

**BEFORE THE ENVIRONMENTAL APPEALS BOARD
FOR THE STATE OF DELAWARE**

In the Matter of

**NOTICE OF ADMINISTRATIVE
PENALTY ASSESSMENT AND
SECRETARY'S ORDER
No. 2026-A-0017**

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EAB No. 2026-

STATEMENT OF APPEAL BY DELAWARE CITY REFINING COMPANY LLC

Delaware City Refining Company LLC ("DCRC"), by and through its counsel, submits the instant appeal of an action of the Secretary of the Delaware Department of Natural Resources and Environmental Control ("DNREC"). In support of this appeal, DCRC avers as follows:

I. THE ORDER BEING APPEALED

1. This appeal ("Appeal") is taken from issuance by the Secretary of DNREC of the Notice of Administrative Penalty Assessment and Secretary's Order No. 2026-A-0017 dated July 8, 2026 (the "Initial Order") and served on DCRC on July 10, 2026. A copy of the Initial Order is attached hereto as Exhibit A. In the Initial Order, DNREC alleges that DCRC acted in noncompliance with its Title V Permit. Ex. A at 10.

2. As discussed *infra*, DNREC's Initial Order contained various errors, typos, and improper citations. *See, e.g.*, Ex. A at 10 (including "Error! Bookmarked not defined." instead of a footnote reference); *id.* at 15 (stating the Initial Order was issued on "July 8, 2025"). Thereafter, on July 14, 2026, DNREC sent DCRC a revised Order No. 2026-A-0017 (the "Revised Order") via email, noting it was being reissued, but without changing the July 8, 2026 effective date. A copy of the Revised Order is attached hereto

as Exhibit B. This Appeal is therefore taken from both the Initial Order and the Revised Order to the extent they are intended to represent distinct administrative actions, both of which bear the same Order No. 2026-A-0017.

3. DCRC owns and operates a petroleum refinery located at 4550 Wrangle Hill Road, Delaware City (the “Refinery”). DCRC operates certain regulated emission sources at the Refinery, and such sources, as appropriate, are governed by air quality permits issued by DNREC pursuant to its Title V regulations 7 Del. Admin. C. § 1130 (referred to collectively herein as the “Title V Permit”). The Title V Permit includes and imposes the collection of emission limitations and operating requirements that apply to the Refinery.

4. The Revised Order addresses a single event during which the carbon monoxide boiler (“COB”)¹ dedicated to the Fluid Coking Unit (the “FCU” or “Coker”) was taken offline from May 7, 2026 to May 30, 2026 (the “May 2026 Event” or the “Event”) to perform necessary maintenance. Prioritizing protection of human health and the environment, particularly in the nearby communities, DCRC acted promptly to minimize emissions throughout the Event and proactively communicated with DNREC in advance of transitioning to the secondary emissions control – the back-up incinerator (“BUI”). *See infra* ¶ 37. DCRC further collaborated with DNREC on the press release posted to the state’s online news feed on May 7, 2026, also before the COB was taken offline. *Id.* ¶ 38. Nevertheless, the Revised Order fails to acknowledge any of these

¹ All references to the COB in this Statement of Appeal are to the Coker’s COB unless otherwise stated.

mitigating facts and instead assesses the maximum administrative penalty allowable for every day of the Event – \$40,000 – for a total penalty of \$960,000. Ex. B. at 11–13.

5. This Appeal is timely. The Refinery was served with a copy of the Initial Order on July 10, 2026, and received the Revised Order via email on July 14, 2026. Although DNREC issued the Revised Order on July 14, it did not update the effective date of July 8, 2026 specified in the Initial Order. DCRC therefore has conservatively filed this Statement of Appeal on July 30, 2026, 20 days following the date the Refinery received the Initial Order, but fewer than 20 days after it received the Revised Order. Either way, this Statement of Appeal is timely filed in accordance with 7 Del. C. § 6008(a) and Section 1.1 of the Regulations of the Environmental Appeals Board (the “Board”). *See* 7 Del. Admin. C. § 105-1.1.

6. In accordance with Section 2.3 of the Board’s Regulations, a \$50 deposit for costs accompanies this Appeal.

7. After DNREC issued the Initial Order on July 8, 2026, and then the Revised Order on July 14, 2026, DNREC took the additional step of issuing a Notice of Violation (“NOV”) for the same noncompliance that was already addressed in the Initial and Revised Orders. As stated, the Revised Order is dated July 8, 2026 and was received by the Refinery on July 14, 2026. The relevant NOV is dated July 9, 2026 (the “July 9, 2026 NOV”) and was received by the Refinery on or after July 15, 2026. A copy of the July 9, 2026 NOV is attached hereto as Exhibit C. DCRC asserts the NOV is problematic for three reasons: (1) its issuance following the Revised Order runs afoul of the fundamental administrative principle that the alleged violator is generally afforded an

opportunity to provide information to the agency in an effort to narrow or even eliminate the scope of noncompliance alleged in the notice *before* the agency proceeds to enforcement (there does not appear to be any logic in issuing a notice of potential violation after a formal enforcement action has already begun); (2) it includes allegations of noncompliance that *are not* in the Revised Order, making it impossible for DCRC to know whether the \$960,000 penalty assessed through the Revised Order is intended to resolve the full suite of noncompliance alleged by DNREC in response to the Event, or whether the \$960,000 penalty covers only the noncompliance stated in the Revised Order;² and (3) it includes an express directive to DCRC to comply with all statutory, regulatory, and permit requirements, including those cited in the NOV, immediately upon receipt of the NOV or else risk potential future enforcement by DNREC.³

II. BASIS FOR APPEAL

A. The Interest Which Has Been Substantially Affected

8. DCRC's interests have been substantially affected by the issuance of the Revised Order because DNREC's interpretations of permit-based and regulatory-based standards as applied to the Refinery are inconsistent with the Refinery's Title V Permit

² DCRC also cannot know whether DNREC may issue a separate enforcement order and penalty assessment to address the alleged violations from the NOV that are not included in the Revised Order. *See* Ex. C at 7 ("Upon further review of the violations, the Department reserves the right to pursue further investigation, and, as it deems appropriate, enforcement action.").

³ In communications among legal counsel for the parties concerning the Revised Order and the July 9, 2026 NOV, DNREC's lawyer informally stated that DNREC's position is that the NOV is not an appealable final agency action, notwithstanding the inclusion of the language ordering DCRC to take affirmative action or risk potential future enforcement. DCRC therefore reserves any and all rights and defenses with respect to both the additional alleged violations in the July 9, 2026 NOV that are not included in the Revised Order and the directive in the July 9, 2026 NOV requiring DCRC to comply with all applicable requirements or else risk potential future enforcement if and to the extent DNREC determines to pursue additional enforcement against the Refinery relating to any such allegations in that NOV or otherwise.

and underlying construction permits incorporated therein, contrary to law and fact, and otherwise constitute an abuse of discretion for the reasons set forth below. If the Revised Order is upheld, it could effectively validate such erroneous legal interpretations by DNREC, thereby exposing DCRC to potential future enforcement action by DNREC for the same or similar circumstances as addressed in the Revised Order, which DCRC firmly asserts are and have been consistent with lawfully permitted conduct.

9. Relatedly, DCRC's interests have been substantially affected by the issuance of the Revised Order because, if upheld, it would assess against DCRC the maximum penalty allowed by statute of \$960,000. The penalty assessment must be reversed, because the Revised Order: (a) fails to explain how DNREC's consideration of the relevant evaluative factors corresponds in a meaningful way to its determination that the maximum penalty of \$960,000 is appropriate; and (b) ignores critical mitigating facts relevant to such factors. Assessing the maximum penalty for the Event without explaining why the penalty is appropriate and without consideration of all facts known to DNREC is contrary to law and an abuse of discretion under 7 *Del. C.* § 6005(b)(3).

B. Allegation That The Decision Is Improper

10. For the reasons set forth herein, DCRC asserts that the Revised Order, including the administrative penalty assessed therein, is improper because it is not supported by substantial evidence, is contrary to law and fact, is arbitrary and capricious and constitutes an abuse of discretion.

C. Reasons Why The Decision Is Improper

11. As described further in Section IV, *infra*, the Revised Order is improper, not supported by substantial evidence, is contrary to law and fact, is arbitrary and capricious and constitutes an abuse of discretion for multiple reasons. The absence of a specific refutation of individual allegations should not be construed as an admission by DCRC as to any fact or legal conclusion included within the Revised Order. Instead, except as specifically stated herein, DCRC does not admit the allegations and/or legal conclusions contained within the Revised Order, and DCRC expressly reserves all rights and defenses relative to such allegations and/or legal conclusions.

III. RELEVANT BACKGROUND

A. The History of the Refinery's Annual SO₂ Limit and DNREC's Shifting Enforcement Position.

12. The history of the Refinery's permits and the operating conditions that govern in the event of a period of outage of the COB date back more than 25 years, to a federal consent decree executed among a prior owner of the Refinery and the United States Environmental Protection Agency ("EPA"). In the context of interpreting the relevant provisions of that consent decree, the parties and DNREC collectively evaluated whether and how the then-new sulfur dioxide ("SO₂") limit (and other limits) for the Coker apply during any COB outage.

13. This process resulted in a clear acknowledgement that there will be unavoidable COB outages at the Refinery, and that operation of the Coker during such periods shall be authorized and governed by applicable permit requirements to be

established by DNREC. DNREC eventually established both short-term concentration and annual (tons per year or “TPY”) SO₂ limits that apply to the wet gas scrubber (“WGS”) *stack* and not the Coker unit as a whole. This distinction alone supports the interpretation that when the COB is offline and emissions are being directed to the Coker’s BUI instead of the WGS stack, the SO₂ limit does not apply. *See also infra* ¶¶ 56–60 (providing detailed discussion of original establishment of emission limits through underlying Regulation 1102 construction permit No. APC-81/0829, Amendment B.) A copy of this construction permit is attached at Exhibit D.

14. In time, the Refinery and DNREC also agreed to a set of operating conditions that apply during COB outages and which are memorialized in the current Title V Permit at Condition 2.5 and Table 1.da.1.i.E. The applicability of these operating conditions during a COB outage is unequivocal on the face of the permit language. Further emphasizing their application to the alternative operating scenario, the prefatory language before the Table states: “During operation of the backup incinerator and other periods of FCU CO Boiler, Belco prescrubber, and WGS outages, the Company, at a minimum, must . . . achieve the following operational limits . . . “). The limits are for *Coker feed rate, sulfur content in the feed as a percentage of weight, and SO₂ emissions in pounds per hour.*⁴

⁴ In consideration of this language, how could SO₂ emissions from the BUI that are within the allowable range specified in Table 1 also be treated as an emissions violation under the Permit, as DNREC alleges in the Revised Order? The simple answer is they cannot. DNREC cannot justify a permit violation based on the emissions of SO₂ during periods of COB outage. To the extent DNREC could justify any violation at all, and DCRC does not agree that it can, such violation would necessarily relate to the ongoing operation of the Coker while the COB was offline, which DNREC opines stemmed from COB reliability concerns. But as discussed below, this argument must also fail because the COB outage was not the result of any

15. Consistent with such agreement, DNREC historically exercised its enforcement discretion by interpreting the annual SO₂ limit in the Refinery's permit to apply only to emissions during normal operations – i.e., when flue gas from the Coker is directed to the COB and WGS. DNREC did not seek to enforce against the Refinery for violating the annual SO₂ limit during the alternative operating scenario – i.e., when flue gas from the Coker bypasses the COB/WGS and goes to the BUI.

16. Between 2013 and 2025, DNREC issued to the Refinery approximately 12 separate notices of violation that included allegations of unauthorized SO₂ emissions during COB outages. In every instance, the operating conditions giving rise to those allegations included use of the BUI as an alternative emissions control device for the Coker's flue gas and/or circumstances when it was necessary to route emissions directly to the Coker bypass stack because the BUI was unavailable. However, prior to a NOV issued on September 8, 2025, none of the 12 prior NOVs alleged noncompliance with the annual limit for SO₂ emissions. A copy of the September 8, 2025 NOV is attached as Exhibit E.

17. On October 10, 2025, DCRC responded to the September 8, 2025 NOV, and in doing so, outlined its objections to DNREC's apparent change in enforcement posture and requested a discussion regarding the same. DCRC did not receive any response to this letter. A copy of the October 10, 2025 response is attached as Exhibit F.

deficiency on the part of the Refinery to properly maintain the primary control for the Coker. Furthermore, the Coker is equipped with a secondary control intended to be used in this exact scenario.

18. Instead, DNREC proceeded to enforcement by issuing Order No. 2025-A-39 with a penalty assessment that covered the period of COB outage addressed in the September 8, 2025 NOV, as well as a separate COB outage on March 13, 2025, and approximately twenty other, unrelated instances of noncompliance. Notably, the total penalty assessed in Order No. 2025-A-39 was less than a third of the \$960,000 penalty at issue, although the Revised Order covers only a single instance of noncompliance.⁵

19. In order to preserve its legal arguments and defenses regarding the interpretation of the relevant Title V Permit conditions, DCRC filed a protective appeal of Order No. 2025-A-39 with this Board. *See* EAB Doc. No. 2026-01.

20. Shortly thereafter, the parties began discussing their respective positions relative to the provisions of Order No. 2025-A-39 addressing the periods of COB outages. In support of its position, on February 9, 2026, DNREC offered to DCRC a copy of a single NOV dated February 29, 2016, issued for two separate COB outages in April of 2015, as purported evidence that DNREC has maintained a consistent approach to enforcement relative applying the annual SO₂ limit during periods of COB outage (the

⁵ Other material factual differences between the COB outage in May–June 2025 versus those from the Event further call into question the appropriateness of the \$960,000 being appealed. These include, but are not limited to, the facts that: (i) the 2025 outage involved periods when the BUI tipped and flue gas emissions were routed directly to the bypass stack (a condition that DNREC interprets as allowing for uncontrolled emissions of not only SO₂ and nitrogen oxides (“NO_x”), but also CO and particulate matter (“PM”)), while the bypass stack was not used at all during the Event; and (ii) the 2025 outage was unanticipated thus preventing any advance planning among the Refinery and DNREC, including public notice, whereas the planned nature of the Event allowed for considerable engagement and consultation among the parties before the transition from the COB to the BUI even commenced. Importantly, DCRC worked with DNREC to draft a press release to notify the community and other interested stakeholders about the forthcoming alternative operating condition and the steps the Refinery would implement to minimize any potential impacts to human health and the environment throughout the duration of the COB outage. *See infra* ¶¶ 37–38.

“February 29, 2016 NOV”). A copy of the February 29, 2016 NOV is attached as Exhibit G.

21. The February 29, 2016 NOV does not, however, allege noncompliance with the annual SO₂ limit, which was Condition 2.1.4 in the Refinery’s permit at the time the alleged noncompliance occurred. None of the conditions referenced in the NOV specify or reference the permit condition containing the annual SO₂ limit, Condition 2.1.4.

B. DNREC’s Recent Concerns Regarding the COB and Requests that DCRC Address the COB’s Operational Reliability.

22. In addition to DNREC’s unexplained recent change in its interpretation and application of the Title V Permit’s annual SO₂ limit, DNREC has also increased pressure on the Refinery to address COB outages through comprehensive repair of boiler components.

23. As noted in the Revised Order, DNREC has taken recent actions against the Refinery for issues related to the COB. In April of 2023, the parties entered into a Settlement Agreement that required DCRC to develop a COB Reliability Plan. The Revised Order states that DCRC “developed and implemented the COB Reliability Plan; however, the continued reoccurrence of COB outages indicates that it has not adequately addressed the operational reliability” of the COB. Ex. B at 3–4. In reality, the Refinery experienced only two periods of Coker COB outage since implementing the Plan, and both were caused primarily by water leaks in the COB’s economizer. Before these two

events, economizer leaks had not required a COB outage at the Refinery in nearly a decade.

24. During the May–June 2025 COB outage, DCRC cut and cap welded several tubes in order to eliminate the leaks so that the COB could be safely brought back online. In response to this event, DCRC also updated the COB maintenance plans and the COB Reliability Plan, as well as ordering a new economizer for the COB.⁶ *Id.* at 4–5. At that time, the Refinery also scheduled replacement of the economizer for the next unit turnaround scheduled for the first quarter of 2027 (the “Turnaround”), during which time the Coker was scheduled for a planned shutdown. But DCRC also made the decision to order the new economizer at that time so that if another COB outage occurred before the Turnaround it would be prepared to respond in the most comprehensive manner possible to ensure future reliability of the COB, including operations consistent with good maintenance and air pollution control practices.

25. Following the May–June 2025 outage and issuance of Order No. 2025-A-39, DNREC encouraged DCRC to take action more promptly to address the issues associated with the COB and its economizer. In response, DCRC reviewed whether it was possible to expedite the Turnaround schedule.

26. Planning for the Turnaround began in the first quarter of 2025, consistent with the complexity of such an event, which requires procurement of specific equipment, parts, and all necessary personnel for a specific window of time. For the first year of

⁶ The economizer that arrived in response to the order DCRC placed was used for the economizer replacement during the May 2026 Event.

planning for the Turnaround, DCRC worked with engineers, inspectors, operators, and other professionals to diagnose what needs to be fixed, replaced, cleaned, or upgraded during the Turnaround.

27. Based on that work, the Refinery has spent—and will continue to spend—virtually all of 2026 designing work packages, procuring materials and equipment, selecting contractors, and setting up logistics to safely execute the Turnaround. The lead time to purchase some equipment is more than 12 months.

28. During the Turnaround, the Refinery must purchase different fuel blends to continue refining operations without an operational Coker. The lead time to purchase these fuel blends is typically 3–4 months. The Refinery cannot therefore switch to such different fuel blends for the Coker without sufficient lead time.

29. The capital funding for DCRC to conduct any Coker turnaround event is tightly managed and scheduled across multiple fiscal years well in advance of the turnaround.

30. Based on the above information, DCRC concluded that accelerating the timeline for the Turnaround—if it was even possible to do so logistically—would cost tens of millions of dollars. Given these challenges, the Turnaround date was not moved in response to DNREC's suggestion to do so, although the new economizer was ordered and remained on site if replacement became necessary earlier than the Turnaround. Indeed, that is what happened.

C. The May 2026 Event: DCRC Undertakes Proactive Repairs, Communicates the DNREC and the Public, and Takes Costly Steps to Reduce SO₂ Emissions.

31. On May 3, 2026 the COB's economizer began to experience a water leak and the BUI was brought online – and fully up to operational temperature, allowing for transition without any use of the bypass stack – to prepare for a COB outage. Ex. B at 8. Because the Refinery already had the new economizer at the facility, the decision was made to install it during this outage rather than working to identify and mitigate individual tube leaks and waiting for the Turnaround in 2027.

32. After deciding to undertake the replacement of the economizer, the Refinery took deliberate and significant actions to reduce emissions and minimize community impacts attendant to the associated COB outage, starting with immediate engagement with DNREC which continued throughout the COB outage period.

33. First, DCRC released an advisory notice dated May 6, 2026 (the “Advisory Notice”), advising its stakeholders, including DCRC CAP members, DNREC's Secretary Patterson and his staff, District 12 legislators, the Mayor of Delaware City, and a member of the Old New Castle City Council of the upcoming repairs to the equipment. The Advisory Notice was also posted to Facebook and LinkedIn. A copy of the Advisory Notice is attached as Exhibit H.

34. The Advisory Notice advised that DCRC had been actively monitoring operational data to provide early indication of any tube leakages in the COB's economizer since the previous May, and given the new leak, it determined that repairs could and needed to be undertaken. While proceeding with the full replacement had the

potential to (but would not necessarily) extend the outage period beyond the time needed to perform discrete repairs of individual tubing, proceeding with the full replacement was the most prudent path forward, as it would ensure a predictable outage duration and, most critically, result in sustained operational stability of the COB and thus fewer outages, if any, going forward.

35. The Advisory Notice also shared that during the repairs: (a) the Refinery would proactively lower unit rates to reduce emissions *before* taking the COB offline rather than taking up to 24 hours post-shutdown to do so as allowed by the Title V Permit; (b) DCRC would cooperate with DNREC to monitor emissions, including without limitation by voluntarily supplementing the Refinery's existing fenceline monitoring system with an additional monitor for SO₂ which DCRC is not otherwise obligated to install; (c) DCRC would provide public access to its air monitoring website; and (d) DCRC would work around the clock to complete the repairs, which it estimated would take four weeks.⁷ DCRC provided contact information for individuals to reach out for more information and also promised to continue to provide updates regarding the COB repairs.

36. DCRC's air monitoring website provided real-time monitoring data to the public from five (5) fenceline SO₂ monitoring stations that the Refinery installed around its perimeter (the "Refinery Monitors").

37. At the same time DCRC was communicating with the public, it was also communicating with DNREC. On May 7—after direct collaboration with DCRC

⁷ As it turned out, the Refinery beat that estimate by more than a week. *See infra* ¶ 45.

regarding the content—DNREC issued a press release regarding the COB repair work (the “Press Release”). A copy of the Press Release is attached as Exhibit I.

38. DNREC stated in the Press Release that DCRC “will begin repairs on equipment at its coker carbon monoxide boiler that will cause it to shift from a primary pollution control process to a secondary emissions control.” Ex. I at 1. The Press Release noted that the public could monitor sulfur dioxide readings but that the release point from the secondary pollution controls was a high stack, so emissions would disperse in the atmosphere. *Id.* at 2. With respect to the anticipated increased emissions during the Event, DNREC assured the public that a “facility can have increased emissions and exceed its permit and still have ambient air readings at ground level remain in the green, or good, range.” *Id.*

39. After advising stakeholders and DNREC that it planned to undertake the COB repairs, the Refinery initiated several operational changes to the Coker to reduce SO₂ emissions during the repair period.

40. These operational changes were implemented to balance the need to continue to operate the Coker with the need to reduce SO₂ emissions as much as possible during the repair period. In order to accomplish this, the Refinery reduced Coker feed rate to a stable minimum rate.

41. Additionally, the feed rate to the crude unit was also reduced for residual containment. The Refinery modified the crude slate to lower the sulfur content of the residual feed to the Coker. Finally, the Refinery suspended all clarified slurry oil processing at the Coker. By taking these listed additional steps – which are not required

during periods of COB outages or otherwise – DCRC went over and above what is required for Coker operation during a COB outage pursuant to its Title V Permit. These operational changes came at a substantial cost to the Refinery, with the net economic impact of the changes estimated at \$4.3 million.

42. On May 15, the Refinery provided an update on the COB repairs (the “Repair Update”) to the same set of stakeholders as had received the Advisory Notice. The Repair Update was also sent to all subscribers to the website sharing real-time data from the Refinery Monitors and was posted on Facebook and LinkedIn. The Repair Update shared that the data from the Refinery Monitors demonstrate that “that emissions remain well below established public health thresholds” and provided the public with the website to access real-time monitoring data and to sign up for various air quality alerts. A copy of the Repair Update is attached as Exhibit J.

43. The Refinery completed the COB repairs—including replacement of the entire economizer assembly—on May 29. By 6:00am the following day, the COB was back online. Ex. B. at 9.

44. On June 1, the Refinery notified the same stakeholders via the same methods as the Repair Update that the COB repairs had been completed (the “Completion Notice”). A copy of the Completion Notice is attached as Exhibit K.

45. The repairs were completed ahead of schedule, eight (8) days earlier than the estimated time the public had been advised of in the Advisory Notice. *See* Ex. H (estimating repairs would take four weeks).

D. Abruptly Shutting Down the Coker—As Advocated For by DNREC—Creates Significant Environmental and Safety Process Risks for Refinery Workers and the Community and of which DNREC.

46. The Revised Order alleges that DCRC violated its Title V Permit by failing to initiate an emergency shut down of the Coker during or prior to the Event.

