

IOWA DEPARTMENT OF NATURAL RESOURCES

ADMINISTRATIVE CONSENT ORDER

IN THE MATTER OF: CARGILL, INCORPORATED	ADMINISTRATIVE CONSENT ORDER NO. 2020-AQ- 11
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To: Cargill, Incorporated
Steven Phillips, Environmental Manager
17540 Monroe-Wapello Road
Eddyville, Iowa 52553

Cargill, Incorporated
C T Corporation System, Registered Agent
400 E. Court Avenue
Des Moines, Iowa 50309

I. SUMMARY

This administrative consent order is entered into between the Iowa Department of Natural Resources (DNR) and Cargill, Incorporated (Cargill) for the purpose of resolving air quality violations. In the interest of avoiding litigation, the parties have agreed to the provisions below.

Any questions regarding this administrative consent order should be directed to:

Relating to technical requirements:

Brian Hutchins
Iowa Department of Natural Resources
Wallace State Office Building
502 East Ninth Street
Des Moines, Iowa 50319-0034
Phone: 515-725-9550

Relating to legal requirements:

Anne Preziosi, Attorney for the DNR
Iowa Department of Natural Resources
Wallace State Office Building
502 East Ninth Street
Des Moines, Iowa 50319-0034
Phone: 515-725-9551

Payment of penalty to:

Director of the Iowa DNR
Wallace State Office Building
502 East Ninth Street
Des Moines, Iowa 50319-0034

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II. JURISDICTION

This administrative consent order is issued pursuant to the provisions of Iowa Code sections 455B.134(9) and 455B.138(1), which authorize the director to issue any order necessary to secure compliance with or prevent a violation of Iowa Code chapter 455B, Division II (air quality), and the rules promulgated or permits issued pursuant to that part; and Iowa Code section 455B.109 and 567 Iowa Administrative Code (IAC) chapter 10, which authorize the director to assess administrative penalties.

III. STATEMENT OF FACTS

1. Cargill's North American Corn Milling Division operates a corn wet milling facility in Eddyville, Iowa. The Eddyville facility produces corn-based products such as sweeteners used by food and beverage companies, corn gluten meal, crude corn oil, feed products, and ethanol. The facility operates equipment that generates air emissions to the outside atmosphere. The facility is classified as a major source for Title V and prevention of significant deterioration (PSD).

2. Air Quality Construction Permit No. 90-A-085-S4 was issued to Cargill on February 4, 2019, for Pre-Dryer 1 and Pre-Dryer 2 (Emission Point 1). Condition 1 of Permit No. 90-A-085-S4, entitled *Emission Limits*, establishes a 98.0 lb/hr emission limit for PM, PM10, and PM2.5. This emission limit is based on a twelve-month rolling average.

3. The permit states in Condition 1, footnote 3, that the 98.0 lb/hr emission limit for PM, PM10, and PM2.5 was used in the permit because PSD netting demonstrated that the permit project would not generate a significant net emissions increase. A 429 ton per year PM, PM10, and PM2.5 emission rate for the Pre-Dryers was used in the PSD netting to demonstrate the project was not a significant net emissions increase. Emissions of 429 tons per year represent the equivalent of the permitted equipment emitting at 98.0 lb/hour at full loading rate. The permit was, therefore, a synthetic minor permit, allowing Cargill to avoid obtaining a PSD construction permit for this project. Construction Permit No. 90-A-085-S4 required PM, PM10, and PM2.5 stack testing to demonstrate compliance with this permitted emission limit.

4. Compliance stack testing was conducted on three occasions that demonstrated Cargill was in violation of the permitted emission limit stated above, as follows:

Test Date	Result
April 23, 2019	108.4 lb/hr of PM, PM10, and PM2.5
July 24, 2019	144.72 lb/hr of PM, PM10, and PM2.5.

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July 25, 2019	157.1 lb/hr of PM, PM10, and PM2.5
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5. April 23, 2019, testing: On March 22, 2019, Cargill submitted a stack test notification and protocol to DNR to schedule an April 23, 2019, stack test for the Pre-Dryers, in compliance with Permit No. 90-A-085-S4. On April 23, 2019, Cargill conducted stack testing for PM, PM10, and PM2.5 on the Pre-Dryers. On May 28, 2019, Cargill submitted an excess emissions report to DNR Field Office 5 based on the April 23, 2019, stack test results. On June 4, 2019, Cargill submitted a stack test report for the April 23, 2019, stack test for the Pre-Dryers. The report showed that the Pre-Dryers were exceeding the 98.0 lb/hr emission limit for PM, PM10, and PM2.5. The measured emission rate during the stack test was 108.4 lb/hr.

