BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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AMENDMENTS TO 35 Ill. Adm. Code Parts 212 and 215

IN THE MATTER OF:

R 23-18(A)

(Rulemaking – Air)

NOTICE OF FILING

To: Attached Service List

PLEASE TAKE NOTICE that on this day, the 7th day of August, 2023, I caused to be filed with the Clerk of the Illinois Pollution Control Board RAIN CII CARBON LLC'S REGULATORY PROPOSAL entitled "AMENDMENTS TO 35 ILL. ADM. CODE PARTS 212 AND 215," and supporting documents, copies of which are herewith served upon you.

/s/ Alexander Garel-Frantzen

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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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IN THE MATTER OF:

AMENDMENTS TO 35 Ill. Adm. Code Parts 212 and 215 R 23-18(A)

(Rulemaking – Air)

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Exhibit A: Stipulation and Proposal for Settlement, *Illinois v. Rain CII Carbon LLC*, PCB No. 04-137 (Jan. 5, 2017)

Exhibit B: Rain CII Carbon LLC, CAAPP Permit No. 95120092 (rev. May 16, 2022)

Exhibit C: Administrative Consent Order, *In the Matter of: Rain CII Carbon LLC Robinson, IL*, EPA-5-23-113(a)-IL-03 (Feb. 21, 2023)

6. Certificate of E-mail Service

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:

AMENDMENTS TO 35 Ill. Adm. Code Parts 212 and 215 R 23-18(A)

(Rulemaking – Air)

RAIN CII CARBON LLC'S PROPOSAL OF REGULATIONS

Rain CII Carbon LLC, by and through its attorneys, ArentFox Schiff LLP, moves that the

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Illinois Pollution Control Board adopt the attached regulations.

Respectfully submitted,

Rain CII Carbon LLC

By: <u>/s/ David M. Loring</u> David M. Loring

Dated: August 7, 2023

David M. Loring Alexander J. Garel-Frantzen ArentFox Schiff LLP, Attorneys for Rain CII Carbon LLC 233 S. Wacker Drive Suite 7100 Chicago, Illinois 60606 (312) 258-5521 David.Loring@afslaw.com Alex.Garel-Frantzen@afslaw.com

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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IN THE MATTER OF:

AMENDMENTS TO 35 Ill. Adm. Code Parts 212 and 215

R 23-18(A) (Rulemaking – Air)

STATEMENT OF REASONS

I. INTRODUCTION

Rain CII Carbon LLC ("Rain Carbon"), by and through its attorneys, ArentFox Schiff LLP, submits this Statement of Reasons to the Illinois Pollution Control Board (the "Board") in support of the attached Proposal of Regulations and pursuant to Sections 27 and 28 of the Illinois Environmental Protection Act (the "Act"), 415 ILCS 5/10, 27 and 28, and 35 Ill. Adm. Code § 102.202, and the July 6, 2023, Order of the Board in R23-18(A) (the "SMB Rulemaking"). The proposed rulemaking would amend the Illinois Administrative Code to provide alternative emission limits and standards for opacity, particulate matter ("PM"), and volatile organic materials ("VOM") during limited periods of start-up, malfunctions, or breakdowns¹ at Rain Carbon's coke calcining facility in Robinson, Illinois (the "Facility"). The proposed amendments are narrowly tailored to address periods when the use of available pollution control technology and best pollution control practices are insufficient to ensure compliance with emission limits. As discussed herein, there is no technically feasible or economically reasonable method to ensure compliance with the opacity and VOM standards during start-up, or to ensure

¹ U.S. EPA uses the phrase "start-up, shutdown, and malfunction" or "SSM." The Board's rules do not currently address "shutdown" and instead regulate the "start-up, malfunction, or breakdown," or "SMB," of stationary sources.

compliance with the PM standard during start-up, malfunction or breakdown events. While SMB events are infrequent relative to normal operations at the Facility, start-up is inherent to the operations at the Facility and periodic malfunction/breakdown events are unavoidable at industrial operations despite best operational and maintenance practices. As such, Rain Carbon requires the relief proposed herein to comply with the Board's regulations as amended by the Board Order in R23-18.

As a result of the Board's elimination of the SMB provisions in R23-18, Rain Carbon proposes amending certain provisions in 35 Ill. Adm. Code Part 212 Subpart B, Visual Emissions, and Subpart K, Particulate Matter Emissions from Process Emission Units; and Part 215, Organic Material Emission Standards and Limitations, Subpart K, Use of Organic Material. These amendments are necessary to ensure the continued operation of the Facility, which manufactures and provides critical product for the aluminum and steel industries.

The Illinois Environmental Protection Agency (the "Illinois EPA") previously authorized specific relief for SMB in the Facility's current Clean Air Act Permit Program ("CAAPP") operating permit. The CAAPP requires adherence to work practice standards applicable during start-up, malfunction, or breakdown events in order for the Facility to temporarily exceed opacity, PM, and VOM limits otherwise applicable during normal operations. Not only has Rain Carbon relied upon that relief, authorized by the sections of the Illinois Administrative Code now repealed by this Board in R23-18, for a substantial period of time, but this Board explicitly authorized such relief as a condition to a Board-approved settlement agreement by and between Rain Carbon and Illinois EPA. As discussed further in Section II.E.4 *infra*, the Facility is subject to the terms of a settlement agreement that *requires* the Facility to control opacity and emissions of PM and VOM by maintaining a minimum operating temperature of 1800°F at its

pyroscrubbers, *except* during SMB. *See Illinois v. Rain CII Carbon LLC*, PCB No. 04-137 (the "2017 IEPA Settlement"), attached as **Exhibit A**. The 2017 IEPA Settlement evidences that Illinois EPA (and this Board) recognized that (i) a minimum pyroscrubber temperature was required to ensure compliance with the applicable opacity, PM, and VOM limits, and (ii) relief from those emission limits was *necessary because* such pyroscrubber temperatures cannot be achieved or maintained at all times during SMB events.

The relief provided to Rain Carbon's Facility during SMB events does not reflect Illinois EPA's exercise of enforcement discretion or an authorization of a prima facie defense to enforcement during SMB. Rather, the relief is set forth plainly in the 2017 IEPA Settlement as a "future compliance" obligation: "*Except during startup and malfunction/breakdown conditions* of either ... Kiln #1 or ... Kiln #2, [Rain Carbon] shall at all times operate its pyro scrubbers as follows: (i) maintain a minimum temperature of 1800°F" By allowing the Facility to operate its pyroscrubbers below 1800°F during SMB and, therefore, exceed the opacity, PM, and VOM limits, Illinois EPA and this Board, by matter of law, deemed this relief to be permissible under Illinois law. The U.S. Environmental Protection Agency ("U.S. EPA") concurred with this operational limit and exception for SMB in an administrative consent order entered into with Rain Carbon in February 2023, years after it issued the SSM State Implementation Plan Call (the "SSM SIP Call") to Illinois and other states and concurrently with Illinois EPA's work on the SMB Rulemaking.

The Board's approval of Illinois EPA's elimination of the SMB provisions from the Illinois Administrative Code in R23-18 directly conflicts with the compliance requirements of the 2017 IEPA Settlement, to which the Facility remains subject *to this day*. Despite this inherent conflict, and despite the many years that Illinois EPA had to address the U.S. EPA SSM

SIP Call, Illinois EPA not once sought outreach to Rain Carbon to discuss the implications of this rulemaking on the Facility's obligations under the settlement.

As demonstrated below, absent relief during SMB, the Facility cannot achieve or maintain 1800°F during start-up, nor when operations are reduced to address a malfunction or breakdown. The proposed amendments to the SMB Rulemaking impose limits upon the Facility's operations during SMB that are *more stringent* than both the work practice standards currently authorized under the Facility's CAAPP permit and the requirements imposed by the 2017 IEPA Settlement. Thus, the requested relief, if approved by the Board, will ensure that the Facility can comply with the 2017 IEPA Settlement and continue operations at its Facility.

Specifically, Rain Carbon seeks the following amendments applicable to the Facility's emission units designated Kiln 1 and Kiln 2 (and the associated pyroscrubber pollution controls):

(i) an amendment under 35 Ill. Adm. Code § 212.124 to allow for up to a 3-hour averaging period (using Test Method 9 of Appendix A to 40 C.F.R. Part 60) to demonstrate compliance with the opacity standard during start-up under 35 Ill. Adm. § Code 212.123;

(ii) an amendment under 35 Ill. Adm. Code § 212.322(d) to establish an annual limit on the number of hours (720 hours) that each kiln may during SMB events exceed the PM standard for process emission units under 35 Ill. Adm. Code § 212.322; and

(iii) an amendment under 35 Ill. Adm. Code § 215.302(b) to establish an averaging period of up to 24 hours during start-up to demonstrate compliance with the VOM standard under 35 Ill. Adm. Code § 215.301.

In support hereof, Rain Carbon provides the following information.

II. STATEMENT OF FACTS

A. PM, Ozone, and VOM Emission Limitations

The federal Clean Air Act ("CAA") requires the U.S. EPA to set National Ambient Air Quality Standards ("NAAQS") for six criteria pollutants that specify the maximum permissible concentrations of those pollutants in the ambient air. *See* 42 U.S.C. §§ 7408-09. The CAA requires states to develop a general plan—called a State Implementation Plan ("SIP")—to attain and maintain the NAAQS, and these plans are submitted to U.S. EPA for approval. A SIP identifies the emission control requirements that the state will rely upon to attain and maintain the NAAQS.

U.S. EPA has set NAAQS for PM (PM_{10} and $PM_{2.5}$) and ozone (VOM contributes to the formation of ozone). Through its U.S. EPA-approved SIPs, Illinois EPA has promulgated various emission standards and limitations applicable to stationary sources to meet and maintain the NAAQS for PM and ozone.

1. **PM and Opacity Limits**

As part of its SIP, Illinois EPA established PM and opacity emission limits that are intended to assure attainment and maintenance of the PM standards NAAQS. The Facility is subject to such PM and opacity standards and, until promulgation of the SMB Rulemaking, was exempt from compliance with such standards during SMB events.

First, Section 212.322 prohibits any person from causing or allowing the emission of PM into the atmosphere in any one-hour period from any process emission unit which exceeds the allowable emission rates specified in subsection (c) of the regulation. *See* 35 Ill. Adm. Code § 212.322(a).

Second, Section 212.123 provides that "[n]o person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than" fuel combustion emission units. *See* 35 Ill. Adm. Code § 212.123(a). "The emission of smoke or other [PM] from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period." *Id.* § 212.123(b).

Section 201.149, as amended by the SMB Rulemaking, permits the operation of emission sources above generally applicable standards and limitations during SMB events, so long as that permission is "specifically provided for by such standard or limitation." 35 Ill. Adm. Code § 201.149. This Proposal of Regulations is consistent with that requirement as it provides for specific limitations in the PM emission limit and opacity emission limit applicable to periods of SMB (for PM) and start-up (for opacity) at the Facility. The PM and opacity limitations of Sections 212.322 and 212.123 are collectively referred to herein as the "PM and Opacity Limits."

2. VOM Limits

VOM is a primary precursor to the formation of ground-level ozone, formed when nitrogen oxide and VOM react in the atmosphere in the presence of sunlight. Illinois EPA set certain emission limits of VOM as part of its SIP. Relevant here, Section 215.301 provides that "[n]o person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic

material into the atmosphere from any emission source." 35 Ill. Adm. Code § 215.301 (the "VOM Limit"). This Proposal of Regulations is consistent with the SMB Rulemaking requirement as it provides for specific limitations in the VOM Limit applicable to periods of start-up at the Facility.

B. Start-ups, Malfunctions, and Breakdowns

The term "SSM" is defined by U.S. EPA as the "startup, shutdown, or malfunction at a source. It does not include periods of maintenance at such a source. An SSM event is a period of startup, shutdown, or malfunction during which there are exceedances of the applicable emission limitations and thus excess emissions."² U.S. EPA defines "excess emissions" as "the emissions of air pollutants from a source that exceed any applicable SIP emission limitations." *Id.* When Congress amended the CAA in 1970, "it was widely believed that emission limitations set at levels representing good control of emissions during periods of normal operation could in some cases not be met with the same emission control strategies during periods of [SSM]." *Id.* at 12464. For these reasons, state plans commonly included provisions for "special, more lenient treatment of excess emissions during such periods." *Id.*

Illinois is one such state that has afforded relief to sources during periods of SMB, including for the otherwise applicable PM and Opacity Limits and VOM Limit. Sections 201.149, 201.261, and 201.262, until promulgation of the SMB Rulemaking, collectively authorized the Illinois EPA to allow sources to continue operating during a malfunction or breakdown or to violate emission limitations during start-up if the source had requested and

² U.S. EPA, State Implementation Plans: Response to Petition for Rulemaking; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown, and Malfunction, 78 Fed. Reg. 12461, 12463 (Feb. 22, 2013).

demonstrated that it is entitled to such relief in its operating permit application for. 35 Ill. Adm. Code §§ 201.149, 201.261, 201.262. Section 201.265 provided that "[t]he granting of permission to operate during a malfunction or breakdown, or to violate [emission limits] during startup, and full compliance with any terms and conditions connected therewith, shall be a prima facie defense" to an Illinois EPA enforcement action. 35 Ill. Adm. Code § 201.265. U.S. EPA in turn has interpreted Illinois' SMB provisions to be exemptions.³

Illinois EPA has long recognized the unique nature of SMB and the inability of sources to comply with emission limits during those events. In R23-18, the Agency noted that states like Illinois "included provisions in their SIPs providing 'absolute or conditional' exemptions from emission limitations for excess emissions during SSM" "[b]ecause pollution control strategies were not thought to be applicable during SSM." Illinois EPA, Statement of Reasons, PCB No. R23-18, at p. 3 (Dec. 7, 2022). In oral and written testimony, the Agency acknowledged that "limits and standards may at times be exceeded during periods of SMB,"⁴ and that "emission

³ See U.S. EPA, State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction, 80 Fed. Reg. 33839, 33904 (June 12, 2015) ("2015 Final SIP Call") ("The general-duty provisions that apply as part of the <u>SSM exemption</u> are not alternative emission limitations; they merely define an <u>unlawful exemption</u> to an emission limitation. States have discretion to fix this issue in a number of ways, including by removing the <u>exceptions</u> entirely, by replacing these <u>exceptions</u> with alternative emission limitations including specific control technologies or work practices that do ensure continuous limits on emissions or by reformulating the entire emission limitation." (emphasis added)).