47. The Coker is the most operationally complex unit at the Refinery. Shutdowns of the Coker must be planned and executed in a highly controlled manner in order to ensure they are performed safely and minimizes potential environmental impacts.

48. By contrast, an abrupt or unplanned shutdown of the Coker creates significant safety, environmental, and operational risks for the Refinery and its workers, as well as disruptions to energy markets and local fuel supply.

49. Transition events like startups and shutdowns have the potential to result in negative environmental impacts, including increased flaring and increased overall emissions. Historical data from the Refinery show that emissions from the coke burning that occurs in the Coker continue for approximately seven (7) additional days after the Refinery stops the feed to the Coker. As such, continuing SO₂ emissions post-Coker shutdown would be greater than those during most typical periods of COB outages, excluding those of exceptional duration.

50. Abrupt or emergency shutdowns of the Coker are non-routine operating events that create significant process safety and personnel risks. With respect to process, rapid equipment cooldown and isolation activities create risks associated with thermal stresses, plugging, coke handling, and confined system management. With respect to personnel, an abrupt shutdown requires additional contractor and operator resources to

ensure the Coker is safely stabilized. Those additional individuals may not be immediately available, increasing process safety risks and risks to on-site personnel.

51. In particular, the unplanned thermal cycling that occurs during an abrupt shutdown of the Coker introduces stress on critical equipment, including reactor systems, heaters, transfer lines, and associated rotating equipment. An emergency shutdown of the Coker therefore increases the likelihood that this equipment will be damaged, creating additional process safety risks and risks to Refinery workers. If such equipment is damaged during the emergency shutdown, it can also lead to extended downtime and increased repair costs.

52. Additionally, the Coker is a critical processing unit for heavy residual streams and is interconnected to several other Refinery units. An immediate shutdown of the Coker leaves limited disposition options for residual material streams. Thus, storage capacity for vacuum residual and other intermediate material streams may be quickly exceeded, forcing shutdowns in additional units. When this occurs, product inventories and tank lineups require rapid adjustment, generating significantly increased risk of operational upsets at the Refinery.

53. The interconnected nature of the Coker extends to the entire Refinery, as it plays an important role in overall energy and utility balances. An abrupt shutdown of the Coker can cause significant shifts in the steam, fuel gas, hydrogen, sulfur recovery, and other interconnected systems, creating secondary reliability concerns across the Refinery.

54. The loss of the Coker can significantly constrain the Refinery's processing capacity, forcing reductions to crude rate to balance the Refinery and prevent accumulation of inventory. During periods when throughput at the Refinery is reduced – as it is during a shutdown of the Coker – product yields are also reduced, straining local supply of critical fuel products.

55. Once the Coker is offline, it takes approximately six weeks to return it to its normal operational state, given its unique design. Heat is required to keep the Coker warm in order to prevent solidification of the coke inside, and exhaust gas is necessarily generated through that heating. Any prolonged shutdown of the Coker causes the material inside to solidify, necessitating manual removal of solidified coke material before a restart can even be attempted.

IV. LEGAL ARGUMENT

A. The Findings and Conclusions Regarding the BUI Emissions as a Title V Permit Violation Are Inconsistent with Applicable Authority.

56. Conclusion No. 2 of the Revised Order takes the position that DCRC has violated its Title V Permit because the SO₂ that was emitted during and through operation of the Back-Up Incinerator (“BUI”) between May 7, 2026 and May 30, 2026 exceeded the annual SO₂ limit of 182.3 TPY for the Coker. Ex. B at 10. There is no factual, legal, or technical support for the Secretary's position.

57. The annual limit of 182.3 TPY applies to emissions from the WGS stack during normal operating conditions of the Coker. *See id.* at 3 (noting that in “normal operations” Coker burner flue gas is routed to the COB and the WGS train). This is the

only operating scenario contemplated by the underlying permit application, the resulting Regulation 1102 construction permit, and ultimately the relevant Title V Permit condition. DNREC established the relevant permit conditions in response to clear direction from EPA and the United States Department of Justice offered more than 25 years ago, first by properly including the governing standards in a Regulation 1102 construction permit for the Coker: APC-81/0829, Amendment 8. *See* Ex. D. The key permit-based language is “SO₂ emissions shall not exceed 25 ppmvd @ 0% O₂ on a rolling 365-day average, 50 ppmvd @ 0% O₂ on a rolling 7-day average, and 182.3 TPY.”⁸ Ex. D at 3 (Condition 2.1.4.).

58. As SO₂ emissions from the BUI occur *only* when the COB/WGS train is offline, they cannot reasonably be subject to the same emission limits that apply expressly to the standard operating condition when the COB is operating.

59. Moreover, DNREC’s attempts to treat SO₂ emissions from the BUI stack as both uncontrolled releases *and* emissions that count towards the Title V Permit’s annual limit for SO₂ emissions fail under scrutiny. To be clear, DCRC has never and does not concede that emissions from the BUI during periods of COB outages are unauthorized. As discussed, the permitting history for the Refinery confirms that redirecting emissions to the BUI when the COB goes offline has always been authorized because these outages are understood to be unavoidable, but the annual SO₂ limit was never intended to apply to these emissions. *See supra* ¶¶ 12–16.

⁸ The suitability of these limits was most recently reevaluated during the Title V renewal in 2014-2015 to ensure these provisions remain appropriate in light of the implementation of the new short-term (hourly) SO₂ National Ambient Air Quality Standard set by EPA.

60. Indeed, DNREC did not interpret the annual limit as applying outside the normal operating condition until after the COB outage that occurred from late May to mid-June 2025, notwithstanding DNREC's proffer of the February 29, 2016 NOV which does not appear to stand for the proposition that DNREC now claims it does. *See supra* ¶¶ 16–18. Perhaps realizing the tenuous nature of its revamped enforcement posture, DNREC apparently went to painstaking effort in drafting the enforcement orders from both 2025 and 2026 by restating multiple times its current interpretation of the SO₂ TPY limit as applying to both normal and alternative operating scenarios for the Coker.

61. Even more concerning is the increasing staunchness of DNREC's repeated assertions that the Refinery could and should simply turn off the Coker when the COB needs to come down, rather than redirecting the Coker flue gas to the BUI until the COB resumes operation. With this suggestion, DNREC reveals its gross misunderstanding or disregard for the technical complexities of the refining industry, including in particular the sole refinery operating in the state of Delaware. DNREC also apparently ignores the collective recognition by multiple key parties of the unavoidable nature of periods of COB outages, dating all the way back to the governing consent decree. If it had ever been feasible to simply shut down the Coker, then why did so many individuals invest so much time and effort to develop appropriate permit conditions that would govern the continued operation of the Coker when the COB was otherwise offline? These issues are detailed further below.

62. Ultimately, DNREC's abrupt change to effectively bifurcate the short-term concentration standard and the annual emissions limit in the referenced permit

condition and the resulting enforcement posture is inconsistent with DNREC's own longstanding practice, is arbitrary and capricious, and represents an abuse of DNREC's discretion.

63. Accordingly, Conclusion No. 2 of the Revised Order should be reversed.

B. The Findings and Conclusions Regarding Operation of the Coker during the May 2026 Event as a Title V Permit Violation Are Inconsistent with Permit Language, Applicable Authority, and An Abuse of Discretion.

64. Conclusion No. 1 of the Revised Order takes the position that DCRC has violated its Title V Permit by not shutting down the Coker during the May 2026 Event. Ex. B at 10. There is no factual or legal support for the Secretary's position, and it amounts to an abuse of discretion given the circumstances of the Event. Notably, DNREC made no such claim when it enforced against the Refinery for the COB outage that occurred from May to June 2025. *See generally* Order No. 2025-A-39. Certainly, the controlling permit terms for the Coker have not changed throughout the relevant period.

65. Under the Secretary's interpretation of the Refinery's Title V Permit, anytime there was a COB outage or emissions from the Coker do not exit through the WGS, DCRC should shut down the Coker or it will be in violation of its Title V Permit. This is an absurd interpretation that reads out all provisions in the Title V Permit related to the BUI and for which the underlying legal authority is a judicially approved federal consent decree. Fundamentally, any requirement that in effect mandates shutdown of the Coker during an instance when the COB is shutdown or malfunctions can also result in potentially severe adverse operational, safety, financial, and other impacts at the

Refinery. The Revised Order is therefore unlawful, arbitrary and capricious, and constitutes an abuse of discretion on this basis.⁹

66. This position is also inconsistent with the understanding of the Title V Permit memorialized in the Revised Order. In addition to its primary control technology, the Revised Order specifically states that the “Coker is also equipped with a Back-Up Incinerator (‘BUI’) which is allowed to operate during periods when the COB is down in order to control CO and PM emissions.” Ex. B at 3. DNREC knows that the Refinery operates the Coker—and that it is explicitly allowed to do so under its Permit—when the WGS is unavailable.¹⁰ Thus the Revised Order punishes DCRC for acting within the confines of its Title V Permit.

67. While in its Revised Order DNREC ignores the relevant permit conditions that allow for operation of the BUI, in the July 9, 2026 NOV DNREC issued related to the May 2026 Event,¹¹ DNREC made note of Condition 3 – Table 1.da.1.i.H. which sets

⁹ As context, DCRC clarifies that although there have been 14 analogous COB outages over the past 20 years, only two of them occurred during the last decade. It is unreasonable therefore for DNREC to assert either (i) that the Refinery has not made significant strides in enhancing the overall reliability of the COB, or (ii) that it is technically feasible to eliminate these events altogether.

¹⁰ DCRC also disputes that it “failed to operate” the WGS within the meaning of Condition 3–Table 1.da.1.i.C as alleged in the Revised Order. Ex. B at 3. A failure to operate implies that the Refinery failed to employ the WGS in a normal operating scenario when it was otherwise available. In contrast, during a COB outage, the WGS is categorically unavailable, meaning DCRC cannot operate it, not that it failed to operate it.

¹¹ In email correspondence dated July 20 and July 21, 2026, counsel for DNREC copied on the Initial and Revised Orders, Valerie S. Edge, Esq. confirmed that while the scope of this NOV and the Initial and Revised Orders differ, “the intention was for the NOV and Order to be issued at the same time and that the Order addresses all of the allegations of violations and noncompliance set out in the NOV.” When asked about the differences on the face of the July 9, 2026 NOV, including “additional allegations of noncompliance that are not addressed in the Order,” counsel advised that “DNREC chose not to specifically impose a penalty for any items cited in the NOV but not in the Order.” This correspondence is attached at Exhibit L. DCRC understands from this correspondence that DNREC has determined that the appropriate enforcement action for all alleged noncompliance in the July 9, 2026 NOV is represented in the Revised Order. To the extent DNREC changes its mind, it would need to issue a separate order formalizing

out the information that DCRC needs to provide related to emissions from the BUI. Ex. C at 3–4.

68. Specifically, Condition 3 – Table 1.da.1.i.H. states that during “any unplanned shutdown or bypass of the FCU COB or Belco prescrubber or the WGS, the Owner/Operator shall bear the burden of demonstrating to the Department’s satisfaction that the Owner/Operator’s continued operation of the FCU should not subject the Owner/Operator to an enforcement action” *See also* Condition 3 – Table 1.da.1.i.E. (prescribing operating conditions for the Coker DCRC must implement “[d]uring operation of the backup incinerator and other periods of FCU CO Boiler, Belco prescrubber and WGS outages”).

69. In the July 9, 2026 NOV, DNREC dropped a footnote stating that “DNREC has not received documentation requesting relief from enforcement actions” for the May 2026 Event. Ex. C at 4 n.1. While DNREC did not receive a specific document from DCRC requesting relief from an enforcement action, in the Refinery’s June 4, 2026 release report (the “Release Report”) detailing the release of SO₂ emissions, DCRC specifically noted it had complied with the conditions in Condition 3 – Table 1.da.1.i.E. related to the Coker feed rate and feed percent sulfur during the Event. A copy of the Release Report is attached at Exhibit M.

any violations based the allegations of noncompliance not addressed in the Revised Order. *See Delaware Solid Waste Authority v. Delaware Department of Natural Resources and Environmental Control*, No. K19A-05-003 WLW, 2020 WL 375598, at *2–3 (Del. Super. Ct. Jan. 22, 2020) (NOVs are not the consummation of DNREC’s decision-making process and cannot be appealed). Thus, DCRC reserves any and all appeal rights with respect to the allegations of noncompliance contained in NOV but not addressed in the Initial or Revised Orders.

70. In addition, DNREC received a substantial amount of documentation related to the May 2026 Event *before it even occurred*. This included direct communication that DCRC intended to conduct the economizer repairs to address DNREC's longstanding concerns related to operational reliability of the COB and the operational changes the Refinery would be implementing to mitigate emissions during the repair period. This documentation clearly represented that the economizer replacement would take three to four weeks, meaning there could have been no misunderstanding on DNREC's part that SO₂ emissions during the outage would exceed the TPY limit by a significant margin. It is well-understood that DNREC takes the position that if the TPY limit applies to emissions from the BUI (and DCRC does not agree that it does), emissions would exceed that year-long limit after only 80 to 120 operating hours, which is about 5 days. Here, it was undisputed that total SO₂ emissions during the outage event would be higher than the TPY number by several times.

71. In response, DNREC could have told DCRC not to undertake the repairs and/or not to run the Coker during the repair period. It did neither.

72. Thus, the bypass of the WGS and operation of the BUI during the Event was not unplanned – both DCRC and DNREC knew in advance that the repairs to the economizer would be taking place and that the Refinery would run the BUI during that period thereby sending SO₂ emissions to the BUI.

73. Two days before the planned repairs were set to begin, DNREC even issued a Press Release advising the public both that DCRC would continue to operate the Coker while undertaking the necessary repairs to the COB economizer and that the BUI

would be online during the repair period. Ex. I at 1 (the Refinery “will begin repairs on equipment at its coker carbon monoxide boiler that will cause it to shift from a primary pollution control process to a secondary emissions control.”¹²).

74. In sum, DNREC’s position that under DCRC’s Title V Permit the Refinery may never operate the Coker without its primary emission controls intentionally misreads and ignores the language of the Permit. Under these circumstances, DCRC disagrees that any noncompliance occurred as articulated in Conclusion No. 1 or the Revised Order, and DNREC’s allegation is inconsistent with the Title V Permit, is arbitrary and capricious, and represents an abuse of DNREC’s discretion.

75. Accordingly, Conclusion No. 1 of the Revised Order should be reversed.

C. The Revised Order Ignores Mitigating Facts and Provides a Cursory Assessment of the Administrative Penalty Factors under 7 Del. C. § 6005(b)(3) to an Abuse of Discretion.

76. The Revised Order assessed the maximum allowed administrative penalty of \$960,000 against DCRC “for the violations identified in” the Revised Order. DNREC claims it based this penalty on its consideration of the mandatory factors stated in 7 Del. C. § 6005(b)(3) (the “Factors”), but the Revised Order provides only a cursory discussion of the Factors and does not apply the relevant facts with sufficient detail to allow DCRC to understand how DNREC calculated the penalty. *See* Ex. B at 11–13.

77. The Revised Order’s penalty assessment must be reversed, because the Revised Order: (a) fails to explain how DNREC’s consideration of the Factors

¹² Query as to how DNREC can refer to the BUI as a secondary emissions control on the one hand, but consider the resulting emissions “uncontrolled” on the other? *See, e.g.*, Ex. B at 11.

corresponds in a meaningful way to its determination that the maximum penalty of \$960,000 is appropriate; and (b) ignores critical mitigating facts relevant to several Factors. Assessing the maximum penalty for the Event without explaining why the penalty is appropriate and without consideration of all facts known to DNREC is contrary to law and an abuse of discretion under 7 Del. C. § 6005(b)(3). *See, e.g., Delaware Solid Waste Auth. v. Delaware Dep't of Nat. Resources & Env't Cntrl.*, 250 A.3d 94, 119 (Del. 2021) (Affirming Board's decision reversing a DNREC administrative penalty where the accompanying order "did not provide any analysis of why the penalties assessed . . . were appropriate in light of the discretionary factors listed in § 6005(b)(3).") Here, DNREC's discussion of the Factors in the Revised Order likewise fails to provide any analysis explaining how the Secretary arrived at the maximum penalty of \$960,000.

78. For example, DNREC's consideration of the (a) nature, (b) circumstances, (c) extent, and (d) gravity of the circumstances surrounding the event states that there was a "total uncontrolled release of 1,490,000 lbs. of SO₂," that that amount is "substantial," and that the maximum penalty was assessed. Ex. B at 11. There is no discussion of the nature or circumstances of the event *at all*, while the extent and gravity are only framed in terms of total emissions released, without any consideration of DCRC's efforts to mitigate those emissions. Thus, DNREC's consideration of each of these four circumstances is inadequate.

79. Further, proper consideration of the nature and circumstances requires DNREC to acknowledge its own role in the May 2026 Event. DCRC communicated to DNREC the estimated duration of the COB outage to replace the unit's economizer. Not

only did DNREC not object, it collaborated with DCRC on the Press Release advising the public that such work was going to be undertaken and that the repairs “will cause [DCRC] to shift from a primary pollution control process to a secondary emissions control.” Ex. I at 1. DNREC was aware of the impact of running the BUI for four weeks to implement the repairs and seemingly determined, like DCRC, that it was appropriate to replace the economizer nonetheless. *See supra* ¶¶ 70–72.

80. With respect to the Factor related to prior history of violations, the Revised Order notes DCRC’s history of violations, but does not address that the repairs undertaken during the Event occurred after a series of actions failed to provide sustained results. Although the intermediary repairs to economizer components did not fully resolve the COB’s operational issues, that does not reflect any deficiency on DCRC’s part to properly maintain the unit. To the contrary – the long-term reliability of the COB/WGS train is over 98%, well above the downtime benchmark generally used to evaluate whether unit maintenance is sufficient. As noted previously, the COB outage in May–June 2025 was the first extended outage requiring use of the BUI in 10 years, and when it happened, DCRC responded promptly, complied with all applicable permit conditions throughout the outage period, and then proactively purchased a new economizer for replacement at the scheduled Turnaround or earlier. *See supra* ¶ 24.

81. With respect to the Factor related to degree of culpability, DNREC states, without any factual support whatsoever, that DCRC’s “decision to extend the maintenance turn around schedule for the Coker” contributed the violation. Ex. B at 12. To the extent DNREC’s claim relates to implementing slightly longer cycles between

turnarounds for certain units, DCRC disagrees. There is simply no technical or factual basis or evidence – in the Revised Order or otherwise – to suggest that a shorter turnaround cycle could have prevented the COB outages in either 2025 or 2026. The economizer is not an equipment that is subject to wear and tear such that planned replacement would occur during every, or even every other, turnaround. Economizer equipment is considered to have a 15–20 year lifespan. Therefore, to argue that a 4-year turnaround cycle rather than a 3-year cycle, for example, led to the failure of the economizer is unsupported by any technical justification and the facts of this case. After DNREC asked DCRC to try to move up the scheduled Turnaround last year, DCRC looked into doing so. *See supra* ¶¶ 25–30. While it was not feasible to move up the Turnaround, DCRC did place an early order for the replacement economizer for the COB in response to DNREC’s request, and it was that very economizer that was installed during the May 2026 Event. *Id.* ¶ 24.

82. Finally, with respect to the Factor related to economic benefit or savings, DNREC alleges that the Refinery made two decisions that inured to its economic benefit: (a) to “extend” the Turnaround timing, which DCRC has addressed in the prior paragraph, and (b) “to continue to operate the Coker instead of safely shutting it down.” Ex. B at 12. Contrary to DNREC’s assertion, the Coker cannot be safely shut down in an abrupt or emergency fashion. *Id.* ¶¶ 46–55. Initiating an immediate shutdown of the Coker in response to a COB outage creates serious risks for the Refinery’s operations and its workers, increases stress and the likelihood of damage to essential equipment, and results in negative environmental impacts. *See id.* Indeed, that is one of the reasons why

it is equipped with, and permitted to run, the BUI when the primary controls are not available.

83. DNREC's failure to more robustly discuss application of the Factors is particularly glaring here, where under Permit Condition 3 – Table 1.da.1.i.H., DNREC should have also considered seven specific circumstances in deciding whether it was appropriate to take any enforcement action related to the Event. These are:

- 1) the cause of, and the Owner/Operator's response to, the unplanned shutdown;
- 2) whether the Owner/Operator has taken all reasonable and prudent steps to abide by emissions limit conditions;
- 3) whether the Owner/Operator has taken all reasonable and prudent steps to minimize emissions associated with the plant;
- 4) the degree to which the Owner/Operator has reduced throughput to the FCU, and the basis for such degree of reduction;
- 5) the estimated emissions associated with a complete shutdown of the FCU;
- 6) whether the Owner/Operator has reviewed all prior similar causes of unplanned shutdowns and had taken all reasonable and prudent actions necessary to avoid similar outages; and
- 7) the actual emissions during the period of the unplanned shutdown.

84. Had DNREC fairly considered these circumstances as required, a much lesser penalty—if any at all—would have been warranted. First, the COB shutdown to undertake the repairs was planned with coordination with DNREC and was responsive to DNREC's concerns regarding the unit's reliability. *See supra* ¶¶ 22, 25. Second, DCRC made a number of operational changes to reduce emissions during the repair period at a substantial cost of \$4.3 million. *Id.* ¶¶ 39–41. Third, DCRC had undertaken a series of

previous actions to maintain the COB and support its reliability that had helped at the time, although they did not amount to a permanent fix. *Id.* ¶¶ 23–25.

85. DNREC’s maximum penalty assessment is driven by a myopic focus on what it believes is best: a shutdown of the Coker when the COB is out, no matter the cost or the risk. With its willful decision to remain ignorant of operational realities, DNREC asks the Refinery to put the health and safety of its workers and the environment at risk. Instead, DCRC appropriately weighed all operational considerations and reduced feeds and processes at the Coker, incurring a multi-million-dollar loss. In doing so, it implemented the safest and most effective fix to address DNREC’s concerns about COB reliability at the earliest possible opportunity.

86. DNREC’s assessment of the maximum penalty without applying all facts to the Factors and without proper consideration of the circumstances of the May 2026 Event under the language of the Title V Permit is inconsistent with 7 *Del. C.* § 6005(b)(3) and the Supreme Court’s holding in *Delaware Solid Waste Authority*.

87. Accordingly, the Revised Order should be reversed with respect to the administrative penalty assessment.

D. DCRC’s Reservation of Rights, Counsel, and Estimate of the Number of Witnesses and Time for Hearing.

88. DCRC reserves the right to assert additional grounds for appeal and reserves the right to amend this Statement of Appeal. Particularly, in accordance with the Board’s rules, DCRC was afforded only twenty (20) days in which to file this Appeal to ensure protection of its legal rights. Such amount of time is insufficient to fully evaluate

the alleged violations as opined by DNREC in the Revised Order. The scope of alleged noncompliance addressed through the Revised Order implicates years of disagreement between DNREC and DCRC regarding terms of its Title V Permit, implicates numerous and complex processes and units at the Refinery, and myriad relevant operating conditions. It is therefore possible that DCRC may need to supplement this Appeal in advance of the requested hearing.

89. DCRC has authorized the following attorney to represent it in this matter before the Environmental Appeals Board:

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William J. Kassab (Bar I.D. 5914)
Parkowski, Guerke & Swayze, P.A.
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Relative to the hearing of this matter before the Board, DCRC estimates that it will call four witnesses and that the presentation of its testimony and other evidence will require two to three days of hearing, not including any time DNREC needs to have its case heard.