6. On July 9, 2019, Cargill and DNR representatives met to discuss the April 23, 2019, stack test results, the test site location, and retesting scenarios for operation of the source moving forward. On July 16, 2019, DNR issued a Notice of Violation letter (NOV) for the April 23, 2019, stack test violation.

7. July 24 and 25, 2019, testing: On July 19, 2019, Cargill submitted a stack test notification and protocol to DNR for July 24 and 25, 2019, stack testing for the Pre-Dryers. On July 24, 2019, Cargill conducted stack testing for the Pre-Dryers under normal operating conditions. On July 25, 2019, Cargill conducted stack testing of the Pre-Dryers under a different operating scenario (10% slipstream). On September 6, 2019, Cargill submitted a stack test report for the July 24-25, 2019, stack test for the Pre-Dryers. The report shows the Pre-Dryers are exceeding the 98.0 lb/hr emission limit for PM, PM10, and PM2.5. The measured emission rate was 144.72 lb/hr under normal operating conditions on July 24 and 157.1 lb/hr under a 10% slipstream condition on July 25.

8. On September 19, 2019, in response to the September 6, 2019, stack test report, DNR sent a certified letter to Cargill, stating that the Pre-Dryers continue to violate the PM, PM10, and PM2.5 permitted emission limits.

9. On October 15, 2019, Cargill and DNR representatives met to discuss the PM, PM10, and PM2.5 stack testing exceedances in violation of Construction Permit No. 90-A-085-S4, and Cargill's investigation into the cause of the excess emissions. DNR also discussed the 429 ton per year PM, PM10, and PM2.5 emission rate for the Pre-Dryers used in the PSD netting to demonstrate the project was not a significant net emissions increase. DNR and Cargill discussed that if Cargill were to exceed the 429 tons per year, that exceedance would be a PSD violation. Cargill proposed that a compliance plan be created.

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10. On October 22, 2019, Cargill submitted to DNR a stack test notification and protocol to schedule a November 13, 2019, stack test on the Pre-Dryers. On November 1, 2019, Cargill proposed to DNR a written compliance plan to address the ongoing emission limit exceedances.

11. On November 13, 2019, in an effort to find an operating scenario to lower emissions, Cargill conducted stack testing with the dampers for Pre-Dryer 1 and Pre-Dryer 2 at less than or equal to 45% and 67% respectively, and with recycle off. On December 20, Cargill submitted a stack test report for the November 13, 2019, stack test for the Pre-Dryers. The report shows the measured emission rate was 96.74 lb/hr for PM, PM10, and PM2.5. However, the testing was conducted at a 60.22 ton/hr production rate.

12. On January 16, 2020, DNR and Cargill held a conference call to review and update emission calculations that are being used to track the Pre-Dryers PM, PM10, and PM2.5 tons per year. The purpose of this review was to be able to have a comparison to the 429 tons per year emission rate used in the PSD netting to demonstrate the project was not a significant net emissions increase. On February 3, 2020, a second conference call occurred between DNR and Cargill to discuss emission projections and the implementation of a compliance plan. DNR stated that an enforceable compliance plan should be placed into an administrative order.

13. Cargill conducted stack testing for the Pre-Dryers on March 31 and April 7, 2020. DNR received the test report on May 19, 2020. Test results for both tests showed that Emission Point 1 is exceeding the 98.0 lb/hr permitted limits for PM, PM10, and PM2.5 contained in Permit No. 90-A-085-S4, as follows:

Test Date	Result
March 31, 2020	115.07 lb/hr of PM, PM10, and PM2.5
April 7, 2020	102.42 lb/hr of PM, PM10, and PM2.5

14. In a cover letter submitted with the test report and through phone conversations, Cargill has reported to DNR that dryer issues were experienced during the testing conducted on March 31, 2020. A DNR-approved retest was conducted April 7, 2020, and no issues were reported during this test event. DNR agrees that dryer operation during the March 31, 2020, test event most likely affected the March 31, 2020, test results. Cargill should use stack test results from the April 7, 2020, testing to calculate PM, PM10, and PM2.5 emissions from March 31, 2020, until future stack testing is completed. Emission Point 1 remains in violation of the permitted PM, PM10, and PM2.5 98.0 lb/hr limit.

