

IOWA DEPARTMENT OF NATURAL RESOURCES

ADMINISTRATIVE CONSENT ORDER

IN THE MATTER OF: POET BIOREFINING – SHELL ROCK, LLC	ADMINISTRATIVE CONSENT ORDER NO. 2024-AQ-12
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To: POET Biorefining – Shell Rock, LLC
Kristen Clay, General Manager
30750 212th Street
Shell Rock, Iowa 50670

POET Biorefining – Shell Rock, LLC
Registered Agent
Corporation Service Company
505 5th Avenue
Des Moines, Iowa 50309

POET Biorefining – Shell Rock, LLC
Matt Cox, EH&S Specialist
30750 212th Street
Shell Rock, Iowa 50670

POET Biorefining – Shell Rock, LLC
Josh Wilson
Senior Regulatory Counsel
900 7th Street NW, Suite 820
Washington, DC 20001

I. SUMMARY

This administrative consent order is entered into between the Iowa Department of Natural Resources (DNR) and POET Biorefining – Shell Rock, LLC (POET Shell Rock) 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:

Mark Fields
Iowa Department of Natural Resources
6200 Park Avenue
Des Moines, Iowa 50321
Phone: 515-343-6589

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: 515-238-3429

Payment of penalty to:

Director of the Iowa DNR
Wallace State Office Building
502 East Ninth Street

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Des Moines, Iowa 50319-0034

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

POET Shell Rock does not admit the allegations in the Statement of Facts.

1. POET Shell Rock is a dry-mill grain processing facility located in Shell Rock, Iowa. The facility produces 140 million gallons of denatured ethanol annually as a primary product and dried distiller's grains with solubles (DDGS), Nex-Pro high protein DDG, wet DGS (WDGS), corn oil, and syrup as coproducts of the ethanol manufacturing process. On June 1, 2021, POET Shell Rock acquired ownership of this facility from Flint Hills Resources, LLC, Shell Rock, Iowa (FHR Shell Rock).

2. POET Shell Rock has violated Condition 1, *Emission Limits*, of Air Quality Construction Permit #18-A-614-S1, issued by DNR on April 21, 2020, for its Protein Process Tanks, Emission Point (EP) S170. Condition 1 establishes emission limits of 2.70 lb/hr for VOC, 0.20 lb/hr for Single HAP, and 0.28 lb/hr for Total HAP.

- Stack testing conducted on September 13, 2023, resulted in 73.57 lb/hr of VOC, 1.75 lb/hr of Acetaldehyde (Single HAP), and 1.79 lb/hr of Total HAP.

3. POET Shell Rock has violated Condition 1, *Emission Limits*, of Air Quality Construction Permit #07-A-168-S9, issued by DNR on May 7, 2021, for its DDG Dryers/Distillation Process (EP S10). Condition 1 establishes an emission limit of 5.98 lb/hr for both PM and PM10.

- Stack testing conducted on September 14, 2023, resulted in 10.26 lb/hr of PM and PM10.

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4. POET Shell Rock has violated the requirement contained in 567 IAC 33.3 to have a Prevention of Significant Deterioration (PSD) air quality construction permit. POET Shell Rock failed to obtain PSD construction permits for the Protein Co-Product Line. PSD permits would have required POET Shell Rock to control the VOC emissions to a PSD Best Available Control Technology (BACT) level.

- Based on the September 13, 2023, stack testing results on the Protein Process Tanks (EP S170), POET Shell Rock provided updated emission inventories that indicate EP S170 exceeded the 250 ton/year PSD threshold in 2021 and 2022.
 - 2021 VOC emissions were reported to be 317.8 ton/year.
 - 2022 VOC emissions were reported to be 316.11 ton/year.
- POET Shell Rock failed to obtain PSD Construction Permits for the Protein Co-Product Line.
- Exceedance of the VOC PSD threshold is considered a High Priority Violation (HPV) based on EPA HPV Policy Criterion #1. HPV Policy Criterion 1 states:

“Failure to obtain a New Source Review (NSR) permit (for either attainment or non-attainment areas) and/or install Best Available Control Technology (BACT) or Lowest Available Emission Reductions (LAER) (and/or obtain offsets) for any new major stationary source or major modification at a major stationary source. This criterion includes a violation by a synthetic minor stationary source of an emission limit or permit condition such that the source's actual annual emissions exceed (or are expected to exceed) the major stationary source threshold as defined in the applicable NSR regulations.”