Dated: July 30, 2026

Respectfully Submitted,



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EXHIBIT A

RECEIVED

JUL 10 2026

Fraser → Capone



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL
RICHARDSON & ROBBINS BUILDING
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DOVER, DELAWARE 19901

OFFICE OF THE
SECRETARY

PHONE
(302) 739-9000

**NOTICE OF ADMINISTRATIVE PENALTY ASSESSMENT
AND SECRETARY'S ORDER**

Pursuant to 7 Del. C. § 6005

Order No. 2026-A-0017

VIA PERSONAL SERVICE

Issued To:

Delaware City Refining Company LLC

Attn: Michael Capone
Refinery Manager
4550 Wrangle Hill Road
Delaware City, DE 19706

Registered Agent:

The Corporation Trust Company
Corporation Trust Center
1209 Orange Street
Wilmington, DE 19801

This Assessment and Secretary's Order serves to notify Delaware City Refining Company LLC ("Respondent") that the Secretary of the Department of Natural Resources and Environmental Control ("Department") has found Respondent in violation of its permit. Accordingly, the Department is issuing this Notice of Administrative Penalty Assessment and Secretary's Order pursuant to 7 Del. C. § 6005(b)(3).

BACKGROUND

Respondent owns and operates a petroleum refinery located in Delaware City, Delaware, ("refinery" or "facility") where it manufactures various petroleum-based products, including gasoline, diesel, and jet fuels, and other marketable petroleum by-products. Respondent's operations have the potential to emit pollutants in excess of the major source threshold for New Castle County and requires a permit, ("Title V Permit") pursuant to 7 DE Admin. Code 1130 ("Title V State Operating Permit Program") of the State of Delaware's *Regulations Governing the Control of Air Pollution*.

On November 14, 2024, the Department issued a Title V Permit Renewal comprised of three parts ("permits"), Permit: AQM-003/00016 – Part 1 (Renewal 3)(Revision 2); Permit: AQM-003/00016 – Part 2 (Renewal 2)(Revision 2); and Permit: AQM-003/00016 – Part 3 (Renewal 3)(Revision 2). Permit: AQM-003/00016-Part 2 (Renewal 2)(Revision 2), (hereafter referred to as "TV Permit Part 2") is applicable to the violations identified in this Order.

One of the units that Respondent owns and operates at the facility is a Fluid Coking Unit ("Coker" or as set forth in Respondent's permit, "Emission Unit No. 22")¹. The Coker is equipped with a carbon monoxide boiler ("COB") and wet gas scrubber ("WGS") train as pollution control devices to control carbon monoxide ("CO"), oxides of nitrogen ("NO_x"), sulfur dioxide ("SO₂"), and particulate matter ("PM") emissions. NO_x and SO₂ emissions are controlled by the Selective Non-Catalytic Reduction ("SNCR") system

¹ Note: Permit limits associated with the Coker apply to the standard operating configuration, where the FCU flue gas is routed through the COB and WGS/SNCR train and is inclusive of the FCU, FCU WGS, FCU SNCR, FCU Start Up Heater, FCU Selas Steam Superheater, FCU COB, and FCU BUI.

located in the Coker COB, and the downstream WGS train respectively. The Coker is also equipped with a Back-Up Incinerator ("BUI") which is allowed to operate during periods when the COB is down in order to control CO and PM emissions. During normal operation the Coker burner flue gas is routed to the Coker COB and WGS train via an open water seal drum ("22-D-20"). However, when the Coker COB and WGS train are bypassed, the Coker burner flue gas can be routed in one of two ways, i.e., either through the BUI via water seal drum 22-D-27, or through the bypass stack via water seal drum 22-D-21. The Coker permit is structured to require operation of the Coker with its flue gas routed through the COB and downstream WGS at all times. Routing the Coker burner flue gas to the BUI will control PM and CO emissions but will not control NO_x or SO₂ emissions. When the Coker flue gas is routed through the bypass stack, all pollutants are emitted uncontrolled. This uncontrolled release is also highly visible as the plume opacity may be above the 20% standard. It can take several hours to bring the BUI online in order to follow recommended BUI warm up procedures, when shorter duration unplanned outages occur, the Coker burner flue gas is not sent to the BUI but through the bypass stack.

Respondent's permits require it to report deviations from the permits. These reports, along with supplemental information provided by Respondent, are the basis for the factual assertions below related to the historical Coker and Fluid Catalytic Cracking Unit ("FCCU") COB outages and the Coker COB outage being addressed by this Order, that occurred between May 7, 2026, and May 30, 2026.

A Settlement Agreement was signed April 27, 2023, between the Department and Respondent which required Respondent to develop a COB Reliability Plan for the COBs associated with both the Coker and FCCU describing the inspection and/or maintenance activities that Respondent will perform during future planned maintenance outages. The settlement

resolved compliance issues including those related to the COBs for the Coker and the FCCU at the Refinery. Respondent was to institute measures designed to enhance the operating reliability of the two COBs, thus minimizing the likelihood of further COB outages. Respondent developed and implemented the COB Reliability Plan; however, the continued reoccurrence of COB outages indicates that it has not adequately addressed the operational reliability of these units.²

On December 31, 2025, the Department issued Respondent Notice of Administrative Penalty Assessment and Secretary's Order No. 2025-A-39, that included a penalty assessment of \$300,000, to address violations associated with certain flaring incidents as well as outages of both the Coker COB and FCCU COB. Secretary's Order No. 2025-A-39 addressed two Coker COB incidents. One occurred on March 13, 2025, that lasted 10.2 hours. Due to the shorter duration, the BUI was not used and the flue gas was directed to the unpermitted bypass stack. The second incident occurred between May 25, 2025, and June 11, 2025. Upon discovering a water leak from the economizer area in the COB on May 24, 2025, Respondent began the procedure to bring the BUI online. When the Coker COB was shutdown on May 25, 2025, and in the process of directing the flue gas to the BUI, the BUI tripped offline and the flue gas was directed to the unpermitted bypass stack. After bringing the BUI back online, the flue gas was directed back to the BUI on May 26, 2025. However, on May 30, 2025, the BUI tripped offline again, resulting in directing the flue gas back to the unpermitted bypass stack. The BUI was brought back online that same day, and the flue gas was returned to the BUI. In its Incident Report, Respondent indicated that there were leaks found in the economizer section of the Coker COB. Several tubes

² In addition to the Coker COB outages discussed in the next paragraph, there were three FCCU COB outages following the signing of the Settlement Agreement, occurring on June 5-6, 2024, June 10, 2024, and January 25, 2025.

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were cut and weld capped. Corrective actions at the time included updating the Coker COB and FCCU COB maintenance plans to include an acid neutralization step for the economizer tubes. Additionally, the COB Reliability Plan was updated to include cleaning and visual inspection between the economizer banks of tubes. Finally, the Coker COB economizer was scheduled to be replaced during the next unit turnaround in 2027. During this lengthy unplanned outage of the Coker COB from May 25, 2025, and June 11, 2025, the BUI was utilized as the control device for the Coker flue gas. However, when Respondent experienced intermittent BUI failures, the unpermitted bypass stack was used, which resulted in the unpermitted emissions of certain pollutants, among them, SO₂. Respondent appealed Secretary's Order No. 2025-A-39, which was subsequently superseded by Amended Notice of Administrative Penalty Assessment and Secretary's Order on Consent, Order No. 2026-A-0016, signed July 5, 2026.

On May 3, 2026, operations personnel noticed a change in the steam/water balance for the Coker COB. Visual inspections conducted did not reveal any water leaks. During a visual inspection on May 4, 2026, operations personnel observed a water leak from the economizer area of the COB. At 5:00 p.m. on May 4, 2026, operations personnel began to bring the BUI up to temperature in preparation for a potential COB outage. On May 6, 2026, Respondent issued an advisory notice to the public that it would be shutting down the Coker COB for repairs. A planned outage of the COB to repair the leak was scheduled for May 9, 2026.

However, by 12:30 p.m. on May 7, 2026, the water to steam ratio had degraded such that operations personnel began a shutdown of the COB. Beginning at 1:30 p.m., two unsuccessful attempts were made to transition the flue gas from the COB to the BUI. They failed because of erratic temperature fluctuations in the BUI, which intermittently fell below the minimum temperature limit of 1700 °F reaching lows of 1380 °F. On the third

attempt, flue gas was successfully transitioned into the BUI by 4:55 p.m., and the COB was shut down for inspection and repairs.

Following completion of repairs on May 29, 2026, which included replacement of the entire economizer assembly, operations personnel began startup of the COB. The COB temperature was restored to the required 1300 °F minimum at 1:00 a.m. on May 30, 2026. Flue gas was restored to the COB at 6:00 a.m. on May 30, 2026, ending the event which resulted in the release of 1,490,000 lbs. (745 tons) of SO₂ and 101,000 lbs. (50.5 tons) of NO_x. The NO_x remains below the facility wide 12-month rolling NO_x cap.

The violations described below are related to the shutdown of the Coker COB between May 7, 2026, and May 30, 2026, based on the information provided by Respondent in its Incident Report dated June 4, 2026, and supplemental information.

FINDINGS OF FACT

1. Respondent owns and operates a petroleum refinery located in Delaware City, Delaware whose operations are governed by a Title V Permit, issued pursuant to Regulation 1130, in three separate parts. Each part is renewed every 5 years following the prescribed permitting process. Revisions can occur as necessary and following the prescribed process. Respondent's Title V Permit number referenced in this Order includes the Part, Renewal and Revision in effect at the time of the violation.
2. Permit: AQM-003/00016-Part 2 (Renewal 2)(Revision 2) issued November 14, 2024, ("TV Permit Part 2") is applicable to the violations addressed by this Order.

3. Respondent has a Fluid Coking Unit ("Coker") that is equipped with a CO Boiler ("COB") with a downstream wet gas scrubber ("WGS") train as pollution control devices to control CO, NO_x, SO₂, and PM emissions. NO_x and SO₂ emissions are controlled by the Selective Non-Catalytic Reduction ("SNCR") system located in the Coker COB, and the WGS train (which cannot reduce pollution unless the upstream COB is functioning).
4. The Coker is also equipped with a Back-Up Incinerator ("BUI") which controls CO and PM emissions during periods when the COB is inoperable. During normal operation, the Coker burner flue gas is routed to the Coker COB and WGS train. However, when the Coker COB and WGS train cannot be utilized, the Coker burner flue gas can be routed in one of two ways, i.e., either through the BUI, or through the bypass stack.
5. The permit requires operation of the Coker with its flue gas routed through the COB and downstream WGS at all times. Routing the Coker burner flue gas to the BUI will control PM and CO emissions but will not control NO_x or SO₂ emissions. However, it can take several hours to follow recommended BUI warm up procedures in order for the BUI to function safely and properly; therefore when shorter duration unplanned outages occur, the Coker burner flue gas is not sent to the BUI but through the unpermitted bypass stack. When the Coker flue gas is routed through the bypass stack, all pollutants are emitted uncontrolled. This uncontrolled release is also highly visible as the plume opacity may be above the 20% standard.
6. A Settlement Agreement signed April 27, 2023, between the Department and Respondent, required Respondent develop a

COB Reliability Plan describing inspection and/or maintenance activities it would perform during future planned maintenance outages as well as institute measures to enhance the operating reliability of the COB. However, since then, continued reoccurrence of COB outages indicates the COB Reliability Plan has not adequately addressed the operational reliability of the COBs.

7. On December 31, 2025, the Department issued Respondent Notice of Administrative Penalty Assessment and Secretary's Order No. 2025-A-39, that included a penalty assessment of \$300,000, to address violations associated with certain flaring incidents as well as outages of both the Coker COB and FCCU COB. Respondent appealed Secretary's Order No. 2025-A-39, which was subsequently superseded by Amended Notice of Administrative Penalty Assessment and Secretary's Order on Consent, Order No. 2026-A-0016, signed July 5, 2026.
8. Beginning on May 3, 2026, Respondent noticed a change in the steam/water balance for the Coker COB, however visual inspections did not reveal any leaks.
9. On May 4, 2026, Respondent observed a water leak from the economizer area of the Coker COB. In anticipation of a potential COB outage to repair the leak, Respondent began the process of bringing the BUI up to temperature. Respondent scheduled a planned outage of the Coker COB for May 9, 2026.
10. On May 6, 2026, Respondent issued an advisory notice to the public that the Coker COB would be shut down for repair.

11. By 12:30 p.m. on May 7, 2026, the water to steam ratio had degraded such that Respondent began a shutdown of the Coker COB and after three attempts over the course of 3.5 hours, successfully transitioned the flue gas from the Coker COB to the BUI at 4:55 p.m.
12. Following completion of repairs on May 29, 2026, which included replacement of the entire economizer assembly, operations personnel began startup of the Coker COB. The Coker COB temperature was restored to the required 1300 °F minimum at 1:00 a.m. on May 30, 2026. Flue gas was restored to the Coker COB at 6:00 a.m. on May 30, 2026, ending the release event.
13. Respondent submitted an Incident Report dated June 4, 2026, to the Department as required. A total of 1,490,000 lbs. (745 tons) of SO₂ and 101,000 (50.5 tons) of NO_x were released uncontrolled through the use of the BUI between May 7, 2026, and May 30, 2026.

PERMIT REQUIREMENTS

1. In Condition 3-Table 1.da.1.i.C of TV Permit Part 2, it states:

"The Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR system shall be operating properly at all times when the FCU is operating."
2. In Condition 3-Table 1.da.3.i.A of TV Permit Part 2, it states:

"SO₂ emissions shall not exceed 25 ppmvd @ 0% O₂ on a rolling 365-day average, 50 ppmvd @ 0% O₂ on a rolling 7-day average, and 182.3 TPY."³

CONCLUSION

Based on the above, the Department has concluded that Respondent committed the following violations:

1. Respondent is found to be in violation of Condition 3-Table 1.da.1.i.C of TV Permit Part 2, for failing to operate the Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR while the Coker was operating between May 7, 2026, and May 30, 2026.
2. Respondent is found to be in violation of the annual SO₂ limit of 182.3 TPY for Emission Unit No. 22^{Error! Bookmark not defined.} found in Condition 3 – Table 1.da.3.i.A of TV Permit Part 2, as a result of the release of 1,490,000 lbs. (745 tons) of SO₂ uncontrolled through the use of the BUI stack between May 7, 2026, and May 30, 2026.

ASSESSMENT OF PENALTY

Pursuant to 7 Del. C. § 6005(b)(3), the Secretary may impose an administrative penalty of not more than \$40,000 for each day of violation

³ Note: The concentration limits apply to the standard operating configuration, where FCU flue gas is routed through the COB and WGS/SNCR train. The annual TPY limit applies to Emission Unit No. 22, inclusive of the FCU, FCU WGS, FCU SNCR, FCU Start Up Heater, FCU Selas Steam Superheater, FCU COB, and FCU Back Up Incinerator.

detailed in this Order. In assessing the administrative penalty, 7 *Del. C.* § 6005(b)(3) instructs the Secretary to consider the following factors: (1) the nature, circumstances, extent, and gravity of the violation, or violations; (2) the ability of the violator to pay; (3) any prior history of such violations; (4) the degree of culpability; (5) the economic benefit or savings (if any) resulting from each violation; and (6) such other matters as justice may require. A brief discussion of these factors is set out below.

Having considered these factors, the Secretary is assessing an administrative penalty of \$960,000 for the violations identified in this Assessment and Order.

1. **The Nature, Circumstances, Extent and Gravity of the Violation, or Violations:**

The nature, circumstances, extent, and gravity of the violations are significant. The May 2026 Coker COB outage detailed in this Order caused a total uncontrolled release of 1,490,000 lbs. (745 tons) of SO₂. The total amount emitted of this regulated pollutant is substantial. The maximum penalty of \$40,000 per day was assessed.

2. **Respondent's Ability to Pay:**

The record contains no information that the Respondent does not have the ability to pay the administrative penalty assessed.

3. **Prior History of Violations:**

Respondent has had prior violations of these specific permit requirements related to Coker COB outages.

4. **Degree of Culpability:**

Factors the Department considered that impact Respondent's degree of culpability include whether it has employed reasonable measures to assure that violations that occur are brief in nature and have minimal impact on surrounding areas, and whether Respondent has taken sufficient measures to avoid repeat violations. Respondent's decision to extend the maintenance turn around schedule for the Coker has resulted in exceeding the practical turnaround needs of all of the Coker components including the Coker COB. The Coker and COB must be assessed as a single unit and turnaround scheduled for the duration reflective of the needs of all components.

5. **Economic Benefit or Savings Resulting from the Violation(s):**
The Respondent's decision to extend the Coker turnaround schedule and to continue operating the Coker instead of safely shutting it down during the COB maintenance event resulted in an economic benefit from maintaining refinery operations despite increased emissions of more than 700 tons of sulfur dioxide.
6. **Such Other Matters as Justice May Require:**
Lastly, considering such other matters as justice may require, the Secretary has determined that the penalty assessed is proportional to the violations and calculated so as to deter Respondent and those similarly situated from engaging in future violations.

Pursuant to 7 Del. C. § 6005(b)(3), this is written notice to Respondent that on the basis of its findings, the Department is assessing Respondent an administrative penalty of \$960,000 for the violations identified in this Secretary's Order.

Respondent shall submit a check to the payable to the "State of Delaware" in the amount of \$960,000 within thirty (30) days of receipt of this Secretary's Order to: OTS Enforcement Processing, Department of Natural Resources and Environmental Control, Office of the Secretary, 89 Kings Highway, Dover, Delaware 19901.

PUBLIC HEARING AND APPEAL RIGHTS

This Secretary's Order affects Respondent's legal rights and is effective and final upon receipt by Respondent. Pursuant to 7 Del. C. § 6008, any person whose interest is substantially affected by this action of the Secretary may appeal to the Environmental Appeals Board within 20 days of the receipt of the Secretary's Order. In the alternative, Respondent may, pursuant to 7 Del. C. § 6005(b)(3), request a public hearing on the Secretary's Order, within 30 days of receipt of the Order. A public hearing pursuant to 7 Del. C. § 6005(b)(3) would be conducted pursuant to 7 Del. C. § 6006, and the Secretary's Order following the hearing would be subject to appeal, pursuant to 7 Del. C. § 6008, by any person substantially affected.

Respondent is further advised that the above assessed administrative penalty shall be due and owing within 30 days of Respondent's receipt of this Assessment and Order. In the event of nonpayment of the administrative penalty assessed above, and after Respondent has exhausted all legal appeals, if any, a civil action may be brought by the Secretary in Superior Court for collection of the administrative penalty, including interest, attorneys' fees and costs, and the validity, amount and appropriateness of

Delaware City Refining Company LLC
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such administrative penalty and/or costs shall not be subject to review pursuant to 7 *Del. C.* § 6005(b)(3).

To request a public hearing pursuant to 7 *Del. C.* § 6005(b)(3), please submit your request, in writing, to:

Department of Natural Resources and Environmental Control
Office of the Secretary
89 Kings Highway
Dover, DE 19901
Phone: (302) 739-9000

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Department of Natural Resources and Environmental Control
Office of the Secretary
Attn: Assistant to the Environmental Appeals Board
89 Kings Highway
Dover, DE 19901
Phone: (302) 739-9000

For additional information on filing an appeal with the Environmental Appeals Board and what information you must include in your written statement of appeal, please refer to the Environmental Appeals Board Regulations, codified at 7 DE Admin. Code 105.

The Department, to the extent necessary, reserves the right to take additional enforcement actions regarding these and other violations by

Respondent, including but not limited to one or more of the following: an action under 7 Del. C. § 6005(b)(1) seeking penalties for past violations, an action under 7 Del. C. § 6005(b)(2) seeking penalties for continuing violations, an action in the Court of Chancery pursuant to 7 Del. C. § 6005(b)(2) seeking a temporary restraining order or an injunction, and the imposition of civil penalties and recovery of the Department's costs and attorney's fees pursuant to 7 Del. C. §§ 6005(b)(3) & (c)(1). Nothing in this document shall be deemed to estop, or in any way preclude, any additional enforcement action for these and any other violations, including administrative and civil penalties for each day of violation, or an action for the recovery of Department costs expended in abating these violations.

PRE-PAYMENT

Respondent may prepay the administrative penalty of \$960,000 in the manner described in the attached "Waiver of Statutory Right to a Hearing." By doing so, Respondent waives its right to a hearing and the opportunity to appeal or contest this Secretary's Order.

If you have any questions, please contact, or have your attorney contact, Valerie S. Edge, Deputy Attorney General, at (302) 739-4636.

July 8, 2025

Date



Gregory Patterson, Secretary
Department of Natural Resources
and Environmental Control

cc: Valerie S. Edge, Deputy Attorney General

Delaware City Refining Company LLC
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May 2026 Coker COB Outage
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Angela Marconi, P.E., Director

2026-12dcm DCRC FCU COB Shutdown Order.doc

WAIVER OF STATUTORY RIGHT TO A HEARING

Delaware City Refining Company LLC hereby waives its right to a hearing and its opportunity to appeal or contest this Assessment and Order and agrees to the following:

1. **Delaware City Refining Company LLC** will pay the administrative penalty in the amount of \$960,000 by sending a check payable to the "State of Delaware" within 30 days of receipt of this Assessment and Order. The check shall be directed to OTS Enforcement Processing, Department of Natural Resources and Environmental Control, Office of the Secretary, 89 Kings Highway, Dover, Delaware 19901.

Delaware City Refining Company LLC

Date: _____

By: _____

Title: _____

EXHIBIT B



STATE OF DELAWARE
**DEPARTMENT OF NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL**

RICHARDSON & ROBBINS BUILDING
89 KINGS HIGHWAY
DOVER, DELAWARE 19901

OFFICE OF THE
SECRETARY

PHONE
(302) 739-9000

**NOTICE OF ADMINISTRATIVE PENALTY ASSESSMENT
AND SECRETARY'S ORDER**

Pursuant to 7 Del. C. § 6005

Order No. 2026-A-0017

VIA PERSONAL SERVICE

Issued To:

Delaware City Refining Company LLC
Attn: Michael Capone
Refinery Manager
4550 Wrangle Hill Road
Delaware City, DE 19706

Registered Agent:

The Corporation Trust Company
Corporation Trust Center
1209 Orange Street
Wilmington, DE 19801

This Assessment and Secretary's Order serves to notify Delaware City Refining Company LLC ("Respondent") that the Secretary of the Department of Natural Resources and Environmental Control ("Department") has found Respondent in violation of its permit. Accordingly, the Department is issuing this Notice of Administrative Penalty Assessment and Secretary's Order pursuant to 7 Del. C. § 6005(b)(3).

BACKGROUND

Respondent owns and operates a petroleum refinery located in Delaware City, Delaware, ("refinery" or "facility") where it manufactures various petroleum-based products, including gasoline, diesel, and jet fuels, and other marketable petroleum by-products. Respondent's operations have the potential to emit pollutants in excess of the major source threshold for New Castle County and requires a permit, ("Title V Permit") pursuant to 7 DE Admin. Code 1130 ("Title V State Operating Permit Program") of the State of Delaware's *Regulations Governing the Control of Air Pollution*.

On November 14, 2024, the Department issued a Title V Permit Renewal comprised of three parts ("permits"), Permit: AQM-003/00016 – Part 1 (Renewal 3)(Revision 2); Permit: AQM-003/00016 – Part 2 (Renewal 2)(Revision 2); and Permit: AQM-003/00016 – Part 3 (Renewal 3)(Revision 2). Permit: AQM-003/00016-Part 2 (Renewal 2)(Revision 2), (hereafter referred to as "TV Permit Part 2") is applicable to the violations identified in this Order.