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15. On August 13, 2020, DNR received a construction permit application for EP1 from Cargill for cyclone replacement and monitoring requirements.

IV. CONCLUSIONS OF LAW

1. Iowa Code section 455B.133 provides that the Environmental Protection Commission (Commission) shall establish rules governing the quality of air and emission standards. The Commission has adopted 567 IAC chapters 20-35 relating to air quality.

2. Iowa Code section 455B.134(3) provides that the director of DNR shall grant, modify, suspend, terminate, revoke, reissue or deny permits for the construction or operation of new, modified, or existing air contaminant sources and for related control equipment.

3. 567 IAC 22.3(3) states that a permit may be issued subject to conditions which shall be specified in writing. Such conditions may include but are not limited to emission limits, operating conditions, fuel specifications, compliance testing, continuous monitoring, and excess emission reporting. Construction Permit 90-A-085-S4 Condition 1, *Emission Limits*, establishes a 98.0 lb/hr emission limit for PM, PM10, and PM2.5. Cargill has demonstrated violations of this emission limit through stack testing on three separate occasions, as stated above. Further, the permit states in Condition 1, footnote 3, that the 98.0 lb/hr emission limit for PM, PM10, and PM2.5 was used in in the permit because PSD netting demonstrated that the permit project would not generate a significant net emissions increase. A 429 ton per year PM, PM10, and PM2.5 emission rate for the Pre-Dryers used in the PSD netting to demonstrate the project was not a significant net emissions increase, and to allow the issuance by DNR of a synthetic minor permit for this permit project. The permit also requires that Cargill demonstrate compliance through stack testing with the 98.0 lb/hr emission limit for PM, PM10, and PM2.5 contained in Permit No. 90-A-085-S4.

V. ORDER

THEREFORE, DNR orders and Cargill agrees to the following:

1. Cargill shall implement the following operating conditions for Emission Point 1:
 - a. Cargill shall operate Pre-Dryer 1 and Pre-Dryer 2 with dampers positioned less than or equal to 45% and 67%, respectively, and with the recycle on both dryers off.

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- b. During all periods when the Pre-Dryers are drying feed, Cargill shall continuously monitor pre-dryer damper position and recycle, and shall maintain records demonstrating compliance with this requirement on a 3-hour block average.
 - c. Cargill also shall monitor and record the amount of feed dried each month.
 - d. Once the construction permit is issued pursuant to the permit application for EP1 submitted to DNR on August 13, 2020, and Cargill has installed and is operating the permitted equipment, then Cargill shall follow the operating conditions established in that permit.
2. Cargill shall track combined emissions from Pre-Dryer 1 and Pre-Dryer 2, as follows:
- a. Cargill shall track emissions from Pre-Dryer 1 and Pre-Dryer 2 to demonstrate compliance with the synthetic minor 98.0 lb/hr emission limit for PM, PM10, and PM2.5 contained in Permit No. 90-A-085-S4. Emissions of PM, PM10, and PM2.5 shall not exceed 429 tons per year, the equivalent of the 98.0 lb/hr emission limit at full loading rate. Cargill shall provide the required information to DNR through June 30, 2020, and thereafter on an ongoing basis.
 - b. Cargill shall calculate and record emissions of PM, PM10, and PM2.5 from Pre-Dryer 1 and Pre-Dryer 2 on a monthly basis and demonstrate that the pre-dryers' combined PM, PM10, and PM2.5 emissions are below 429 tons per year on a 12-month rolling basis.
 - c. Cargill also shall provide to DNR daily and monthly production level averages from Pre-Dryer 1 and Pre-Dryer 2.
 - d. PM, PM10, and PM2.5 emissions shall be calculated by applying the PM, PM10, and PM2.5 emission rate, as determined using the DNR-accepted compliance test from the date of each test. Test results from the most recent stack test may not be available to calculate emissions when a monthly report is due to DNR. Therefore, results from the most recent previous stack test that are available when the report is due should be used to calculate ton/yr emissions until the most recent DNR-accepted compliance test results become available. When the most recent test results become available, these results should be retroactively applied back to the date of the test and reported in the next monthly emissions update. The PM, PM10,