5. As required by 567 IAC 24.106(2), POET is required, by March 31 of each year, to submit documentation of actual emissions for the previous calendar year. POET Shell Rock under reported VOC and HAP emissions from 2021 to 2022 due to failure to identify actual emissions from EP S170, which resulted in under payment of emission fees for the source.

6. POET Shell Rock has violated the conditions of Title Operating Permit Nos. 15-TV-003R1 and 15-TV-003R1-M001, since the conditions of the Title V Operating Permits also contain all of the above requirements.

- DNR issued FHR Shell Rock Title V Permit No. 15-TV-003R1 on March 2, 2020, with an expiration date of March 1, 2025. POET Shell Rock operated the Shell Rock, Iowa, facility under the Title V Permit No. 15-TV-003-R1 from June 1, 2021, until February 21,

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2023. DNR issued POET Shell Rock modified Title V Permit No. 15-TV-003R1-M001 on February 21, 2023, with an expiration date of March 1, 2025.

Chronology

7. On February 6, 2019, DNR issued Non-PSD air quality construction permits to Flint Hills Resources, LLC (FHR) Shell Rock for equipment related to the Protein Co-product Line in Construction Permit Project No. 18-417.

8. On August 6, 2019, FHR Shell Rock submitted a Start of Construction Notice to DNR indicating that construction of the Protein Process Tanks, EP S170, began on June 12, 2019.

9. On September 6, 2019, DNR issued Non-PSD air quality construction permits for equipment related to the Protein Co-product Line in Construction Permit Project No. 19-178 to FHR Shell Rock.

10. On April 21, 2020, DNR issued Non-PSD construction permits to FHR Shell Rock for equipment related to the Protein Co-product Line in Construction Permit Project No. 20-070.

11. On July 21, 2020, FHR Shell Rock submitted a Start-Up Notice to the DNR indicating that operation of the Protein Process Tanks, EP S170, began on July 14, 2020.

12. On May 7, 2021, DNR issued Non-PSD Construction Permit No. 07-A-168-S9 to FHR Shell Rock for existing equipment related to the DDG Dryers/Distillation Process, EP S10, in Construction Permit Project No. 21-057.

13. On June 1, 2021, POET Shell Rock acquired ownership of the FHR Shell Rock, Iowa, facility.

14. On August 11, 2023, POET Shell Rock notified DNR of potential emission issues from the Protein Process Tank Emission Point at the facility. The facility noted that the Protein Process had been shut down.

15. On August 18, 2023, POET Shell Rock and DNR staff met to discuss the Protein Process Tanks and potential emissions. POET Shell Rock submitted a compliance plan to re-route existing EP S170 emissions to EP S10.

16. On August 21, 2023, DNR issued POET Shell Rock a Certified Letter accepting POET Shell Rock's August 18, 2023, compliance plan and requiring stack testing on EP S170 to determine uncontrolled emissions. In

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addition, stack testing was required on EP S10 to determine the effects of venting EP S170 emissions to the EP S10 control equipment.

17. On August 31, 2023, POET Shell Rock notified DNR that the project to route the Protein Process Tank Vent emissions to the Thermal Oxidizers began construction on August 22, 2023, and was completed on August 29, 2023. Protein Process Tanks were restarted on August 29, 2023, with emissions routed to the EP S10 control equipment. Required stack testing on EP S170 and EP S10 was scheduled to be completed on September 12 and September 13, 2023.

18. On September 13 and 14, 2023, POET Shell Rock conducted initial stack testing on EP S170 and EP S10.

19. On October 23, 2023, POET Shell Rock submitted stack test reports to DNR for the September 2023 stack testing.

20. On November 9, 2023, POET Shell Rock retested EP S10 for PM and PM10.

21. On January 8, 2024, DNR issued a Notice of Violation letter (NOV) for emission limit violations documented by the September 2023 stack tests. Based on the initial test results for EP S170, POET Shell Rock is required to submit updated emission inventories for calendar years 2020, 2021, and 2022.

22. On January 22, 2024, POET Shell Rock provided updated emission inventories for EP S170 with VOC levels above 250 ton/yr for 2021 and 2022. Calendar Year 2021 was modified from 11.66 ton/yr of VOC to 317.8 ton/yr. Calendar Year 2022 was modified from 11.59 ton/yr of VOC to 316.11 ton/yr. POET Shell Rock reported an additional 610.66 tons of VOCs for 2021 and 2022. The amount of unpaid fees is contained in Appendix A, below.