⁴ Hearing Transcript, PCB No. R23-18, at 138:12-14 (Jan. 19, 2023).

standards were established that sources may not be able to comply with at all times, whether that be during startup, breakdown, or other circumstances that lead to violations."⁵

C. The U.S. EPA's 2015 Final SIP Call

On June 12, 2015, U.S. EPA issued the 2015 Final SIP Call, requiring 36 states,

including Illinois, to submit revised SIPs to correct their SSM provisions.⁶ In its 2015 Final SIP

Call, U.S. EPA acknowledged that states can employ various regulatory mechanisms, in

accordance with the CAA, to address excess emissions that may occur to SSM:

While automatic exemptions and director's discretion exemptions from otherwise applicable emission limitations for SSM events are not consistent with the CAA, SIPs may include criteria and procedures for the use of enforcement discretion by air agency personnel Similarly, SIPs may, rather than exempt excess emissions, include emission limitations that subject those emissions to alternative numerical limitations or other control requirements during startup and shutdown events or other normal modes of operation, so long as those components of the emission limitations meet applicable CAA requirements and are legally and practically enforceable.

2015 Final SIP Call at 33978. Indeed, the U.S. EPA does not "interpret section 110(a)(2) or section 302(k) [of the CAA] to require that an emission limitation in a SIP provision be composed of a single, uniformly applicable numerical emission limitation. The text of section 110(a)(2) and section 302(k) does not require states to impose emission limitations that include a static, inflexible standard." *Id.* Instead, the SIPs must "impose limits on emissions on a continuous basis, regardless of whether the emission limitation as a whole is expressed numerically or as a combination of numerical limitations, specific control technology requirements and/or work practice requirements applicable during specific modes of operation,

⁵ Illinois EPA's Responses to Post-Hearing Questions Submitted by IERG, PCB No. R23-18, at pp. 5-6 (Feb. 14, 2023).

⁶ 2015 Final SIP Call, 80 Fed. Reg. at 33844.

and regardless of whether the emission limitation is static or variable." *Id.* at 33978-79. By way of example, U.S. EPA provided that "so long as the SIP provision meets other applicable requirements, it may impose different numerical limitations for startup and shutdown." *Id.* at 33979.

In its 2015 Final SIP Call, U.S. EPA also recommended that such alternative standards be narrowly tailored and reflect several considerations, including, that: (1) the alternative standard is "limited to specific, narrowly defined source categories⁷ using specific control strategies"; (2) the use of control strategies, including pollution controls, to avoid the need for an alternative standard "is technically infeasible during startup... periods"; (3) "[t]he alternative emission limitation requires that the frequency and duration of operation in startup [is] ... minimized to the greatest extent practicable" and that the "the facility is operated in a manner consistent with good practice for minimizing emissions"; and (4) the owner/operator properly document the use of the alternative standard. 80 Fed. Reg. at 33980.

D. Illinois EPA's Proposal to Eliminate SMB Relief Lacked Sufficient Engagement of the Regulated Community

Though U.S. EPA originally set a deadline of November 22, 2016, by which Illinois was to respond to the 2015 Final SIP call, *id.* at 33848, the deadline to respond to the SIP call was put on hold amid legal challenges. *Env't Comm. Fl. Elec. Power Coordinating Grp. v. EPA*, No. 15-1239 (D.C. Cir. July 27, 2015). Years later, on January 12, 2022, U.S. EPA published a final Finding of Failure to Submit SIP Revisions, finding that Illinois and eleven other states had

⁷ The "source category" applicable to Rain Carbon is coke calcining facilities.

failed to submit SIP revisions required by the CAA in a timely manner.⁸ The Finding of Failure took effect on February 11, 2022, and Illinois had 18 months (or until August 11, 2023) to cure the Finding of Failure. *Id.*; 42 U.S.C. § 7509(a). If Illinois EPA failed to submit the required SIP revision by August 11, U.S. EPA would be obligated to impose sanctions in the form of either the loss of highway funds to the State or an increase in the emissions offset ratio for New Source Review, or both. *Id.* § 7509(b)(1), (2). In addition, if an adequate SIP were not submitted, then U.S. EPA would be obligated to implement a Federal Implementation Plan within 24 months of the finding of failure. *Id.* § 7410(c)(1).

Illinois EPA did not file with the Board its proposed rule to respond to the SSM SIP Call until December 7, 2022.⁹ Illinois EPA proposed to amend 35 Ill. Adm. Code Parts 201, 202, and 212 to remove the provisions that provided sources with relief as to emission exceedances during periods of SMB. *Id.* It did so without ever engaging in outreach efforts to Rain Carbon and various other stakeholders. By the time Rain Carbon was aware of, and subsequently appeared in R23-18 and this SMB Rulemaking, R23-18(A), on June 1, 2023, the public hearings on Illinois EPA's proposed rule had long since passed.¹⁰ The Board adopted Illinois EPA's proposed rule on July 20, 2023, but not before the Joint Committee on Administrative Rules

⁸ U.S. EPA, Finding of Failure to Submit SIP Revisions, 87 Fed. Reg. 1680 (Jan. 12, 2022) (the "Finding of Failure").

⁹ See Illinois EPA's Proposal of Regulation, In the Matter of: Amendments to 35 Ill. Adm. Code Parts 201, 202, and 212, No. R22-18 (Dec. 7, 2022).

¹⁰ Indeed, Rain Carbon entered into an administrative consent order with U.S. EPA just a few months earlier in February 2023, which acknowledged that the Facility had relief from the PM, opacity and VOM limits during periods of SMB. *See infra* Section II.F.

("JCAR") objected to Illinois EPA's eleventh-hour proposal and lack of stakeholder

engagement:

JCAR object to [Illinois EPA's] use of fast-track rulemaking to correct a deficiency the [U.S. EPA] identified on June 12, 2015. . . . [Illinois] EPA had more than enough time to address this situation and engage fully with commenters and their alternative proposals. By waiting to comply with the federal requirements until 2022, the Agency created a situation that could only be remedied in time to meet the federal sanctions deadline by using the fast-track process, and prevented the consideration of less costly alternative proposals.

Statement of Objection to Proposed Rulemaking, PCB No. 23-18, at p. 1 (July 19, 2023).

E. The Robinson Facility

1. Facility Operations

Rain Carbon operates the coke calcining facility located at 12187 East 950th Avenue, in Robinson, Illinois (the "Facility"), under Clean Air Act Program Permit ("CAAPP") No. 95120092, attached as **Exhibit B**. Operations consist of green coke receiving and handling, coke calcining, and handling/load-out of calcined coke. Rain Carbon operates two calcining lines, each utilizing a rotary kiln for calcining. Green coke, a raw material, is fed into the kiln for processing. The process of calcining coke includes removing moisture and volatile material followed by densifying the coke. The coke leaving the kiln is called calcined coke, which is used by the aluminum and steel industries. The calcined coke leaves the kiln and enters the cooler where it is cooled/quenched with water. After cooling, the calcined coke is transferred to the calcined coke bins to await loading into railcars.

The Facility utilizes two natural gas burners throughout the myriad of operational conditions at the Facility. First, the burners are utilized during the start-up of a kiln to reach a minimum temperature of 400°F at the inlet to the pyroscrubber. Green coke is subsequently introduced into the kiln to provide the majority of additional heat necessary to reach 1800°F (*i.e.*,

the minimum optimal temperature for the control of PM and VOM emissions by the pyroscrubber – the pollution control device for the kilns). The burners are also used as supplemental heat to assist in the stabilization or maintenance of kiln temperatures during various operating conditions, including (i) during start-up to moderate the increase in heat after green coke is introduced; (ii) during normal, steady-state operations to moderate kiln temperatures; and (iii) during periods of malfunction or breakdown to help maintain kiln temperatures when the feed of green coke into the kiln is suspended and to assist in returning the pyroscrubber to optimal operating temperatures after the malfunction/breakdown is resolved.

The kilns have the potential to emit PM and VOM and are subject to the emission limitations of 35 Ill. Adm. Code §§ 212.123, 212.322, and 215.301. The emissions generated by the kilns are controlled by pyroscrubbers.¹¹ The pyroscrubbers are operated at a minimum of 1800°F (except when in start-up, or during malfunction or breakdown events), draw kiln exhaust countercurrent to the flow of coke, and are designed to handle high temperature exhaust while removing VOM and PM from the exhaust gases.

2. Operation of the Pyroscrubbers Below 1800[•]F Is Unavoidable During SMB

The pyroscrubber is a self-sustaining control device. The coke fines entering the pyroscrubber from the kiln serve as fuel which in turn removes the VOM and PM. As the fuel entering the pyroscrubber reduces, so does the temperature. Similarly, during start-up conditions

¹¹ Baghouses also provide additional control of PM. The baghouses draw the significantly lower temperature exhaust from the rotary coolers in the same direction as the flow of coke in the cooler and then filters PM from the cooler exhaust gases. Emissions from Kiln 2 are also controlled with a multi-clone prior to the baghouse. The baghouses exhaust to the atmosphere through dedicated stacks.

when green coke is being introduced into the furnace and, thus, little fuel has entered the pyroscrubber, temperature is low.

From time to time, the Facility must go through start-up and, similarly, from time to time the Facility may experience events that result in malfunctions or breakdowns as part of the normal operation and general use of an industrial facility. In either case, such SMB conditions result in temporary operation of the pyroscrubber below 1800°F *because of lack of fuel entering the pyroscrubber*.

While reduction in pyroscrubber temperature is unavoidable, its use/occurrence is limited to the following scenarios:

- <u>Start-up.</u> During start-up of the kiln from ambient temperature following an outage or other event that causes the kiln to be taken offline and emptied of coke. If the kiln has been cooled to ambient temperature, it will be pre-heated using the kiln's natural gas burners until the respective pyroscrubber has reached a minimum temperature of 400°F. At this point, green coke is introduced to the kiln. Start-up from ambient temperatures with no green coke in the kiln generally takes no more than 24 hours to complete.
- <u>Malfunction/Breakdown</u>. During or in response to a malfunction or breakdown of equipment that results in, or requires, an interruption in the feed of green coke and/or the discharge of calcined coke. A kiln will operate in "slow roll" mode when production needs to be paused (*i.e.*, feed into the kiln is stopped), but the coke in the kiln cannot be or is not discharged from the kiln. During slow roll, the kiln rotation rate is significantly reduced to pause production. When the feed is stopped and the kiln is on slow roll, the temperature reduction is due to the significant reduction in

fines entering the pyroscrubber. As a result, the Facility generally tries to maintain temperature in the kiln. This is because returning to normal operations (*i.e.*, when the pyroscrubber temperature at the inlet exceeds 1800°F) from a slow roll reduces the amount of time that a calcining line takes to achieve a normal pyroscrubber temperature and production rate, maintains higher kiln temperature throughout the process, minimizes emissions, and minimizes the duration of potentially higher-thannormal emission rates during the following start-up. In addition, the kiln's longevity is improved because large temperature fluctuations in a kiln can cause wear on a kiln's refractory or even cause the kiln to warp.

3. Operation of the Pyroscrubbers Below 1800°F Is Very Limited in Frequency and Duration

Rain Carbon operates its Facility in accordance with good air pollution control practices to minimize the generation of emissions. It accomplishes this, in part, by minimizing the number and the duration of start-up events, and minimizing the causes of malfunctions or breakdowns, either of which requires the Facility to operate the pyroscrubbers at temperatures that are not capable of ensuring compliance at all times with the applicable PM and Opacity Limits and the VOM Limit.

Consequently, relative to normal, steady-state operations, pyroscrubbers operate below 1800°F infrequently. Generally, the Facility experiences on average less than 10 start-ups per kiln per year lasting less than 24 hours in duration for each start-up. Additionally, despite Rain Carbon's best efforts, kiln malfunctions and breakdowns occur periodically at the Facility generally taking the pyroscrubbers below 1800°F for shorter periods of time (*e.g.*, 4-5 hours).

4. The Facility Was Granted Broader Relief by Illinois EPA from Compliance with Opacity, PM, and VOM Emission Limits During All SMB Events

Rain Carbon has very specific relief during SMB in its CAAPP permit. That relief, authorized by the sections of the Illinois Administrative Code now repealed by this Board (*see supra* Section II.D), was memorialized in and enforced by a *prior*, *separate*, proceeding before this Board requiring that the Facility control opacity, PM and VOM emissions by maintaining a minimum operating temperature of 1800°F at its pyroscrubbers.¹² However, this Board, the Illinois EPA (and, subsequently, U.S. EPA) recognized that a necessary condition of that operating requirement was the need for relief during start-up, breakdown, and malfunction events when it is infeasible for the Facility to achieve and maintain the minimum operating temperature determined by Illinois EPA to be necessary to ensure compliance with the opacity, PM, and VOM emission limits.

As discussed above, in the SMB rulemaking, R23-18, Illinois EPA claimed that the SMB provisions constituted a "prima facie defense to an enforcement action. . . . should excess emissions result in an enforcement action." *See, e.g.*, Illinois EPA, Statement of Reasons, PCB No. R23-18, at p. 5 (Dec. 7, 2022). Rain Carbon generally disagrees with Illinois EPA's position for the reasons identified in Section II.B and D *supra*, but as to the Facility, the Agency's position is simply incorrect. The relief provided for SMB was *not* a memorialization of Illinois EPA's exercise of enforcement discretion. Nor was it an authorization of a prima facie defense to enforcement during SMB. Rather, Illinois EPA required Rain Carbon to enter into the 2017

¹² See Ex. A, 2017 IEPA Settlement.

IEPA Settlement, as approved by this Board, and mandated that the Facility achieve particular operating temperatures, *except* during SMB. Nowhere in that order is there mention of enforcement discretion or a prima facie defense. Indeed, the 2017 IEPA Settlement's language setting forth "future compliance" obligations is clear:

Except during startup and malfunction/breakdown conditions of either ... Kiln #1 or ... Kiln #2, [Rain Carbon] shall at all times operate its pyro scrubbers as follows: (i) maintain a minimum temperature of 1800°F

See Ex. A, 2017 IEPA Settlement, Section V.D.1.f; see also Ex. B, CAAPP permit §§ 4.2(4)(a)(i)(A), (B).

Illinois EPA could not have entered into—and the Board could not have accepted—the 2017 IEPA Settlement if it were contrary to Illinois law. *State of Illinois v. Am. Fed'n of State, Cnty. and Mun. Emps., Council 31*, 2016 IL 118422, ¶ 53 ("'[S]tatutes and laws in existence at the time a contract is executed are considered part of the contract,' and '[i]t is presumed that parties contract with knowledge of the existing law.'"). That is, by allowing the Facility to operate its pyroscrubbers below 1800°F during SMB and therefore exceed the opacity, VOM, and PM limits, Illinois EPA and this Board, by matter of law, have deemed this relief to be permissible. *See also* Ex. A, 2017 IEPA Settlement at V.D.5 ("This Stipulation in no way affects the responsibilities of the Respondent to comply with any other federal, state or local laws or regulations, including but not limited to the Act and the Board Regulations.").

