § 51.308(f)(2).  
At minimum, the reasonable progress analysis must use the four factors identified in 40 CFR § 51.308(f)(2)(i) to evaluate and determine the emission reduction measures necessary to make reasonable progress. This analysis is commonly known as the "Four Factor Analysis." The four factors are the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of the source.
7. On August 20, 2019, the U.S. EPA provided guidance to assist states with the preparation of Regional Haze SIPs. Within this guidance document, the U.S. EPA identifies circumstances in which States may rely on a requirement to cease operation before the end of the useful life of the emission unit and controls. To the extent such a requirement is being relied upon as part of

a reasonable progress determination, the measure needs to be included in the SIP and/or be federally enforceable.

8. Northshore Mining Company operates a taconite processing plant, and Silver Bay Power Company operates a power plant that provides steam and electricity for Northshore Mining Company's taconite processing plant. Together, the taconite processing facility and power plant constitute one stationary source as defined in 40 CFR part 52 and part 70. The stationary source is located at 10 Outer Drive, Silver Bay, Minnesota, hereafter "Northshore."
9. On January 29, 2020, the MPCA requested that the Regulated Parties prepare a Four Factor Analysis, by July 31, 2020, for two emission units at Northshore; Power Boiler 1 (EQUI 14 / EU 001) and Power Boiler 2 (EQUI 15 / EU 002). MPCA requested that the Four Factor Analysis for these emission units address emissions of NOX and SO2.
10. On February 24, 2020, the MPCA revised its original request that the Regulated Parties prepare a Four Factor Analysis to include two additional emission units at Northshore; Furnace 11 (EQUI 126 & 127 / EU 100 & 104) and Furnace 12 (EQUI 128 & 129 / EU 110 & 114). MPCA requested that the Four Factor Analysis for these emission units address emissions of NOX and SO2.
11. On July 6, 2020, the Regulated Parties provided supporting information regarding Furnaces 11 and 12, requested that the furnaces should be considered "effectively controlled" as contemplated in U.S. EPA's August 20, 2019, guidance and excluded from the request to prepare a Four Factor Analysis. MPCA reviewed the response and requested additional information on July 28, 2020. The MPCA subsequently agreed that Furnaces 11 and 12 are effectively controlled in this regional haze implementation period and the Regulated Parties did not need to conduct a Four Factor Analysis for the two furnaces.
12. Power Boilers 1 and 2 at Northshore are currently permitted to operate, but the Regulated Parties indicated that these units are planned to be idled through calendar year 2031 as part of a voluntary power supply agreement that Silver Bay Power entered into with Minnesota Power to purchase grid electrical power alongside the idling of Power Boilers 1 and 2 (the "Minnesota Power Agreement"). As a result, the Regulated Parties prepared and provided the proposed idling duration in response to the requested analyses on July 29, 2020.
13. The Regulated Parties further indicated that Northshore is maintaining Power Boiler 1 and 2 in a manner that allows startup if and when called upon by Minnesota Power as required by the Minnesota Power Agreement.
14. The Regulated Parties stated that Minnesota Power will only request a restart in the case of a significant, grid-stability need (hereinafter "emergency use"), and that the restart of Power Boiler 1 or 2 would require an anticipated lead time of more than 12 weeks, thereby practically eliminating the potential for any short-term or ad-hoc startup situations.
15. As of October 2019, Power Boilers 1 and 2 have been idled. The Regulated Parties indicated that the idled boilers may resume operation after the termination of the Minnesota Power Agreement in Calendar Year 2031, but a typical operating scenario has not yet been determined. The Regulated Parties expect that Power Boilers 1 and 2 will generate no emission through the second regional haze planning period (2028).
16. Subsequently, the Regulated Parties projected the NOX and SO2 emission rates of Power Boilers 1 and 2 as zero in evaluating the cost-effectiveness metric (in dollars per ton of pollutant removed) for the control technologies examined in the Four Factor Analysis. Based on the analysis, the Regulated Parties conclude that additional control measures on Power Boilers 1 and 2, beyond the existing measures, are not required to make reasonable progress as there will be no emissions removed by the installation of any control technology.
17. The Minnesota Power Agreement is not a federally or state-enforceable agreement that would limit the operations or emissions of Power Boilers 1 and 2.
18. Previously, the Regulated Parties applied for and obtained authorization to install and operate low NOX burners and overfire air technology (LNB+OFA) on Power Boilers 1 and 2 in Air Emissions Permit No. 07500003-009 (issued January 26, 2015) to reduce NOX emissions. The

replacement of the boiler burners was subject to the requirement of PSD under the NSR program.