23. On February 7, 2024, DNR issued POET Shell Rock a NOV for failure to obtain PSD permits for the protein co-product line. POET Shell Rock was required by May 7, 2024 to submit PSD permit applications for all VOC emitting equipment associated with Construction Permit Projects 18-417, 19-178, and 20-070.

24. On February 21, 2024, DNR issued POET Shell Rock an acceptance letter for the November 9, 2023, EP S10 PM and PM10 testing. Testing demonstrated compliance with the permitted PM and PM10 emission limits.

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25. On March 6, 2024, DNR and POET Shell Rock met to discuss the PSD permit applications required by the February 7, 2024, NOV.

26. On May 7, 2024, POET Shell Rock submitted PSD permit applications to DNR for air quality construction permits related to the Protein Co-product Line and the DDG Dryers/Distillation Process, EP S10. DNR has assigned the PSD Construction Permit applications Construction Permit Project No. 24-163.

IV. CONCLUSIONS OF LAW

POET Shell Rock does not admit the allegations in
the 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 Iowa Administrative Code (IAC) 22.3(3) states that an air quality construction permit may be issued subject to conditions which shall be specified in writing, and may include, but are not limited to, emission limits, operating conditions, fuel specifications, compliance testing, continuous monitoring, and excess emission reporting. As stated above, POET Shell Rock failed to comply with certain provisions of issued construction permits.

4. As stated above, POET Shell Rock has violated the requirement contained in 567 IAC 33.3 to have a Prevention of Significant Deterioration (PSD) air quality construction permit, given the emissions from the facility as stated above.

5. As stated above, POET Shell Rock has failed to comply with the requirement contained in 567 IAC 24.106(2), which states that an owner or operator shall, by March 31, submit documentation of actual emissions for the previous calendar year.

6. Also, as stated above, POET Shell Rock has violated the conditions of Title Operating Permit Nos. 15-TV-003R1 and 15-TV-003R1-M001, since the

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conditions of the Title V Operating Permits also contain all of the above requirements.

V. ORDER

THEREFORE, DNR orders and POET Shell Rock agrees to the following:

1. Within 45 days of the date this order is signed by the director, POET Shell Rock shall pay emission fees for the 610.66 tons of unreported VOC emissions from calendar years 2021 and 2022, in accordance with the information contained in the Statement of Facts and in Appendix A, below; and

2. Within 30 days of the date of any DNR written request, POET Shell Rock shall submit the requested information for all air contaminant sources and related control equipment contained in Construction Permit Project No. 24-163, and POET Shell Rock shall continue to coordinate with DNR until final PSD Construction Permits are issued for Construction Permit Project No. 24-163; and

3. POET Shell Rock shall make any changes at the facility as required by the PSD Construction Permits when issued; and

4. Within 45 days of the date this order is signed by the director, POET Shell Rock shall pay a penalty of \$10,000.00.

VI. PENALTY

Pursuant to the provisions of Iowa Code section 455B.109 and 567 IAC chapter 10, which authorize the director to assess administrative penalties, a penalty of \$10,000.00 is assessed by this administrative consent order. The penalty must be paid within 45 days of the date this order is signed by the director. The administrative penalty is determined as follows:

Iowa Code section 455B.146 authorizes the assessment of civil penalties of up to \$10,000.00 per day of violation for the air quality violations involved in this matter. More serious criminal sanctions are also available pursuant to Iowa Code section 455B.146A.

Iowa Code section 455B.109 authorizes the Commission to establish by rule a schedule of civil penalties up to \$10,000.00 that may be assessed administratively. The Commission has adopted this schedule with procedures and

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criteria for assessment of penalties through 567 IAC chapter 10. Pursuant to this rule, DNR has determined that the most effective and efficient means of addressing the above-cited violations is the issuance of an administrative consent order with a penalty. The administrative penalty assessed by this order is determined as follows:

Economic Benefit – 567 IAC chapter 10 requires that DNR consider the costs saved or likely to be saved by noncompliance. 567 IAC 10.30(1) states that “where a violator realizes an economic benefit through the violation or by not taking timely compliance or corrective measures, the department shall take enforcement action which includes penalties to offset the economic benefit.” 567 IAC 10.30(1) further states, “[r]easonable estimates of economic benefit should be made where clear data are not available.”

