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Mr. Eric A. Gustafson
Regional Air Quality Program Manager
Pennsylvania Department of Environmental Protection, Northwest District Office
230 Chestnut Street
Meadville, Pennsylvania 16335-3481

Re: *In the Matter of Erie Coke Corporation* (Air Pollution Control Act)
Response to Administrative Order dated February 4, 2019

Dear Mr. Gustafson:

JNE Consulting and Engineering ("JNE") submits this Compliance Plan (the "Plan") on behalf of Erie Coke Corporation ("ECC") in accordance with Paragraph 3 of the Pennsylvania Department of Environmental Protection February 4, 2019 Administrative Order (the "Order").

As the Department knows, ECC has filed appealed the Order to the Pennsylvania Environmental Hearing Board. Accordingly, neither the submission of this Compliance Plan, nor its contents, are an admission or concession that ECC violated any legal requirements or that the Order was lawfully issued, and ECC reserves its rights to contest any and all such matters in any applicable forum. Nor should this Compliance Plan be construed as an admission that any of the Department's findings are accurate or supported by evidence.

Further, ECC's evaluation of these matters is also ongoing, and as needed or warranted, ECC may supplement or clarify this Compliance Plan.

Under Paragraph 3, the Department has directed ECC to prepare and submit a "plan and schedule" that will address four specific subjects, and that further will correct the alleged "violations listed in Paragraphs LL through WW and YY through CCC" of the Order. This Compliance Plan is organized accordingly, addressing each such paragraph or subparagraph in turn.

Paragraph 3.a: Provide a "report determining the cause of the continuing opacity emissions from the Battery stack, and a list of corrective actions to prevent further such exceedances ('Opacity Report') . . . prepared by a person with training and experience in the proper design and proper operation of coke oven batteries," including "a listing of that person's relevant training and experience.

The "Battery Stack Opacity Compliance Plan" required by Paragraph 3.a is attached as Exhibit A. The report determines and describes identified root and potential contributing causes of potential battery stack opacity issues and includes a list and schedule of actions to address such issues. As set forth in the Opacity Report, it was prepared with and by persons with training and experience in the design and proper operation of coke oven batteries, and it includes listings of those persons' relevant qualifications.

Paragraph 3.b: Provide an "engineering evaluation of the Coke Side Shed Baghouse's ability to capture and control coke pushing emissions from the Battery . .

. and a list of corrective actions to prevent future opacity emission exceedances in the future."

The "Coke Side Shed Capture Engineering Evaluation and Compliance Plan" required by Paragraph 3.b is attached as Exhibit B. It evaluates the ability of the baghouse to capture and control coke pushing emissions in accordance with applicable legal requirements. It also includes a list of actions to further assure compliance with applicable opacity limitations, and a schedule for the implementation of the identified actions.

Paragraph 3.c: Provide an "administratively complete plan approval for the construction and installation of a backup control device to prevent the flaring or combustion of coke oven byproduct gas with hydrogen sulfide concentrations greater than 50 grains/100 dry standard cubic feet to utilize when the H_2S Absorber is out of service."

As ECC has has described at its March 5, 2019 meeting with the Department and otherwise, it was infeasible or impossible as a practical matter to conduct an engineering evaluation and treatment system design and then to also prepare an administratively-complete plan approval application within the 60-day timeline stated in the Order. As a result, ECC and the Department are considering entering a consent order and agreement to address this condition on a mutually agreed timetable, and ECC reserves its right to file a petition for supersedeas before the Environmental Hearing Board on any and all matters related to the Order, including without limitation Paragraph 3.c. However, the Company is hopeful that step can be avoided, and in the spirit of cooperation and transparency, ECC provides the following update on its efforts to address Paragraph 3.c since receiving the Order:

Promptly after receiving the Order, ECC began working diligently to execute on Paragraph 3.c. Specifically, ECC has been performing an engineering evaluation to develop one or more solutions that would then be the subject of a plan approval submission. As discussed during ECC's March 5, 2019 meeting with the Department, ECC anticipated that it would be able to complete that engineering evaluation within 60 days so that ECC could then prepare and submit a plan approval application.