One of the units that Respondent owns and operates at the facility is a Fluid Coking Unit ("Coker" or as set forth in Respondent's permit, "Emission Unit No. 22")¹. The Coker is equipped with a carbon monoxide boiler ("COB") and wet gas scrubber ("WGS") train as pollution control devices to control carbon monoxide ("CO"), oxides of nitrogen ("NO_x"), sulfur dioxide ("SO₂"), and particulate matter ("PM") emissions. NO_x and SO₂ emissions are controlled by the Selective Non-Catalytic Reduction ("SNCR") system

¹ Note: Permit limits associated with the Coker apply to the standard operating configuration, where the FCU flue gas is routed through the COB and WGS/SNCR train and is inclusive of the FCU, FCU WGS, FCU SNCR, FCU Start Up Heater, FCU Selas Steam Superheater, FCU COB, and FCU BUI.

located in the Coker COB, and the downstream WGS train respectively. The Coker is also equipped with a Back-Up Incinerator ("BUI") which is allowed to operate during periods when the COB is down in order to control CO and PM emissions. During normal operation the Coker burner flue gas is routed to the Coker COB and WGS train via an open water seal drum ("22-D-20"). However, when the Coker COB and WGS train are bypassed, the Coker burner flue gas can be routed in one of two ways, i.e., either through the BUI via water seal drum 22-D-27, or through the bypass stack via water seal drum 22-D-21. The Coker permit is structured to require operation of the Coker with its flue gas routed through the COB and downstream WGS at all times. Routing the Coker burner flue gas to the BUI will control PM and CO emissions but will not control NO_x or SO₂ emissions. When the Coker flue gas is routed through the bypass stack, all pollutants are emitted uncontrolled. This uncontrolled release is also highly visible as the plume opacity may be above the 20% standard. It can take several hours to bring the BUI online in order to follow recommended BUI warm up procedures, when shorter duration unplanned outages occur, the Coker burner flue gas is not sent to the BUI but through the bypass stack.

Respondent's permits require it to report deviations from the permits. These reports, along with supplemental information provided by Respondent, are the basis for the factual assertions below related to the historical Coker and Fluid Catalytic Cracking Unit ("FCCU") COB outages and the Coker COB outage being addressed by this Order, that occurred between May 7, 2026, and May 30, 2026.

A Settlement Agreement was signed April 27, 2023, between the Department and Respondent which required Respondent to develop a COB Reliability Plan for the COBs associated with both the Coker and FCCU describing the inspection and/or maintenance activities that Respondent will perform during future planned maintenance outages. The settlement

resolved compliance issues including those related to the COBs for the Coker and the FCCU at the Refinery. Respondent was to institute measures designed to enhance the operating reliability of the two COBs, thus minimizing the likelihood of further COB outages. Respondent developed and implemented the COB Reliability Plan; however, the continued reoccurrence of COB outages indicates that it has not adequately addressed the operational reliability of these units.²

On December 31, 2025, the Department issued Respondent Notice of Administrative Penalty Assessment and Secretary's Order No. 2025-A-39, that included a penalty assessment of \$300,000, to address violations associated with certain flaring incidents as well as outages of both the Coker COB and FCCU COB. Secretary's Order No. 2025-A-39 addressed two Coker COB incidents. One occurred on March 13, 2025, that lasted 10.2 hours. Due to the shorter duration, the BUI was not used and the flue gas was directed to the unpermitted bypass stack. The second incident occurred between May 25, 2025, and June 11, 2025. Upon discovering a water leak from the economizer area in the COB on May 24, 2025, Respondent began the procedure to bring the BUI online. When the Coker COB was shutdown on May 25, 2025, and in the process of directing the flue gas to the BUI, the BUI tripped offline and the flue gas was directed to the unpermitted bypass stack. After bringing the BUI back online, the flue gas was directed back to the BUI on May 26, 2025. However, on May 30, 2025, the BUI tripped offline again, resulting in directing the flue gas back to the unpermitted bypass stack. The BUI was brought back online that same day, and the flue gas was returned to the BUI. In its Incident Report, Respondent indicated that there were leaks found in the economizer section of the Coker COB. Several tubes

² In addition to the Coker COB outages discussed in the next paragraph, there were three FCCU COB outages following the signing of the Settlement Agreement, occurring on June 5-6, 2024, June 10, 2024, and January 25, 2025.

were cut and weld capped. Corrective actions at the time included updating the Coker COB and FCCU COB maintenance plans to include an acid neutralization step for the economizer tubes. Additionally, the COB Reliability Plan was updated to include cleaning and visual inspection between the economizer banks of tubes. Finally, the Coker COB economizer was scheduled to be replaced during the next unit turnaround in 2027. During this lengthy unplanned outage of the Coker COB from May 25, 2025, and June 11, 2025, the BUI was utilized as the control device for the Coker flue gas. However, when Respondent experienced intermittent BUI failures, the unpermitted bypass stack was used, which resulted in the unpermitted emissions of certain pollutants, among them, SO₂. Respondent appealed Secretary's Order No. 2025-A-39, which was subsequently superseded by Amended Notice of Administrative Penalty Assessment and Secretary's Order on Consent, Order No. 2026-A-0016, signed July 5, 2026.

On May 3, 2026, operations personnel noticed a change in the steam/water balance for the Coker COB. Visual inspections conducted did not reveal any water leaks. During a visual inspection on May 4, 2026, operations personnel observed a water leak from the economizer area of the COB. At 5:00 p.m. on May 4, 2026, operations personnel began to bring the BUI up to temperature in preparation for a potential COB outage. On May 6, 2026, Respondent issued an advisory notice to the public that it would be shutting down the Coker COB for repairs. A planned outage of the COB to repair the leak was scheduled for May 9, 2026.

However, by 12:30 p.m. on May 7, 2026, the water to steam ratio had degraded such that operations personnel began a shutdown of the COB. Beginning at 1:30 p.m., two unsuccessful attempts were made to transition the flue gas from the COB to the BUI. They failed because of erratic temperature fluctuations in the BUI, which intermittently fell below the minimum temperature limit of 1700 °F reaching lows of 1380 °F. On the third

attempt, flue gas was successfully transitioned into the BUI by 4:55 p.m., and the COB was shut down for inspection and repairs.

Following completion of repairs on May 29, 2026, which included replacement of the entire economizer assembly, operations personnel began startup of the COB. The COB temperature was restored to the required 1300 °F minimum at 1:00 a.m. on May 30, 2026. Flue gas was restored to the COB at 6:00 a.m. on May 30, 2026, ending the event which resulted in the release of 1,490,000 lbs. (745 tons) of SO₂ and 101,000 lbs. (50.5 tons) of NO_x. The NO_x remains below the facility wide 12-month rolling NO_x cap.

The violations described below are related to the shutdown of the Coker COB between May 7, 2026, and May 30, 2026, based on the information provided by Respondent in its Incident Report dated June 4, 2026, and supplemental information.

FINDINGS OF FACT

1. Respondent owns and operates a petroleum refinery located in Delaware City, Delaware whose operations are governed by a Title V Permit, issued pursuant to Regulation 1130, in three separate parts. Each part is renewed every 5 years following the prescribed permitting process. Revisions can occur as necessary and following the prescribed process. Respondent's Title V Permit number referenced in this Order includes the Part, Renewal and Revision in effect at the time of the violation.
2. Permit: AQM-003/00016-Part 2 (Renewal 2)(Revision 2) issued November 14, 2024, ("TV Permit Part 2") is applicable to the violations addressed by this Order.

3. Respondent has a Fluid Coking Unit ("Coker") that is equipped with a CO Boiler ("COB") with a downstream wet gas scrubber ("WGS") train as pollution control devices to control CO, NO_x, SO₂, and PM emissions. NO_x and SO₂ emissions are controlled by the Selective Non-Catalytic Reduction ("SNCR") system located in the Coker COB, and the WGS train (which cannot reduce pollution unless the upstream COB is functioning).
4. The Coker is also equipped with a Back-Up Incinerator ("BUI") which controls CO and PM emissions during periods when the COB is inoperable. During normal operation, the Coker burner flue gas is routed to the Coker COB and WGS train. However, when the Coker COB and WGS train cannot be utilized, the Coker burner flue gas can be routed in one of two ways, i.e., either through the BUI, or through the bypass stack.
5. The permit requires operation of the Coker with its flue gas routed through the COB and downstream WGS at all times. Routing the Coker burner flue gas to the BUI will control PM and CO emissions but will not control NO_x or SO₂ emissions. However, it can take several hours to follow recommended BUI warm up procedures in order for the BUI to function safely and properly; therefore when shorter duration unplanned outages occur, the Coker burner flue gas is not sent to the BUI but through the unpermitted bypass stack. When the Coker flue gas is routed through the bypass stack, all pollutants are emitted uncontrolled. This uncontrolled release is also highly visible as the plume opacity may be above the 20% standard.
6. A Settlement Agreement signed April 27, 2023, between the Department and Respondent, required Respondent develop a

COB Reliability Plan describing inspection and/or maintenance activities it would perform during future planned maintenance outages as well as institute measures to enhance the operating reliability of the COB. However, since then, continued reoccurrence of COB outages indicates the COB Reliability Plan has not adequately addressed the operational reliability of the COBs.

7. On December 31, 2025, the Department issued Respondent Notice of Administrative Penalty Assessment and Secretary's Order No. 2025-A-39, that included a penalty assessment of \$300,000, to address violations associated with certain flaring incidents as well as outages of both the Coker COB and FCCU COB. Respondent appealed Secretary's Order No. 2025-A-39, which was subsequently superseded by Amended Notice of Administrative Penalty Assessment and Secretary's Order on Consent, Order No. 2026-A-0016, signed July 5, 2026.
8. Beginning on May 3, 2026, Respondent noticed a change in the steam/water balance for the Coker COB, however visual inspections did not reveal any leaks.
9. On May 4, 2026, Respondent observed a water leak from the economizer area of the Coker COB. In anticipation of a potential COB outage to repair the leak, Respondent began the process of bringing the BUI up to temperature. Respondent scheduled a planned outage of the Coker COB for May 9, 2026.
10. On May 6, 2026, Respondent issued an advisory notice to the public that the Coker COB would be shut down for repair.

11. By 12:30 p.m. on May 7, 2026, the water to steam ratio had degraded such that Respondent began a shutdown of the Coker COB and after three attempts over the course of 3.5 hours, successfully transitioned the flue gas from the Coker COB to the BUI at 4:55 p.m.
12. Following completion of repairs on May 29, 2026, which included replacement of the entire economizer assembly, operations personnel began startup of the Coker COB. The Coker COB temperature was restored to the required 1300 °F minimum at 1:00 a.m. on May 30, 2026. Flue gas was restored to the Coker COB at 6:00 a.m. on May 30, 2026, ending the release event.
13. Respondent submitted an Incident Report dated June 4, 2026, to the Department as required. A total of 1,490,000 lbs. (745 tons) of SO₂ and 101,000 (50.5 tons) of NO_x were released uncontrolled through the use of the BUI between May 7, 2026, and May 30, 2026.

PERMIT REQUIREMENTS

1. In Condition 3-Table 1.da.1.i.C of TV Permit Part 2, it states:

"The Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR system shall be operating properly at all times when the FCU is operating."
2. In Condition 3-Table 1.da.3.i.A of TV Permit Part 2, it states:

"SO₂ emissions shall not exceed 25 ppmvd @ 0% O₂ on a rolling 365-day average, 50 ppmvd @ 0% O₂ on a rolling 7-day average, and 182.3 TPY."³

CONCLUSION

Based on the above, the Department has concluded that Respondent committed the following violations:

1. Respondent is found to be in violation of Condition 3-Table 1.da.1.i.C of TV Permit Part 2, for failing to operate the Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR while the Coker was operating between May 7, 2026, and May 30, 2026.
2. Respondent is found to be in violation of the annual SO₂ limit of 182.3 TPY for Emission Unit No. 22² found in Condition 3 - Table 1.da.3.i.A of TV Permit Part 2, as a result of the release of 1,490,000 lbs. (745 tons) of SO₂ uncontrolled through the use of the BUI stack between May 7, 2026, and May 30, 2026.

ASSESSMENT OF PENALTY

Pursuant to 7 Del. C. § 6005(b)(3), the Secretary may impose an administrative penalty of not more than \$40,000 for each day of violation

³ Note: The concentration limits apply to the standard operating configuration, where FCU flue gas is routed through the COB and WGS/SNCR train. The annual TPY limit applies to Emission Unit No. 22, inclusive of the FCU, FCU WGS, FCU SNCR, FCU Start Up Heater, FCU Selas Steam Superheater, FCU COB, and FCU Back Up Incinerator.

detailed in this Order. In assessing the administrative penalty, 7 Del. C. § 6005(b)(3) instructs the Secretary to consider the following factors: (1) the nature, circumstances, extent, and gravity of the violation, or violations; (2) the ability of the violator to pay; (3) any prior history of such violations; (4) the degree of culpability; (5) the economic benefit or savings (if any) resulting from each violation; and (6) such other matters as justice may require. A brief discussion of these factors is set out below.

Having considered these factors, the Secretary is assessing an administrative penalty of \$960,000 for the violations identified in this Assessment and Order.

1. **The Nature, Circumstances, Extent and Gravity of the Violation, or Violations:**

The nature, circumstances, extent, and gravity of the violations are significant. The May 2026 Coker COB outage detailed in this Order caused a total uncontrolled release of 1,490,000 lbs. (745 tons) of SO₂. The total amount emitted of this regulated pollutant is substantial. The maximum penalty of \$40,000 per day was assessed.

2. **Respondent's Ability to Pay:**

The record contains no information that the Respondent does not have the ability to pay the administrative penalty assessed.

3. **Prior History of Violations:**

Respondent has had prior violations of these specific permit requirements related to Coker COB outages.

4. **Degree of Culpability:**

Factors the Department considered that impact Respondent's degree of culpability include whether it has employed reasonable measures to assure that violations that occur are brief in nature and have minimal impact on surrounding areas, and whether Respondent has taken sufficient measures to avoid repeat violations. Respondent's decision to extend the maintenance turn around schedule for the Coker has resulted in exceeding the practical turnaround needs of all of the Coker components including the Coker COB. The Coker and COB must be assessed as a single unit and turnaround scheduled for the duration reflective of the needs of all components.

5. Economic Benefit or Savings Resulting from the Violation(s):

The Respondent's decision to extend the Coker turnaround schedule and to continue operating the Coker instead of safely shutting it down during the COB maintenance event resulted in an economic benefit from maintaining refinery operations despite increased emissions of more than 700 tons of sulfur dioxide.

6. Such Other Matters as Justice May Require:

Lastly, considering such other matters as justice may require, the Secretary has determined that the penalty assessed is proportional to the violations and calculated so as to deter Respondent and those similarly situated from engaging in future violations.

Pursuant to 7 Del. C. § 6005(b)(3), this is written notice to Respondent that on the basis of its findings, the Department is assessing Respondent an administrative penalty of \$960,000 for the violations identified in this Secretary's Order.

Respondent shall submit a check to the payable to the "State of Delaware" in the amount of \$960,000 within thirty (30) days of receipt of this Secretary's Order to: OTS Enforcement Processing, Department of Natural Resources and Environmental Control, Office of the Secretary, 89 Kings Highway, Dover, Delaware 19901.

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Respondent is further advised that the above assessed administrative penalty shall be due and owing within 30 days of Respondent's receipt of this Assessment and Order. In the event of nonpayment of the administrative penalty assessed above, and after Respondent has exhausted all legal appeals, if any, a civil action may be brought by the Secretary in Superior Court for collection of the administrative penalty, including interest, attorneys' fees and costs, and the validity, amount and appropriateness of

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such administrative penalty and/or costs shall not be subject to review pursuant to 7 Del. C. § 6005(b)(3).

To request a public hearing pursuant to 7 Del. C. § 6005(b)(3), please submit your request, in writing, to:

Department of Natural Resources and Environmental Control
Office of the Secretary
89 Kings Highway
Dover, DE 19901
Phone: (302) 739-9000

To submit an appeal to the Environmental Appeals Board pursuant to 7 Del. C. § 6008, you must file your written statement of appeal and submit a check, made payable to: "Environmental Appeals Board," for the \$50.00 filing fee, to:

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Office of the Secretary
Attn: Assistant to the Environmental Appeals Board
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For additional information on filing an appeal with the Environmental Appeals Board and what information you must include in your written statement of appeal, please refer to the Environmental Appeals Board Regulations, codified at 7 DE Admin. Code 105.

The Department, to the extent necessary, reserves the right to take additional enforcement actions regarding these and other violations by

Respondent, including but not limited to one or more of the following: an action under 7 Del. C. § 6005(b)(1) seeking penalties for past violations, an action under 7 Del. C. § 6005(b)(2) seeking penalties for continuing violations, an action in the Court of Chancery pursuant to 7 Del. C. § 6005(b)(2) seeking a temporary restraining order or an injunction, and the imposition of civil penalties and recovery of the Department's costs and attorney's fees pursuant to 7 Del. C. §§ 6005(b)(3) & (c)(1). Nothing in this document shall be deemed to estop, or in any way preclude, any additional enforcement action for these and any other violations, including administrative and civil penalties for each day of violation, or an action for the recovery of Department costs expended in abating these violations.

PRE-PAYMENT

Respondent may prepay the administrative penalty of \$960,000 in the manner described in the attached "Waiver of Statutory Right to a Hearing." By doing so, Respondent waives its right to a hearing and the opportunity to appeal or contest this Secretary's Order.

If you have any questions, please contact, or have your attorney contact, Valerie S. Edge, Deputy Attorney General, at (302) 739-4636.

July 8, 2026

Date



Gregory Patterson, Secretary
Department of Natural Resources
and Environmental Control

cc: Valerie S. Edge, Deputy Attorney General

Delaware City Refining Company LLC
Administrative Penalty Order
May 2026 Coker COB Outage
Page **16** of **17**

Angela Marconi, P.E., Director

2026-12dcm DCRC FCU COB Shutdown Order.doc

WAIVER OF STATUTORY RIGHT TO A HEARING

Delaware City Refining Company LLC hereby waives its right to a hearing and its opportunity to appeal or contest this Assessment and Order and agrees to the following:

1. **Delaware City Refining Company LLC** will pay the administrative penalty in the amount of \$960,000 by sending a check payable to the "State of Delaware" within 30 days of receipt of this Assessment and Order. The check shall be directed to OTS Enforcement Processing, Department of Natural Resources and Environmental Control, Office of the Secretary, 89 Kings Highway, Dover, Delaware 19901.

Delaware City Refining Company LLC

Date: _____

By: _____

Title: _____

EXHIBIT C



STATE OF DELAWARE
**DEPARTMENT OF NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL**

DIVISION OF AIR QUALITY
STATE STREET COMMONS
100 W. WATER STREET, SUITE 6A
DOVER, DELAWARE 19904

**DIRECTOR'S
OFFICE**

PHONE
(302) 739-9402

July 9, 2026

Delaware City Refining Company LLC
4550 Wrangle Hill Road
Delaware City, DE 19709

ATTENTION: Michael Capone
Refinery Manager

**SUBJECT: Notice of Violations
Delaware City Refining Company
Permit: AQM-003/00016 - Part 2 - Renewal (02) Revision (02)
Excess Emissions from the Fluid Coking Unit in May 2026**

Dear Mr. Capone:

The Department's Division of Air Quality ("AQ") has reviewed the Incident Report and Hazardous Substance Release Report Form submitted by the Delaware City Refining Company LLC ("DCRC") for the Fluid Coking Unit ("Coker") Carbon Monoxide Boiler ("COB") outage occurring between May 7, 2026, and May 30, 2026. As a result of this Coker COB outage, DCRC's continued operation of the Coker resulted in the violations described in this Notice of Violation.

INCIDENT SUMMARY

According to the Incident Report and Hazardous Substance Release Report dated June 4, 2026, ("June 4, 2026, Incident Report") the Coker COB was removed from service for a maintenance event. The BUI was utilized as a control device for the Coker flue gas during the COB outage between May 7, 2026, and May 30, 2026. This event released 1,490,000 lbs. (745 tons) of SO₂ and 101,000 lbs. (50.5 tons) of NO_x.

On May 3, 2026, operations personnel noticed a change in the steam/water balance for the Coker COB. Visual inspections conducted did not reveal any water leaks. During a visual inspection on May 4, 2026, operations personnel observed a water leak from the economizer area of the COB. At 5:00 p.m. on May 4, 2026, operations personnel began to bring the BUI up to temperature in preparation for a potential COB outage. On May 6, 2026, DCRC issued an advisory notice to the public that it would be shutting down the coker COB for repairs. A planned outage of the COB to repair the leak was scheduled for May 9, 2026.

By 12:30 p.m. on May 7, 2026, the water to steam ratio had degraded such that operations personnel began a shutdown of the COB. Beginning at 1:30 p.m., two unsuccessful attempts were made to transition the flue gas from the COB to the BUI. They failed because of erratic temperature fluctuations in the BUI, which intermittently fell below the minimum temperature limit of 1700 °F reaching lows of 1380 °F. On the third attempt, flue gas was successfully transitioned into the BUI by 4:55 p.m., and the COB was shut down for inspection and repairs.

Following completion of repairs, on May 29, 2026, which included replacement of the entire economizer assembly, operations personnel began startup of the COB. The COB temperature was restored to the required 1300 °F minimum at 1:00 a.m. on May 30, 2026. Flue gas was

restored to the COB at 6:00 a.m. on May 30, 2026, ending the release event.

PERMIT REQUIREMENTS

The following conditions of Permit: AQM-003/00016 – Part 2 – Renewal (02) Revision (02) (“TV Permit Part 2”) are applicable in making this determination of non-compliance.

In Condition 3–Table 1.da.1.i.C of TV Permit Part 2, it states:

“The Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR system shall be operating properly at all times when the FCU is operating.”

In Condition 3–Table 1.da.1.i.H of TV Permit Part 2, it states in part:

“This Permit does not authorize emissions exceeding the limits set forth in Condition 3 – Table 1.da.2 through da.10 including emissions during periods of any unplanned shutdown of the FCU, or any unplanned shutdown or bypass of the FCU COB or the Belco prescrubber or WGS. Instead, in the event of any unplanned shutdown of the FCU or any unplanned shutdown or bypass of the FCU COB or Belco prescrubber or the WGS, the Owner/Operator shall bear the burden of demonstrating to the Department's satisfaction that the Owner/Operator's continued operation of the FCU should not subject the Owner/Operator to an enforcement action for noncompliance with emission limitations or operating standards included in this Permit or otherwise applicable to the facility under the State of Delaware “Regulations Governing the Control of Air Pollution.” Such demonstration must at a minimum be supported by sufficient documentation and emissions

data including all relevant emissions calculations, formulas, and any assumptions made thereof.”¹

In Condition 3 – Table 1.da.3.i.A of TV Permit Part 2, it states:

“SO₂ emissions shall not exceed 25 ppmvd @ 0% O₂ on a rolling 365-day average, 50 ppmvd @ 0% O₂ on a rolling 7-day average, and 182.3 TPY.”²

VIOLATIONS

1. DCRC is in violation of Condition 3-Table 1.da.1.i.C of TV Permit Part 2, for failing to operate the Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR while the Coker was operating between May 7, 2026, and May 30, 2026.
2. DCRC is found to be in violation of the annual SO₂ limit of 182.3 TPY for Emission Unit No. 22 found in Condition 3 – Table 1.da.3.i.A of TV Permit Part 2, as a result of the release of 1,490,000 lbs. (745 tons) of SO₂ uncontrolled through the use of the BUI stack between May 7, 2026, and May 30, 2026.

¹ Note: DNREC has not received documentation requesting relief from enforcement actions.

² Note: The concentration limits apply to the standard operating configuration, where FCU flue gas is routed through the COB and WGS/SNCR train. The annual TPY limit applies to Emission Unit No. 22, inclusive of the FCU, FCU WGS, FCU SNCR, FCU Start Up Heater, FCU Sela Steam Superheater, FCU COB, and FCU Back Up Incinerator.

ADDITIONAL NON-COMPLIANCE

After review of the June 4, 2026, Incident Report and supplemental information, the Department has determined the following additional non-compliance occurred as a result of the Coker COB outage between May 7, 2026, and May 30, 2026.