19. The Regulated Parties were required to perform a Best Available Control Technology (BACT) analysis for carbon monoxide (CO), and air quality analysis, and an additional impacts analysis. The Regulated Parties proposed BACT limits for CO for both Power Boiler 1 and 2
20. The LNB+OFA technology was installed on Power Boiler 1 in 2015, but has not been installed on Power Boiler 2. Additionally, the construction authorization to install the LNB+OFA technology on Power Boiler 2 has expired. The Regulated Parties acknowledge and agree that LNB+OFA technology has been a feasible option for reducing NOX emission from Power Boiler 2.
21. The Regulated Parties enter into this Order to ensure that NOX and SO2 emissions from Power Boilers 1 and 2 at Northshore remain limited by remaining idled through calendar year 2031, only operating when called upon by Minnesota Power for emergency use, such that the MPCA is justified in incorporating the projected emission rates within the analyses that are a part of Minnesota's Regional Haze SIP.

### **ORDER**

#### **NOW, THEREFORE, IT IS ORDERED AND AGREED:**

1. The Regulated Parties shall maintain Power Boiler 1 (EQUI 14 / EU 001) and Power Boiler 2 (EQUI 15 / EU 002) in an idled status through calendar year 2031, with exception for startup when called upon by Minnesota Power for emergency use.
2. The Regulated Parties must maintain the following records for Power Boilers 1 and 2:
  - a. An ongoing list of tasks performed to maintain the boilers in an idle status, including a description of the task and the date the task was performed.
  - b. The date of any startup (i.e., anything beyond non-operation) and duration of operation.
  - c. The reason for operation and whether it was due to emergency use.
  - d. If operation was due to an emergency use, the reason that Minnesota Power required the emergency use.
3. The Regulated Parties must submit a report to the MPCA if Power Boiler 1 or 2 resumes operations, other than as required under the Minnesota Power Agreement for emergency use, prior to the end of Calendar Year 2031. The Regulated Parties must provide MPCA with the report 60 days prior to the expected change in operating status and the report must contain:
  - a. The anticipated typical operating scenario for operation of Power Boilers 1 and 2.
  - b. Expected emission rates under the typical operating scenario for Power Boilers 1 and 2.
  - c. An updated four factor analysis of NOX and SO2 controls for Power Boilers 1 and 2.
4. If Power Boiler 1 or 2 resumes operations, other than as required under the Minnesota Power Agreement for emergency use, prior to the end of Calendar Year 2031:
  - a. The Regulated Parties and MPCA will revisit and revise the Power Boiler 1 and 2 Four Factor Analyses and this Order as part of the regional haze progress report due to EPA in 2025, the regional haze comprehensive update due to EPA in 2028, or regional haze progress report due to EPA in 2033.
  - b. The Regulated Parties must submit the appropriate permit amendment to the MPCA, if Power Boiler 1 or 2 resuming operations triggers other air permitting requirements (e.g., PSD program requirements) or if the outcome of the revised four factor analysis is that NO<sub>x</sub> and/or SO<sub>2</sub> controls are needed to continue making reasonable progress.
5. By July 1, 2031, the Regulated Parties must submit a report to the MPCA detailing the expected future operations of Power Boilers 1 and 2. The report must contain:
  - a. The anticipated typical operating scenario for operation of Power Boilers 1 and 2.

- b. Expected emission rates under the typical operating scenario for Power Boilers 1 and 2.
- 6. If the Regulated Parties decide to permanently retire Power Boiler 1 and/or 2, the Regulated Parties must submit a notification of equipment retirement: Due 15 calendar days after retiring Power Boiler 1 and/or 2. This notification shall specify which Subject Items (by ID#) were removed and on what date. The notification shall also detail the actions taken to render the Subject Items inoperable (e.g., removal of fuel piping and operating controls).

**RESERVATION OF AUTHORITY**

Nothing in this Order shall prevent the MPCA from taking action to enforce the requirements of this Order, or from requiring additional action by the Regulated Parties if necessary to ensure compliance with MPCA rules and statutes. In addition, the issuance of this Order does not limit in any way the MPCA's authority to bring an enforcement action against, seek and collect penalties, or pursue injunctive or other relief from the Regulated Parties.