As ECC's counsel has described to PaDEP's counsel, ECC has identified iron oxide boxes (also known as "iron sponge" technology) as a potentially viable back-up solution for hydrogen sulfide removal from the coke oven gas stream during outages of the existing absorber/thionizer system. This technology passes the coke oven gas stream through a bed of substrate material coated with iron oxide, and is a well-recognized and long-proven technology for the removal of hydrogen sulfide from gas streams. ECC has requested and is awaiting receipt of a proposal for an iron oxide box system.

ECC is also evaluating other technologies, primarily because the potential size of the iron oxide box or boxes entails a potential pressure drop management challenge and requires a large footprint area for installation. Consequently, ECC has investigated other candidate technologies and has identified at least ten additional alternatives to consider. Some examples include the Girbotol process, phosphate-shell process, Thylox process, a caustic soda process, a lime process, a Seabord/Stretford type (or Takahax type process) to a Claus Plant, and a Perox process similar to the system currently in use at ECC. With this suite of options identified, we are in the process of completing a comparative feasibility study with ECC.

Following selection of one or more treatment technologies, ECC will prepare and submit an administratively complete plan approval. Even if ECC had not needed to perform the above-described engineering evaluation to determine what solution or set of solutions it would submit in the plan approval, preparing and submitting that plan approval by the stated deadline of April 5 would likely have been infeasible in itself. Such plan approvals routinely require longer than 60 days to draft, review, refine, and submit. The need to perform an engineering evaluation, to identify the most effective and efficient treatment technology, ensured that the April 5 deadline was infeasible.

While the work described above is ongoing, ECC intends to maximize the extent to which its operation of its current absorber/thionizer system achieves compliance with the company's Title V permit. As PaDEP knows, there currently is not a back-up solution in place for the absorber/thionizer system, and the system will inevitably be off-line occasionally, whether for short regular maintenance or, if regular maintenance is not done, longer unscheduled forced outages.

Performing the routine maintenance is compliant with ECC's obligations under its Title V permit to implement "good operating practices," and to operate and maintain the absorber in accordance with "good air pollution control practices." *See* Permit Section B, Condition #008(b); Section D, Source ID 805, Condition #011; *see also* Section D, Source ID 805, Condition #013(b). With regular maintenance, ECC has been able to achieve total absorber/thionizer up-time of approximately 98%, and is working toward achieving 99% by improving the maintenance program and by considering various operating changes that will approach 99% up-time. Without such regular maintenance, ECC anticipates that the work needed to restore absorber/thionizer operation after a breakdown will result in two to ten times as much downtime.

Thus, we have concluded that, at least until a back-up solution is in place, routinely maintaining the absorber/thionizer system will maximize the extent to which ECC is compliant with applicable requirements, and ECC plans to proceed accordingly, subject to Department comment.

Paragraph 3.d: Provide an "updated work practice plan and operation and maintenance plan for the Facility."

The updated Facility "Work Practice Plan" and updated "Operation and Maintenance Plan," as required by Paragraph 3.d, are attached as Exhibit C. Subsequent to the revised Plans attached, ECC is continuing to further revise and update as we merge the new Work Plans and procedures into day to day operations. We anticipate further such revisions to manifest themselves and updates will continue, seeking full compliance with regulations.

Paragraph 3 incorporating Paragraph LL: Provide "a plan and schedule to correct" the alleged "failure to prevent topside emissions from more than 5% of the offtake piping on operating coke ovens."

The Work Practice Plan, Section 6 addressing, among other items, the matters alleged in Paragraph LL is attached as Exhibit C. This plan includes a list and schedule of actions to address the issues identified.

Paragraph 3 incorporating Paragraph MM: Provide "a plan and schedule to correct" the alleged "failure to prevent visible topside emissions from more than 2% of the charging port seals on operating coke ovens."

The Work Practice Plan, Section 5 addressing, among other items, the matters alleged in Paragraph MM is attached as Exhibit C. This plan includes a list and schedule of actions to address the issues identified.