In Condition 3 – Table 1.da.1.i.E of TV Permit Part 2, it states:

“During operation of the backup incinerator and other periods of FCU CO Boiler, Belco prescrubber and WGS outages, the Owner/Operator, at a minimum must initiate a reduction in the feed rate to the FCU and achieve the operational limits shown below by no later than 24 hours following the commencement of the outage of the FCU CO Boiler, Belco prescrubber and/or WGS...[FCU Feed Rate (KBD): 31.5]”

The Coker has an annual SO₂ limit of 182.3 tons per year. SO₂ emission calculations through the BUI are based on the raw material feed rate going into the Coker and the sulfur content of the Coker feed raw material. The raw material feed rate was reduced to the required 31.5 thousand barrels per day (“kbd”) within 24 hours of the beginning of the COB outage. However, on May 25, 2026, the average daily Coker raw material feed rate exceeded the required reduced rate threshold, averaging 31.88 kbd. Sulfur content ranged between 3.28% and 4.49% during this COB outage. This excursion slightly exceeds the permit requirement.

In Condition 3–Table 1.da.1.i.H.1 of TV Permit Part 2, it states:

“Should the Owner/Operator operate the backup incinerator, the Owner/Operator shall abide by the following:

Carbon Monoxide combustion shall be achieved at a minimum of 1300 °F, and at a minimum retention time of 0.3 seconds; and

Maximum particulate matter emissions of 0.19 grain per dry standard cubic foot ("dscf") shall be achieved either by operating at a temperature of 1700 °F, a minimum excess of 1.9% O₂ and a residence time of 2.0 seconds, or, at such other alternate operating conditions as have been demonstrated by testing to achieve equivalent emissions."

The Incident report indicated that on May 7, 2026, operations personnel attempted to transition the flue gas from the COB to the BUI beginning at 1:30 p.m. until successful completion at 4:55 p.m. In this 3.5-hour period, the report indicates that there were approximately 69 minutes when the BUI was below the required temperature for control of PM (1700 °F). It was unclear from the report whether the flue gas was routed through the BUI for any meaningful time during these low temperature periods. The report does indicate that efforts were made to route the flue gas through the COB until the BUI temperatures were stabilized. Additional records show that flue gas was routed through the BUI for approximately 53 minutes during the final transition attempt with an average temperature of 1610 °F. Operations personnel found that routing flue gas through the BUI while it was below temperature was necessary to achieve temperature stability.

Immediately upon receipt of this NOV, the Delaware City Refining Company, shall comply with all statutory, regulatory and permit requirements, including those cited herein.

Within 30 days of receipt of this NOV, Delaware City Refining Company LLC shall submit to the Department the name and address of its Registered Agent as filed with Delaware's Division of Corporations if it has changed from what was submitted to the Department on May 29, 2026.

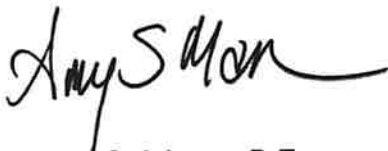
Delaware City Refining Company
Permit: AQM-003/00016-Part 2-Ren (02) Rev (02)
Notice of Violations / Issued July 9, 2026
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There was also an exceedance of the 1-hour SO₂ National Ambient Air Quality Standard during the event. A confirmation that refinery operations definitively caused the exceedance has not been established.

Please be advised that this Notice of Violation will be made available through the Department's Internet site, which can be found at <https://www.dnrec.delaware.gov>. Information concerning your Company's failure to comply will be posted following confirmation by the Department of your receipt of this Notice of Violation. Upon further review of the violations, the Department reserves the right to pursue further investigation, and, as it deems appropriate, enforcement action.

If you have any questions, please contact Lindsay Rennie at (302) 323-4542.

Sincerely,

A handwritten signature in black ink that reads "Amy S. Mann". The signature is fluid and cursive, with the first name "Amy" and last name "Mann" clearly legible.

Amy S. Mann, P.E.
Administrator
Engineering & Compliance Section

ASM:LTR
F:\EngAndCompliance\LTR\ltr26009.doc

pc: Dover Title V File
Lindsay Rennie
Dawn Minor

EXHIBIT D

RECEIVED

SEP 12 2011

BY: laf/HLS



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF AIR & WASTE MANAGEMENT

AIR QUALITY MANAGEMENT
SECTION

Blue Hen Corporate Center
655 S. Bay Road, Suite 5 N
Dover, Delaware 19901

TELEPHONE: (302) 739 - 9402
FAX No.: (302) 739 - 3106

September 7, 2011

Permit: APC-81/0829-OPERATION (Amendment 8)(PSD-NSR)
Fluid Coker Unit, FCU Carbon Monoxide Boiler,
Wet Gas Scrubber, and Selective Non-Catalytic Reduction System

Delaware City Refining Company
Delaware City Refinery
4550 Wrangle Hill Rd.
Delaware City, DE 19706

ATTENTION: Herman Seedorf
Refinery Manager

Dear Mr. Seedorf:

Pursuant to 7 DE Admin. Code 1102, Section 2 and 1125, approval of the Department of Natural Resources and Environmental Control (the Department) is hereby granted for the operation of a Belco Pre-scrubber, an amine-based Cansolv Regenerative Wet Gas Scrubber (WGS) with caustic polisher installed downstream of the Fluid Coking Unit (FCU) Carbon Monoxide Boiler (COB) and a GE Selective Non Catalytic Reduction (SNCR) System in the FCU COB at the Delaware City Refinery, 4550 Wrangle Hill Road in Delaware City, Delaware, in accordance with the following documents:

- Application submitted on Form No. AQM-4 dated February 15, 2004 signed by Franklin R. Wheeler;
- Letter dated March 17, 2004 addressed to Secretary John Hughes and signed jointly by Franklin R. Wheeler for Motiva Enterprises (Motiva) and Bruce Jones for The Premcor Refining Group, Inc. (Premcor) requesting transfer of all Motiva's permits to Premcor;
- Letter dated April 23, 2004 addressed to Franklin Wheeler of Motiva Enterprises, LLC and Bruce Jones of The Premcor Refining Group, Inc. and signed by Secretary John Hughes; and
- Consent Decrees, including all addenda thereto, lodged with the United States Court for the Southern District of Texas in Civil Action No. H-01-0978, to the extent applicable to the Delaware City Refinery (Consent Decree);

Delaware's Good Nature Depends on You!

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RECYCLED PAPER

Permit: APC-81/0829-OPERATION (Amendment 8)(PSD-NSR)

Delaware City Refining Company

Fluid Coking Unit, FCU COB, WGS, and SNCR

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- Secretary's Order No. 2004-A-0058 issued November 30, 2004.
- Secretary's Order No. 2005-A-0030 issued June 2, 2005.
- Secretary's Order No. 2008-A-0025 issued June 4, 2008.
- Agreement Governing the Acquisition and Operation of Delaware City Refinery dated May 31, 2010 between the Department of Natural Resources and Environmental Control and Delaware City Refining Company.
- Letter dated December 9, 2010 addressed to Heather Chelpaty and signed by secretary Collin O'Mara authorizing the transfer of DNREC Authorizations and Environmental Permits from Premcor to Delaware City Refining Company.
- Electronic mail addressed to Ravi Rangan from Robert Muche dated 08.22.2011.

This permit is issued subject to the following conditions:

1. General Provisions

- 1.1 This permit expires five years from the date of issuance.
- 1.2 Representatives of the Department may, at any reasonable time, inspect this facility.
- 1.3 This permit may not be transferred to another person, owner, or operator unless the transfer has been approved in advance by the Department. A request for a permit transfer shall be received by the Department at least 30 days before the date of the requested permit transfer. This request shall include:
 - 1.3.1 Signed letters from each person stating the permit transfer is agreeable to each person; and
 - 1.3.2 An Applicant Background Information Questionnaire pursuant to 7 Del. C., Chapter 79 if the person receiving the permit has not been issued any permits by the Department in the previous 5 years.

Approval (or disapproval) of the permit transfer will be provided by the Department in writing.
- 1.4 The owner or operator shall not initiate construction, install, or alter any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department pursuant to 7 **DE Admin. Code** 1102, and, when applicable 1125, and receiving approval of such application from the Department; except as authorized by this permit or exempted in the *Regulations*.
- 1.5 The owner or operator shall submit a complete supplement to the Title V permit application pursuant to 7 **DE Admin. Code** 1130, Section 5(b) by September 07,

2012. The application shall address all applicable requirements including those of 40 CFR Part 64 (Compliance Assurance Monitoring) if applicable.

2. Emission Limitations

2.1 Air contaminant emission levels from the FCU WGS shall not exceed those specified in the *Regulations* and the following¹:

2.1.1 Volatile Organic Compound (VOC) Emissions

2.1.1.1 Non-methane Hydrocarbon Emissions: 0.14 lb/mmDSCF of stack gas and 8.2 TPY.

2.1.1.2 The leak detection and repair requirements to control fugitive VOC emissions from the FCU shall be in accordance with the requirements in 40 CFR 60, Subpart GGG for existing components in light liquid and gaseous service and in accordance with 40 CFR 60, Subpart CC for new components in light liquid and gaseous service. The leak detection and repair requirements to control fugitive emissions from the FCU shall be in accordance with the Consent Decree for both new and existing components in light liquid and gaseous service.

2.1.2 Nitrogen Oxide (NO_x) Emissions

2.1.2.1 NO_x emissions shall not exceed 152 ppmvd @ 0 % oxygen on a 30-day rolling average basis.

2.1.2.2 Reserved.

2.1.3 Particulate Matter

2.1.3.1 H₂SO₄: 67.5 lb/hour and 295.7 TPY;

2.1.3.2 TSP: 60.9 lb/hour and 266.8 TPY;

2.1.3.3 PM₁₀ emissions (including TSP and H₂SO₄): 128.4 lb/hour and 562.4 TPY.

2.1.4 Sulfur Dioxide (SO₂) Emissions

SO₂ emissions shall not exceed 25 ppmvd @ 0% O₂ on a rolling 365 day average, 50 ppmvd @ 0% O₂ on a rolling 7 day average, and 182.3 TPY;

¹ Tons per year (TPY) is defined as "tons per rolling twelve months".

2.1.5 Carbon Monoxide (CO) Emissions

2.1.5.1 CO: 500 ppmvd @ 0% O₂ on an hourly average, 200 ppmvd @ 0% O₂ on a rolling 365-day average, and 694.4 TPY.

2.1.5.2 Reserved.

2.1.5.3 The Company shall not cause or allow the emission of carbon monoxide from the FCU unless it is burned at no less than 1300° F for at least 0.3 seconds in the FCU COB.

2.1.6 Sulfuric Acid (H₂SO₄) Emissions

H₂SO₄ emissions shall meet one of the following standards:

2.1.6.1 H₂SO₄ emissions shall be reduced by at least 40% across the wet gas scrubber system; or

2.1.6.2 The outlet concentration of H₂SO₄/SO₃ from the stack shall be no greater than 10 ppmvd.

2.1.7 Ammonia (NH₃) Emissions

NH₃: 2.3 lb/hour and 10.2 TPY;

2.1.8 Lead (Pb) Emissions

Pb: 4.37 E-04 pounds per thousand pounds of coke burned and 0.12 TPY;

2.1.9 Hazardous Air Pollutant (Ni HAP) Emissions

Ni: 0.001 pounds per 1,000 pounds of coke burned and 0.27 TPY.

2.2 The opacity from the FCU WGS stack or the back up incinerator stack, when it is operating, shall not be greater than 20% opacity for an aggregate of more than 3 minutes in any 1 hour or more than 15 minutes in any 24 hour period.

2.3 Odors from this source shall not be detectable beyond the plant property line in sufficient quantities such as to cause a condition of air pollution.

2.4 The emission limitations in Conditions 2.1 shall not apply during periods of planned start up and planned shut downs of the FCU provided the planned start up and shut down event does not exceed 116 hours. The emission limitations shall

apply to each planned start up or shut down event after the expiration of the 116 hour period. Planned start ups shall be considered a maximum of 116 hours preceding oil back into the unit. Planned shut downs shall be considered a maximum of 116 hours from feed out of the FCU. In lieu of the emission limitations in Condition 2.1, the following emission limitations shall apply during planned start ups and shut downs of the FCU:

2.4.1	VOC	1.6 lbs/hr
2.4.2	NO _x	Reserved
2.4.3	H ₂ SO ₄	58 lbs/hr
2.4.4	TSP	47.1 lbs/hr
2.4.5	PM ₁₀	133.3 lbs/hr
2.4.6	SO ₂	95 lbs/hr
2.4.7	CO	415 lbs/hr
2.4.8	Ammonia	2 lbs/hr

Compliance with these emission limitations in Condition 2.4 shall be determined based on engineering calculations.

- 2.5. During operation of the backup incinerator and other periods of FCU CO Boiler, Belco prescrubber and WGS outages, the Company, at a minimum, must initiate a reduction in the feed rate to the FCU and achieve the following operational limits and emissions rates by no later than 24 hours following the commencement of the outage of the FCU CO Boiler, Belco prescrubber and/or WGS:

Implementation of Turndown Matrix

FCU Feed Rate (KBD)	FCU Feed Wt.% S	SO ₂ Emissions (lb/hr)
31.5	6.0	4441.5
31.5	5.5	4071.4
31.5	5.0	3701.3
31.5	4.5	3331.1
31.5	4.0	2961.0

3. Operational Limitations

- 3.1 The owner or operator shall comply with the following operational limits:

- 3.1.1 The FCU throughput shall not exceed a maximum rate of 57,199 barrels per day of total feed, exclusive of the FCU recycle stream, as a 12 month rolling average, except as provided in this Condition. In the event that the Company determines that the FCU throughput may exceed 57,199 barrels per day of fresh feed, as a 12 month rolling average, without any "modification" to the FCU, as such term is defined in State of Delaware

Permit: APC-81/0829-OPERATION (Amendment 8)(PSD-NSR)

Delaware City Refining Company

Fluid Coking Unit, FCU COB, WGS, and SNCR

September 7, 2011

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Regulations, 7 DE Admin. Code 1101, then the Company shall submit a notification to the Department in advance of achieving a throughput in excess of the level identified in this Condition. The notification shall include a demonstration that the proposed throughput value would be achieved without any modification to the FCU. If the Department approves such demonstration, the Company may operate the FCU at the throughput value addressed in the notification made under this Condition.

- 3.2 With the exception of the FCU burner Offgas, the Company shall not burn any fuel that contains hydrogen sulfide (H_2S) in excess of 0.10 gr/dscf (162 ppm).
- 3.3 The Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR system shall be operating properly at all times when the FCU is operating.
- 3.4 During planned start ups of the FCU, the FCU COB and WGS shall be operating prior to introducing feed into the reaction section of the FCU. In the event of a planned shut down of the FCU, the FCU COB or the WGS, the Company shall continue to operate the FCU COB and WGS until there is no feed entering the reaction section of the FCU prior to commencing shut down of the FCU COB and/or the WGS.
- 3.5 This Permit does not authorize emissions exceeding the limits set forth in Condition 2 including emissions during periods of any unplanned shutdown of the FCU, or any unplanned shutdown or bypass of the FCU COB or the Belco prescrubber or WGS. Instead, in the event of any unplanned shutdown of the FCU or any unplanned shutdown or bypass of the FCU COB or Belco prescrubber or the WGS, the Company shall bear the burden of demonstrating to the Department's satisfaction that the Company's continued operation of the FCU should not subject the Company to an enforcement action for noncompliance with emission limitations or operating standards included in this Permit or otherwise applicable to the facility under the State of Delaware *Regulations*. Such demonstration must at a minimum be supported by sufficient documentation and emissions data including all relevant emissions calculations, formulas, and any assumptions made thereof. The Department's evaluation shall consider, the specific circumstances of the event, including without limitation 1) the cause of, and the Company's response to, the unplanned shutdown; 2) whether the Company has taken all reasonable and prudent steps to abide by the emissions limit conditions; 3) whether the Company has taken all reasonable and prudent steps to minimize the emissions associated with the plant; 4) the degree to which the Company has reduced throughput to the FCU, and the basis for such degree of reduction; 5) the estimated emissions associated with a complete shutdown of the FCU; 6) whether Premcor had reviewed all prior similar causes of unplanned shutdowns

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and had taken all reasonable and prudent actions necessary to avoid future similar outages; and 7) the actual emissions during the period of the unplanned shutdown.

3.5.1 Should the Company operate the backup incinerator, the Company shall abide by the following:

3.5.1.1 Carbon Monoxide combustion shall be achieved at a minimum of 1300°F, and at a minimum retention time of 0.3 second; and

3.5.1.2 Maximum particulate matter emissions of 0.19 grain per dry standard cubic foot ("*dscf*") shall be achieved either by operating at a temperature of 1700°F, a minimum excess of 1.9% O₂ and a residence time of 2.0 seconds, or, at such other alternate operating conditions as have been demonstrated by testing to achieve equivalent emissions.

3.6 There shall be no emissions of uncondensed VOCs from the condensers, hot wells or accumulators of any vacuum producing system.

3.7 During process unit turnarounds the Company shall provide for the following:

3.7.1 Depressurization venting of the process unit or vessel to a vapor recovery system, flare, or firebox.

3.7.2 No emission of VOC from a process unit or vessel until its internal pressure is 136 kiloPascals (kPa) (19.7 pounds per square inch atmospheric [psia]) or less.

3.8

3.8.1 At all times, including periods of startup, shutdown, and malfunction, the Company shall, to the extent practicable, maintain and operate the facility including all associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions.

3.8.2 All structural and mechanical components shall be maintained in proper operating condition.

3.9 HAP emissions from the FCU shall be controlled to meet the MACT I compliance requirements for miscellaneous process vents in accordance with 40 CFR 63.643 (b).

4. Compliance Methodology

4.1 Compliance with Conditions 2.1.3 and 2.1.6 through 2.1.9 shall be based on stack testing to be conducted in accordance with Section 6 of this permit. The Company

shall ensure adequate test ports are provided to carry out such testing in accordance with Regulation No. 17, section 2.3.

- 4.2 Compliance with Condition 2.1.1.1 shall be based on stack testing to be conducted in accordance with Condition 5.2. The Company shall ensure adequate test ports are provided to carry out such testing in accordance with Regulation No. 17, section 2.3.
- 4.3 Compliance with Condition 2.1.1.2 for new components in light liquid and gaseous service shall be based on compliance with the standards in 40 CFR 63.162 through 63.177.
- 4.4 Compliance with Conditions 2.1.2, 2.1.4, 2.1.5 and 3.2 shall be based on continuous monitoring systems.
- 4.5 Compliance with Conditions 2.2, 3.1, 3.3, 3.4 and 3.5.1 shall be based on the monitoring/testing and recordkeeping requirements.
- 4.6 Compliance with Condition 3.6 and 3.7 shall be based on either piping the uncondensed vapors to a firebox or incinerator. Alternately, the vapors may be compressed and added to the refinery fuel gas. During process unit turnarounds, the Company shall conduct depressurization venting of the process unit or vessel to a vapor recovery system, flare or firebox. The Company shall monitor the pressure in each process or vessel until its internal pressure is 136 kPa or less. These actions shall be documented and maintained in accordance with Condition 6.1.
- 4.7 Compliance with the standards in 40 CFR subpart GGG shall be based on the test methods and procedures in 40 CFR 60.592 and compliance with the requirements of 40 CFR Part 63 subpart CC shall be based on the standards in 40 CFR 63.648.
- 4.8 Compliance with Condition 3.8 shall be based on information available to the Department concerning the Company's actions with respect to such events, and shall include the Department's review of all available facts and circumstances including, but not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

5. Testing and Monitoring Requirements

- 5.1 Within 60 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after construction authorized by this permit is completed, the Company shall conduct performance tests for the pollutants listed in Conditions 2.1.3 (PM₁₀), 2.1.6 (H₂SO₄), 2.1.8 (Pb), and 2.1.9 (HAPS).
- 5.2 The Company shall conduct performance testing for VOCs according to the following provisions:
 - 5.2.1 The Company shall conduct additional performance tests for VOCs every three years. The Company may petition the Department to decrease the

Permit: APC-81/0829-OPERATION (Amendment 8)(PSD-NSR)

Delaware City Refining Company

Fluid Coking Unit, FCU COB, WGS, and SNCR

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frequency of VOC performance tests based on the results of any performance testing.

- 5.2.2. Each performance test conducted pursuant to Condition 6.2 shall be performed in accordance with Reference Method 25A in Appendix "A" of 40 CFR Part 60, and shall determine and report results as total hydrocarbons.

- 5.3 Within 90 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after initial startup of such facility, the owner or operator shall conduct performance test(s) and furnish the Department with a written report of the results of such performance test(s) in accordance with the following general provisions:

- 5.3.1 One original and 2 copies of the test protocol including a "Source Sampling Guidelines and Preliminary Survey Form" shall be submitted a minimum of 30 days in advance of the tentative test date to the address in Condition 5.3.3. The tests shall be conducted in accordance with the State of Delaware and Federal requirements.

- 5.3.2 The test protocol shall be approved by the Department prior to initiating any testing. Upon approval of the test protocol, the Company shall schedule the compliance demonstration with the Air Surveillance and Engineering & Compliance Branches. The Department must observe the test for the results to be considered for acceptance, unless the Department determines in advance, in writing, that the test need not be observed. Further, the Department may in its discretion determine based on its observation of the test that it need not observe the entire test.

- 5.3.3 The final results of the testing shall be submitted to the Department within 90 days of the test completion. One original and 2 copies of the test report shall be submitted to the addresses below:

Original and One Copy to:

Engineering & Compliance Branch
Attn: Assigned Engineer
156 South State Street
Dover, DE 19901

One Copy to:

Air Surveillance Branch
Attn: Program Manager
715 Grantham Lane
New Castle, DE 19720

- 5.3.4 To be considered valid, the final results report shall include the emissions test report (including raw data from the test) as well as a summary of the results and a statement of compliance or non-compliance with permit conditions signed by a member of the Company's Health, Safety and Environment Department.

- 5.3.5 The results must demonstrate to the Department's satisfaction that the emission unit is operating in compliance with the applicable regulations and conditions of this permit; if the final report of the test results shows non-compliance the owner or operator shall propose corrective action(s).

Failure to demonstrate compliance through the test may result in enforcement action.

- 5.4 The QA/QC procedures for the SO₂ CEMS shall be established in accordance with the procedures in Appendix "F" of 40 CFR Part 60.
- 5.5 The QA/QC procedures for the NO_x CEMS shall be established in accordance with the procedures in Appendix B of 40 CFR Part 75 to meet the requirements of the NO_x Budget Trading Program contained in DNREC Regulation 39 (Nitrogen Oxides Trading Program). If at a future date the FCU COB is no longer an affected source under DNREC Regulation 39, the appropriate procedures governing the QA/QC of the CEMS shall be those set forth in Appendix F of 40 CFR 60.
- 5.6 PM: Compliance with PM emission limits shall be based on performance testing conducted in accordance with Condition 5.1 and annually thereafter, as follows:
 - 5.6.1 H₂SO₄: Compliance with Conditions 2.1.3.1 and 2.1.6 shall be based on testing in accordance with Reference Method 8 in Appendix "A" of 40 CFR Part 60, or other testing methodology approved by the Department.
 - 5.6.2 TSP: Compliance with Condition 2.1.3.2 shall be based on testing in accordance with Reference Method 5B in Appendix "A" of 40 C.F.R. Part 60, or other testing methodology approved by the Department.
 - 5.6.3 PM₁₀ (including TSP and H₂SO₄): Compliance with Condition 2.1.3.3 shall be based on testing in accordance with Methods 5B/202, or other testing methodology approved by the Department.
 - 5.6.4 PM_{2.5}: Compliance with Condition 2.1.3.4 shall be based on testing in accordance with a Department approved protocol.