It is not just the Illinois EPA and Board who have acknowledged the relief afforded to Rain Carbon; U.S. EPA also has concurred that the 2017 IEPA Settlement expressly conditioned the operation of the pyroscrubbers above 1800°F as inapplicable during periods of SMB. In a

February 2023 administrative consent order between U.S. EPA and Rain Carbon,¹³ U.S. EPA acknowledged that the Facility's CAAPP permit was modified in 2019 to "reflect the future compliance set forth in the [2017 IEPA Settlement]" that requires operation of the pyroscrubbers "'[e]xcept during startup and malfunction/breakdown condition." *See* Ex. C, 2023 U.S. EPA Settlement at ¶¶ 14, 15.

The Board's Order in R23-18, which eliminates SMB provisions from the Illinois Administrative Code, directly conflicts with the 2017 IEPA Settlement's compliance requirements and relief specific to the Facility to which it remains subject *to this day*. Despite this inherent conflict, and despite the years that Illinois EPA has had to respond to the U.S. EPA SSM SIP Call (*see supra* Sections II.C-D), Illinois EPA not once sought outreach to Rain Carbon to discuss the implications of this rulemaking on the Facility's obligations under the 2017 IEPA Settlement.

The potential ramifications are significant. Rain Carbon does not know—and, as noted above, Illinois EPA has not informed it—of the implications of this rulemaking on the terms of the 2017 IEPA Settlement. If the implication is that the Facility must maintain at least 1800°F at all times, the Facility cannot operate in compliance with that requirement. *See infra* Section III. And the Facility will be forced offline each time it needs to reduce temperature to the pyroscrubber due to a malfunction or breakdown, after which it would be unable to start-up as temperatures below 1800°F can persist for up to 24 hours during start-up, as is currently authorized under Condition 7.3(a)(iii)(E) of the CAAPP permit. Alternatively, if the Board grants the amendments proposed herein by Rain Carbon to the SMB Rulemaking, compliance

¹³ See Administrative Consent Order, *In the Matter of: Rain CII Carbon LLC Robinson, IL*, EPA-5-23-113(a)-IL-03 (Feb. 21, 2023) ("the 2023 U.S. EPA Settlement"), attached as **Exhibit C**.

with the requirements of the 2017 IEPA Settlement will be maintained, as Rain Carbon is proposing more stringent (and more narrowly-tailored than is currently permitted in the Facility's CAAPP permit) limitations specific to opacity, PM, and VOM applicable during periods of startup (for opacity and VOM) and SMB (for PM), when 1800°F is not generally achievable at the inlet to the pyroscrubbers.

The relief afforded to the pyroscrubbers during SMB cannot be viewed in isolation. Inherent in Illinois EPA's requirement to operate the pyroscrubbers above 1800°F and to incorporate that obligation into the CAAPP permit's Compliance Assurance Monitoring ("CAM") plan is the agreement by the Illinois EPA that the pyroscrubber temperature is an indicator of compliance with the kilns' PM and VOM emission limits.¹⁴ Therefore, by excluding the minimum pyroscrubber temperature requirement during SMB, Illinois EPA (and this Board) in the 2017 IEPA Settlement recognized that it was unreasonable to subject the Facility to PM (and opacity) and VOM limits during those periods when achieving the minimum pyroscrubber temperature is infeasible.

Importantly, too—and further belying Illinois EPA's position that the SMB provisions provided only a prima facie defense to enforcement—Rain Carbon has never had absolute relief from PM, opacity, and VOM during SMB. In fact, its CAAPP permit contains over four pages of work practice standards that detail requirements applicable during SMB which must be met to be relieved from having to comply with the underlying Opacity and PM Limits and VOM Limit.

While Rain Carbon's proposed amendments to the SMB Rulemaking impose restrictions during SMB that go beyond what presently exists in the Facility's CAAPP permit, Rain Carbon

¹⁴ See Ex. B, CAAPP permit at CAM Plan Tables 7.5.1, 7.5.2, 7.5.3, and 7.5.4.

notes that the CAAPP permit already contains requirements and work practice standards for SMB that comport with U.S. EPA's recommendations in the 2015 Final SIP Call (*see supra* Section II.C, p. 10) to fashion specific, narrowly tailored relief during SMB where the use of control technology in a source category (coke calcining facility) is technically infeasible during SMB, where the frequency and duration of operation in SMB is minimized to the greatest extent practicable, and where the source (the Facility) is operated in a manner consistent with approved work practices for minimizing and documenting emissions during SMB.

In particular, during start-up, Section 7.3 of the CAAPP permit requires the Facility to: (1) adhere to established written start-up procedures, (2) refrain from introducing green coke feed (a) unless the pyroscrubber is operating at a temperature of at least 400°F or (b) if the baghouse controlling that kiln cooler is not operating properly, (3) use natural gas as a supplemental heat source to the kiln in order to reach a pyroscrubber operating temperature of 1800°F, (4) achieve a pyroscrubber operating temperature of 1800°F within 24 hours after introducing green coke feed to the kiln, and (5) comply with robust monitoring and recordkeeping requirements.

In the event of a malfunction or breakdown of both thermocouples at the inlet of a pyroscrubber, Section 7.4 of the CAAPP permit requires the Facility to: (1) repair or replace at least one of the thermocouples within 24 hours, (2) cease green coke feed to a kiln within 24 hours unless at least one thermocouple at the inlet of that kiln's pyroscrubber functions properly, and (3) comply with robust monitoring and recordkeeping requirements. While Rain Carbon believes that such measures are sufficient, evidently Illinois EPA no longer agrees. Thus, Rain Carbon is proposing further controls and limits during SMB that are more stringent than what was previously required of the Facility.

F. 2023 U.S. EPA Settlement

As stated above, in February 2023—over seven years after U.S. EPA's SSM SIP call and five years after the 2017 IEPA Settlement—Rain Carbon and U.S. EPA entered into the 2023 U.S. EPA Settlement. Under that settlement, U.S. EPA affirmed the ability of Rain Carbon to operate under the SMB relief afforded under Illinois law and to continue to operate Kiln 1 and Kiln 2 and their associated pyroscrubbers in violation of applicable emissions limits during SMB. *See* Ex. C, 2023 U.S. EPA Settlement at ¶ 16 ("Section 4.2(4)(a)(i)(A) of the 2019 Permit sets forth that pursuant to 35 IAC 201.149, 201.261, and 201.262, Rain CII Carbon is authorized to operate Kiln 1 and Kiln 2 and their associated pyroscrubbers in violation of the applicable requirements of Condition 4.2(2)(a)(i)(A), 4.2(2)(b)(i)(A), and 4.2(2)(d)(i)(A) during start-up."); *id.* at ¶ 19 ("Section 4.2(2)(f)(i)(E) of the 2019 Permit sets forth that except during start-up and malfunction/breakdown conditions of either Line #1 (Kiln #1) or Line #2 (Kiln #2), the Permittee must maintain a 3-hour rolling average minimum temperature of 1800°F at its pyroscrubbers, measured at the thermocouples located at the inlet to each pyroscrubber.").

In addition, the 2023 U.S. EPA Settlement requires Rain Carbon to implement various improvements at the Facility intended to minimize emissions during SMB events. These improvements are reflective of the Facility's commitment to minimize the duration of start-ups and restarts after malfunctions or breakdowns, in addition to the frequency and occurrence of malfunctions or breakdowns. Among other measures, Rain Carbon is required to: (a) increase each existing kiln burners' natural gas firing capacity, which will reduce the duration that the temperature in the pyroscrubber remains below 1800°F during short-term feed stoppages and start-up events, and (b) make a number of improvements at the Facility to reduce the number and duration of feed chute plugs, thereby reducing the potential duration that the pyroscrubber must

operate below 1800°F during a malfunction or breakdown. See Ex. C, 2023 U.S. EPA

Settlement at ¶ 29.

Together, these extensive improvements, some of which are already underway, are estimated to cost Rain Carbon nearly \$1,300,000:

2023 U.S. EPA Settlement Requirements	Estimated Costs
Increase kiln burner capacity	\$851,000
Install air cannons in green bins and feed chute	\$354,000
Replace green coke bin cone with antifriction coating	\$85,000
Total	\$1,290,000

III. PURPOSE AND EFFECT OF THE PROPOSAL

The purpose and effect of this rule is to amend Title 35, Sections 212.124 and 212.322 and Section 215.302 to establish alternative, specific, emission standards applicable to the Facility for opacity, PM, and VOM, respectively, during periods of time when the Facility is in start-up (for opacity and VOM) and SMB (for PM) and is unable to achieve or maintain an inlet temperature of 1800°F at the inlet to the pyroscrubber servicing either Kiln 1 or Kiln 2. The amendments provide for a specific relief to a standard or limitation, which is required by Section 201.149, 35 Ill. Adm. Code § 201.149, as revised by the SMB Rulemaking.

Rain Carbon's proposal will allow for limited exceedances of the applicable opacity and VOM limits during start-up, and PM limits during SMB events, at the Facility because there is no air pollution control device or technically or economically feasible operational measure that can ensure compliance with those limits at all times during the variable and transient conditions inherent in start-up, malfunction, and breakdown events. In addition, Rain Carbon's proposal will allow the Facility to remain in compliance with the 2017 IEPA Settlement, which provides the Facility with relief from the above-referenced standards and from the requirement to

maintain the pyroscrubber temperature above 1800°F during SMB conditions. Stated differently, if the Board grants Rain Carbon's proposal, then there will be no need to modify the 2017 IEPA Settlement because the relief granted by rule will be more stringent than the requirements of the 2017 IEPA Settlement. If the relief requested herein is not granted by the Board, however, the SMB Rulemaking will be in direct conflict with the Board-approved 2017 IEPA Settlement.

Rain Carbon's proposed amendments are consistent with U.S. EPA's recommendations for alternative standards articulated in the 2015 Final SIP Call. *See supra* Section II.C at p. 10. First, the proposed amendments are limited to two emissions units – Kiln 1 and Kiln 2. Second, there is no alternative control strategy, including additional pollution control equipment, that eliminates the need for the proposed alternative standards during SMB.¹⁵ *See infra* Section V. Third, the proposed amendments provide for alternative standards that are limited in scope and duration, as the relief requested for opacity, for PM, and for VOM are limited in scope and duration while the pyroscrubbers servicing the affected units are operating below a threshold temperature. Lastly, each proposed amendment requires appropriate recordkeeping and reporting to document Rain Carbon's use of the alternative standard.

As further discussed below (*see infra* Section VIII.B) and as demonstrated in the modeling presented in the forthcoming technical support document prepared by Trinity Consulting on behalf of Rain Carbon in support of these proposed amendments, the relief sought

¹⁵ To be clear, the improvements that Rain Carbon is undertaking pursuant to the 2023 U.S. EPA Settlement will serve to reduce the duration of start-ups and reduce some of the causes of malfunction and breakdown. *However*, the 2023 U.S. EPA Settlement reflects the Agency's endorsement that while such improvements will not eliminate all occurrences of start-up, malfunction, or breakdown events, the measures agreed to are proper mitigation measures even while the Facility is temporarily operating the pyroscrubbers below 1800°F.

will not interfere with the continued attainment of the NAAQS for PM and ozone (*i.e.*, VOM as a precursor) in accordance with Section 110(1) of the CAA.

IV. GEOGRAPHIC REGIONS AND SOURCES AFFECTED

The geographic area subject to the proposed rule is Crawford County, Illinois, which is not an area designated as Nonattainment or Maintenance for any NAAQS, including the applicable PM and Ozone NAAQS. *See* 40 C.F.R. § 81.314 (Section 107 Attainment Status Designations; Illinois). In addition, the proposed rule will apply only to Rain Carbon's Facility in Robinson, Illinois.

V. TECHNICAL FEASIBILITY AND ECONOMIC REASONABLENESS

In promulgating regulations under the Act, the Board "shall take into account" various factors, including "the technical feasibility and economic reasonableness of measuring or reducing the particular type of pollution." 415 ILCS 5/27(a); 35 Ill. Adm. Code 102.202(b).

As explained in Section II.E above, Rain Carbon has very few options or ability to control opacity and emissions of PM and VOM during SMB. As evidenced by the 2017 IEPA Settlement, the principal mechanism for the Facility to improve or reduce those emissions is to maintain a minimum operating temperature of 1800°F at its pyroscrubbers. Thus, Rain Carbon is not seeking alternative standards during malfunction and breakdown for opacity and VOM because the inherently higher temperatures in the kilns during such periods negates the need for relief. Under its CAAPP Permit and the 2017 IEPA Settlement, the Facility is operating in compliance with detailed work practice standards applicable during SMB, which are narrowly tailored to address the technical infeasibility of controlling the Facility's emissions during SMB while ensuring that such emissions are minimized and documented.

Moreover, under the 2023 U.S. EPA Settlement, Rain Carbon is already implementing several additional operational measures that will help ensure that the operating temperature increases more quickly following SMB events and, thus, will aid in controlling opacity and emissions of PM and VOM. These measures, which include increasing the burner capacity of the kilns, is expected to cost an estimated \$1,290,000.

Based on a review of U.S. EPA's RACT/BACT/LAER Clearinghouse, Rain Carbon has not identified any pollution control device employed at similarly situated facilities that will ensure compliance at all times with the applicable opacity and VOM limits during start-up and PM limits during SMB. Rain Carbon did identify the installation of new, additional natural gas burners as a potential operational measure that may be technically feasible at the Facility. However, the burners are *not* pollution control equipment; instead, they are equipment integral to the normal operation of the kilns and would not eliminate the need for the relief requested here for at least two reason: (1) similar to increasing the capacity of the existing burners (*see supra* Section II.F), adding additional burners would not eliminate time periods when the pyroscrubbers operate below 1800°F, it would merely reduce the length of a start-up, or the length of time it takes for the pyroscrubber to return to 1800°F following a malfunction or breakdown event; and (2) the cost for such incremental improvement is not economically reasonable (the capital cost of installing new burners was estimated to be \$10,027,718 for both kilns).

Moreover, Rain Carbon does not know the extent to which such new burners would control opacity and emissions of PM and VOM. In contrast, Rain Carbon does know that the use of the new burners would not rectify the inability of the Facility to maintain a minimum operating temperature of 1800°F during SMB. For this very reason, Rain Carbon has long been

afforded relief during such events under its CAAPP permit because the Illinois EPA, this Board,

and the U.S. EPA has recognized that it is infeasible for the Facility to achieve and maintain

1800°F, the minimum operating temperature determined by Illinois EPA to be necessary to

ensure compliance with the opacity, PM, and VOM emission limits.