This Order is effective upon the date that it is signed by the MPCA Commissioner or designee.

**IT IS SO ORDERED.**

**CLEVELAND-CLIFFS INC.  
NORTHSHORE MINING COMPANY  
SILVER BAY POWER COMPANY**

**STATE OF MINNESOTA  
POLLUTION CONTROL AGENCY**

By: James M Kochevar

By: Doug Wetzstein

James M. Kochevar  
President, Silver Bay Power Company and  
Northshore Mining Company  
Vice President, Iron Ore Operations, Cleveland-  
Cliffs Inc.

Doug Wetzstein  
Director  
Industrial Division

Date: 8/18/2022

Date: 8/18/2022

**STATE OF MINNESOTA**  
**Minnesota Pollution Control Agency**

**In the Matter of:**  
**Virginia Department of Public Utilities**  
**Operated by Virginia Department of Public Utilities and**  
**Owned by the City of Virginia, Minnesota.**

**ADMINISTRATIVE ORDER BY**  
**CONSENT**

This Administrative Order by Consent (Order) is issued by the Minnesota Pollution Control Agency (MPCA) to the City of Virginia, Minnesota (Regulated Party) pursuant to *Minn. Stat. § 116.07, subd. 9*. The Regulated Party has reviewed the terms of this Order and, by its signature below, agrees to comply with it.

**FINDINGS OF FACTS**

1. The U.S. Environmental Protection Agency (U.S. EPA) has established regulations to address visibility impairment in our nation's largest national parks and wilderness areas ("Class I areas"). This rule is commonly known as the "Regional Haze Rule" (40 CFR §§ 51.300 - 51.309).
2. Minnesota has two Class I areas within its borders, the Boundary Waters Canoe Area Wilderness (BWCA) and Voyageurs National Park (Voyageurs).
3. Minnesota is responsible for developing a regional haze state implementation plan (Regional Haze SIP) that addresses the emission of pollutants that contribute to visibility impairment. Data from visibility monitoring sites in the BWCA and Voyageurs indicate that sulfates and nitrates continue to be the largest contributors to visibility impairment in these areas. The primary precursors of sulfates and nitrates are emissions of sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>).
4. The Regional Haze Rule requires Minnesota to prepare and submit its Regional Haze State Implementation Plan (SIP) to U.S. EPA by July 31, 2021. The Regional Haze SIP is required to identify existing facilities that cause or contribute to visibility impairment; analyze, identify, and apply federally-enforceable control strategies for those sources; and periodically demonstrate reasonable progress toward reaching visibility goals.
5. In the first regional haze planning period, the focus of the Regional Haze Rule was on establishing Best Available Retrofit Technology (BART) for certain older sources and reasonable progress towards national visibility goals. In the second planning period, there are no BART requirements; therefore, the focus is on making reasonable progress.
6. To satisfy the Regional Haze Rule, the MPCA must determine the measures necessary to continue making reasonable progress. The U.S. EPA has defined the methodology that States must use to determine what measures are necessary to make reasonable progress in 40 CFR § 51.308(f)(2). At minimum, the reasonable progress analysis must use the four factors identified in 40 CFR § 51.308(f)(2)(i) to evaluate and determine the emission reduction measures necessary to make reasonable progress. This analysis is commonly known as the "Four Factor Analysis." The four factors are the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of the source.
7. On August 20, 2019, the U.S. EPA provided guidance to assist states with the preparation of Regional Haze SIPs. Within this guidance document, the U.S. EPA identifies circumstances in which States may rely on a requirement to cease operation before the end of the useful life of the emission unit and controls.