The Company may petition the Department for less frequent testing if future data shows that testing on an annual basis is unwarranted.
- 5.7 The QA/QC procedures for the CO CEMS shall be in accordance with the procedures in Appendix "F" of 40 CFR Part 60.
- 5.8 Ni/Pb: Compliance shall be based on the stack test based emission factor in terms of lb/Mlb coke burn rate. The Company shall conduct additional performance testing in accordance with this condition every three years, unless the Department approves less frequent testing.
- 5.9 The Company shall continuously monitor the temperature of the FCU COB firebox.
- 5.10 The Company shall monitor the FCU throughput and coke burn rates.
- 5.11 The Company shall continuously monitor the pressure drop across the Agglo-filtering modules and Cyclolab Droplet Separators and the quench/pre-scrubber recirculation pump discharge pressure. The determination that the opacity from the FCU WGS stack, when it is operating, shall not be greater than 20% for an aggregate of more than 3 minutes in any 1 hour or more than 15 minutes in any 24

hour period (required in Section 2.2) shall be based upon the following parametric monitoring:

- 5.11.1 The minimum delta-P across the Agglo-Filtering modules and Cyclab Droplet Separators shall be 6 inches of water column, evaluated on a one minute average basis; and
- 5.11.2 A minimum discharge pressure, evaluated on a one minute average basis, from the quench/pre-scrubber recirculation pumps satisfying the less stringent of:
 - 5.11.2.1 115 psig, or
 - 5.11.2.2 The discharge pressure equivalent to 95% of the average discharge pressure recorded during performance testing performed in accordance with the methods identified in Condition 5.6.3, provided that such performance testing also includes a demonstration of compliance with the visual emissions standard identified in Condition 2.2 using EPA Method 9.
- 5.11.3 Notwithstanding Condition 5.11.2, if the discharge pressure from the quench/pre-scrubber falls below the minimum discharge pressure established under Condition 5.11.2 for greater than 3 minutes in any hour or more than 15 minutes in any 24 hour period, the Company may perform a visual emission test in accordance with EPA Reference Method 9 to establish that visible emissions do not exceed the opacity standard specified in Condition 2.2 at the reduced discharge pressure. In such case, the new minimum discharge pressure from the quench/pre-scrubber recirculation pumps shall be the average discharge pressure recorded during the Method 9 test, and shall be used in conjunction with Condition 5.11.1 to evaluate compliance with Condition 2.2.

6. Record Keeping Requirements

- 6.1 The Company shall maintain all records necessary for determining compliance with this permit in a readily accessible location for five (5) years and shall make these records available to the Department upon written or verbal request. These records shall include:
 - 6.1.1 CEMS data;
 - 6.1.2 Calibration and audit results;
 - 6.1.3 Stack test results;
 - 6.1.4 The daily COB fuel usage;
 - 6.1.5 The coke burn rate and FCU throughput, both on a rolling twelve month average basis;
 - 6.1.6 COB firebox temperature;

- 6.1.7 Detailed daily records of observations of visible emissions or the absence of visible emissions, or other records identified in an approved alternative plan;
 - 6.1.8 Date of every process unit or vessel turnaround;
 - 6.1.9 Internal pressure of the process unit or vessel immediately prior to venting to the atmosphere;
 - 6.1.10 VOC leak repair records required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service;
 - 6.1.11 Bypass stack SO₂ emissions as calculated according to Condition 3.5; and
 - 6.1.12 Backup incinerator operating hours, furnace temperature, percent O₂, and opacity.
- 6.2 The rolling 12 month total emissions for each pollutant shall be calculated and recorded each month in an easily accessible format for each pollutant listed in Condition 2.1.

7. Reporting Requirements

- 7.1 Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan, in the following manner:
- 7.1.1 By calling the Department's Environmental Emergency Notification and Complaint number (800) 662-8802, if the emission poses an imminent and substantial danger to public health, safety or the environment.
 - 7.1.2 Other emissions in excess of any permit condition or emissions which create a condition of air pollution may be called to the Environmental Emergency Notification and Complaint number (800) 662-8802 or faxed to (302) 739-2466. The ability to fax in notifications may be revoked upon written notice to the Company by the Department at its sole discretion.
- 7.2 In addition to complying with Condition 6.1 of this permit, the Company shall satisfy any reporting required by the "Reporting of a Discharge of a Pollutant or an Air Contaminant" regulation, within 30 calendar days of becoming aware of an occurrence subject to reporting pursuant to these conditions. All reports submitted to the Department shall be submitted in writing and shall include the following information:
- 7.2.1 The name and location of the facility;
 - 7.2.2 The subject sources that caused the emissions;
 - 7.2.3 The time and date of the first observation of the excess emissions;
 - 7.2.4 The cause and expected duration of the excess emissions;
 - 7.2.5 For sources subject to numerical emission limitations, the estimated rate of emissions (expressed in the units of the applicable emission or

operational limitation) and the operating data and calculations used in determining the magnitude of the excess emissions; and

- 7.2.6 The proposed corrective actions and schedule to correct the conditions causing the excess emissions.

Emissions on the same day from the same emission unit may be combined into one report. Emissions from the same cause that occur contemporaneously may also be combined into one report. The Owner/Operator shall submit an electronic copy of all required reports to the Department's compliance engineer assigned to the Refinery.

- 7.3 Semiannual reports for the preceding six month period shall be submitted to the Department by January 31 and July 31 of each calendar year. The semiannual reports required by this section shall be increased in frequency to quarterly reports at the Department's discretion and shall become effective upon request of the Department after reasonable notice to the Company. The required reports shall contain the following information:

- 7.3.1 A summary of all excess emissions for the reporting period;
- 7.3.2 Periods when the firebox temperature fell below 1300°F;
- 7.3.3 Exceedances of the FCU throughput rate identified in Condition 3.1;
- 7.3.4 A summary of all periods when the FCU WGS has been bypassed;
- 7.3.5 Hourly SO₂ emissions during periods when the was FCU WGS bypassed;
- 7.3.6 The duration and magnitude of all periods of excess opacity;
- 7.3.7 Back up incinerator operating data required pursuant to condition 6.1.12

- 7.4 Leak detection and repair reports shall be submitted as required by 40 CFR 60.592 for existing components in light liquid and gaseous service and 40 CFR 63.654 for new components in light liquid and gaseous service.

- 7.5 Quarterly CEMS reports for the preceding quarter shall be submitted to the Department for the CEMS required by this permit by January 31, April 30, July 31 and October 31 of each calendar year and shall include a report of excess emissions, quarterly audit results, data capture for the period and details of out of control periods.

- 7.6 One original of all required reports in hard copy format shall be sent to the address below:

Division of Air Quality
Blue Hen Corporate Center
655 S. Bay Road, Suite 5 N
Dover, DE 19901

An electronic copy of all required reports shall be sent to the Department's compliance engineer assigned to the Refinery.

Permit: APC-81/0829-OPERATION (Amendment 8)(PSD-NSR)
Delaware City Refining Company
Fluid Coking Unit, FCU COB, WGS, and SNCR
September 7, 2011
Page 14

8. Administrative Conditions

- 8.1 This permit shall be made available on the premises.
- 8.2 This permit authorizes the operation of the equipment authorized to be constructed by Permit: APC-81/0829-CONSTRUCTION (Amendment 8)(PSD-NSR) dated September 8, 2008 and supersedes Permit: APC-81/0829-OPERATION (Amendment 7) dated June 4, 2008.
- 8.3 Failure to comply with the provisions of this permit may be grounds for suspension or revocation.

Sincerely,



Paul E. Foster, P.E.
Program Manager
Engineering & Compliance Branch

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pc: Dover Title V File

EXHIBIT E



STATE OF DELAWARE
**DEPARTMENT OF NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL**
DIVISION OF AIR QUALITY
STATE STREET COMMONS
100 W. WATER STREET, SUITE 6A
DOVER, DELAWARE 19904

**ENGINEERING &
COMPLIANCE**

PHONE
(302) 739-9402

September 8, 2025

Delaware City Refining Company
4550 Wrangle Hill Road
Delaware City, DE 19709

ATTENTION: Michael Capone
Refinery Manager

**SUBJECT: Notice of Violations
Delaware City Refining Company
Permit: AQM-003/00016 – Part 2 – Renewal (02) Revision (02)
Unpermitted Emissions from the Fluid Coking Unit in May and June 2025**

Dear Mr. Capone:

The Department's Division of Air Quality (AQ) has reviewed the Incident Report and Hazardous Substance Release Report Form submitted by the Delaware City Refining Company (DCRC) for the Fluid Coking Unit (FCU) Carbon Monoxide Boiler (COB) release event from May 25 through June 11, 2025. As a result of this FCU COB outage, DCRC's continued operation of the FCU resulted in the violations described in this Notice of Violation.

INCIDENT SUMMARY

According to the Incident Report and Hazardous Substance Release Report dated June 20, 2025, the Coker COB was removed from service for a maintenance event. The BUI was utilized as a control device for the Coker flue gas during this COB outage between May 25, 2025, and June 11, 2025. The BUI tripped offline twice during the COB outage; during these periods, flue gas was routed to the bypass stack. This COB outage caused the unpermitted releases of 940,071 lbs. of SO₂, 166,760 lbs. of CO, 69,745 lbs. of NO_x, 5,976 lbs. of PM, 871 lbs. of Ammonia (NH₃), 124 lbs. of Hydrogen Sulfide (H₂S), 111 lbs. of Carbonyl Sulfide (COS), and 102 lbs. of Hydrogen Cyanide (HCN).

On May 21, 2025, operations personnel noticed a change in the steam/water balance for the Coker COB. Visual inspections on May 21, 2025, and May 23, 2025, did not reveal any water leaks. On May 24, 2025, operations personnel observed a water leak from the Economizer area of the COB. At 12:25 p.m. on May 24, 2025, operations personnel began to bring the BUI online.

Delaware City Refining Company
Permit: AQM-003/00016-Part 2-Ren (02) Rev (02)
Notice of Violation
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On May 25, 2025, at approximately 10:40 p.m., the Coker COB was shutdown due to inability to maintain steam drum level due to the water tube leak. During the transition to direct flue to the BUI, the BUI tripped offline due to a surge in gas; Coker flue gas was redirected to the bypass stack to allow for relighting of the BUI. On May 26, 2025, at 2:46 a.m., the BUI was relit and at the required temperature; so the flue gas was redirected back to the BUI.

On May 30, 2025, at approximately 8:40 p.m. the BUI tripped offline again. Coker flue gas was again diverted to the bypass stack to allow for relighting of the BUI. By 11:00 p.m. the BUI was back up to temperature; flue gas was returned to the BUI.

On June 4, 2025, at approximately 4:20 p.m., the BUI lost one burner causing the firebox temperature to drop to 1,617 °F which is below the permit requirement of 1700 °F for controlling PM. However, the temperature was sufficiently high enough to control CO, as it was over 1,300 °F. The burner was relit, and temperature was restored at 7:51 p.m.

The Coker COB was brought online on June 11, 2025, at 11:00 a.m. By 4:30 p.m. the firebox temperature was up to the required 1,300 °F and start-up procedures were completed; so flue gas was returned to the COB and WGS train which ended the release event.

Inspections of the COB revealed that multiple tubes from the economizer section were leaking. Many tubes showed corrosion to the bottom side of the tube welds. To stop the leaking, seven tubes were cut and weld capped at the Economizer header. One additional leak was found at a crack at a small-bore drain connection to the superheater header. The crack allowed a small amount of leakage into the firebox, as well as external to the boiler. The leak was repaired, and final testing showed no remaining leaks.

Coker flue gas contains sulfur which can deposit and collect on the Economizer tubes. If moisture is introduced, it can react with the sulfur to form sulfurous acid which in turn corrodes the tubes. DCRC identified the following corrective actions in the Incident Report submitted to the Department. Coker COB and Fluid Catalytic Cracking Unit (FCCU) COB maintenance plans will be updated to include an acid neutralization step for the Economizer tubes. Additionally, the CO Boiler Reliability Plan will be updated to include cleaning and visual inspection between the Economizer banks of tubes. Finally, the Coker COB Economizer will be replaced during the next unit turnaround.

STATUTORY, REGULATORY, AND PERMIT REQUIREMENTS

The following statutory and regulatory requirements, and permit conditions of **Permit: AQM-003/00016 – Part 2-Renewal (02)–Revision (02)** dated November 14, 2024, are applicable in making this determination of non-compliance.

In 7 *Del. C.* § 6003(a)(1) it states:

"No person shall, without first having obtained a permit from the Secretary, undertake any activity in a way which may cause or contribute to the discharge of an air contaminant."

In Section 2.1 of 7 DE Admin. Code 1102, it states:

"Except as exempted in Section 2.2 of this regulation, no person shall initiate construction, install, alter or initiate operation of any equipment or facility or air contaminant control device which will

Delaware City Refining Company
Permit: AQM-003/00016-Part 2-Ren (02) Rev (02)
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September 8, 2025
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emit or prevent the emission of an air contaminant prior to receiving approval of his application from the Department or, if eligible, prior to submitting to the Department a completed registration form."

In Section 2.0 of 7 DE Admin. Code 1111, it states:

"In New Castle County, no person shall cause or allow the emission of carbon monoxide from any catalytic regeneration of a petroleum cracking system, petroleum fluid coker, or other petroleum process into the atmosphere, unless the carbon monoxide is burned at 1300 °F for 0.3 seconds or greater in a direct-flame afterburner or boiler, or is controlled by an equivalent technique."

In Section 2.0 of 7 DE Admin. Code 1114, it states in part:

"No person shall cause or allow the emission of visible air contaminants or smoke from a stationary or mobile source, the shade or appearance of which is greater than 20% opacity for an aggregate of more than three minutes in any one hour or more than 15 minutes in any 24 hour period."

In Condition 3–Table 1.da.1.i.C of **Permit: AQM-003/00016-Part 2-Renewal (02)-Revision (02)** it states:

"The Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR system shall be operating properly at all times when the FCU is operating."

In Condition 3–Table 1.da.1.i.H of **Permit: AQM-003/00016-Part 2-Renewal (02)-Revision (02)** it states in part:

"This Permit does not authorize emissions exceeding the limits set forth in Condition 3 – Table 1.da.2 through da.10 including emissions during periods of any unplanned shutdown of the FCU, or any unplanned shutdown or bypass of the FCU COB or the Belco prescrubber or WGS. Instead, in the event of any unplanned shutdown of the FCU or any unplanned shutdown or bypass of the FCU COB or Belco prescrubber or the WGS, the Owner/Operator shall bear the burden of demonstrating to the Department's satisfaction that the Owner/Operator's continued operation of the FCU should not subject the Owner/Operator to an enforcement action for noncompliance with emission limitations or operating standards included in this Permit or otherwise applicable to the facility under the State of Delaware "Regulations Governing the Control of Air Pollution." Such demonstration must at a minimum be supported by sufficient documentation and emissions data including all relevant emissions calculations, formulas, and any assumptions made thereof."

Note: DNREC has not received documentation requesting relief from enforcement actions.

In Condition 3–Table 1.da.1.i.H.1 of **Permit: AQM-003/00016-Part 2-Renewal (02)-Revision (02)** it states:

"Should the Owner/Operator operate the backup incinerator, the Owner/Operator shall abide by the following:

- a. Carbon Monoxide combustion shall be achieved at a minimum of 1300 °F, and at a minimum retention time of 0.3 seconds; and*
- b. Maximum particulate matter emissions of 0.19 grain per dry standard cubic foot ("dscf") shall be achieved either by operating at a temperature of 1700 °F, a minimum excess of 1.9% O₂*

Delaware City Refining Company

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and a residence time of 2.0 seconds, or, at such other alternate operating conditions as have been demonstrated by testing to achieve equivalent emissions.

In Condition 3 – Table 1.da.3.i.A of **Permit: AQM-003/00016-Part 2-Renewal (02)-Revision (02)** it states:

"SO₂ emissions shall not exceed 25 ppmvd @ 0% O₂ on a rolling 365-day average, 50 ppmvd @ 0% O₂ on a rolling 7-day average, and 182.3 TPY."

Note: The concentration limits apply to the standard operating configuration, where FCU flue gas is routed through the COB and WGS/SNCR train. The annual TPY limit applies to Emission Unit No. 22, inclusive of the FCU, FCU WGS, FCU SNCR, FCU Start Up Heater, FCU Selas Steam Superheater, FCU COB, and FCU Back Up Incinerator.

In Condition 3–Table 1.da.5.i.B of **Permit: AQM-003/00016-Part 2-Renewal (02)-Revision (02)** it states:

"The Owner/Operator shall not cause or allow the emission of carbon monoxide from the FCU unless it is burned at no less than 1300 °F for at least 0.3 seconds in the FCU COB."

In Condition 3–Table 1.da.11.i of **Permit: AQM-003/00016-Part 2-Renewal (02)-Revision (02)** it states:

"The Owner/Operator shall not cause or allow the emission of visible air contaminants and/or smoke from any emission unit, the shade or appearance of which is greater than 20 percent opacity for an aggregate of more than 3 minutes in any 1 hour or more than 15 minutes in any 24 hour period."

VIOLATIONS

1. DCRC is found to be in violation of 7 Del. C. § 6003(a)(1) and Section 2.1 of 7 DE Admin. Code 1102, for the unpermitted release of 11,251 lbs. of SO₂, 166,760 lbs. of CO, 970 lbs. of NO_x, 5,976 lbs. of PM, 871 lbs. of NH₃, 124 lbs. of H₂S, 111 lbs. of COS, and 102 lbs. of HCN through the bypass stack on May 25-26, 2025, and May 30, 2025.
2. DCRC is found to be in violation Section 2.0 of 7 DE Admin. Code 1111 and Condition 3-Table 1.da.5.i.B of **Permit: AQM-003/00016-Part 2-Renewal (02)-Revision (02)** for the release of carbon monoxide without first burning at 1300 °F for at least 0.3 seconds on May 25-26, 2025, and May 30, 2025 during the periods that the BUI tripped offline.
3. DCRC is found to be in violation of Section 2.0 of 7 DE Admin. Code 1114 and Condition 3-Table 1.da.11.i of **Permit: AQM-003/00016-Part 2-Renewal (02)-Revision (02)** for allowing the emission of smoke with an opacity greater than 20% for more than three minutes in an hour and 15 minutes in a 24 hour period on May 25-26, 2025, and May 30, 2025 during the periods that the BUI tripped offline.
4. DCRC is found to be in violation of Condition 3-Table 1.da.1.i.C of **Permit: AQM-003/00016-Part 2-Renewal (02)-Revision (02)** for failing to operate the Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR while the Coker was operating between May 25, 2025, and June 11, 2025.

Delaware City Refining Company
Permit: AQM-003/00016-Part 2-Ren (02) Rev (02)
Notice of Violation

September 8, 2025

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5. DCRC is found to be in violation of 7 *Del. C.* § 6003(a)(1) and Section 2.1 of 7 DE Admin. Code 1102, for the unpermitted release of 928,820 lbs. of SO₂ and 68,775 lbs. of NO_x uncontrolled through use of the BUI stack between May 25, 2025, and June 11, 2025.
6. DCRC is found to be in violation of the annual SO₂ limit of 182.3 TPY for Emission Unit No. 22 found in Condition 3 – Table 1.da.3.i.A of **Permit: AQM-003/00016-Part 2 – Renewal (02)-Revision (02)** as a result of the unpermitted release of 928,820 lbs. of SO₂ (464.4 tons of SO₂) uncontrolled through the use of the BUI stack between May 25, 2025, and June 11, 2025.
7. DCRC is found to be in violation of Condition 3–Table 1.da.1.i.H.1.b of **Permit: AQM-003/00016-Part 2-Renewal (02)-Revision (02)** for failing to meet the operating temperature requirement for the BUI of 1,700 °F on June 4, 2025.

Please be advised that this Notice of Violation will be made available through the Department's Internet site, which can be found at <https://www.dnrec.delaware.gov>. Information concerning your Company's failure to comply will be posted following confirmation by the Department of your receipt of this Notice of Violation. Upon further review of the violations, the Department reserves the right to pursue further investigation, and, as it deems appropriate, enforcement action.

If you have any questions, please contact Lindsay Rennie at (302) 323-4542.

Sincerely,



Amy S. Mann, P.E.
Administrator
Engineering & Compliance Section

ASM:LTR
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pc: Dover Title V File
Lindsay Rennie
Dawn Minor

EXHIBIT F



October 10, 2025

CMRRR# 9589 0710 5270 1612 3937 09

Amy Mann

Program Manager

Delaware Department of Natural Resources and Environmental Control

Division of Air and Waste Management

715 Grantham Lane

New Castle, DE 19720

**Re: Delaware City Refining Company
Permit AQM-003/00016 – Part 2 – Renewal (02) Revision (02)
Response to Notice of Violation for Emissions from Fluid Coking Unit during Carbon
Monoxide Boiler outage in May/June 2025**

Dear Ms. Mann:

Delaware City Refining Company (DCRC or the Refinery) is submitting this information in response to the Notice of Violation issued to DCRC by the Delaware Department of Natural Resources and Environmental Control (DNREC or the Department) on September 8, 2025 (the NOV). The NOV alleges that between May 25 and June 11, 2025, pollutants were emitted above permitted levels as a result of the Refinery's operation of the Fluid Coking Unit (FCU) while the FCU Carbon Monoxide Boiler (COB) was out of service for a maintenance event. The Back Up Incinerator (BUI) was used as a control device for the Coker flue gas during the COB outage. However, the BUI tripped offline twice during the COB outage and emissions needed to be directed through the FCU bypass stack. The operation of the air emitting sources at the Refinery, including without limitation the FCU, the COB, and the BUI, is authorized by Title V Operating Permit AQM-003/00016 – Part 1 (Renewal 3)(Revision 2), Part 2 (Renewal 2)(Revision 2), Part 3 (Renewal 3)(Revision 2), the current version of which was issued by DNREC on November 14, 2024 (the Title V Permit).

Initially, DCRC notes that it is not aware of any provision in the Title V Permit, the underlying regulations, or any Department guidance that prescribes a process for a party to respond to an NOV issued by DNREC. In the absence of such direction, DCRC communicated to DNREC on September 22, 2025, during the parties' standing weekly call, that the Refinery intended to submit a written response to the NOV to provide certain clarifying information and requested that the Department consider such information prior to issuing any enforcement order addressing the alleged noncompliance in the NOV. Nevertheless, in submitting this response, DCRC neither waives nor limits any arguments or defenses the Refinery may raise in response to any claims or potential claims of alleged noncompliance as asserted by DNREC in the NOV, and/or which the Department may assert through a subsequent enforcement order or other action. DCRC also reserves the right to supplement this response at any time.

I. Refinery Demonstration in Support of Request for Relief from Enforcement pursuant to Condition 3-Table 1.da.1.i.H

DCRC further intends for this response to constitute the Refinery's demonstration that the continued operation of the FCU during the COB outage should not subject DCRC to an enforcement action for noncompliance with emission limitations or operating standards included in the Title V Permit or otherwise applicable to the Refinery under Delaware's air pollution control regulations, pursuant to Title V Permit Condition 3-Table 1.da.1.i.H. The NOV notes that as of its date of issuance, the Department had not received documentation from DCRC requesting relief from enforcement actions, although Condition 3-Table 1.da.1.i.H does not specify any required timeframe for submitting such documentation. Additionally, certain prior Notices of Violation issued to DCRC by DNREC similarly noted the absence of responsive documentation from the Refinery as contemplated by Condition 3-Table 1.da.1.i.H, and yet the Department apparently granted DCRC relief from enforcement actions in at least some of these cases. The Refinery requests the Department exercise its discretion to grant such relief in the current matter.