VI. SYNOPSIS OF TESTIMONY

At hearing, Rain Carbon anticipates calling the following individuals as witnesses at

hearing in support of the proposed rulemaking:

- Dan Fearday, Plant Manager, Rain Carbon, who will testify and answer questions regarding the Facility and the proposed rule.
- Ross Gares, Director of Calcining Operations, Rain Carbon, who will testify and answer questions regarding the Facility and the proposed rule.
- Bryan Higgins, Senior Consultant, Trinity Consultants, who will testify and answer questions regarding the technical justifications for the proposed rule.
- Jeremias Szust, Managing Consultant, Trinity Consultants, who will testify and answer questions regarding the technical justifications, including modeling, for the proposed rule.

VII. A PUBLIC HEARING IS REQUIRED ON RAIN CARBON'S PROPOSAL

Both Section 28(a) of the Illinois Environmental Protection Act, 415 ILCS 5/28(a), and

the CAA require the Board to conduct at least one public hearing on Rain Carbon's proposal.¹⁶ See 415 ILCS 5/28(a) ("No substantive regulation shall be adopted, amended, or repealed until

after a public hearing within the area of the State concerned."); 40 C.F.R. § 51.102 ("The State

must hold a public hearing or provide the public the opportunity to request a public hearing" on

"[a]ny [SIP] plan or revision of it."); 42 U.S.C. § 7410(1) ("Each revision to an implementation

¹⁶ Rain Carbon is situated differently from other participants in R23-18(A) who have already presented their proposals at public hearings held in R23-18, which satisfied the requirements of the Act as to those participants' proposals but not as to Rain Carbon's proposal.

plan submitted by a State under this Act shall be adopted by such State after reasonable notice and public hearing"). The January 19 and February 16, 2023, public hearings held in R23-18 do not satisfy the requirements of the Act because Rain Carbon neither participated in those hearings nor submitted its proposal in R23-18, and thus Rain Carbon's proposal "does not deal with a subject on which a hearing has been held within the preceding six months," 415 ILCS 5/28(a). For the same reason, the prior hearings in R23-18 do not satisfy the requirements of the CAA with respect to Rain Carbon's proposal.

To the extent the Board disagrees with Rain Carbon's interpretation and believes a public hearing is permissible and not required, Rain Carbon requests that a public hearing be held on Rain Carbon's proposal given the unique issues presented.

As to public notice requirements, at least 20 days prior to the scheduled date of the hearing, the Board must give notice of the hearing by public advertisement in a newspaper of general circulation in the area of the state concerned of the date, time, place, and purpose of the hearing, provide written notice to any person in the area concerned who has submitted a written request for notice of public hearings, and make available to any person upon request copies of the proposed regulations and summaries of the reasons supporting their adoption. 415 ILCS 5/28(a).

VIII. RAIN CARBON'S DEMONSTRATION OF NONINTERFERENCE UNDER CAA 110(L)

Section 110(1), 42 U.S.C. § 7410(1), of the CAA prohibits U.S. EPA from approving any proposed SIP revision that would interfere with the attainment and maintenance of the NAAQS in effect at the time of the revision. In turn, "EPA will approve a SIP revision that removes or modifies control measure(s) in the SIP only after the State has demonstrated that such removal or modification will not interfere . . . with the attainment of the [NAAQS]." U.S.

EPA, *Demonstrating Noninterference Under Section 110(l) of the Clean Air Act When Revising a State Implementation Plan* (June 8, 2005) (draft) ("EPA Noninterference Guidance"). The CAA does not define what constitutes "interference;" however, U.S. EPA has indicated that air quality modeling based on "EPA's most recent technical guidance" for the particular NAAQS can be used to show that the proposed rule will not interfere with the attainment or maintenance of the NAAQS. *Id*.

Rain Carbon is working with Trinity Consultants ("Trinity") to prepare a Technical Support Document ("TSD") that will provide a "noninterference demonstration" that shows that the proposed amendments to 35 Ill. Admin. Code sections 212.322 (PM), 212.124 (opacity), and 215.302 (VOM) will not interfere with Illinois' ability to attain or maintain compliance with the PM and ozone NAAQS. Rain Carbon notes that while there is no NAAQS for opacity and, therefore, a noninterference demonstration is not required for opacity,¹⁷ the TSD will demonstrate that the modeled environmental impact of the proposed amendments is insignificant and will not interfere with the PM or ozone NAAQS.

Rain Carbon's Facility is located in Crawford County, Illinois. Crawford County is in attainment with the 2015 8-hour ozone NAAQS. Similarly, Crawford County is in attainment of the 2012 PM NAAQS (including the annual $PM_{2.5}$ standard, the 1997 24-hour $PM_{2.5}$ standard and the 2006 24-hour PM_{10} standard).¹⁸

¹⁷ The EPA Noninterference Guidance states that changes to opacity regulations can be subject to a Section 110(l) demonstration on a "case-by-case" basis.

¹⁸ U.S. EPA designates Crawford County as "unclassifiable/attainment" for the PM and Ozone NAAQS. *See* U.S. EPA, Illinois Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants, <u>www3.epa.gov/airquality/greenbook/anayo_ak.html</u> (last visited Aug. 7, 2023).

It is significant to note that Crawford County has been in attainment of the PM and ozone NAAQS *prior* to Illinois EPA's SMB Rulemaking, meaning that the relief during SMB conditions for PM, opacity, and VOM afforded to the Facility under the existing CAAPP permit does not – and has never – caused or resulted in the nonattainment of any NAAQS. Consequently, a Section 110(1) noninterference demonstration is, arguably, unnecessary as Rain Carbon's proposed rule amendments are *more stringent* than the relief afford to the Facility prior to the SMB Rulemaking. In other words, Rain Carbon's proposed amendments will result in an *improvement* in air quality as compared to the emissions allowable under the CAAPP permit. U.S. EPA guidance allows, but does not require, air quality modeling to demonstrate noninterference, particularly where there is no degradation in air quality. *See* EPA Noninterference Guidance.

Notwithstanding the forgoing paragraph, in an abundance of caution, air quality modeling was conservatively conducted to demonstrate that the proposed amendments will not interfere with the NAAQS when compared to operations that do not include SMB (*i.e.*, during normal operations). Trinity will use air dispersion modeling to determine the impact to ambient air from the alternative PM and alternative VOM standards proposed for the Facility's Kiln 1 and Kiln 2 sources. As further detailed in the forthcoming TSD, Trinity modeled the impact of the proposed regulations as the impact from emission rates and stack characteristics associated with a kiln start-up, subtracting the impacts from allowable emission rates and stack characteristics and stack characteristics associated with normal operations. The modeling compares the allowable emissions that occur during worse-case operating conditions – namely, start-up. In this manner, the resulting modeled

impacts are representative of the *additional* contribution from operating during limited periods when the pyroscrubber inlet temperature is less than 1800°F.

In order to demonstrate that the modeled contribution does not interfere with the maintenance of the PM and ozone NAAQS, the TSD will compare the modeling results to the significant impact levels ("SILs") for PM₁₀, PM_{2.5}, and ozone. See U.S. EPA Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Program (Apr. 17, 2018) ("SIL Guidance"). The use of SILs to demonstrate noninterference is appropriate. U.S. EPA has long-used SILs in order to "quantify the point below which a new or modified source does not cause, or contribute to, a violation of the NAAQS or PSD increment ... [as sufficient] for the EPA or a state permitting authority to justify the value as a level below which an impact on air quality may be regarded as not-meaningful or significant."¹⁹ SILs are generally used for purposes of evaluating the impact of a proposed modification under the PSD permitting program, which requires a demonstration $similar^{20}$ to Section 110(1) of the CAA that emissions from the construction or operation of the source "will not cause, or contribute to" air pollution in excess of a NAAOS. See 42 U.S.C. § 7475(a)(3). Accordingly, U.S. EPA has interpreted the PSD program's "cause, or contribute to" to mean that impacts that are "insignificant" (*i.e.*, a "degree of impact that is 'trivial' or 'de minimis' in nature") will not negatively impact the NAAQS. Id. See also SIL Guidance, at pp. 4-5.

¹⁹ See U.S. EPA Legal Memorandum: Application of Significant Impact Levels in the Air Quality Demonstration for Prevention of Significant Deterioration (PSD) Permitting under the Clean Air Act," pp. 13-14, *available at* <u>www.epa.gov/sites/default/files/2018-04/documents/legal memorandum final 4-17-18.pdf</u> (emphasis added) (last visited Aug. 7, 2023).

²⁰ Indeed, PSD permitting requirements are specifically incorporated under Section 110 of the CAA. *See* 42 U.S.C. 7410(a)(2).

While Rain Carbon's proposed amendments do not constitute a modification that triggers PSD permitting, the amendments can be modeled in a similar manner in order to account for the "increase" in PM and VOM emissions between the proposed amendments and Illinois EPA's SMB Rulemaking. By comparing the modeled impacts to the applicable SILs for PM and VOM in U.S. EPA's SIL Guidance, the TSD will demonstrate that the proposed amendments are below the SILs and, therefore, have an insignificant impact on the NAAQS. Insignificant impacts will not interfere with the maintenance of the PM or ozone NAAQS in Illinois and, consequently, satisfy the requirements under Section 110(1) of the CAA.

As noted above, as a result of the extremely limited time period during which Rain Carbon has had to prepare this proposed rulemaking, Rain Carbon and Trinity are continuing to finalize the TSD. The proposed regulatory language under sections 212.322 (PM), 212.124 (opacity), and 215.302 (VOM) are based upon the results of the TSD and will be submitted to the Board in support thereof. *Rain Carbon will submit the TSD in support of this proposal prior to the requested hearing date.*

IX. PETITION SIGNATURE REQUIREMENT

In the Order of the Board dated July 6, 2023, the Board waived the requirement of 35 Ill. Adm. Code § 102.202(g) to obtain a petition signed by at least 200 persons. *See* Order of the Board, R23-18(A), at p. 6. Therefore, the requirement of Section 102.202(g) does not apply to this Proposal.
X. STATEMENT THAT PROPOSAL AMENDS MOST RECENT VERSION OF RULE

Rain CII Carbon LLC certifies in accordance with 35 Ill. Adm. Code 102.202(i) that this

proposal for amendments to 35 Ill. Adm. Code 211, 212, and 215 amends the most recent version

of the rules as published on the Illinois Pollution Control Board's website.

XI. MATERIALS TO BE INCORPORATED BY REFERENCE

No materials will be incorporated by reference in the Proposal of Amendments.

XII. CONCLUSION

For the reasons set forth above, Rain CII Carbon LLC hereby submits this regulatory

proposal and requests that the Board adopt these rules for the State of Illinois.

Respectfully submitted,

Rain CII Carbon LLC

By: <u>/s/ David M. Loring</u> David M. Loring

Dated: August 7, 2023

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TITLE 35: ENVIRONMENTAL PROTECTION SUBTITLE B: AIR POLLUTION CHAPTER I: POLLUTION CONTROL BOARD SUBCHAPTER c: EMISSION STANDARDS AND LIMITATIONS FOR STATIONARY SOURCES

PART 212 VISIBLE AND PARTICULATE MATTER EMISSIONS

SUBPART A: GENERAL

Section

- 212.100 Scope and Organization
 212.107 Measurement Method for Visible Emissions
 212.108 Measurement Methods for PM-10 Emissions and Condensible PM-10 Emissions
 212.100 Measurement Methods for Openity
- 212.109Measurement Methods for Opacity
- 212.110 Measurement Methods For Particulate Matter
- 212.111 Abbreviations and Units
- 212.112 Definitions
- 212.113 Incorporations by Reference

SUBPART B: VISIBLE EMISSIONS

Section

- 212.121 Opacity Standards (Repealed)
- 212.122 Visible Emissions Limitations for Certain Emission Units For Which
 - Construction or Modification Commenced On or After April 14, 1972
- 212.123 Visible Emissions Limitations for All Other Emission Units
- 212.124 Exceptions
- 212.125 Determination of Violations
- 212.126 Adjusted Opacity Standards Procedures

SUBPART D: PARTICULATE MATTER EMISSIONS FROM INCINERATORS

- 212.181 Limitations for Incinerators
- 212.182 Aqueous Waste Incinerators
- 212.183 Certain Wood Waste Incinerators
- 212.184 Explosive Waste Incinerators
- 212.185 Continuous Automatic Stoking Animal Pathological Waste Incinerators

SUBPART E: PARTICULATE MATTER EMISSIONS FROM FUEL COMBUSTION EMISSION UNITS

Section

212.201	Emission Units For Which Construction or Modification Commenced
	Prior to April 14, 1972, Using Solid Fuel Exclusively Located in the
	Chicago Area
212.202	Emission Units For Which Construction or Modification Commenced
	Prior to April 14, 1972, Using Solid Fuel Exclusively Located Outside the
	Chicago Area
212.203	Controlled Emission Units For Which Construction or Modification
	Commenced Prior to April 14, 1972, Using Solid Fuel Exclusively
212.204	Emission Units For Which Construction or Modification Commenced On
	or After April 14, 1972, Using Solid Fuel Exclusively
212.205	Coal-fired Industrial Boilers For Which Construction or Modification
	Commenced Prior to April 14, 1972, Equipped with Flue Gas
	Desulfurization Systems
212.206	Emission Units Using Liquid Fuel Exclusively
212.207	Emission Units Using More Than One Type of Fuel
212.208	Aggregation of Emission Units For Which Construction or Modification
	Commenced Prior to April 14, 1972
212.209	Village of Winnetka Generating Station (Repealed)
212.210	Emissions Limitations for Certain Fuel Combustion Emission Units
	Located in the Vicinity of Granite City

SUBPART K: FUGITIVE PARTICULATE MATTER

- 212.301 Fugitive Particulate Matter
- 212.302 Geographical Areas of Application
- 212.304 Storage Piles
- 212.305 Conveyor Loading Operations
- 212.306 Traffic Areas
- 212.307 Materials Collected by Pollution Control Equipment
- 212.308 Spraying or Choke-Feeding Required
- 212.309 Operating Program
- 212.310 Minimum Operating Program
- 212.312 Amendment to Operating Program
- 212.313 Emission Standard for Particulate Collection Equipment
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AUTHORITY: Implementing Section 10 and authorized by Section 27 and 28.5 of the Environmental Protection Act [415 ILCS 5/10, 27 and 28.5].