- To the extent such a requirement is being relied upon as part of a reasonable progress determination, the measure needs to be included in the SIP and/or be federally enforceable.
8. The Regulated Party is a City-owned utility that owns and operates Virginia Department of Public Utilities, a cogeneration facility that provides steam products, electricity, natural gas, and drinking water for local businesses and residents of Virginia, Minnesota. The facility is located at 618 2<sup>nd</sup> Street South, Virginia, Minnesota, hereafter "VDPU."
  9. On January 29, 2020, the MPCA requested that the Regulated Party prepare a Four Factor Analysis, by July 31, 2020, for two emission units at the facility: Boiler #9 (EQUI 3 / EU 003) and Boiler #11 (EQUI 16 / EU 006). The MPCA requested that the Four Factor Analysis for these emission units address emissions of NO<sub>x</sub> and SO<sub>2</sub>.
  10. On June 2, 2020, the MPCA revised its original request that the Regulated Party prepare a Four Factor Analysis for Boiler #11 to only address emissions of NO<sub>x</sub> as the inclusion of SO<sub>2</sub> for that emission unit was a typographical error.
  11. On July 15, 2020, the Regulated Party provided the requested analysis for Boiler #11, indicated that Boiler #9 had not been operated since April 30, 2019, and that they planned to permanently retire Boiler #9. As a result, the Regulated Party provided additional information regarding the permit application submitted to MPCA on May 11, 2020, which included the planned retirement of Boiler #9. The permanent retirement of Boiler #9 was subsequently incorporated into VDPU's Air Permit No. 13700028-102 (see permit condition 5.3.1).
  12. The MPCA reviewed the provided response and requested additional information on April 21, 2021. Additionally, the MPCA revised its original request that the Regulated Party prepare a Four Factor Analysis to include one additional emission unit at the facility; Boiler #7 (EQUI 2 / EU 001). The MPCA requested that the Four Factor Analysis for this emission unit address emissions of NO<sub>x</sub> and SO<sub>2</sub>.
  13. The Regulated Party provided the requested analysis for Boiler #7 on June 4, 2021. The MPCA reviewed the analyses for Boiler #7 and Boiler #11 and requested additional information from the Regulated Party over the time period of April through October 2021.
  14. Based on the analysis and additional information provided for Boiler #11, the MPCA determined that additional NO<sub>x</sub> control measures were not cost effective and were not required to make reasonable progress in this Regional Haze Implementation period.
  15. Based on the analysis and additional information provided for Boiler #7, the MPCA determined that additional SO<sub>2</sub> control measures were not cost effective and were not required to make reasonable progress in this Regional Haze implementation period. However, the MPCA determined that additional NO<sub>x</sub> control measures on Boiler #7 were cost effective and recommended installation of the NO<sub>x</sub> control measure for this Regional Haze implementation period.
  16. The MPCA shared its assessment of control measures with the Regulated Party at a meeting held on January 14, 2022, and also identified that MPCA would consider alternatives to control measures that achieved emission reductions greater than or equal to the reductions that would be achieved by the recommended controls. Subsequently, the Regulated Party indicated that they were considering the future operations of Boiler #7.
  17. On April 6, 2022, the Regulated Party prepared and provided a memorandum identifying that VDPU planned to retire Boiler #7 by January 1, 2025.

### **ORDER**

#### **NOW, THEREFORE, IT IS ORDERED AND AGREED:**

1. The Regulated Party shall permanently retire Boiler #7 (EQUI 2 / EU 001) no later than January 1, 2025.



2. The Regulated Party shall submit a notification of equipment retirement: Due 15 calendar days after retiring EQUI 2 / EU 001. This notification shall specify which Subject Items (by ID#) were removed and on what date. The notification shall also detail the actions taken to render the Subject Items inoperable (e.g., removal of fuel piping and operating controls).

**RESERVATION OF AUTHORITY**

Nothing in this Order shall prevent the MPCA from taking action to enforce the requirements of this Order, or from requiring additional action by the Regulated Party if necessary to ensure compliance with MPCA rules and statutes. In addition, the issuance of this Order is not an exclusive action or remedy by the MPCA, and it does not limit in any way the MPCA's authority to bring an enforcement action against or to seek and collect penalties from the Regulated Party. This Order does not limit or preclude any other action, including the issuance of further orders, pursuit of injunctive or other relief, or commencement of enforcement actions and collection of penalties.

This Order is effective upon the date that it is signed by the MPCA Commissioner or designee.

**IT IS SO ORDERED.**

**VIRGINIA DEPARTMENT OF PUBLIC UTILITIES**

By: \_\_\_\_\_

**Greg French  
General Manager**

Date: \_\_\_\_\_

*7/1/2022*

**STATE OF MINNESOTA  
POLLUTION CONTROL AGENCY**

By: \_\_\_\_\_

**Doug Wetzstein  
Director  
Industrial Division**

Date: \_\_\_\_\_

*8/16/2022*

**STATE OF MINNESOTA**  
**Minnesota Pollution Control Agency**

**In the Matter of:**  
**Allen S King Generating Plant**  
**Operated by Xcel Energy Inc and Owned by Xcel Energy Inc**

**ADMINISTRATIVE ORDER**  
**BY CONSENT**

This Administrative Order by Consent (Order) is issued by the Minnesota Pollution Control Agency (MPCA) to Xcel Energy Inc (Regulated Party) pursuant to *Minn. Stat. § 116.07, subd. 9*. The Regulated Party has reviewed the terms of this Order and, by its signature below, agrees to comply with it.