Paragraph 3 incorporating Paragraph NN: Provide "a plan and schedule to correct" the alleged "failure to prevent visible door emissions from more than 10% of the door area of operating coke ovens."

The Work Practice Plan, Section 3 addressing, among other items, the matters alleged in Paragraph NN is attached as Exhibit C. This plan includes a list and schedule of actions to address the issues identified.

Paragraph 3 incorporating Paragraph OO: Provide "a plan and schedule to correct" the alleged "failure to operate the H_2S Absorber at all times."

A plan to address the matters alleged in Paragraph OO will be included as part of the May 5, 2019 submission pursuant to Paragraph 3.c of the Order.

Paragraph 3 incorporating Paragraph PP: Provide "a plan and schedule to correct" the alleged "failure to prevent the flaring or combustion of coke oven by-product gas with hydrogen sulfide concentrations greater than 50 grains/100 dry standard cubic feet."

A plan to address the matters alleged in Paragraph OO will be included as part of the May 5, 2019 submission pursuant to Paragraph 3.c of the Order.

Paragraph 3 incorporating Paragraph QQ: Provide "a plan and schedule to correct" the alleged "failure to prevent visible open charging emission of greater than 75 seconds for four consecutive charges."

The Work Practice Plan, Section 4 addressing, among other items, the matters alleged in Paragraph QQ is attached as Exhibit C.

Paragraph 3 incorporating Paragraph RR: Provide "a plan and schedule to correct" the alleged "failure to prevent the visible emissions from the Battery stack exceeding 20% [opacity] for periods aggregating more than three minutes in an hour."

The "Battery Stack Opacity Compliance Plan" attached as Exhibit A addresses the matters alleged in Paragraph RR.

Paragraph 3 incorporating Paragraph SS: Provide "a plan and schedule to correct" the alleged "failure to prevent visible emissions from the Battery stack exceeding 60% [opacity] at all times."

The "Battery Stack Opacity Compliance Plan" attached as Exhibit A addresses the matters alleged in Paragraph SS.

Paragraph 3 incorporating Paragraph TT: Provide "a plan and schedule to correct" the alleged "failure to prevent fugitive particulate emissions that are visible outside the Facility's property."

Based upon Exhibit B to the Order, ECC understands this allegation to relate specifically to the presence of visible pushing emissions beyond the ECC property line. Based upon that understanding, the "Coke Side Shed Capture Engineering Evaluation and Compliance Plan" attached as Exhibit B addresses the matters alleged in Paragraph TT.

Paragraph 3 incorporating Paragraph UU: Provide "a plan and schedule to correct" the alleged "failure to prevent visible fugitive air contaminants in excess of 20% opacity from the Battery during coke pushing operations."

The "Coke Side Shed Capture Engineering Evaluation and Compliance Plan" attached as Exhibit B addresses the matters alleged in Paragraph UU.

Paragraph 3 incorporating Paragraph VV: Provide "a plan and schedule to correct" the alleged "failure to record the annual adjustment or tune-up of the combustion process."

The Work Practice Plan, Section 9 attached in Exhibit C describes relevant recordkeeping requirements, as discussed in Paragraph VV, and the work practices intended to ensure compliance. This recordkeeping requirement will be the subject of refresher training for relevant personnel within the second quarter of 2019.

Paragraph 3 incorporating Paragraph WW: Provide "a plan and schedule to correct" the alleged "failure to maintain on site of the 12-month rolling totals of NOx emissions from the boilers."

The Work Practice Plan attached as Exhibit C describes relevant recordkeeping requirements, as discussed in Paragraph WW, and the work practices intended to ensure compliance. This recordkeeping requirement will be the subject of refresher training for relevant personnel within the second quarter of 2019

Paragraph 3 incorporating Paragraph YY: Provide "a plan and schedule to correct" the alleged "failure to maintain the daily average fan RPM at or above the minimum level established during the initial or subsequent performance test."