SOURCE: Adopted as Chapter 2: Air Pollution, Rules 202 and 203: Visual and Particulate Emission Standards and Limitations, R71-23, 4 PCB 191, filed and effective April 14, 1972; amended in R77-15, 32 PCB 403, at 3 Ill. Reg. 5, p. 798, effective February 3, 1979; amended in R78-10, 35 PCB 347, at 3 Ill. Reg. 39, p. 184, effective September 28, 1979; amended in R78-11, 35 PCB 505, at 3 Ill. Reg. 45, p. 100, effective October 26, 1979; amended in R78-9, 38 PCB 411, at 4 Ill. Reg. 24, p. 514, effective June 4, 1980; amended in R79-11, 43 PCB 481, at 5 Ill. Reg. 11590, effective October 19, 1981; codified at 7 Ill. Reg. 13591; amended in R82-1 (Docket A), at 10 Ill. Reg. 12637, effective July 9, 1986; amended in R85-33 at 10 Ill. Reg. 18030, effective October 7, 1986; amended in R84-48 at 11 Ill. Reg. 691, effective December 18, 1986; amended in R84-42 at 11 Ill. Reg. 1410, effective December 30, 1986; amended in R82-1 (Docket B) at 12 Ill. Reg. 12492, effective July 13, 1988; amended in R91-6 at 15 Ill. Reg. 15708, effective October 4, 1991; amended in R89-7(B) at 15 Ill. Reg. 17710, effective November 26, 1991; amended in R91-22 at 16 Ill. Reg. 7880, effective May 11, 1992; amended in R91-35 at 16 Ill. Reg. 8204, effective May 15, 1992; amended in R93-30 at 18 Ill. Reg. 11587, effective July 11, 1994; amended in R96-5 at 20 Ill. Reg.7605, effective May 22, 1996-; amended in R23-18(A) at Ill. Reg., effective

BOARD NOTE: This Part implements the Illinois Environmental Protection Act as of July 1, 1994.

SUBPART B: VISIBLE EMISSIONS

Section 212.124 Exceptions

- a) Sections 212.122 and 212.123 of this Subpart shall apply during times of startup, malfunction and breakdown except as provided in the operating permit granted in accordance with 35 Ill. Adm. Code 201.
- b) Sections 212.122 and 212.123 of this Subpart shall not apply to emissions of water or water vapor from an emission unit.

- c) An emission unit which has obtained an adjusted opacity standard pursuant to Section 212.126 of this Subpart shall be subject to that standard rather than the limitations of Section 212.122 or 212.123 of this Subpart.
- d) Compliance with the particulate regulations of this Part shall constitute a defense.
 - For all emission units which are not subject to Chapters 111 or 112 of the CAA and Sections 212.201, 212.202, 212.203 or 212.204 of this Part but which are subject to Sections 212.122 or 212.123 of this Subpart: the opacity limitations of Sections 212.122 and 212.123 of this Subpart shall not apply if it is shown that the emission unit was, at the time of such emission, in compliance with the applicable particulate emissions limitations of Subparts D through T of this Part.
 - 2) For all emission units which are not subject to Chapters 111 or 112 of the CAA but which are subject to Sections 212.201, 212.202, 212.203 or 212.204 of this Part:
 - A) An exceedance of the limitations of Section 212.122 or 212.123 of this Subpart shall constitute a violation of the applicable particulate limitations of Subparts D through T of this Part. It shall be a defense to a violation of the applicable particulate limitations if, during a subsequent performance test conducted within a reasonable time not to exceed 60 days, under the same operating conditions for the unit and the control devices, and in accordance with Method 5, 40 CFR part 60, incorporated by reference in Section 212.113 of this Part, the owner or operator shows that the emission unit is in compliance with the particulate emission limitations.
 - B) It shall be a defense to an exceedance of the opacity limit if, during a subsequent performance test conducted within a reasonable time not to exceed 60 days, under the same operating conditions of the emission unit and the control devices, and in accordance with Method 5, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Part, the owner or operator shows that the emission unit is in compliance with the allowable particulate emissions limitation while, simultaneously, having visible emissions equal to or greater than the opacity exceedance as originally observed.
- e) During any period of start-up at the emission unit designated Kiln 1 or Kiln 2 at the Rain CII Carbon LLC facility located in Robinson, Illinois, when average opacity exceeds 30 percent for a six-minute period, as applicable pursuant to

Section 212.123(a) of this Subpart, compliance with Section 212.123(a) may alternatively be demonstrated for that six-minute period as follows.

 Compliance with that six-minute period may be determined based on Test Method 9 (40 C.F.R. Part 60, Appendix A, incorporated by reference in Section 212.113) opacity readings the average of non-consecutive opacity readings during a 1-hour period; provided, however, that compliance may be based on the average of up to three, 1-hour average periods, in the event that compliance is not demonstrated during the preceding hour. For purposes of this subsection (e), "start-up" is defined as the duration from when green coke feed is introduced into the kiln until the temperature at the pyroscrubber inlet servicing the kiln achieves a minimum operating temperature of 1800°F (based on a three-hour rolling average).

(Source: Amended at 20 Ill. Reg. 7605, effective May 22, 1996; Amended at Ill. Reg. _____, effective _____)

SUBPART L: PARTICULATE MATTER EMISSIONS FROM PROCESS EMISSION UNITS

Section 212.322 Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972

- a) Except as further provided in this Part, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of this Section.
- b) Interpolated and extrapolated values of the data in subsection (c) of this Section shall be determined by using the equation:

$$\mathbf{E} = \mathbf{C} + \mathbf{A}(\mathbf{P})^{\mathbf{B}\mathbf{10}}$$

where:

P = process weight rate; and, E = allowable emission rate; and,

1) For process weight rates up to 27.2 Mg/hr (30 T/hr):

	Metric	English
Р	Mg/hr	T/hr

Е	kg/hr	lbs/hr
А	1.985	4.10
В	0.67	0.67
С	0	0

2)	For process	weight rates	in excess o	or 27.2 Mg/h	r (30 T/hr):
<i>2</i>)	1 of process	weight fates	III CACCSS 0	<i>n 21.2</i> mg/m	(30 m)

Metric	English
Mg/hr	T/hr
kg/hr	lbs/hr
25.21	55.0
0.11	0.11
-18.4	-40.0
	Mg/hr kg/hr 25.21 0.11

c) Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972

P Mg/hr	Metric E kg/hr	English P T/hr	E lbs/hr
1419/111	Kg/III	1/111	105/111
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.20	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.	8.7	10.00	19.20
13.	11.1	15.00	25.20
18.	13.8	20.00	30.50
23.	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40

26.5	200.00	58.60
27.7	250.00	61.00
28.5	300.00	63.10
29.4	350.00	64.90
30.0	400.00	66.20
30.6	450.00	67.70
31.3	500.00	69.00
	27.7 28.5 29.4 30.0 30.6	$\begin{array}{cccc} 27.7 & 250.00 \\ 28.5 & 300.00 \\ 29.4 & 350.00 \\ 30.0 & 400.00 \\ 30.6 & 450.00 \end{array}$

where:

P = Process weight rate in Mg/hr or T/hr, and

E = Allowable emission rate in kg/hr or lbs/hr.

d) Alternative Standard

- The owner and operator of the Rain CII Carbon LLC facility located in Robinson, Illinois, shall be allowed to emit particulate matter into the atmosphere in excess of the allowable emission rates specified in subsection (c) applicable to the emission unit designated Kiln 1 or Kiln 2 during any period of time that the temperature of the inlet to the pyroscrubber servicing either emission unit does not achieve a minimum operating temperature of 1800°F during start-up, malfunction, or breakdown (based on a three-hour rolling average).
- 2) Use of the alternate standard in subsection (d)(1) shall not to exceed 720 hours in the aggregate per kiln in a calendar year. It shall not be a violation of this Part to operate the pyroscrubber servicing Kiln 1 or Kiln 2 below the minimum operating temperature in subsection (d)(1) during this time.
- 3) During any time that Kiln 1 or Kiln 2 is operated while the pyroscrubber servicing that emission unit is not achieving the minimum operating temperature in subsection (d)(1), the owner and operator must: (i) minimize emissions to the extent reasonably practicable; (ii) not introduce green coke into the kiln unless or until a minimum operating temperature of 400°F measured at the inlet to the pyroscrubber is achieved; and (iii) operate the natural gas-fired burners to minimize the duration that a kiln operates below 1800°F, consistent with technological limitations, manufacturer specifications, and good air pollution control practices for minimizing emissions.
- 4) The owner and operator must keep and maintain all records necessary to demonstrate compliance with this subsection, including, but not limited to, records of each hour that the pyroscrubber operated below the minimum operating temperature specified in this subsection.

(Source: Amended at 20 Ill. Reg. 7605, effective May 22, 1996; Amended at Ill. Reg. _____, effective _____)

TITLE 35: ENVIRONMENTAL PROTECTION SUBTITLE B: AIR POLLUTION CHAPTER I: POLLUTION CONTROL BOARD SUBCHAPTER c: EMISSIONS STANDARDS AND LIMITATIONS FOR STATIONARY SOURCES

PART 215

ORGANIC MATERIAL EMISSION STANDARDS AND LIMITATIONS

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AUTHORITY: Implementing Sections 9.1 and 10 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/9.1, 10 and 27].

SOURCE: Adopted as Chapter 2: Air Pollution, Rule 205: Organic Material Emission Standards and Limitations, R71-23, 4 PCB 191, filed and effective April 14, 1972; amended in R77-3, 33 PCB 357, at 3 Ill. Reg. 18, p. 41, effective May 3, 1979; amended in R78-3 and R78-4, 35 PCB 75, at 3 Ill. Reg. 30, p. 124, effective July 28, 1979; amended in R80-5 at 7 Ill. Reg.

1244, effective January 21, 1983; codified at 7 Ill. Reg. 13601 Corrected at 7 Ill. Reg. 14575; amended in R82-14 at 8 Ill. Reg. 13254, effective July 12, 1984; amended in R83-36 at 9 Ill. Reg. 9114, effective May 30, 1985; amended in R82-14 at 9 Ill. Reg. 13960, effective August 28, 1985; amended in R85-28 at 11 Ill. Reg. 3127, effective February 3, 1987; amended in R82-14 at 11 Ill. Reg. 7296, effective April 3, 1987; amended in R85-21(A) at 11 Ill. Reg. 11770, effective June 29, 1987; recodified in R86-39 at 11 Ill. Reg. 13541; amended in R82-14 and R86-12 at 11 Ill. Reg. 16706, effective September 30, 1987; amended in R85-21(B) at 11 Ill. Reg. 19117, effective November 9, 1987; amended in R86-36, R86-39, R86-40 at 11 III. Reg. 20829, effective December 14, 1987; amended in R82-14 and R86-37 at 12 Ill. Reg. 815, effective December 24, 1987; amended in R86-18 at 12 Ill. Reg. 7311, effective April 8, 1988; amended in R86-10 at 12 Ill. Reg. 7650, effective April 11, 1988; amended in R88-23 at 13 Ill. Reg. 10893, effective June 27, 1989; amended in R88-30(A) at 14 Ill. Reg. 3555, effective February 27, 1990; emergency amendments in R88-30A at 14 Ill. Reg. 6421, effective April 11, 1990, for a maximum of 150 days; amended in R88-19 at 14 Ill. Reg. 7596, effective May 8, 1990; amended in R89-16(A) at 14 Ill. Reg. 9173, effective May 23, 1990; amended in R88-30(B) at 15 Ill. Reg. 3309, effective February 15, 1991; amended in R88-14 at 15 Ill. Reg. 8018, effective May 14, 1991; amended in R91-7 at 15 Ill. Reg. 12217, effective August 19, 1991; amended in R91-10 at 15 Ill. Reg. 15595, effective October 11, 1991; amended in R89-7(B) at 15 Ill. Reg. 17687, effective November 26, 1991; amended in R91-9 at 16 Ill. Reg. 3132, effective February 18, 1992; amended in R91-24 at 16 Ill. Reg. 13555, effective August 24, 1992; amended in R91-30 at 16 Ill. Reg. 13849, effective August 24, 1992; amended in R98-15 at 22 Ill. Reg. 11427, effective June 19, 1998; amended in R12-24 at 37 Ill. Reg. 1683, effective January 28, 2013; expedited correction at 37 Ill. Reg. 16858, effective January 28, 2013; amended in R19-1 at 44 Ill. Reg. 15032, effective September 4, 2020-; amended in R23-18(A) at Ill. Reg. effective

SUBPART K: USE OF ORGANIC MATERIALS

Section 215.302 Alternative Standard

- a) Emissions of organic material in excess of those permitted by Section 215.301 are allowable if such emissions are controlled by one of the following methods:
 - <u>1</u>a) Flame, thermal or catalytic incineration so as either to reduce such emissions to 10 ppm equivalent methane (molecular weight 16) or less, or to convert 85 percent of the hydrocarbons to carbon dioxide and water; or,
 - $(\underline{2}b)$ A vapor recovery system which adsorbs and/or condenses at least 85 percent of the total uncontrolled organic material that would otherwise be emitted to the atmosphere; or,
 - <u>3</u>e) Any other air pollution control equipment approved by the Agency capable of reducing by 85 percent or more the uncontrolled organic material that would be otherwise emitted to the atmosphere.

- b) Compliance with the permitted emissions of organic material under subsection (a) during any period of start-up at the emission unit designated Kiln 1 or Kiln 2 at the Rain CII Carbon LLC facility located in Robinson, Illinois, shall be determined by the average of hourly emissions of organic material during start-up of the emission unit; provided, however, that in no event shall the averaging period of any single start-up exceed twentyfour (24) hours. For purposes of the alternative standard in subsection (b), "start-up" is defined as the duration from when green coke feed is introduced into the kiln until the temperature at the pyroscrubber inlet servicing the kiln achieves a minimum operating temperature of 1800°F (based on a 3-hour rolling average). During any period of startup, the owner and operator must: (i) minimize emissions to the extent reasonably practicable; (ii) not introduce green coke into the kiln until a minimum operating temperature of 400°F measured at the inlet to the pyroscrubber is achieved; and (iii) operate the natural gas-fired burners to minimize the duration of start-up, consistent with technological limitations, manufacturer specifications, and good air pollution control practices for minimizing emissions. The owner and operator must keep and maintain all records necessary to demonstrate compliance with this subsection, including, but not limited to, records of the duration and frequency of each start-up period.
- (Source: Amended at 3 Ill. Reg. 30, p. 124, effective July 28, 1979; Amended at Ill. Reg. , effective _____)

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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IN THE MATTER OF:

AMENDMENTS TO 35 Ill. Adm. Code Parts 212 and 215

R 23-18(A)

(Rulemaking - Air)

CERTIFICATE OF SERVICE

I, the undersigned, certify that on this 7th day of August, 2023, I have electronically served a true and correct copy of **Rain CII Carbon LLC's Regulatory Proposal entitled "Amendments to 35 Ill. Adm. Code Parts 212 and 215**," by electronically filing with the Clerk of the Illinois Pollution Control Board and by e-mail upon the persons identified on the attached Service List.

My e-mail address is Alex.Garel-Frantzen@afslaw.com.