***FINDINGS OF FACTS***

1. The U.S. Environmental Protection Agency (U.S. EPA) has established regulations to address visibility impairment in our nation's largest national parks and wilderness areas ("Class I areas"). This rule is commonly known as the "Regional Haze Rule" (40 CFR §§ 51.300 - 51.309).
2. Minnesota has two Class I areas within its borders, the Boundary Waters Canoe Area Wilderness (BWCA) and Voyageurs National Park (Voyageurs).
3. Minnesota is responsible for developing a regional haze state implementation plan (Regional Haze SIP) that addresses the emission of pollutants that contribute to visibility impairment. Data from visibility monitoring sites in the BWCA and Voyageurs indicate that sulfates and nitrates continue to be the largest contributors to visibility impairment in these areas. The primary precursors of sulfates and nitrates are emissions of sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>).
4. The Regional Haze Rule requires Minnesota to prepare and submit its Regional Haze State Implementation Plan (SIP) to U.S. EPA by July 31, 2021. The Regional Haze SIP is required to identify existing facilities that cause or contribute to visibility impairment; analyze, identify, and apply federally-enforceable control strategies for those sources; and periodically demonstrate reasonable progress toward reaching visibility goals.
5. In the first regional haze planning period, the focus of the Regional Haze Rule was on establishing Best Available Retrofit Technology (BART) for certain older sources and reasonable progress towards national visibility goals. In the second planning period, there are no BART requirements; therefore, the focus is on making reasonable progress.
6. To satisfy the Regional Haze Rule, the MPCA must determine the measures necessary to continue making reasonable progress. The U.S. EPA has defined the methodology that States must use to determine what measures are necessary to make reasonable progress in 40 CFR § 51.308(f)(2). At minimum, the reasonable progress analysis must use the four factors identified in 40 CFR § 51.308(f)(2)(i) to evaluate and determine the emission reduction measures necessary to make reasonable progress. This analysis is commonly known as the "Four Factor Analysis." The four factors are the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of the source.
7. On August 20, 2019, the U.S. EPA provided guidance to assist states with the preparation of Regional Haze SIPs. Within this guidance document, the U.S. EPA identifies circumstances in which States may rely on a requirement to cease operation before the end of the useful life of the emission unit and controls. To the extent such a requirement is being relied upon as part of a reasonable progress determination, the measure needs to be included in the SIP and/or be federally enforceable.

8. The Regulated Party is a domestic business that owns and operates Allen S King Generating Plant, a coal-fired electric utility steam generating plant located at 1103 King Plant Rd., Bayport, Minnesota, hereafter Allen S King.
9. On January 29, 2020, the MPCA requested that Allen S King prepare a Four Factor Analysis, by July 31, 2020, for one emission unit at the facility; Boiler 1 (EQUI 68 / EU 001).
10. Boiler 1 at Allen S King is currently permitted to operate, but Xcel Energy Inc indicated that this unit is planned to retire and the retirement date was proposed to the Minnesota Public Utilities Commission (MN PUC) for approval. As a result, Xcel Energy Inc prepared and provided the proposed retirement date in response to the requested analysis on July 29, 2020.
11. On July 1, 2019, Xcel Energy Inc filed its 2020-2034 Upper Midwest Integrated Resource Plan (IRP), Docket No. E002/RP-19-368, with the MN PUC for approval. A supplement was filed June 30, 2020. Within that filing, Xcel Energy Inc recommended that Boiler 1 at Allen S King be retired no later than December 31, 2028.
12. The IRP filing requires a MN PUC decision approving or disapproving Xcel Energy Inc's IRP recommendations, including the December 31, 2028 retirement date for Boiler 1. The MN PUC decision is tentatively expected by the end of 2021.