POET Shell Rock failed to obtain PSD permits for the protein co-product line. PSD permits would have required POET Shell Rock to control the VOC emissions to a PSD Best Available Control Technology (BACT) level. Economic benefit was gained by not spending the additional funds required to properly control VOC and HAP emissions from the protein co-product line.

POET Shell Rock under reported VOC and HAP emissions from 2021 to 2022 due to failure to identify actual emissions from EP S170 which resulted in under payment of emission fees for the source. POET Shell Rock gained economic benefit by delaying payment for the unreported VOC and HAP emissions for three years.

For these reasons, \$4,000.00 is assessed for economic benefit.

Gravity of the Violation – One of the factors to be considered in determining the gravity of a violation is the amount of penalty authorized by the Iowa Code for that type of violation. As indicated above, substantial civil penalties are authorized by statute. Despite the high penalties authorized, DNR has decided to handle the violations administratively at this time, as the most equitable and efficient means of resolving the matter.

POET Shell Rock’s exceedance of the 250 ton/yr PSD threshold is considered a High Priority Violation (HPV). The EPA considers an HPV a violation of a federally enforceable CAA requirement that is (1) likely to result in impacts that pose a significant risk to human health and/or the environment from direct or indirect release of air pollutants, or (2) may harm the ability to implement CAA programs.

Actual harm to the environment and public health likely occurred due to the amount of pollutants that were emitted above the PSD threshold and emission limits set forth in construction permits for EP S170 & EP S10. POET Shell Rock

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has violated emission limits for VOC, Acetaldehyde, Total HAP, PM, and PM10. These pollutants are known to cause adverse health effects.

Furthermore, Acetaldehyde is designated as a Hazardous Air Pollutant (HAP). HAPs are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. The gravity of the violation is higher when excess HAP emissions are occurring.

POET Shell Rock failed to determine actual emission levels of VOC and HAP on EP S170. This resulted in a total of 610.66 tons of unreported VOC emissions and a total of 13 tons of unreported HAP emission. It is important that Title V facilities submit accurate emission inventories. The DNR must calculate the statewide Title V emissions and provide this information to the public by April 30 of each year. Additionally, the DNR relies on emission inventories to set the Title V fees. These fees are required to administer the air programs required under the Clean Air Act. Emission inventories are one of the basic, minimum reporting requirements under Iowa's Title V Operating Permit program. The inventories allow industry, citizens, and regulatory agencies to be informed about actual emissions. POET Shell Rock's actions threaten the integrity of the DNR's air quality program.

For these reasons, \$3,000.00 is assessed for gravity.

Culpability – The POET Shell Rock facility was acquired by POET Biorefining – Shell Rock, LLC, on June 1, 2021. POET Shell Rock operated the protein co-product line for over two years without verifying actual emissions from EP S170.

POET Shell Rock is responsible for operating equipment at the facility within the permitted emissions limits and as described in construction permit applications to the DNR. POET Shell Rock is culpable for any emissions that are released from the facility.

For these reasons, \$3,000.00 is assessed for culpability.

VII. WAIVER OF APPEAL RIGHTS

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

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VIII. NONCOMPLIANCE

Failure to comply with this administrative consent order, including failure to timely pay any penalty, may result in the imposition of further administrative penalties or referral to the attorney general to obtain injunctive relief and civil penalties pursuant to Iowa Code section 455B.146. Compliance with Section “V. Order” of this administrative consent order constitutes full satisfaction of all requirements pertaining to the specific violations described in Section “IV. Conclusions of Law” of this administrative consent order.

 Kayla Lyon, Director
 Iowa Department of Natural Resources

Kristin Clay

 POET Shell Rock

Dated this 05 day of
July, 2024.

DNR Air Quality Bureau; Field Office 2; Anne Preziosi

Appendix A

	VOC emissions reported in the original emissions inventory	Updated VOC emissions inventory 2024	Unreported VOC emissions (tons/yr)	Emission Fee (\$/ton)	Unpaid Emission Fees
2021	11.66	317.8	306.14	70	\$21,429.80
2022	11.59	316.11	304.52	70	\$21,316.40
Total			610.66		\$42,746.20