The number of pages in the e-mail transmission is 171.

The e-mail transmission took place before 5:00 p.m.

/s/ Alexander J. Garel-Frantzen

Alexander J. Garel-Frantzen

Dated: August 7, 2023

David M. Loring Alexander J. Garel-Frantzen ArentFox Schiff LLP, Attorneys for Rain CII Carbon LLC 233 S. Wacker Drive Suite 7100 Chicago, Illinois 60606 (312) 258-5521 David.Loring@afslaw.com Alex.Garel-Frantzen@afslaw.com

EXHIBIT A

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

PEOPLE OF THE STATE)	
OF ILLINOIS,)	
)	
Complainant,)	
)	
v .)	PCB NO. 04-137
)	(Enforcement - Air)
RAIN CII CARBON LLC,)	
(formerly known as)	
Robinson Carbon, Inc.))	
a foreign limited liability company,)	•
)	
Respondent.)	

STIPULATION AND PROPOSAL FOR SETTLEMENT

Complainant, PEOPLE OF THE STATE OF ILLINOIS, by LISA MADIGAN, Attorney General of the State of Illinois, the Illinois Environmental Protection Agency ("Illinois EPA"), and RAIN CII CARBON LLC (formerly known as "Robinson Carbon, Inc.") ("Respondent") (together, "Parties to the Stipulation"), have agreed to the making of this Stipulation and Proposal for Settlement ("Stipulation") and submit it to the Illinois Pollution Control Board ("Board") for approval. This stipulation of facts is made and agreed upon for purposes of settlement only and as a factual basis for the Board's approval of this Stipulation and issuance of relief. None of the facts stipulated herein shall be introduced into evidence in any other proceeding regarding the violations of the Illinois Environmental Protection Act ("Act"), 415 ILCS 5/1 *et seq.* (2014), the Pollution Control Board Air Pollution Regulations ("Board Air Pollution Regulations"), and the Illinois EPA Air Pollution Regulations ("Illinois Air Pollution Regulations"), Respondent's revised air operating permit, #75110042 issued on January 17, 1997 ("Operating Permit"), and Clean Air Act Permit Program Permit Number 95120092, issued on September 4, 2003, which was subsequently reissued on May 6, 2006, and reissued again on January 2, 2014 ("CAAPP Permit"), as alleged in the Third Amended Complaint, except as otherwise provided herein. It is the intent of the Parties to the Stipulation that it be a final adjudication of this matter.

I. STATEMENT OF FACTS

A. Procedural History

1. The Illinois EPA is an administrative agency of the State of Illinois, created pursuant to Section 4 of the Act, 415 ILCS 5/4 (2014).

2. Respondent, RAIN CII CARBON LLC is a foreign limited liability company authorized to do business in Illinois. Its registered agent is C. T. Corporation System, 208 South LaSalle Street, Suite 814, Chicago, Illinois. The original complaint was filed February 2, 2004, naming Robinson Carbon, Inc. as Respondent. On March 10, 2004 Respondent filed a motion to in part correct its name from Robison Carbon, Inc. to CII Carbon LLC. This motion was never acted upon. Complainant has subsequently used CII Carbon LLC as the Respondent in its amended complaints. In August 2007, CII Carbon LLC changed its named to Rain CII Carbon LLC. This Stipulation is made between the State of Illinois and Rain CII Carbon LLC.

3. At all times relevant to the Complaint, Respondent has owned and operated a plant that produces calcined coke for the aluminum industry and which is located at 12187 East 950th Avenue, Robinson, Crawford County, Illinois ("Facility"). The calcined coke is produced on two lines, Line #1 and Line #2, respectively. Each line has a kiln controlled by a pyro scrubber and a cooler that is normally controlled by a bag house.

4. On September 3, 1998, the Illinois EPA issued Violation Notice A-1998-00230 to

the Respondent for exceeding particulate and sulfur dioxide ("SO²") emissions standards and thereby causing or allowing air pollution.

5. On October 8, 1999, the Illinois EPA issued Violation Notice A-1999-00298 to the Respondent for failure to comply with its Operating Permit, failing to report a malfunction, and failing to provide compliance records.

6. On January 10, 2000, the Illinois EPA issued Violation Notice A-1999-00491 to the Respondent for operating the Facility's #2 Kiln and #2 Cooler in violation of the particulate emissions limits established under Section 212.321 of the Board Air Pollution Regulations, 35 Ill. Adm. Code 212.321.

7. On February 2, 2004, a Complaint was filed on behalf of the People of the State of Illinois, by Lisa Madigan, Attorney General of the State of Illinois, on her own motion and upon the request of the Illinois EPA, pursuant to Section 31 of the Act, 415 ILCS 5/31, against the Respondent and alleging violations contained in Violation Notices A-1998-00230, A-1999-00298, A-1999-00491, as Counts I and II, respectively, of the Complaint.

8. On April 7, 2004, the Illinois EPA issued Violation Notice A-2004-00093 to the Respondent for its failure to record certain data and keep required records.

9. On April 26, 2004, the Illinois EPA issued Violation Notice A-2004-00110 to the Respondent for failure to properly maintain equipment, operating equipment in a manner inconsistent with its CAAPP Permit and failure to timely submit incident reports.

10. On May 3, 2005, the Illinois EPA issued Violation Notice A-2005-00107 to the Respondent for failing to keep adequate records.

11. On January 20, 2006, a First Amended Complaint was filed on behalf of the

People of the State of Illinois, by Lisa Madigan, Attorney General of the State of Illinois, on her own motion and upon the request of the Illinois EPA, pursuant to Section 31 of the Act, 415 ILCS 5/31, against the Respondent which added the additional violations contained in Violation Notices A-2004-00093, A-2004-00110, and A-2005-00107, as Counts III, IV and V, respectively, of the First Amended Complaint.

12. On September 5, 2008, the Illinois EPA issued Violation Notice A-2008-00086 to the Respondent for failure to minimize emissions during a shutdown, exceeding process weight rate limits on particulate emissions, failure to promptly notify Illinois EPA of deviations from its CAAPP Permit, and failure to maintain records.

 On March 4, 2010, the Illinois EPA issued Violation Notice A-2009-00187 to the Respondent for failure to properly monitor the Facility's emissions.

14. On March 19, 2010, a Second Amended Complaint was filed on behalf of the People of the State of Illinois, by Lisa Madigan, Attorney General of the State of Illinois, on her own motion and upon the request of the Illinois EPA, pursuant to Section 31 of the Act, 415 ILCS 5/31, against the Respondent which added the additional violations contained in Violation Notice A-2008-00086, in Counts VI and VII of the Second Amended Complaint.

15. On September 12, 2012, the Illinois EPA issued Violation Notice A-2012-00057 to the Respondent for failing to properly perform emissions monitoring, timely submit its 2011 Annual Emissions Report, submit true and complete annual compliance certifications for 2010 and 2011, and for failing to report deviations from its CAAPP Permit.

16. On March 17, 2015, the People filed a motion for leave to file their Third Amended Complaint. On April 6, 2015, the Board granted the People's motion and accepted the

Exhibit A

Third Amended Complaint for filing.

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B. Allegations of Non-Compliance

Count I: Count II:	Air Pollution Violations of Section 9(a) of the Act, 415 ILCS 5/9(a), and Sections 201.141 and 212.321 of the Board Air Pollution Regulations, 35 Ill. Adm. Code 201.141 and 212.321; Permit Condition Violations Violations of Section 9(b) of the Act, 415 ILCS 5/9(b), and Standard Conditions 7, 9 and 9(a) of Respondent's Operating Permit #7511042;
Count III:	Reporting and Recordkeeping Violations Violations of Section 39.5(6)(a) of the Act, 415 ILCS 39.5(6)(a), and Conditions 5.6.6, 7.1.9, 7.2.5, 7.2.9(c)-(d), 7.3.9(c)-(d), and 7.2.10 of its CAAPP Permit;
Count IV:	Maintenance and Notification Violations Violations of Section 39.5(6)(a) of the Act, 415 ILCS 39.5(6)(a), and Conditions 7.2.3, 7.2.10, and 9.2.2 of its CAAPP Permit;
Count V:	Record keeping Violations Violations of Section 39.5(6)(a) of the Act, 415 ILCS 39.5(6)(a), and Conditions 5.6.1, 5.6.6, 7.1.9, 7.2.9, 7.4.9, and 9.6.1 of its CAAPP Permit;
Count VI:	Operation and Notification Violations Violations of Section 39.5(6)(a) of the Act, 415 ILCS 39.5(6)(a), and Conditions 7.2.3(h)(ii)(D)(2) and 7.2.6 of its CAAPP Permit;
Count VII:	Failure to Timely Submit Annual Emissions Reports Violations of Section 9(a) of the Act, 415 ILCS 5/9(a) Section 201 302(a) of the Board Air

5/9(a), Section 201.302(a) of the Board Air Pollution Regulations, 35 Ill. Adm. Code 201.302(a), and Section 254.132(a) of the Illinois EPA Air Pollution Regulations, 35 Ill. Adm. Code 254.132(a); and,

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Exhibit A

Count VIII: Failure to Submit True and Accurate Compliance Certifications for 2010 and 2011 Violations of Section 39.5(6)(a) of the Act, 415 ILCS 39.5(6)(a), and Condition 9.8 of its CAAPP Permit.

C. Admission of Violations

The Respondent neither admits nor denies the violations alleged in the Complaints filed in this matter and referenced within Section I.B above but does not contest these allegations for purposes of settling this matter.

D. Compliance Activities to Date

As of the date of the filing of this Stipulation, the Respondent represents that it has undertaken the following compliance measures:

- On January 2, 2014, Illinois EPA issued CAAPP Permit Number 96120092 to Respondent, with an expiration date of January 2, 2019, in response to its December 6, 2007 application for a renewal of CAAPP permit #95120092;
- On or about July 10, 1999, repaired the hole in the archway ceiling of the pyro scrubber;
- 3. Undertaken the following improvements relative to Kiln #2:
 - a. In August 1999, equipped the kiln with a new gas-fired burner;
 - In February 2008, replaced thirty feet of shell and refractory brick at the back of the kiln;
 - c. On or about August 2010, modified the construction of the dam at the feed end of the kiln, so as to prevent spillage of coke and to

decrease air infiltration into the kiln and installed catch chutes (May 2011 for kiln 2, and June 2012 for Kiln 1) to contain any coke that might spill; and,

- d. Continued to periodically repair the walls of the kiln as necessary;
- Based on an engineering study which it caused to be conducted, Respondent performed a series of process enhancements to the Facility's particulate controls system, including:
 - a. In February 2001, completed the revamping of the internal portions of the #2 Cooler by installing thicker, more uniform refractory lining at the cooler inlet, in order to improve material cooling rates and reduce the effect of coke slides;
 - In December 2001, completed overhauling the quench systems for the #1 and #2 Coolers by installing additional pressure gauges, new piping, and a dedicated pump for each cooler quench water system, in order to improve quenching; and,
 - c. In October 2001, installed an independent secondary air fan for Kiln #2;
- 5. On or before October 27, 1999, began maintaining a reserve of replacement bags for each of the Facility's bag houses, specifically a reserve of at least 525 replacement bags for Bag House #1 and at least 351 replacement bags for Bag House #2, by initiating the reorder process for new replacement bags whenever the inventory of replacement bags

reached 50% of this reserve number in order to again have the required number on hand;

- 6. Starting in January 2003, began implementing a more thorough inspection of each bag house during the shutdowns. These more thorough inspections involve entering the bag house when bags are being replaced and inspecting the area above and below the tubesheet and making any required repairs. Plant personnel attended training seminars in the late 1990's to better understand baghouse maintenance and operations. Inspections have continued and new personnel (engineers and maintenance personnel) have been attending training as hired;
- Beginning in 2000, began keeping a log for each bag house that records breakdowns and repairs and lists work orders for maintenance activities;
- 8. Also beginning in 2000 and continuing to the present day, implemented quarterly vibration analysis inspections of key Facility equipment, including conveyors, kilns and bag house fans ("Vibration Analysis Program"). When inspections and/or vibration data indicates possible issues with the proper operation of Facility equipment, appropriate measures are taken to rectify any problems observed during quarterly vibration inspections. The Vibration Analysis Program has been and continues to be performed by a third party consulting firm, which provides quarterly reports to Respondent of its inspections and findings;

- 9. Beginning in June 2006, began monitoring each unit's kiln cooler exhaust temperatures so as to ensure the bags are not exposed to excessive temperatures, the data was assimilated into the Facility's IHISTORIAN system, (data logging system for the plant) and the PLC (Programmable Logic Controller which is the computer that controls the process) was programmed with a baghouse trip setting to shut down the bag house if/when temperatures become too high for the bags (i.e., temperatures above 700° F for which the current bags are rated);
- 10. In November 1999 created a malfunction and breakdown reporting form which was filled out and then faxed to Illinois EPA whenever a breakdown or malfunction of longer than thirty minutes occurs and that form was used until the new CAAPP Permit was issued which now requires that such breakdowns/malfunctions be recorded and subsequently reported in semiannual monitoring reports;
- On April 13, 2004, completed emissions testing demonstrating compliance with particulate emissions limits that allowed for higher production rates to be authorized in a Construction Permit issued in 2006;
- 12. In approximately June 2004, began maintaining a hard copy of the cooler gas diversion log sheet until it began to maintain an electronic copy on a secure backup server and, beginning in November 2009, began maintaining an electronic copy of the gas diversion log sheet;

- On March 12, 2004, replaced the #2 Dust Collector exhaust fan and the cooler exhaust ductwork and continues to monitor and make repairs as necessary;
- Repaired inlet ductwork on September 11, 2008 to #1 and #2 Dust Chambers and continue to monitor and make repairs as necessary;
- 15. Developed and implemented an internal procedure for visible emission readings when Method 22 was required by the previous CAAP Permit on April 4, 2004. Then implemented procedure for opacity readings that complies with Method 9 for both pyroscrubbers and both rotary cooler bag houses associated with Kiln #1 and Kiln #2 as per the current CAAP Permit;
- 16. Updated visible emissions testing inspection forms to include start and end times and to more accurately reflect the language of Method 22 and Condition 7.2.5 of its former current CAAPP Permit. The present CAAPP permit requires that such inspections are done in accordance with the requirements and specifications of USEPA Method 9;
- On July 10, 2010, submitted its Annual Emissions Report to Illinois EPA for calendar year 2011;
- 18. In June 2004, revised reporting and recordkeeping system and updated internal policies to ensure proper maintenance of records and reporting of deviations as required by its then existing CAAPP Permit and revised again in January of 2012 to respond to the Illinois EPA;

- In January 2012, implemented routine internal training of all personnel regarding:
 - a. Notification requirements and procedures;
 - b. Recordkeeping and records access;
 - c. Opacity monitoring;
 - d. Proper coke feed rate; and,
 - e. Bypass operations, including emissions minimization; and,
- 20. In August 2016, Respondent updated its log for tracking malfunctions and breakdowns such that the log now links work orders for corresponding repairs for malfunctions and breakdowns. Respondent also trained all of its Control Board Operators and Back-Up Control Board Operators in the use of, and new procedures for, the updated log ("Updated Log System").