**ORDER**

**NOW, THEREFORE, IT IS ORDERED AND AGREED:**

1. The Regulated Party shall permanently retire Boiler 1 (EQUI 68 / EU 001) no later than December 31, 2028.
2. The Regulated Party shall submit a notification of equipment retirement: Due 15 calendar days after retiring EQUI 68 / EU 001. This notification shall specify which Subject Items (by ID#) were removed and on what date. The notification shall also detail the actions taken to render the Subject Items inoperable (e.g., removal of fuel piping and operating controls).
3. Order Items 1-2 will not occur if MN PUC does not approve Xcel Energy Inc's IRP recommendations to establish December 31, 2028 as the retirement date for Allen S King Boiler 1. Should this circumstance take place, the MPCA and Xcel Energy Inc shall revisit and revise this agreement as needed.
4. The Regulated Party shall notify MPCA within 7 working days of MN PUC decision on IRP filing on retirement date for Allen S King units.

**RESERVATION OF AUTHORITY**

Nothing in this Order shall prevent the MPCA from taking action to enforce the requirements of this Order, or from requiring additional action by the Regulated Party if necessary to ensure compliance with MPCA rules and statutes. In addition, the issuance of this Order does not limit in any way the MPCA's authority to bring an enforcement action against, seek and collect penalties, or pursue injunctive or other relief from the Regulated Party.

This Order is effective upon the date that it is signed by the MPCA Commissioner or designee.

**IT IS SO ORDERED.**

**XCEL ENERGY INC**

**STATE OF MINNESOTA  
POLLUTION CONTROL AGENCY**

By: Christopher B. Clark

By: Cory Boeck

Christopher B. Clark  
President, Northern States Power Company-  
Minnesota doing business as Xcel Energy Inc

Cory Boeck  
Manager  
Industrial Division

Date: 7/15/2021

Date: 7/16/2021

**STATE OF MINNESOTA**  
**Minnesota Pollution Control Agency**

**In the Matter of:**

**Sherburne County Generating Plant  
Operated by Xcel Energy Inc and Owned by Xcel Energy Inc  
and Southern Minnesota Municipal Power Agency (SMMPA)**

**ADMINISTRATIVE ORDER  
BY CONSENT**

This Administrative Order by Consent (Order) is issued by the Minnesota Pollution Control Agency (MPCA) to Xcel Energy Inc and Southern Minnesota Municipal Power Agency (Regulated Parties) pursuant to *Minn. Stat. § 116.07, subd. 9*. The Regulated Parties have reviewed the terms of this Order and, by their signatures below, agree to comply with it.

***FINDINGS OF FACTS***

1. The U.S. Environmental Protection Agency (U.S. EPA) has established regulations to address visibility impairment in our nation's largest national parks and wilderness areas ("Class I areas"). This rule is commonly known as the "Regional Haze Rule" (40 CFR §§ 51.300 - 51.309).
2. Minnesota has two Class I areas within its borders, the Boundary Waters Canoe Area Wilderness (BWCA) and Voyageurs National Park (Voyageurs).
3. Minnesota is responsible for developing a regional haze state implementation plan (Regional Haze SIP) that addresses the emission of pollutants that contribute to visibility impairment. Data from visibility monitoring sites in the BWCA and Voyageurs indicate that sulfates and nitrates continue to be the largest contributors to visibility impairment in these areas. The primary precursors of sulfates and nitrates are emissions of sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>).
4. The Regional Haze Rule requires Minnesota to prepare and submit its Regional Haze State Implementation Plan (SIP) to U.S. EPA by July 31, 2021. The Regional Haze SIP is required to identify existing facilities that cause or contribute to visibility impairment; analyze, identify, and apply federally-enforceable control strategies for those sources; and periodically demonstrate reasonable progress toward reaching visibility goals.
5. In the first regional haze planning period, the focus of the Regional Haze Rule was on establishing Best Available Retrofit Technology (BART) for certain older sources and reasonable progress towards national visibility goals. In the second planning period, there are no BART requirements; therefore, the focus is on making reasonable progress.
6. To satisfy the Regional Haze Rule, the MPCA must determine the measures necessary to continue making reasonable progress. The U.S. EPA has defined the methodology that States must use to determine what measures are necessary to make reasonable progress in 40 CFR § 51.308(f)(2). At minimum, the reasonable progress analysis must use the four factors identified in 40 CFR § 51.308(f)(2)(i) to evaluate and determine the emission reduction measures necessary to make reasonable progress. This analysis is commonly known as the "Four Factor Analysis." The four factors are the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of the source.
7. On August 20, 2019, the U.S. EPA provided guidance to assist states with the preparation of Regional Haze SIPs. Within this guidance document, the U.S. EPA identifies circumstances in which States may rely on a requirement to cease operation before the end of the useful life of the emission unit and controls. To the extent such a requirement is being relied upon as part of a reasonable progress determination, the measure needs to be included in the SIP and/or be federally enforceable.