In support of such request, the Refinery wishes to highlight several important points. First, the Title V Permit unequivocally contemplates that there will be periods of "operation of the [BUI] and other periods of FCU CO Boiler, Belco prescrubber and WGS outages" at Condition 3-Table 1.da.1.i.E, and accordingly, establishes specific requirements for these periods. Indeed, there have been numerous such outages at the Refinery over a number of years. The permit requirements include initiating a reduction in the feed rate to the FCU and achieving the operational limits listed in the permit condition by no later than 24 hours following the commencement of the outage of the COB, Belco prescrubber, and/or WGS. The referenced operational limits are for FCU Feed rate in thousand barrels per day, sulfur content in the feed as a percentage of weight, and SO₂ emissions in pound per hour, and are summarized as follows:

FCU Feed Rate (KBD)	FCU Feed Wt. % S	SO₂ Emissions (lb/hour)
31.5	6.0	4441.5
31.5	5.5	4071.4
31.5	5.0	3701.3
31.5	4.5	3331.1
31.5	4.0	2961.0

Critically, DCRC satisfied these operational limits within 24 hours of the commencement of the COB outage and maintained them throughout the duration of the outage in accordance with the applicable permit condition.

Second, the Refinery took all reasonably available steps to minimize the total duration of the COB outage, while ensuring that the necessary repairs were completed properly and safely. In particular, neither of the two BUI trips were reasonably foreseeable, although both times Refinery personnel reacted promptly to redirect the flue gas to the bypass stack until the incinerator could be safely relit. By responding quickly and effectively, the two brief periods during which emissions were routed to the bypass stack were able to be limited to 3.5 and 2.5 hours, respectively.

Third, the Refinery increased its focus on ambient monitoring during the COB outage to demonstrate that downwind SO₂ concentrations remained below the National Ambient Air Quality Standards and thus protective of human health and the environment. Indeed, the DNREC-operated air quality monitoring stations closest to the Refinery confirmed concentrations of SO₂ in the ambient air remained well below the applicable primary ambient air quality standard throughout the COB outage. There were also no known exposures to individuals as a result of the incident, nor any demonstrated potential environmental impacts. In recognition of the atypical duration of the COB outage and resulting use of the BUI, DCRC worked cooperatively with the Department to maximize stable operation of the equipment throughout the relevant period and to keep the community apprised of the circumstances, including by making a joint presentation with DNREC at a Community Tall Hall.

Finally, the root cause analysis performed by DCRC personnel upon gaining entry to the Economizer section of the COB revealed water leaking from faulty tubes and in the boiler firebox side. While DCRC was able to cut and cap the affected tubes during the COB outage and later confirm through hydrotesting that the leaks had stopped, the Refinery has committed to replacing the COB Economizer during the next scheduled turnaround. In the meantime, DCRC will update its FCU and FCCU COB turnaround maintenance plans to include an acid neutralization step for the Economizer tubes, and the COB Reliability Plan will be updated to include a cleaning and visual inspection between the bank of tubes in the Economizer.

II. DCRC's specific objections to the NOV are as follows:

1) With respect to Title V Permit Condition 3-Table 1.da.3.i.A, the Department "notes" that "[t]he concentration limits apply to the standard operating configuration, where FCU flue gas is routed through the COB and WGS/SNCR train. The annual TPY limit applies to Emission Unit No. 22, inclusive of the FCU, FCU WGS, FCU SNCR, FCU Start Up Heater, FCU Selas Steam Superheater, FCU COB, and FCU Back Up Incinerator." For ease of review, Condition 3-Table 1.da.3.i.A provides "SO₂ emissions shall not exceed 25 ppmvd @ 0% O₂ on a rolling 365-day average, 50 ppmvd @ 0% O₂ on a rolling 7-day average, and 182.3 TPY." The Department's interpretation is born out in alleged Violation #6, which states that "DCRC is found to be in violation of the annual SO₂ limit of 182.3 TPY for Emission Unit 22 found in Condition 3-Table 1.da.3.i.A of [the Title V Permit] as a result of the unpermitted release of 928,820 lbs. of SO₂ (464.4 tons of SO₂) uncontrolled through the use of the BUI stack between May 25, 2025, and June 11, 2025."

DCRC agrees with the Department's interpretation as noted in the NOV that the concentration limits in the referenced permit condition apply to the standard operating configuration where FCU flue gas is routed through the COB and WGS/SNCR train. But as detailed below, the Refinery fundamentally disagrees with the Department's interpretation that the annual TPY limit is somehow distinct insofar as it would apply to both the standard operating configuration and when the BUI is used.

First, there is no legal or factual basis, nor anything in the Title V permit or the underlying application record, to support the Department's effective bifurcation the referenced permit condition and determination (for the first time, as discussed below) that the first part of the condition establishing the concentration emission limits applies only to the standard operating configuration, whereas the latter part of the condition establishing the TPY emission limit applies

not only to the standard operating configuration but also to multiple alternative operating conditions including without limitation the one at issue: when the BUI is running. Practically speaking, splitting up the language of a single permit condition and applying part of it to one operating scenario and the remainder to a different operating scenario is inconsistent with the long-standing and well-accepted principles that govern how environmental permits are to be interpreted. The Department has historically applied these very principles, at least until it issued the current NOV.

Indeed, between 2013 and 2025, DNREC issued to the Refinery 12 separate notices of violation that included allegations of unpermitted or unauthorized SO₂ emissions (and other pollutants as applicable) during COB outages. The operating conditions giving rise to such allegations of noncompliance included when the BUI was being used as a control device for FCU flue gas as well as when emissions needed to be routed to the FCU bypass stack because the BUI was unavailable. Furthermore, as a result some of the earlier outage events -- specifically, those that lasted multiple days -- the Refinery reported SO₂ emissions that were higher than the 182.3 TPY limit in the permit, as was the case with the COB outage in mid-2025 and which is the subject of the current NOV. Nevertheless, none of the 12 prior NOVs specifically alleged noncompliance with the annual TPY limit for SO₂ at Condition 3-Table 1.da.3.i.A as a result of/in addition to alleging that the SO₂ emissions during the outage were unpermitted or unauthorized. One of these NOVs was issued less than four months before the current one.

The circumstances of the event giving rise to the current NOV are similar to if not the same as those implicated by the earlier NOVs. Here, the BUI was used as a control device during the COB outage, and when the BUI briefly tripped offline twice during the COB outage, emissions had to be routed to the FCU bypass stack until the BUI could be safely relit. There is no justification or explanation for DNREC's apparent abrupt change in permit interpretation and enforcement approach in the current matter relative to the approach DNREC applied consistently for more than a decade, including as recently as May 2025.

There are also technical reasons why it is improper to apply the annual TPY limit for SO₂ to emissions from the FCU bypass stack. Condition 3-Table 1.da.3.i.A expressly states that compliance with all the numeric SO₂ limits is to be demonstrated using Continuous Emission Monitoring Systems (CEMS). Condition 3-Table 1.da.3.ii.A. Subpart iii.B. of the same condition confirms that the CEMS must be certified and operated in accordance with the procedures in 40 CFR 60, Appendix F, and subpart iv. directs for recordkeeping pursuant to Condition 3-Table 1.da.1.iv "Conditions Applicable to Multiple Pollutants." This recordkeeping condition in turn sets forth distinct requirements for emissions measured with CEMS (Condition 3-Table 1.da.1.iv.1.1) -- i.e., during the standard operating configuration -- versus "bypass stack SO₂ emissions" and "BUI operating hours, furnace temperature, percent O₂, and opacity," respectively. (Condition 3-Table 1.da.1.iv.1.11. and 12). Taken together, these requirements confirm that the emission limits in Condition 3-Table 1.da.3.i.A are all intended to apply to the standard operating configuration where FCU flue gas is routed through the COB and WGS/SNCR train, and compliance with such emission limits is to be demonstrated through CEM and data recording. There is no reasonable basis to isolate the TPY SO₂ limit and treat it differently. By contrast, BUI and bypass stack SO₂ emissions are not part of the standard operating configuration and are not subject to the emission limits in Condition 3-Table 1.da.3.i.A. It follows therefore that these parameters have their own unique compliance demonstration requirements within Condition 3-Table 1.da.1.iv.

DCRC also notes that while DNREC alleges through the NOV that SO2 emissions during the COB outage violated the annual TPY limit, the Department does not make the same assertion with respect to any other pollutants that are relevant to Emission Unit 22 and which are subject to TPY permit limits, such as CO. See Condition 3-Table 1.da.5.i.A. (limiting CO emissions to 694.4 TPY); *but see* NOV Violations list (alleging that CO emissions during COB outage were unpermitted, but without alleging noncompliance with or referencing annual CO TPY limit in Condition 3-Table 1.da.5.i.A). Such inconsistent treatment further undermines the legitimacy of the Department's approach to SO2 emissions.

For the foregoing reasons, to the extent the Department determines to proceed to issuance of an enforcement order addressing the allegations in the NOV, such order should not include any alleged violations or descriptions of alleged noncompliance reflecting that SO2 emissions during the relevant COB outage exceeded the annual TPY limit in Condition 3-Table 1.da.3.i.A. DCRC would be happy to discuss these issues further with the Department at your convenience. Please contact me with any questions.

Sincerely,

A handwritten signature in dark ink, appearing to read "Michael Capone", with a long horizontal flourish extending to the right.

Michael Capone
Refinery Manager
Delaware City Refining Company

cc (electronic copy):

Lindsay Rennie
Dawn Minor
Tom Godlewski
Larry Boyd
Susan Falcone
Erik Unger

EXHIBIT G



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF AIR QUALITY
STATE STREET COMMONS
100 W. Water Street, Suite 6A
DOVER, DELAWARE 19904

February 29, 2016

Telephone: (302) 739 - 9402
Fax No.: (302) 739 - 3106

Delaware City Refining Company
4550 Wrangle Hill Road
Delaware City, Delaware 19706

CERTIFIED# 7011 2970 0000 4566 3924
RETURN RECEIPT REQUESTED

ATTENTION: Jose Dominguez
Refinery Manager

SUBJECT: DELAWARE CITY REFINING COMPANY (DCRC)
Notice of Violation (NOV)
Excess Emissions from the Fluid Coking Unit (FCU) from April 13, 2015 through
April 23, 2015 and April 25, 2015 through May 5, 2015

Dear Mr. Dominguez:

The Department's Division of Air Quality (DAQ) has reviewed the incident report and Hazardous Substance Release Report Forms submitted by the Delaware City Refining Company (DCRC) for the Fluid Coking Unit (FCU) Carbon Monoxide Boiler (COB) outages from April 13, 2015 through April 23, 2015 and again from April 25, 2015 through May 5, 2015. As a result of these FCU COB outages during the above referenced dates, DCRC's continued operation of the FCU resulted in the violations described in this NOV.

Summary of Incident:

04.13.2015 to 04.23.2015 FCU COB Outage: An inspection of the FCU COB in March 2015 revealed a tube leak in the COB. Based on the severity of the tube leak, it was decided to take the COB down for repair in April 2015. On 04.13.2015, while refinery personnel diverted FCU flue gas to the BUI in accordance with procedures established in the permit, the fact that the FCU burner flue gas would no longer be controlled by the downstream WGS train contravened the provision in Condition 3.3 (referenced below) and consequently resulted in a release of 620,000 lbs SO₂ to the atmosphere. Additionally, because each of the two dampers upstream of the water seal drums that control the FCU burner flue gas flow to both the FCU COB as well as the FCU BUI malfunctioned by not operating properly, the FCU COB firebox temperature fell below 1,300 deg F on 2 separate occasions on 04.13.2015, i.e., from 13:10 to 13:14 hours and again from 15:34 to 15:39 hours. The FCU COB was returned to service at 16:00 hours on 04.23.2015.

04.25.2015 to 05.05.2015 FCU COB Outage: On 04.25.2015, at approximately 03:00 hours a crack developed at the FCU COB at the C channel seam at the west side area below the steam drum. This allowed hot flue gas to leak onto the steam drum low level instrumentation which in turn caused operations to lose the level reading in the steam drum. The leaking flue gas through the crack in the FCU COB casing constituted an unpermitted release of air pollutants. Based on the size of the casing leak and damage to the steam drum instrumentation, DCRC operators decided to shut down the FCU COB to make repairs on the cracked COB casing. While a temporary clamp placed on the cracked FCU COB casing on 04.27.2015 served to reduce the magnitude of the unpermitted emissions, the leak continued until 07:10 hours on 04.29.2015 when the FCU COB was shut down and the burner flue gas routed to the FCU BUI instead. Similar to the earlier incident on

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Delaware City Refining Company

Notice of Violation: Excess Emissions from the Fluid Coking Unit (FCU) from April 13, 2015 through April 23, 2015 and April 25, 2015 through May 5, 2015

February 29, 2016

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04.13.2015, although operators diverted FCU flue gas to the BUI in accordance with procedures established in the permit, the fact that the FCU burner flue gas would no longer be controlled by the downstream WGS train contravened the provision in Condition da.1.C referenced above and consequently resulted in a release of 525,000 lbs SO₂ to the atmosphere until 20:20 hours on 05.05.2015 when operators were able to restart the COB at and re-establish flow from the COB to the WGS train.

Applicable Statutory and Permit Requirements:

The following statutory requirements and permit conditions in **Permit: APC-81/0829-OPERATION (Amendment 8)(PSD-NSR)** dated September 7, 2011 are applicable in making this determination of non-compliance:

1. Condition 2.1.5.3 states: *The Owner/operator shall not cause or allow the emissions of carbon monoxide from the FCU unless it is burned at no less than 1300 deg F for at least 0.3 sec. in the FCU COB.*
2. Condition 3.3 states: *The Belco pre-scrubber, the amine-based Cansolv regenerative WGS, the caustic polishing scrubber and SNCR system shall be operating properly at all times when the FCU is operating.*
3. Condition 3.5 states: *This Permit does not authorize emissions exceeding the limits set forth in Condition 2 including emissions during periods of any unplanned shutdown of the FCU, or any unplanned shutdown or bypass of the FCU COB or the Belco prescrubber or WGS. Instead, in the event of any unplanned shutdown of the FCU or any unplanned shutdown or bypass of the FCU COB or Belco prescrubber or the WGS, the Company shall bear the burden of demonstrating to the Department's satisfaction that the Company's continued operation of the FCU should not subject the Company to an enforcement action for noncompliance with emission limitations or operating standards included in this Permit or otherwise applicable to the facility under the State of Delaware Regulations. Such demonstration must at a minimum be supported by sufficient documentation and emissions data including all relevant emissions calculations, formulas, and any assumptions made thereof. The Department's evaluation shall consider, the specific circumstances of the event, including without limitation 1) the cause of, and the Company's response to, the unplanned shutdown; 2) whether the Company has taken all reasonable and prudent steps to abide by the emissions limit conditions; 3) whether the Company has taken all reasonable and prudent steps to minimize the emissions associated with the plant; 4) the degree to which the Company has reduced throughput to the FCU, and the basis for such degree of reduction; 5) the estimated emissions associated with a complete shutdown of the FCU; 6) whether Premcor had reviewed all prior similar causes of unplanned shutdowns and had taken all reasonable and prudent actions necessary to avoid future similar outages; and 7) the actual emissions during the period of the unplanned shutdown.*
4. Condition 3.8 states:
3.8
3.8.1 *At all times, including periods of startup, shutdown, and malfunction, the Company shall, to the extent practicable, maintain and operate the facility including all associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions.*
3.8.2 *All structural and mechanical components shall be maintained in proper operating condition.*

Delaware City Refining Company

Notice of Violation: Excess Emissions from the Fluid Coking Unit (FCU) from April 13, 2015 through April 23, 2015 and April 25, 2015 through May 5, 2015

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5. 7 Del. C. § 6003(a)(1) states *"No person shall, without first having obtained a permit from the Secretary, undertake any activity in a way which may cause or contribute to the discharge of an air contaminant."*
6. Section 2.1 of 7 DE Admin. Code 1102, states *"Except as exempted in Section 2.2, no person shall initiate construction, install, alter or initiate operation of any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to receiving approval of his application from the Department or, if eligible, prior to submitting to the Department a completed registration form."*

Violations:

DCRC is found to be in violation of the following statutory requirements and permit conditions:

1. During this outage of the FCU COB and consequent bypassing of the WGS train from 09:45 hours on 04.13.2015 to 16:00 hours on 04.23.2015, DCRC continued to operate the FCU which resulted in 620,000 lbs SO₂ being released to the atmosphere. Therefore DCRC is in violation of Conditions 2, 3.3 and 3.5 of **Permit: APC-81/0829 (Amendment 8)(PSD-NSR)**.
2. During this outage of the FCU COB and consequent bypassing of the WGS train from 09:45 hours on 04.13.2015 to 16:00 hours on 04.23.2015, because each of the two dampers upstream of the water seal drums that control the FCU burner flue gas flow to both the FCU COB as well as the FCU BUI malfunctioned by not operating properly, the FCU COB firebox temperature fell below 1,300 deg F on 2 separate occasions on 04.13.2015, i.e., from 13:10 to 13:14 hours and again from 15:34 to 15:39 hours. Therefore DCRC is in violation of Condition 2.1.5.3 of **Permit: APC-81/0829 (Amendment 8)(PSD-NSR)** during the periods from 13:10 to 13:14 hours and again from 15:34 to 15:39 hours on 04.13.2015.
3. DCRC is found to be in violation of 7 Del. C. § 6003(a)(1), Section 2.1 of 7 DE Admin. Code 1102, and **Permit: APC-81/0829 (Amendment 8)(PSD-NSR)** for the unpermitted release of air contaminants through the leaking FCU COB casing from 03:00 hours on 04.25.2015 through 07:10 hours on 04.29.2015.
4. During the outage of the FCU COB and consequent bypassing of the WGS train from 07:10 hours on 04.25.2015 to 20:20 hours on 05.05.2015, DCRC continued to operate the FCU which resulted in 525,000 lbs SO₂ being released to the atmosphere. Therefore DCRC is in violation of Conditions 2, 3.3, 3.5 and 3.8 of **Permit: APC-81/0829 (Amendment 8)(PSD-NSR)**.

Please be advised that this Notice of Violation will be made available through the Department's Internet site, be found at <http://www.dnrec.delaware.gov>. Information concerning your Company's noncompliance with 7 DE Admin. Code 1100 will be posted within 24 hours following confirmation by the Department of your receipt of this letter. Upon further review of the violations, the Department reserves the right to pursue additional enforcement action.

Delaware City Refining Company

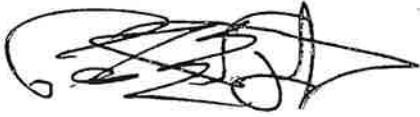
Notice of Violation: Excess Emissions from the Fluid Coking Unit (FCU) from April 13, 2015 through April 23, 2015 and April 25, 2015 through May 5, 2015

February 29, 2016

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If you have any questions, please contact Ravi Rangan, P.E. at (302) 323-4542.

Sincerely,

A handwritten signature in black ink, appearing to read 'Paul Foster', with a stylized flourish at the end.

Paul Foster, P.E.
Program Manager
Engineering & Compliance Branch

PEF:CRR:cs

F:\Eng&Compliance\CRR\crr16005.doc

pc: Dover Title V File
Dawn Minor

EXHIBIT H



For more information, contact: Randi Licciardello at randi.licciardello@pbfenergy.com

Delaware City Refining Company advisory notice regarding equipment repairs

FOR IMMEDIATE RELEASE, May 6, 2026

Delaware City Refining Company LLC (DCRC) is planning to make equipment repairs beginning this week. The repairs require a temporary shutdown of equipment that will divert flue gas through an alternative emissions device.

Over the past year, DCRC has continued to monitor the Coker's CO Boiler after the May-June 2025 water-tube leak. This week, DCRC operators observed new signs of a possible water-tube leak, prompting the plan to shut down the CO Boiler and begin repairs.

While repairs are underway, DCRC will lower unit rates to reduce emissions. Air emission modeling indicates that impact will remain well below thresholds for public health. DCRC will work cooperatively with DNREC to review our air monitoring data, as well as the state's monitoring results, and respond promptly if any unexpected issues arise.

DCRC has installed fixed real-time air monitors around its fenceline to measure SO₂ levels to provide assurance that the public health is protected during the outage. DCRC will provide public access to the DCRC Air Quality Monitoring website. Additional details about the website will be shared in a future statement.

A team of competent, highly trained, and committed employees and contractors will work diligently around the clock to repair the equipment and restore DCRC to its primary process configuration. This work will take approximately four weeks to complete, and DCRC will provide updates to the public and DNREC until all repairs are completed.

We appreciate your continuing support and understanding as we work hard to execute the necessary maintenance at our facility. We will provide updates on our Facebook and LinkedIn pages if conditions or circumstances change.

Contact Information

For questions or concerns, contact the Delaware City Refining Company Community Information Line at 302-834-6200.

Delaware City Refining Company LLC is a wholly owned subsidiary of PBF Energy (PBF:NYSE).

###

EXHIBIT I

Delaware News Menu

(<https://delaware.gov>)

Delaware News

DNREC Shares Information on Delaware City Refining Repair Work and Air Monitoring

Department of Natural Resources and Environmental Control (<https://news.delaware.gov/category/dnrec/>) | Division of Air Quality (<https://news.delaware.gov/category/dnrec/air-quality-dnrec/>) | Date Posted: Thursday, May 7, 2026



DNREC is advising the public about planned Delaware City refinery repairs that could temporarily increase sulfur dioxide emissions. /DNREC photo

Delaware City Refining Company (DCRC) has notified the Delaware Department of Natural Resources and Environmental Control (<https://dnrec.delaware.gov/>) (DNREC) it will begin repairs on equipment at its coker carbon monoxide boiler that will cause it to shift from a primary pollution control process to a secondary emissions control. This change to the alternative process means that the facility will be emitting sulfur dioxide at a significantly higher level than normal. This is

the same shift to secondary emissions control that happened for 17 days in May-June 2025

(<https://news.delaware.gov/2025/09/10/dnrec-issues-notice-of-violation-to-refinery-for-may-25-to-june-11-unpermitted-emissions/>) while the facility undertook repairs.

DNREC will monitor the situation and fully expects that these increased emissions – which are expected to last for four weeks – will exceed the limits of the facility's permits and will be assessed for violation and penalties.

For the Delaware City community, DNREC is providing the following information and guidance during this event:

- The use of the secondary pollution control process will result in increased sulfur dioxide being released from the facility's "stack" high in the air, so that it disperses into the atmosphere. Any concern for public health impact would occur if conditions caused the sulfur dioxide to be increased at ground level. A facility can have increased emissions and exceed its permit and still have ambient air readings at ground level remain in the green, or good, range.
- DNREC and the public can monitor sulfur dioxide readings at ground level at two DNREC-maintained air monitoring stations in the Delaware City area located east of the refinery on Route 9 and west of the refinery near Lums Pond. That data, updated hourly, is continuously available at [de.gov/airdata](https://experience.arcgis.com/experience/27260572c33a4574ae8f0302d49ed30e) (<https://experience.arcgis.com/experience/27260572c33a4574ae8f0302d49ed30e>). Those two stations are part of a statewide network of 11 air monitoring stations for various pollutants.
- The U.S. Environmental Protection Agency health standard for sulfur dioxide is 75 parts per billion in the ground level air, when people with asthma or other breathing related issues are advised to limit time outdoors or wear masks to reduce exposure. During the May-June 2025 refinery increased emissions, the highest hourly measurement at DNREC's Delaware City monitor during the incident was 29.6 parts per billion, and most hourly values over the 17 days were 2 parts per billion or less.

As a result of a DNREC order (<https://documents.dnrec.delaware.gov/Admin/Orders/Secretarys-Order-No-2026-A-0009.pdf>) https://docreader.readspeaker.com/docreader/?cid=buwew&lang=en_us&url=https%3A%2F%2Fdocuments.dnrec.delaware.gov%2FAdmin%2FOrders%2FSecretarys-Order-No-2026-A-0009.pdf)

from a previous incident finalized this week, the refinery has acquired fenceline sensors to measure air quality on the edges of the refinery property and to make that data publicly available. The refinery has indicated four of those sensors are being immediately put into place to begin operations and provide air quality readings; however, the publicly accessible website for those readings has not been completed. DNREC is urging the refinery to complete that website as soon as possible to share information during this period, and until the website is available, also to publicly report out the results on a regular basis until it does.