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and PM2.5 emissions shall be calculated by first converting the pounds per hour average emission rate during the compliance test to the pounds per ton of feed dried emission rate to reflect variable dryer loading, and multiplying the pounds per ton of feed dried rate by the amount of feed dried. The pound per hour emission rate shall be converted to the pound per ton of feed dried emission rate by dividing the pounds per hour emission rate by the average operating rate in tons of feed dried per hour during the test. As an example, the pound per ton of feed dried emission rate for Condition 1 of the July 24, 2019, compliance test is calculated as follows: $(144.7 \text{ lbs/hr}) / (82.33 \text{ tons/hr}) = 1.7576 \text{ lbs/ton}$. The Pre-Dryer PM, PM10, and PM2.5 emissions for September 2019 are calculated by multiplying this pounds per ton of feed dried rate (1.7576 lbs/ton) by the amount of feed dried in September 2019 (47,533) for a total of 41.77 tons of PM, PM10, and PM2.5. Feed production rates for the monthly totals and stack test events shall be calculated using the fiber recovery rate from the corresponding month.

Once the construction permit is issued pursuant to the permit application for EP1 submitted to DNR on August 13, 2020, and Cargill has installed and is operating the permitted equipment, then Cargill shall follow the operating conditions established in that permit. As required, Cargill shall timely submit the required startup notification to DNR.

3. Cargill shall engage in frequent compliance testing, as follows:
 - a. Cargill shall continue to perform compliance testing for PM, PM10, and PM2.5 at least every six months, with no more than six months and at least three months between stack tests. The next compliance stack testing shall take place by October 7, 2020, or as otherwise agreed to with the DNR. Once the construction permit is issued pursuant to the permit application for EP1 submitted to DNR on August 13, 2020, and Cargill has installed and is operating the permitted equipment, then Cargill shall follow the testing frequency established in that permit.
 - b. Cargill shall give DNR 30 days' notice prior to conducting any compliance test, subject to waiver by DNR.
 - c. All testing shall be conducted using the ports located on the Emission Point 1 main stack.
4. Cargill shall replace the pollution control devices on Pre-Dryers 1 and 2 (Emission Point 1).

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- a. Cargill shall replace the control devices on Pre-Dryer 1 and Pre-Dryer 2, submit a compliance test demonstrating compliance with the synthetic minor limit and propose any new pre-dryer operating conditions by no later than December 1, 2022.
- b. Cargill shall submit a construction permit application to DNR for the replacement of the control device(s) by no later than March 31, 2021.
- c. The construction permit application shall request to update the Pre-Dryer operating conditions and testing requirements to those contained in this Administrative Consent Order or otherwise agreed to in writing by DNR.

5. Subject to 567 IAC Ch. 33 or other applicable state or federal law, if at any time the PSD synthetic minor limit of 429 tons per year of PM, PM10, and PM2.5 is exceeded, Cargill shall submit a PSD permit application for Emission Point 1 within 90 days of the exceedance unless an extension is granted in writing by DNR.

VI. PENALTY

No penalty is assessed by this administrative consent order.

VII. RESERVATION OF RIGHTS

This administrative consent order is entered into between the Iowa Department of Natural Resources (DNR) and Cargill for the sole purpose of creating a compliance plan for Cargill to achieve compliance with the 98.0 lb/hr permitted limits for PM, PM10, and PM2.5 contained in Permit No. 90-A-085-S4.

DNR reserves the right to bring enforcement action to assess monetary penalties for the alleged violations addressed in this administrative consent order or to pursue referral to the Attorney General, to obtain injunctive relief and penalties or fines, pursuant to Iowa Code section 455B.146 or 455B.146A. Further, nothing in this administrative consent order restricts or limits the administrative or judicial enforcement remedies available to the DNR or the State of Iowa for the violations referred to in this administrative consent order or any other violations that may have occurred at the Cargill facility in Eddyville, Iowa.

Additionally, DNR reserves the right to bring enforcement action or to pursue referral to the Attorney General, to obtain injunctive relief and penalties or fines, pursuant to Iowa Code section 455B.146 and 455B.146A, for alleged violations not addressed in this administrative consent order that may have occurred at the Cargill facility in Eddyville, Iowa.

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VIII. WAIVER OF APPEAL RIGHTS

This administrative consent order is entered into knowingly and with the consent of Cargill. For that reason, Cargill waives its right to appeal this order or any part thereof.



Kayla Lyon, Director
Iowa Department of Natural Resources

Dated this 15th day of
September, 2020.



Brian Bares, Facility Manager
Cargill, Incorporated

Dated this 10th day of
September, 2020.

DNR Field Office 2; Anne Preziosi: VII.B.2.c(3)