8. The Regulated Party is a domestic business that owns and operates Sherburne County Generating Plant, a coal-fired electric utility steam generating plant located at 13999 Industrial Blvd., Becker, Minnesota, hereafter Sherco.
9. On January 29, 2020, the MPCA requested that Sherco prepare a Four Factor Analysis, by July 31, 2020, for three emission units at the facility; Sherco Unit 1 (EQUI 92 / EU 001), Sherco Unit 2 (EQUI 93 / EU 002), and Sherco Unit 3 (EQUI 94 / EU 003).
10. Sherco Units 1, 2, and 3 at Sherco are currently permitted to operate, but Xcel Energy Inc indicated that these units are planned to retire and the retirement dates were proposed to the Minnesota Public Utilities Commission (MN PUC) for approval. As a result, Xcel Energy Inc prepared and provided the proposed retirement dates in response to the requested analyses on July 29, 2020.
11. On January 11, 2017, Xcel Energy Inc filed its 2015 Upper Midwest Integrated Resource Plan (IRP), Docket No. E002/RP-15-21, with the MN PUC for approval. Within that filing, Xcel Energy Inc recommended that Sherco Units 1 and 2 at Sherco be retired no later than December 31, 2026, and December 31, 2023, respectively. The MN PUC approved these retirement dates and were subsequently incorporated into Sherco's Air Permit No. 14100004-101 (see permit conditions 5.57.1 and 5.58.1).
12. On July 1, 2019, Xcel Energy Inc filed its 2020-2034 Upper Midwest Integrated Resource Plan (IRP), Docket No. E002/RP-19-368, with the MN PUC for approval. A supplement was filed June 30, 2020. Within that filing, Xcel Energy Inc recommended that Sherco Unit 3 at Sherco be retired no later than December 31, 2030.
13. The IRP filing requires a MN PUC decision approving or disapproving Xcel Energy Inc's IRP recommendations, including the December 31, 2030 retirement date for Sherco Unit 3. The MN PUC decision is tentatively expected by the end of 2021.

**ORDER**

**NOW, THEREFORE, IT IS ORDERED AND AGREED:**

1. The Regulated Party shall permanently retire Sherco Unit 3 (EQUI 94 / EU 003) no later than December 31, 2030.
2. The Regulated Party shall submit a notification of equipment retirement: Due 15 calendar days after retiring EQUI 94 / EU 003. This notification shall specify which Subject Items (by ID#) were removed and on what date. The notification shall also detail the actions taken to render the Subject Items inoperable (e.g., removal of fuel piping and operating controls).
3. Order Items 1-2 will not occur if MN PUC does not approve Xcel Energy Inc's IRP recommendations to establish December 31, 2030 as the retirement date for Sherco Unit 3. Should this circumstance take place, the MPCA and Xcel Energy Inc shall revisit and revise this agreement as needed.
4. The Regulated Party shall notify MPCA within 7 working days of MN PUC decision on IRP filing on retirement date for Sherco units.

**RESERVATION OF AUTHORITY**

Nothing in this Order shall prevent the MPCA from taking action to enforce the requirements of this Order, or from requiring additional action by the Regulated Party if necessary to ensure compliance with MPCA rules and statutes. In addition, the issuance of this Order does not limit in any way the MPCA's authority to bring an enforcement action against, seek and collect penalties, or pursue injunctive or other relief from the Regulated Party.

This Order is effective upon the date that it is signed by the MPCA Commissioner or designee.

**IT IS SO ORDERED.**

**XCEL ENERGY INC**

By: Christopher B. Clark

Christopher B. Clark  
President, Northern States Power Company-  
Minnesota doing business as Xcel Energy Inc

Date: 7/15/2021

**STATE OF MINNESOTA  
POLLUTION CONTROL AGENCY**

By: Cory Boeck

Cory Boeck  
Manager  
Industrial Division

Date: 7/16/2021

**SOUTHERN MINNESOTA  
MUNICIPAL POWER AGENCY (SMMPA)**

By: David P. Geschwind

David P. Geschwind  
Executive Director & CEO, Southern Minnesota  
Municipal Power Agency (SMMPA)

Date: 7/16/2021