- The public can expect to see notice of these increased emissions from the refinery posted on DNREC's Delaware Environmental Release Notification System (DERNS), available at [de.gov/derns](https://dnrec.delaware.gov/derns) (<https://dnrec.delaware.gov/derns>), which provides reports about environmental releases statewide, from small fuel spills to significant air emissions.
- After the repairs are complete, DNREC will assess the total level of increased sulfur dioxide emissions for violation and potential penalty. The May-June increased emissions, along with a number of other incidents, resulted in DNREC assessing a \$300,000 penalty to DCRC (<https://documents.dnrec.delaware.gov/Admin/Orders/Secretarys-Order-No-2025-A-0039.pdf>) https://docreader.readspeaker.com/docreader/?cid=buwew&lang=en_us&url=https%3A%2F%2Fdocuments.dnrec.delaware.gov%2FAdmin%2FOrders%2FSecretarys-Order-No-2025-A-0039.pdf), the maximum allowed by law for those violations. That penalty has been appealed by the refinery to the state Environmental Appeals Board.

Over the last year, DNREC has also been working to expand air quality monitoring and public access to information in and around Delaware City. The Clean Air Council will be installing two community air sensors and partnering with local organizations to engage the community, funded in the state bond bill through efforts of Rep. Melissa Minor Brown and Sen. Nicole Poore, along with DNREC. Through a grant from the Community Environmental Project Fund (<https://dnrec.delaware.gov/environmental-justice/cepf/>), the Department is funding additional community-scale air quality sensors to measure sulfur dioxide, nitrogen oxides, particulate matter 2.5, volatile organic compounds and hydrogen sulfide in residential corridors affected by industrial and traffic sources at three locations, including a home in Delaware City.

As part of an Environmental Improvement Project funded through Delaware City Refining enforcement, a PurpleAir sensor to measure particulate matter was deployed at Rose Hill Community Center last week. In addition, DNREC ordered the refinery to install the fenceline sensors following a butane leak in November

(<https://documents.dnrec.delaware.gov/Admin/Orders/Secretarys-Order-No-2026-A-0009.pdf>) 

(https://docreader.readspeaker.com/docreader/?cid=buwew&lang=en_us&url=https%3A%2F%2Fdocuments.dnrec.delaware.gov%2FAdmin%2FOrders%2FSecretarys-Order-No-2026-A-0009.pdf)

, has coordinated with the Delaware National Guard and Delaware Emergency Management Agency on possible emergency sensor deployment locations and has begun the regulatory process to require permanent fenceline sensors at some industrial facilities.

DNREC will continue to monitor the refinery's repair work closely, compare the company's information with state air monitoring data and keep the public informed as new information becomes available.

About DNREC

The Delaware Department of Natural Resources and Environmental Control protects and manages the state's natural resources, protects public health, provides outdoor recreational opportunities and educates Delawareans about the environment. The DNREC Division of Air Quality (<https://dnrec.alpha.delaware.gov/air/>) monitors and regulates all emissions to the air. For more information, visit the website (<https://dnrec.alpha.delaware.gov/>) and connect with DNREC on YouTube (<http://youtube.com/delawarednrec>), Facebook (<https://www.facebook.com/DelawareDNREC>), X (<https://x.com/DelawareDNREC>) or LinkedIn (<https://www.linkedin.com/company/delawarednrec/>).

Media contacts: Michael Globetti, michael.globetti@delaware.gov (<mailto:michael.globetti@delaware.gov>); Nikki Lavoie, nikki.lavoie@delaware.gov (<mailto:nikki.lavoie@delaware.gov>)



Print (<https://news.delaware.gov/2026/05/07/dnrec-shares-information-on-delaware-city-refining-repair-work-and-air-monitoring/?print=print>)



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General Assembly (<https://legis.delaware.gov/>)
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State Employees (<https://dhr.delaware.gov/personnel/employee-resources.shtml>)
Cities & Towns (<https://delaware.gov/topics/municipalities>)
Delaware State Code (<http://delcode.delaware.gov/>)
State Regulations (<http://regulations.delaware.gov/>)
Business First Steps (<https://firststeps.delaware.gov/>)

Phone Directory (<https://phonedirectory.delaware.gov>)
Locations Directory (<https://delaware.gov/locationsdirectory/>)
Public Meetings (<https://publicmeetings.delaware.gov/>)
Voting & Elections (<https://elections.delaware.gov>)
Transparency (<https://delaware.gov/topics/transparency>)
Delaware Marketplace (<https://www.choosehealthde.com/Health-Insurance>)
Tax Center (<https://delaware.gov/topics/TaxCenter>)
Personal Income Tax (https://revenue.delaware.gov/pit_onlinefiling.shtml)
Privacy Policy (<https://delaware.gov/help/privacy>)
Weather & Travel (<https://delaware.gov/topics/weatherpage>)

Contact Us (<https://delaware.gov/help/degov-contact.shtml>)
Corporations (<https://corp.delaware.gov/>)
Franchise Tax (<https://corp.delaware.gov/paytaxes.shtml>)
Gross Receipts Tax (<https://grossreceiptstax.delaware.gov/grtpublic/>)
Withholding Tax (<https://dorweb.revenue.delaware.gov/EDIOOnline/EDIOOnline.dll>)
Delaware Topics (<https://delaware.gov/topics/>)
Help Center (<https://delaware.gov/help/>)
Mobile Apps (<https://delaware.gov/topics/apps>)
E-mail / Text Alerts (<https://delaware.gov/topics/subscribeemail>)
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EXHIBIT J



For more information, contact: Randi Licciardello at randi.licciardello@pbfenergy.com

UPDATE: Delaware City Refining Company equipment repairs

FOR IMMEDIATE RELEASE, May 15, 2026

This is an update from Delaware City Refining Company LLC (DCRC) regarding ongoing repairs to the Coker CO Boiler, which was taken out of service on May 7, 2026.

As previously shared, DCRC has installed fixed, real-time air monitors at the facility fenceline to measure sulfur dioxide (SO₂) levels and help ensure the public stays informed during the outage. Since May 7th, data from these monitors indicate that emissions remain well below established public health thresholds.

The public can access real-time air monitoring information by visiting the DCRC Air Quality Monitoring website at www.delcity-air.com. The site provides options to sign up for alerts, including notifications for volatile organic compounds (VOCs), sulfur dioxide (SO₂), instrument outages, and reports, as well as to submit suggestions for website improvements.

In addition, Delaware's Department of Natural Resources and Environmental Control (DNREC) has monitors on Route 9 and at Lums Pond that monitor the air quality near the refinery and can be accessed by the public at de.gov/airdata.

DCRC appreciates our neighbor's patience and understanding as we complete this necessary maintenance. Updates will continue to be shared as appropriate through our website and social media channels.

Contact Information

For questions or concerns, contact the Delaware City Refining Company Community Information Line at 302-834-6200.

Delaware City Refining Company LLC is a wholly owned subsidiary of PBF Energy (PBF:NYSE).

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EXHIBIT K

For more information, contact: Randi Licciardello at
randi.licciardello@pbfenergy.com



Delaware City Refining Company Completes CO Boiler Repair

FOR IMMEDIATE RELEASE, June 1, 2026

Delaware City Refining Company (DCRC) is pleased to advise that we have safely and successfully completed repairs to our Coker CO Boiler, which has been returned to service ahead of schedule following established procedures. DCRC remains committed to being a responsible and trusted neighbor.

We appreciate your patience and understanding while we completed essential maintenance on this emissions control device.

Contact Information

For questions or concerns, please contact the Delaware City Refining Company Community Information Line at 302-834-6200.

Delaware City Refining Company is a subsidiary of PBF Energy (PBF: NYSE).

###

EXHIBIT L

From: Edge, Valerie (DOJ) <Valerie.Edge@delaware.gov>
Sent: Tuesday, July 21, 2026 9:54 AM
To: Kate Vaccaro
Cc: Marconi, Angela D. (DNREC); Mann, Amy (DNREC); Rennie, Lindsay (DNREC); Minor, Dawn (DNREC)
Subject: Re: DCRC

Hi Kate,

The Order included a penalty for all the noncompliance that was addressed in the NOV and in the Order. DNREC chose not to specifically impose a penalty for any items cited in the NOV but not in the Order. We can discuss in our conversations about resolution potential language which would clarify that issue.

Val

Valerie Satterfield Edge
Deputy Attorney General
Delaware Department of Justice
102 W. Water Street
Dover, DE 19904
Email: valerie.edge@delaware.gov
Phone: [302-739-4636](tel:302-739-4636)

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From: Kate Vaccaro <KVaccaro@mankogold.com>
Sent: Monday, July 20, 2026 3:15 PM
To: Edge, Valerie (DOJ) <Valerie.Edge@delaware.gov>
Cc: Marconi, Angela D. (DNREC) <Angela.Marconi@delaware.gov>; Mann, Amy (DNREC) <Amy.Mann@delaware.gov>; Rennie, Lindsay (DNREC) <Lindsay.Rennie@delaware.gov>; Minor, Dawn (DNREC) <Dawn.Minor@delaware.gov>
Subject: RE: DCRC

Val,

Thanks for the prompt response. Appreciate the intent, but on its face, the NOV addresses additional allegations of noncompliance that are not included in the order. See page 5 of the NOV under the

heading "Additional Non-Compliance." If the NOV and the order were intended to be consistent, then would the Department issue a revised NOV that eliminates the "Additional Non-Compliance" section?

Thanks,
Kate

Kate Vaccaro, Esq.
MANKO | GOLD | KATCHER | FOX LLP
An environmental, energy, litigation, safety and land use law practice
Three Bala Plaza East, Suite 700 | Bala Cynwyd, PA 19004
(484) 430-2329 (direct)
(610) 715-4980 (cell)
kvaccaro@mankogold.com | <https://www.mankogold.com/people-Katherine-Vaccaro.html>

Please make note of our new office address.

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From: Edge, Valerie (DOJ) <Valerie.Edge@delaware.gov>
Sent: Monday, July 20, 2026 3:09 PM
To: Kate Vaccaro <KVaccaro@mankogold.com>
Cc: Marconi, Angela D. (DNREC) <Angela.Marconi@delaware.gov>; Mann, Amy (DNREC) <Amy.Mann@delaware.gov>; Rennie, Lindsay (DNREC) <Lindsay.Rennie@delaware.gov>; Minor, Dawn (DNREC) <Dawn.Minor@delaware.gov>
Subject: DCRC

Kate,

Following up on our discussion earlier, this is let you know that I confirmed with Air that the intention was for the NOV and Order to be issued at the same time and that the Order addresses all of the allegations of violations and noncompliance set out in the NOV.

Val

Valerie Satterfield Edge
Deputy Attorney General
Delaware Department of Justice
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Dover, DE 19904
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EXHIBIT M



June 4, 2026

CMRRR# 9589 0710 5270 1612 3931 98

Amy Mann
DNREC
715 Grantham Lane
New Castle, Delaware 19720

CMRRR# 9589 0710 5270 1768 0905 38

United States Environmental Protection Agency
Region III, Enforcement & Compliance Assurance
Division Air, RCRA and Toxics Branch (3ED21)
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2852

**SUBJECT: May 7, 2026 to May 30, 2026 FCU CO Boiler Release Event
Delaware City Refinery (DCR)**

Dear Ms. Mann:

Pursuant to EPCRA Section 304, 40 CFR 355, 40 CFR 302.8(e), DNREC regulation 1203 Section 2.1.5 and Section 2.5 "Reporting of a Discharge of a Pollutant or Air Contaminant", Delaware City Refining Company (DCRC) submits this Initial Written Notification and investigation report for a Continuous Release associated with the May 7, 2026 FCU CO Boiler outage event.

On May 7, 2026, the Carbon Monoxide (CO) Boiler was removed from service for a maintenance event and the flue gas was redirected to the Coker backup incinerator. This event resulted in exceedances of State and Federal "Reportable Quantities" thresholds for Sulfur Dioxide (SO₂) requiring notifications and this follow-up communication. The backup incinerator was utilized as the control device for the Coker flue gas for the balance of the CO Boiler outage. The CO Boiler repairs were completed and it was successfully restarted on May 30, 2026 ending the release event.

The Sulfur Dioxide release associated with this event was continuous and stable in quantity and rate as defined in 40 CFR 302.8(e)(b) and all reported information is accurate and current to the best knowledge.

If you have any questions or need additional information, please contact Larry Boyd of my staff at (302) 836-6750 or via email at Larry.Boyd@pbfenergy.com.

Sincerely,

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

Michael Capone
Refinery Manager

cc: (w/enclosures)

Lindsay Rennie – DNREC (electronically)
Bill Davis – DNREC EPCRA (electronically)

CMRRR# 9589 0710 5270 1612 3932 04
DNREC/DAWM Central Repository
State Street Commons
100 W. Water Street, Suite 6A
Dover, DE 19904

CMRRR# 9589 0710 5270 1612 3932 11
David H. Irwin
Chairman/Planning Coordinator
New Castle County LEPC
P.O. Box 2998
Wilmington, DE 19805-0998

HAZARDOUS SUBSTANCE RELEASE REPORT FORM

FACILITY: The Delaware City Refining Co. LLC. - Delaware City Refinery

ADDRESS: 4550 Wrangle Hill Rd., Delaware City, DE 19706

SIC CODE: 2911 **DUNN & BRADSTREET NO.:** 19-962-3414

A) CHEMICAL NAME OR IDENTITY OF RELEASE:

Sulfur Dioxide (SO₂) - CAS 7446-09-5

B) ON EXTREMELY HAZARDOUS SUBSTANCE LIST: YES ☒ NO ☐

C) ESTIMATE OF QUANTITY RELEASED:

Sulfur Dioxide (SO₂) - 1,490,000 lb

D) DATE:

Start Date: 5/7/2026 TIME: 1:33 PM

End Date: 5/30/2026 TIME: 6:00 AM

Duration: 543 hr

E) RELEASED TO: AIR ☒ WATER ☐ LAND ☐

F) ASSOCIATED HEALTH RISKS: YES ☐ NO ☒ ADVICE ☐

G) PRECAUTIONS: None required

H) CONTACT: Larry Boyd **PHONE:** (302) 836-6750 **24-HOUR** (302) 834-6271

Attachment A

The following information is supplied pursuant to 40 CFR 302.8(e) Designation, Reportable Quantities and Notification – Continuous Releases

Facility Information

Facility: Delaware City Refining Company
Address: 4550 Wrangle Hill Road, Delaware City, DE 19706
Latitude: 39.581052
Longitude: -75.6311235
NRC Case #: 1461796
Responsible Official: Michael Capone – Refinery Manager
Phone: 302-834-6020

Population and Sensitive Receptors

Estimated population within 1 mile: more than 1,000 individuals.

The identity and location of sensitive populations and ecosystems within a one-mile radius of the facility or vessel (e.g., elementary schools, hospitals, retirement communities, or wetlands).

Sensitive receptors include:

- Delaware City residents: Delaware City, Delaware
- Delaware River and surrounding wetlands
- Southern Elementary School: 795 Cox Neck Rd, New Castle, DE 19720
- Kathleen H. Wilbur Elementary School: 4050 Wrangle Hill Rd, Bear, DE 19701

Hazardous Substances Release Information

See the Hazardous Substance Release Report Form Sections A and B above.

Sulfur Dioxide (SO₂) - CAS 7446-09-5

Upper and Lower bounds for the continuous release May 7, 2026 to May 30, 2026:

Release rates ranged from 2,200 lb/hr to 3,300 lb/hr

Released from the Backup Incinerator Stack at a stack height = 240 ft

Environmental Medium: Air

Continuous Release Characteristics

The release qualifies as continuous per 40 CFR 302.8 as it is associated with routine and anticipated operational upsets and is intermittent but recurring under similar conditions.

The duration of the CO Boiler outage resulting in the continuous release of Sulfur Dioxide was 24 days, May 7, 2026 to May 30, 2026. Sulfur dioxide emissions levels remained at or below the reported level of 3,300 lb/hr during the outage. On May 7th, DCRC made an initial notification of a continuous release pursuant to DNREC Regulation 1203, Section 2.1.5 and 40 CFR 355.32. Emissions did not experience a statistically significant increase or a significant change outside of the stated range in this notification. As required we are providing an update with this submittal within 30 days.

Total Sulfur Dioxide emissions released during this continuous release event were approximately 1,490,000 lb. During 2025, DCRC reported Sulfur Dioxide emissions associated with the operation of the Coker Unit of approximately 24,500 lb and an additional 978,000 lb associated with accidental releases. Total Sulfur Dioxide emissions for the DCRC facility during 2025 were approximately 1,780,000 lb.

While sulfur dioxide is listed as an EHS (Extremely Hazardous Substance) by EPCRA, it is not believed that sulfur dioxide emissions caused by this incident had any adverse impact to the public.

Attachment B

The following information is supplied pursuant to Section 2.5 of DNREC Regulation for *Reporting of a Discharge of a Pollutant or an Air Contaminant*.

Part I.

i. ***Actions taken to respond to and contain the release in the form of a chronology.***

On May 7, 2026 at approximately 12:45PM a decision was made to begin shutdown operations for the Coker CO Boiler due to inability to maintain steam drum level due to a water tube leak.

At approximately 1:30PM, operations personnel attempted to redirect flue gases from the CO Boiler to the backup incinerator. The backup incinerator experienced unusual temperature fluctuations during two attempts to swing flue gas from the CO Boiler. In both events, operations personnel immediately transitioned flue gas back to the CO Boiler, which was operating at normal temperature, to attempt to troubleshoot. During both transitions back to the CO Boiler, while some of the flue gas stream was still in the backup incinerator, temperatures in the backup incinerator fell below the minimum limit in the permit of 1,700°F. The third effort to swing flue gas to the backup incinerator also experienced some, temperature fluctuations, but temperatures stabilized after the water level in the D-20 drum (isolation drum for the CO Boiler) was fully established. It is suspected that the damper to the CO Boiler was not operating properly during the transition.

At approximately 5:00PM, after temperatures stabilized in the backup incinerator, operations personnel proceeded to begin shutdown of the Coker CO Boiler.

CO Boiler repairs were made during the May 7th to May 29th timeframe. On May 29th at approximately 7:30PM, operations personnel began startup of the Coker CO Boiler per procedure after repairs were completed. By 1:00AM on May 30th, the CO Boiler firebox temperature was restored to its normal operating temperature above 1,300°F. Operations personnel continued to work through the start-up procedure for the CO Boiler. The water seal level in the backup incinerator drum, 22-D-27 was re-established and the flue gas was directed back into the CO Boiler ending the release event on May 30th at approximately 6:00 am..

During all periods of the operation of the backup Incinerator, the refinery complied with the operational limits (provided in the DCR Title V Operating Permit) for Coker feed rate and feed percent sulfur.

As a result of the Coker CO Boiler outage and operation of the backup incinerator from May 7th to May 30th, there were continuous releases in exceedance of the DNREC and EPCRA reportable quantity for Sulfur Dioxide (SO₂).

Timeline - All times are approximate:

Date	Time	Event
5/3/26	4:00AM	Coker operations personnel noticed a change in the steam/water balance calculation for the Coker CO Boiler. A visual inspection was performed and no water leaks were observed around the boiler at that time.
5/4/26	5:00PM	Operations personnel conducted an additional visual inspection of the CO Boiler for water leaks and observed a water leak from the economizer area of the FCU CO Boiler. Based on this observation a decision was made to begin gradually increasing the temperature of the backup incinerator in preparation for a potential CO Boiler outage.
5/5/26	12:00PM	A multidisciplinary team met to review the status of the CO Boiler and a decision was made to plan for a CO Boiler shutdown on May 9 th .
5/7/26	12:30PM	The CO Boiler water to steam ratio had continued to climb and reached a point at which a decision was made that the Coker CO Boiler needed to be shut down that day.
5/7/26	1:30PM	Operations personnel redirected the flue gas to the backup incinerator which was operating above the operating permit required temperature for control of the flue gas.
5/7/26	1:44PM	Operations personnel begin to swing flue gas back to the CO Boiler after experiencing temperature fluctuations in the backup incinerator.
5/7/26	1:46PM - 1:47PM	Backup incinerator temperatures fall below the permit limit of 1700°F during the transition (1,500 - 1700°F).
5/7/26	3:03PM - 3:18PM	Operations personnel make second attempt to swing flue gas to the backup incinerator and transition flue gas back to the CO.
5/7/26	3:03PM – 3:10PM	Backup incinerator temperatures fall below the permit limit of 1700°F during the transition (1,530 - 1700°F).
5/7/26	3:55PM	Operations personnel begin third attempt to transition flue gas to the backup incinerator from the CO Boiler.
5/7/26	3:54PM – 4:55 PM	Erratic temperature swings cause intermittent exceedances of the minimum temperature of 1700°F permit limit (1,380-1700F)
5/7/26	4:34PM	Operations personnel completely make up D-20 water seal isolating the CO Boiler.
5/7/26 to 5/29/26	Ongoing	CO Boiler shut down for inspection and repairs.
5/29/26	7:30PM	Operations personnel began startup of the Coker CO Boiler per procedure after repairs were completed.
5/30/26	1:00AM	The CO Boiler firebox temperature was restored to its normal operating temperature above 1,300°F. Operations personnel continued to work through the start-up procedure for the CO Boiler.
5/30/26	6:00AM	The water seal level in the backup incinerator drum, 22-D-27 was re-established and the flue gas was directed back into the CO Boiler ending the release event.

ii. Any known or anticipated acute or chronic health risks associated with the release.

There are no known acute or chronic health risks associated with this release. Air quality monitoring at nearby DNREC Air quality monitoring stations and recently installed fence line monitoring stations surrounding the refinery indicated sulfur dioxide (SO₂) readings were well below levels in which acute or chronic health impacts would be anticipated.

iii. Where appropriate, advice regarding medical attention necessary for exposed individuals.

There were no known exposed individuals regarding this release.

Part II.

iv. *The facts and circumstances leading to the environmental release including a detailed identification of the pathway through which the discharge to the environment occurred and potential environmental impacts.*

On May 3, 2026, at approximately 4:00AM, Coker operations personnel noticed a change in the steam/water balance calculation for the Coker CO Boiler. A visual inspection was performed and no water leaks were observed around the boiler at that time. On May 4th, at approximately 5:00PM, operations personnel conducted an additional visual inspection of the CO Boiler for water leaks and observed a water leak from the economizer area of the FCU CO Boiler. Based on this observation a decision was made to begin gradually increasing the temperature of the backup incinerator in preparation for a potential CO Boiler outage. By approximately 12:30PM on May 7th the CO Boiler water to steam ratio had continued to climb and reached a point at which a decision was made to commence shut down of the Coker CO Boiler.

As a result of the Coker CO Boiler outage and operation of the backup incinerator approximately 1,490,000 lb of sulfur dioxide (SO₂) was released. The releases of SO₂ were continuous during the outage and occurred from the Coker backup incinerator stack. There are no known potential environmental impacts from the discharge. Refer to the Hazardous Substance Release Report Form for discharge quantities.

v. ***Measures proposed to prevent such a discharge from occurring in the future and to remedy the deficiencies, if any, in the prevention, detection, response containment, cleanup or removal plan components.***

The CO Boiler was shut down to due to leaks on economizer tubes in May 2025. Inspections were conducted and repairs were made at that time. However, with the understanding of the damage mechanism identified during that investigation and the limited ability to conduct a full inspection of all the economizer tubes, it was recommended to replace the economizer during the next Coker turnaround scheduled for 2027. All materials were placed on order at that time and the full replacement was planned for the scheduled turnaround in 2027.

Due to the discovery of the new leak in May 2026, the decision was made to install the new economizer during this current event.

vi. ***Such other information which the Department may require.***

No other information is required by the Department at this time.