The "Coke Side Shed Capture Engineering Evaluation and Compliance Plan" attached as Exhibit B addresses the matters alleged in Paragraph YY. By way of further response, for the operational and compliance assurance reasons discussed in the "Coke Side Shed Capture Engineering Evaluation and Compliance Plan," ECC on a going forward basis elects to use fan motor amperes rather than revolutions per minute to demonstrate compliance with Permit Section E, Source 7, Term 15(d)(2), as permitted by the terms of that permit provision, 40 C.F.R. § 63.7333(d)(2), and 40 C.F.R. § 63.7290(b)(3)(i). The Operation and Maintenance Plan attached in Exhibit D incorporates this election and describes the associated recordkeeping requirements and the work practices intended to ensure compliance. This recordkeeping requirement will be the subject of refresher training for relevant personnel within the second quarter of 2019.

Paragraph 3 incorporating Paragraph ZZ: Provide "a plan and schedule to correct" the alleged "failure to record fan RPM at least every eight hours."

The "Coke Side Shed Capture Engineering Evaluation and Compliance Plan" attached as Exhibit B addresses the matters alleged in Paragraph ZZ. By way of further response, for the operational and compliance assurance reasons discussed in the "Coke Side Shed Capture

Engineering Evaluation and Corrective Action Plan," ECC on a going forward basis elects to use fan motor amperes rather than revolutions per minute to demonstrate compliance with Permit Section E, Source 7, Term 15(d)(2), as permitted by the terms of that permit provision, 40 C.F.R. § 63.7333(d)(2), and 40 C.F.R. § 63.7290(b)(3)(i). The Operation and Maintenance Plan attached as Exhibit D incorporates this election and describes the associated recordkeeping requirements and the work practices intended to ensure compliance. This recordkeeping requirement will be the subject of refresher training for relevant personnel within the second quarter of 2019.

Paragraph 3 incorporating Paragraph AAA: Provide "a plan and schedule to correct" the alleged "failure to maintain records required in 40 C.F.R. § 63.7333 to show continuous compliance with each applicable emission limitation, work practice standard, and operation and maintenance requirement."

The "Coke Side Shed Capture Engineering Evaluation and Compliance Plan" attached as Exhibit B addresses the matters alleged in Paragraph AAA. The Work Practice Plan, Section 9 attached as Exhibit C incorporates this election and describes the associated recordkeeping requirements and the work practices intended to ensure compliance. This recordkeeping requirement will be the subject of refresher training for relevant personnel within the second quarter of 2019

Paragraph 3 incorporating Paragraph BBB: Provide "a plan and schedule to correct" the alleged "failure to conduct daily washing of the [quench tower] baffles according to the Facility's operation and maintenance plan, and to continuously record the ambient temperature on the days the baffles were not washed."

The Work Practice Plan and Operations and Maintenance Plan attached as Exhibit C describes the necessary work practices and associated recordkeeping requirements, as alleged in Paragraph BBB. These work practices and recordkeeping requirement will be the subject of refresher training for relevant personnel within the second quarter of 2019

Paragraph 3 incorporating Paragraph CCC: Provide "a plan and schedule to correct" the alleged "failure to take reasonable action to prevent particulate matter from becoming airborne, including, but not limited to, promptly removing earth or other material from paved streets onto which earth or other material was transported by trucking or other means."

The Operations and Maintenance Plan attached as Exhibit C describes the necessary work practices, as alleged in Paragraph CCC. These work practices and recordkeeping requirement will be the subject of refresher training for relevant personnel within the second quarter of 2019

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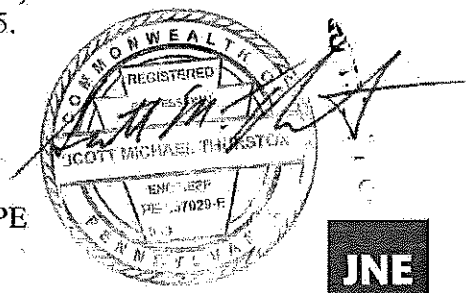
Should the Department have any questions concerning the foregoing, it should not hesitate to contact Erie Coke's Engineering Manager Charles V. Lauricella at (716) 864-1556 or Erie Coke's Environmental Director Edward R. Nesselbeck at (716) 866-4675.

Very truly yours,



Scott M .Thurston, PE