II. APPLICABILITY

This Stipulation shall apply to and be binding upon the Parties to the Stipulation. The Respondent shall not raise as a defense to any enforcement action taken pursuant to this Stipulation the failure of any of its officers, directors, agents, employees or successors or assigns to take such action as shall be required to comply with the provisions of this Stipulation. This Stipulation may be used against the Respondent in any subsequent enforcement action or permit proceeding as proof of a past adjudication of violation of the Act and the Board Regulations for all violations alleged in the Third Amended Complaint in this matter, for purposes of Sections 39 and 42 of the Act, 415 ILCS 5/39 and 42 (2014).

The Respondent shall notify each contractor to be retained to perform work required in this Stipulation of each of the requirements of this Stipulation relevant to the activities to be performed by that contractor, including all relevant work schedules and reporting deadlines, and shall provide a copy of this Stipulation to each contractor already retained no later than thirty (30) calendar days after the date of entry of this Stipulation. In addition, the Respondent shall provide copies of all schedules for implementation of the provisions of this Stipulation to the prime vendor(s) supplying the control technology systems and other equipment required by this Stipulation.

No change in ownership, corporate status or operator of the facility shall in any way alter the responsibilities of the Respondent under this Stipulation. In the event that the Respondent proposes to sell or transfer any real property or operations subject to this Stipulation, the Respondent shall notify the Complainant thirty (30) calendar days prior to the conveyance of title, ownership or other interest, including a leasehold interest in the facility or a portion thereof. The Respondent shall make as a condition of any such sale or transfer, that the purchaser or successor provide to Respondent site access and all cooperation necessary for Respondent to perform to completion any compliance obligation(s) required by this Stipulation. The Respondent shall provide a copy of this Stipulation to any such successor in interest. The requirements of this Applicability Section shall not apply with respect to the proposed gas easement and proposed temporary construction easements described in the "Easement Description" which is attached to this Stipulation as Exhibit 1. The Applicability Section shall not apply to either the proposed gas easement or the proposed temporary construction easements depicted or otherwise described in the "Easement Sketch," which is Exhibit 2 to this Stipulation. This provision does not relieve the Respondent from compliance with any regulatory

requirement regarding notice and transfer of applicable facility permits.

III. IMPACT ON THE PUBLIC RESULTING FROM ALLEGED NON-COMPLIANCE

Section 33(c) of the Act, 415 ILCS 5/33(c) (2014), provides as follows:

In making its orders and determinations, the Board shall take into consideration all the facts and circumstances bearing upon the reasonableness of the emissions, discharges, or deposits involved including, but not limited to:

- 1. the character and degree of injury to, or interference with the protection of the health, general welfare and physical property of the people;
- 2. the social and economic value of the pollution source;
- 3. the suitability or unsuitability of the pollution source to the area in which it is located, including the question of priority of location in the area involved;
- 4. the technical practicability and economic reasonableness of reducing or eliminating the emissions, discharges or deposits resulting from such pollution source; and
- 5. any subsequent compliance.

In response to these factors, the Parties to the Stipulation state the following:

1. Human health and the environment were threatened and the Illinois EPA's

ability to gather information regarding the compliance status of the Facility was hindered

by the Respondent's violations;

- 2. There is social and economic benefit to the Facility;
- 3. Operation of the Facility was suitable for the area in which it occurred;
- 4. Compliance with the terms of the Respondent's CAAPP Permit and the

particulate matter emissions limits is both technically practicable and economically reasonable; and,

5. Respondent has taken steps to come into compliance with the Act, the Board Air Pollution Regulations, Illinois EPA Air Pollution Regulations, Operating Permit and the CAAPP Permit.

IV. CONSIDERATION OF SECTION 42(h) FACTORS

Section 42(h) of the Act, 415 ILCS 5/42(h) (2014), provides as follows:

In determining the appropriate civil penalty to be imposed under . . . this Section, the Board is authorized to consider any matters of record in mitigation or aggravation of penalty, including but not limited to the following factors:

- 1. the duration and gravity of the violation;
- 2. the presence or absence of due diligence on the part of the respondent in attempting to comply with requirements of this Act and regulations thereunder or to secure relief therefrom as provided by this Act;
- 3. any economic benefits accrued by the respondent because of delay in compliance with requirements, in which case the economic benefits shall be determined by the lowest cost alternative for achieving compliance;
- 4. the amount of monetary penalty which will serve to deter further violations by the respondent and to otherwise aid in enhancing voluntary compliance with this Act by the respondent and other persons similarly subject to the Act;
- 5. the number, proximity in time, and gravity of previously adjudicated violations of this Act by the respondent;
- 6. whether the respondent voluntarily self-disclosed, in accordance with subsection i of this Section, the non-compliance to the Agency; and

7. whether the respondent has agreed to undertake a "supplemental environmental project," which means an environmentally beneficial project that a respondent agrees to undertake in settlement of an enforcement action brought under this Act, but which the respondent is not otherwise legally required to perform.

In response to these factors, the Parties to the Stipulation state as follows:

1. The Respondent's initial violations began on or around April 1998 and the Illinois EPA continued to cite the Respondent for various violations of the Act, the Board Air Pollution Regulations, Illinois EPA Air Regulations, and the Respondent's CAAPP Permit up through September 12, 2012.

2. The Complainant alleges and Respondent denies that Respondent demonstrated an absence of due diligence in attempting to comply with the Act, the Board Air Pollution Regulations, Illinois EPA Air Regulations, and, initially, with the terms and conditions of its Operating Permit, and, subsequently, with the terms and conditions of its CAAPP Permit, as evidenced by its failure to properly operate and maintain the #2 Kiln and #2 Cooler and Respondent's serious recalcitrance in record maintenance.

3. The Respondent realized an economic benefit as the result of its alleged failure to properly operate and maintain the Facility, through its failure to comply with applicable particulate regulations, and its failure to keep and maintain the required records related to its operation of the Facility.

4. The Complainant has determined, based upon the specific facts of this matter that a penalty of Two Hundred and Thirty-Five Thousand Dollars (\$235,000.00) will serve to deter the Respondent from committing any further violations of the Act, the Board Air Pollution Regulations, the Illinois EPA Air Pollution Regulations, and its CAAPP Permit, and will aid in
enhancing voluntary compliance with the aforementioned requirements in the future.

5. To the Complainant's knowledge, the Respondent has no previously adjudicated violations of the Act.

6. The Respondent failed to self-disclose any of the violations that are alleged in the Second Amended Complaint or the 2009 Violation Notice. Additionally, the Respondent failed to notify the Illinois EPA of certain malfunctions at the Facility and, further, of its operational deviations from the terms and conditions contained in its CAAPP Permit.

7. The settlement of this matter does not include a supplemental environmental project.

V. TERMS OF SETTLEMENT

A. Penalty Payment

1. The Respondent shall pay a civil penalty in the sum of Two Hundred and Thirty-Five Thousand Dollars (\$235,000.00) within thirty (30) days from the date the Board adopts and accepts this Stipulation.

B. Stipulated Penalties, Interest and Default

1. If the Respondent fails to complete any activity or fails to comply with any response or reporting requirement by the date specified in this Stipulation, the Respondent shall provide notice to the Complainant of each failure to comply with this Stipulation and shall pay stipulated penalties in the amount of \$500.00 per day until such time that compliance is achieved. The Complainant may make a demand for stipulated penalties upon the Respondent for its noncompliance with this Stipulation. However, failure by the Complainant to make this demand shall not relieve the Respondent of the obligation to pay stipulated penalties. All

stipulated penalties shall be payable within thirty (30) calendar days of the date the Respondent knows or should have known of its noncompliance with any provision of this Stipulation.

2. If the Respondent fails to make any payment required by this Stipulation on or before the date upon which the payment is due, the Respondent shall be in default and the remaining unpaid balance of the penalty, plus any accrued interest, shall be due and owing immediately. In the event of default, the Complainant shall be entitled to reasonable costs of collection, including reasonable attorney's fees.

3. Pursuant to Section 42(g) of the Act, interest shall accrue on any penalty amount owed by the Respondent not paid within the time prescribed herein. Interest on unpaid penalties shall begin to accrue from the date such are due and continue to accrue to the date full payment is received. Where partial payment is made on any penalty amount that is due, such partial payment shall be first applied to any interest on unpaid penalties then owing.

4. The stipulated penalties shall be enforceable by the Complainant and shall be in addition to, and shall not preclude the use of, any other remedies or sanctions arising from the failure to comply with this Stipulation.

C. Payment Procedures

All payments required by this Stipulation shall be made by certified check or money order payable to the Illinois EPA for deposit into the Environmental Protection Trust Fund ("EPTF"). Payments shall be sent by first class mail and delivered to:

> Illinois Environmental Protection Agency Fiscal Services 1021 North Grand Avenue East P.O. Box 19276 Springfield, IL 62794-9276

The case name and case number shall appear on the face of the certified check or money order.

A copy of the certified check or money order and any transmittal letter shall be sent to:

Evan J. McGinley Environmental Bureau Illinois Attorney General's Office 69 West Washington Street, Suite 1800 Chicago, Illinois 60602

D. Future Compliance

1. Immediately, upon adoption of this Stipulation by the Pollution Control Board, the Respondent shall:

- a. Perform one USEPA Method 9 reading each day, pursuant to the terms and conditions set forth in Respondent's current CAAPP Permit;
- b. Continue to monitor kiln cooler exhaust temperatures of each unit, so as to ensure that the bags are not exposed to excessive temperatures (i.e., temperatures above 700° F);
- c. Continue to conduct its quarterly Vibration Analysis Program;
- d. Continue to use its Updated Log System;
- e. Ensure that at least one replacement fan is always on-site for each bag house, except when a fan has been replaced. Respondent shall begin the procurement process for a new fan immediately following the replacement of an existing bag house fan, for whatever reason;
- f. Except during startup and malfunction/breakdown conditions of either
 Line #1 (Kiln #1) or Line #2 (Kiln #2), Respondent shall at all times
 operate its pyro scrubbers as follows:

- Maintain a minimum temperature of 1800°F, measured at the thermocouple(s) located at the inlet to each pyro scrubber, using a 3-hour rolling average as per current Compliance Assurance Monitoring Plan ("CAM Plan") and current CAAPP Permit; Monitor the pyro scrubber inlet temperatures of each unit, so as to ensure that the minimum temperature is maintained; and,
- Utilize the inlet temperature of each pyro scrubber as the CAM indicator and develop a CAM indicator range;
- g. Maintain all records which Respondent is required to keep as a term or condition of its current CAAPP Permit, as may subsequently be amended, available for review by Illinois EPA personnel, when requested, at all reasonable times;
- h. Continue to maintain a reserve of at least 525 replacement bags for Bag
 House 1 and at least 351 bags for Bag House 2 by immediately initiating
 the procurement process when a bag change is scheduled; and,
- i. Continue to maintain an electronic log of cooler gas diversions.

2. Within sixty (60) days following the Board's acceptance of this Stipulation, Respondent shall install and then operate a redundant thermocouple at each pyro scrubber inlet. Upon completion of the installation of these redundant thermocouples, Respondent shall thereafter monitor the inlet temperature in each pyro scrubber by using the redundant thermocouple in parallel with the corresponding existing thermocouple for temperature and possible thermocouple failure. 3. Within thirty (30) days following Respondent's installation of the redundant thermocouples required under Section V.D.2 of this Stipulation, above, Respondent shall submit to Complainant in writing, in accordance with the notice procedures specified under Section V.G, below:

- A detailed inspection procedure which Respondent shall use when either of the Facility's bag houses are shut down for internal maintenance or bag replacement; and,
- b. An application for Significant Modification to the CAAPP Permit issued on January 2, 2014. This Significant Modification shall request to incorporate the items specified under Section V.D.1 and 2 of this Stipulation.

4. In addition to any other authorities, the Illinois EPA, its employees and representatives, and the Attorney General, her employees and representatives, shall have the right of entry into and upon the Respondent's facility which is the subject of this Stipulation, at all reasonable times for the purposes of conducting inspections and evaluating compliance status. In conducting such inspections, the Illinois EPA, its employees and representatives, and the Attorney General, her employees and representatives, may take photographs, samples, and collect information, as they deem necessary.

5. This Stipulation in no way affects the responsibilities of the Respondent to comply with any other federal, state or local laws or regulations, including but not limited to the Act and the Board Regulations.

6. The Respondent shall cease and desist from future violations of the Act, the Board Air Pollution Regulations, the Illinois EPA Air Pollution Regulations, and CAAPP Permit that were the subject matter of the Complaint.

E. Release from Liability

In consideration of the Respondent's payment of the Two Hundred and Thirty-Five Thousand Dollars (\$235,000.00) penalty, its commitment to cease and desist as contained in Section V.D.6, above, its completion of all the requirements herein, and upon the Board's approval of this Stipulation, the Complainant releases, waives and discharges the Respondent from any further liability or penalties for the violations of the Act, Board Air Pollution Regulations, the Illinois EPA Air Pollution Regulations, Respondent's now-expired Operating Permit and its CAAPP Permit that were the subject matter of the Third Amended Complaint. The release set forth above does not extend to any matters other than those expressly specified in the Third Amended Complaint. The Complainant reserves, and this Stipulation is without prejudice to, all rights of the State of Illinois against the Respondent with respect to all other matters, including but not limited to, the following:

- a. criminal liability;
- b. liability for future violation of state, federal, local, and common laws and/or regulations;
- c. liability for natural resources damage arising out of the alleged violations;
 and,
- d. liability or claims based on the Respondent's failure to satisfy the requirements of this Stipulation.

Nothing in this Stipulation is intended as a waiver, discharge, release, or covenant not to sue for any claim or cause of action, administrative or judicial, civil or criminal, past or future, in law or in equity, which the State of Illinois may have against any person, as defined by Section 3.315 of the Act, 415 ILCS 5/3.315 (2014), or entity other than the Respondent.

F. Enforcement and Modification of Stipulation

1. Upon the entry of the Board's Order approving and accepting this Stipulation, that Order is a binding and enforceable order of the Board and may be enforced as such through any and all available means.

2. The Parties to the Stipulation may, by mutual written consent, agree to extend any compliance dates or modify the terms of this Stipulation. A request for any modification shall be made in writing and submitted to the contact persons identified in Section V.G. Any such request shall be made by separate document, and shall not be submitted within any other report or submittal required by this Stipulation. Any such agreed modification shall be in writing, signed by authorized representatives of the Parties to the Stipulation.

G. Notices and Submittals

Except for payments, the submittal of any notice, reports or other documents required under this Stipulation, shall be delivered to the following designated representatives:

As to the Complainant

Evan McGinley Assistant Attorney General Illinois Attorney General Environmental Bureau 69 West Washington Street, 18th Floor Chicago, Illinois 60601

Crystal Myers-Wilkins Assistant Counsel Division of Legal Counsel Illinois EPA 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276

Mike Reed Manager of CAAPP Unit Bureau of Air Illinois EPA 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276

Yasmine Kepner Manager, Compliance Unit Bureau of Air Illinois EPA 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276

As to the Respondent

Daniel Fearday Plant Manager Rain CII Carbon LLC 12187 E. 950th Avenue Robinson, Illinois 62454

Roy M. Harsch Drinker Biddle & Reath LLP 191 North Wacker Drive, Suite 3700 Chicago, IL 60606-1698

H. Execution of Stipulation

The undersigned representatives for the Parties to the Stipulation certify that they are fully authorized by the party whom they represent to enter into the terms and conditions of this

Stipulation and to legally bind them to it.

WHEREFORE, the Parties to the Stipulation request that the Board adopt and accept the foregoing Stipulation and Proposal for Settlement as written.

AGREED:

PEOPLE OF THE STATE OF ILLINOIS,

FOR THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

LISA MADIGAN Attorney General State of Illinois

MATTHEW J. DUNN, Chief Environmental Enforcement/ Asbestos Litigation Division ALEC MESSINA, Acting Director

Illinois Environmental Protection Agency

Markey: BY: ELIZABETH WALLACE, Chief JOHN J. KIM

ELIZABECH WALLACE, Ch Environmental Bureau Assistant Attorney General

Chief Legal Counsel

DATE:

DATE: (2)(2)(6

RAIN CII CARBON, LLC

BY:	:	

Name:_____

Title:_____

DATE:_____

Stipulation and to legally bind them to it.

.

WHEREFORE, the Parties to the Sti	pulation request that the Board adopt and accept the
foregoing Stipulation and Proposal for Settle	ement as written.
AGREED:	
PEOPLE OF THE STATE OF ILLINOIS,	FOR THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
LISA MADIGAN Attorney General	
State of Illinois	ALEC MESSINA, Acting Director Illinois Environmental Protection Agency
MATTHEW J. DUNN, Chief Environmental Enforcement/ Asbestos Litigation Division	
BY: ELIZABETH WALLACE, Chief Environmental Bureau Assistant Attorney General	BY: JOHN J. KIM Chief Legal Counsel
DATE:	DATE:
RAIN CII CARBON, LLC	
BT: Her Com	
Name: GERARD SWEEVIEY	
Title: REESIDENT & CEO/	
DATE: January 5, 2017	





Electronic Filing: Received, Clerk's Office 08/7/2023

EXHIBIT B

Bureau of Air Permit Section

File Organization Cover Sheet

Source Name:	Rain CII Carbon LLC			
ID No.:	033025AAJ]		
Application No.:	95120092			
Category:	03K Air Permit - Final			
Item Date:	5/16/2022			
Keyword:	Choose an item.	:		
Comment:	Administrative Amendment] ;		
Part:	Choose Choose an item. Of an item.	,		

* If applicable

ISPA-DIVISION OF RECORDS MANAGEMENT RELEASABLE

> JUL 2 0 2022 REVIEWER: SAB

<u>Attention</u>:

Rain CII Carbon LLC Attn: Daniel Fearday, Plant Manager 12187 East 950th Avenue Robinson, Illinois 62454

State of Illinois

CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

<u>Source</u>:

Rain CII Carbon LLC 12187 East 950th Avenue Robinson, Illinois 62454

I.D. No.: 033025AAJ Permit No.: 95120092

> IEPA-DIVISION OF RECORDS MANAGEMENT RELEASABLE

> > JUL 2 0 2022

REVIEWER: SAB

Permitting Authority:

Illinois Environmental Protection Agency Bureau of Air, Permit Section 217/785-1705



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 · (217) 782-3397 JB PRITZKER, GOVERNOR JOHN J. KIM, DIRECTOR

CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

	Administrative Amendment (AA) Revise Existing CAAPP Permit to reflect a change in the permitted emissions for fee purposes
<u>ID No.</u> : <u>Permit No.</u> : Statement of Basis No.:	
Date Application Received: Date Issued:	March 26, 2018 May 13, 2019
Date Revision Received: Date Revision Issued:	
Expiration Date: Renewal Submittal Date:	May 13, 2024 9 Months Prior to May 13, 2024
Address: City:	Rain CII Carbon LLC 12187 East 950 th Avenue. Robinson Crawford 62454

This permit is hereby granted to the above-designated source authorizing operation in accordance with this CAAPP permit, pursuant to the above referenced application. This source is subject to the conditions contained herein. For further information on the source see Section 1 and for further discussion on the effectiveness of this permit see Condition 2.3(g).

If you have any questions concerning this permit, please contact Norman Lowrey at 217/785-1705.

iam D Mass

William D. Marr Manager, Permit Section Bureau of Air

WDM:RWC:NAL:tan

cc: IEPA, Permit Section IEPA, FOS, Region 3 HEPA-DIVISION OF RECORDS MANAGEMENT RELEASABLE

JUL 2 0 2022 .

REVIEWER: SAB

2125 S. First Street, Champaign, IL 61820 (217) 278-5800 1101 Eastport Plaza Dr., Suite 100, Collinsville, IL 62234 (618) 346-5120 9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000 595 S. State Street, Elgin, IL 60123 (847) 608-3131 2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200 412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022 4302 N. Main Street, Rockford, IL 61103 (815) 987-7760

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Rain CII Carbon LLC	·
I.D. No.: 033025AAJ	Date Received: 03/26/2018
Permit No.: 95120092	Date Issued: 05/13/2019
	Date Revised: 05/16/2022

Section 1 - Source Information

1. Addresses

Source	Owner
Rain CII Carbon LLC 12187 East 950th Avenue Robinson, IL 62454	Rain CII Carbon LLC 1330 Greengate Drive Covington, LA 70433
Operator	Permittee
Rain CII Carbon LLC 12187 East 950th Avenue Robinson, IL 62454	The Owner or Operator of the source as identified in this table.

Certified Officials

Contacts

2.

The source shall submit an Administrative Permit Amendment for any change in the Certified Officials, pursuant to Section 39.5(13) of the Act.

	Name	Title
Responsible Official	Daniel Fearday	Plant Manager
Delegated Authority	N/A	N/A

Other Contacts

	Name	Phone No.	Email
Source Contact	Daniel Fearday	618-546-6201	Dan.Fearday@raincarbon.com
Technical Contact	David Anderson	985-635-3412	David.Anderson@raincarbon.com
Correspondence	Daniel Fearday	618-546-6201	Dan.Fearday@raincarbon.com
Billing	Daniel Fearday	618-546-6201	Dan.Fearday@raincarbon.com

3. Single Source

The source identified in Condition 1.1 above shall be defined to include all the following additional source(s):

I.D. No.	Permit No.	Single Source Name and Address
N/A	N/A	N/A

Rain CII Carbon LLC I.D. No.: 033025AAJ Permit No.: 95120092

Section 2 - General Permit Requirements

1. Prohibitions

- a. It shall be unlawful for any person to violate any terms or conditions of this permit issued under Section 39.5 of the Act, to operate the CAAPP source except in compliance with this permit issued by the IEPA under Section 39.5 of the Act or to violate any other applicable requirements. All terms and conditions of this permit issued under Section 39.5 of the Act are enforceable by USEPA and citizens under the Clean Air Act, except those, if any, that are specifically designated as not being federally enforceable in this permit pursuant to Section 39.5(7) (m) of the Act. [Section 39.5(6) (a) of the Act]
- b. After the applicable CAAPP permit or renewal application submittal date, as specified in Section 39.5(5) of the Act, the source shall not operate this CAAPP source without a CAAPP permit unless the complete CAAPP permit or renewal application for such source has been timely submitted to the IEPA. [Section 39.5(6)(b) of the Act]
- c. No Owner or Operator of the CAAPP source shall cause or threaten or allow the continued operation of an emission source during malfunction or breakdown of the emission source or related air pollution control equipment if such operation would cause a violation of the standards or limitations applicable to the source, unless this CAAPP permit granted to the source provides for such operation consistent with the Act and applicable Illinois Pollution Control Board regulations. [Section 39.5(6)(c) of the Act]
- d. Pursuant to Section 39.5(7)(g) of the Act, emissions from the source are not allowed to exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder, consistent with Section 39.5(17) of the Act and applicable requirements, if any.

2. Emergency Provisions

Pursuant to Section 39.5(7)(k) of the Act, the Owner or Operator of the CAAPP source may provide an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations under this CAAPP permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:

- a. i. An emergency occurred and the source can identify the cause(s) of the emergency.
 - ii. The source was at the time being properly operated.
 - iii. The source submitted notice of the emergency to the IEPA within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
 - iv. During the period of the emergency the source took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or requirements in this permit.
- b. For purposes of Section 39.5(7) (k) of the Act, "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, such as an act of God, that requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operation error.

Rain CII Carbon LLC I.D. No.: 033025AAJ Permit No.: 95120092

c. In any enforcement proceeding, the source seeking to establish the occurrence of an emergency has the burden of proof. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve the source of any reporting obligations under existing federal or state laws or regulations.

3. General Provisions

a. Duty to Comply

The source must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act and is grounds for any or all of the following: enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. [Section 39.5(7)(o)(i) of the Act]

b. Need to Halt or Reduce Activity is not a Defense

It shall not be a defense for the source in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [Section 39.5(7)(0)(ii) of the Act]

c. Duty to Maintain Equipment

The source shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements. [Section 39.5(7)(a) of the Act]

d. Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated there under. [Section 39.5(7)(a) of the Act]

e. Duty to Pay Fees

- i. The source must pay fees to the IEPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act and submit any information relevant thereto. [Section 39.5(7)(o)(vi) of the Act]
- ii. The IEPA shall assess annual fees based on the allowable emissions of all regulated air pollutants, except for those regulated air pollutants excluded in Section 39.5(18)(f) of the Act and insignificant activities in Section 6, at the source during the term of this permit. The amount of such fee shall be based on the information supplied by the applicant in its complete CAAPP permit application. [Section 39.5(18)(a)(ii)(A) of the Act]

iii. Fee payment shall be made electronically at <u>https://magic.collectorsolutions.com/magic-ui/Login/illinois-epa</u> or by check or money order payable to "Illinois Environmental Protection Agency" and sent to: Fiscal Services #2, Illinois EPA, P.O. Box 19276, Springfield, IL, 62794-9276. Include on the check: ID #, Permit #, and "CAAPP Operating Permit Fees". [Section 39.5(18)(e) of the Act]

f. Obligation to Allow IEPA Surveillance

Pursuant to Sections 4(a), 39.5(7)(a), and 39.5(7)(p)(ii) of the Act, inspection and entry requirements that necessitate that, upon presentation of credentials and other documents as may be required by law and in accordance with constitutional limitations,

Rain CII Carbon LLC I.D. No.: 033025AAJ Permit No.: 95120092

the source shall allow the IEPA, or an authorized representative to perform the following:

- i. Enter upon the source's premises where the emission unit(s) are located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
- ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
- iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
- iv. Sample or monitor any substances or parameters at any location at reasonable times:
 - A. As authorized by the Clean Air Act or the Act, at reasonable times, for the purposes of assuring compliance with this CAAPP permit or applicable requirements; or
 - B. As otherwise authorized by the Act.
- v. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

g. <u>Effect of Permit</u>

- i. Pursuant to Section 39.5(7)(j)(iv) of the Act, nothing in this CAAPP permit shall alter or affect the following:
 - A. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section.
 - B. The liability of the Owner or Operator of the source for any violation of applicable requirements prior to or at the time of permit issuance.
 - C. The applicable requirements of the acid rain program consistent with Section 408(a) of the Clean Air Act.
 - D. The ability of USEPA to obtain information from the source pursuant to Section 114 (inspections, monitoring, and entry) of the Clean Air Act.
- ii. Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, pursuant to Sections 39.5(7)(j) and (p) of the Act, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements. [35 IAC 201.122 and Section 39.5(7)(a) of the Act]

h. Severability Clause

The provisions of this permit are severable. In the event of a challenge to any portion of this permit, other portions of this permit may continue to be in effect. Should any portion of this permit be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected and the rights and obligations of the source shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force. [Section 39.5(7)(i) of the Act]

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4. Testing

- a. Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods if applicable test methods are not specified by the applicable regulations or otherwise identified in the conditions of this permit. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the IEPA shall be submitted as specified in Condition 7.1 of this permit. [35 IAC Part 201 Subpart J and Section 39.5(7) (a) of the Act]
- b. Pursuant to Section 4(b) of the Act and 35 IAC 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
 - i. Testing by Owner or Operator: The IEPA may require the Owner or Operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the IEPA, at such reasonable times as may be specified by the IEPA and at the expense of the Owner or Operator of the emission source or air pollution control equipment. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The IEPA shall have the right to observe all aspects of such tests.
 - ii. Testing by the IEPA: The IEPA shall have the right to conduct such tests at any time at its own expense. Upon request of the IEPA, the Owner or Operator of the emission source or air pollution control equipment shall provide, without charge to the IEPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.

5. Recordkeeping

a. Control Equipment Maintenance Records

Pursuant to Section 39.5(7)(b) of the Act, a maintenance record shall be kept on the premises for each item of air pollution control equipment. At a minimum, this record shall show the dates maintenance was performed and the nature of preventative maintenance activities.

b. Retention of Records

- i. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [Section 39.5(7) (e) (ii) of the Act]
- ii. Pursuant to Section 39.5(7) (a) of the Act, other records required by this permit including any logs, plans, procedures, or instructions required to be kept by this permit shall be retained for a period of at least 5 years from the date of entry unless a different period is specified by a particular permit provision.

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c. Availability of Records

- i. Pursuant to Section 39.5(7)(a) of the Act, the Permittee shall retrieve and provide paper copies, or as electronic media, any records retained in an electronic format (e.g., computer) in response to an IEPA or USEPA request during the course of a source inspection.
- ii. Pursuant to Section 39.5(7) (a) of the Act, upon written request by the IEPA for copies of records or reports required to be kept by this permit, the Permittee shall promptly submit a copy of such material to the IEPA. For this purpose, material shall be submitted to the IEPA within 30 days unless additional time is provided by the IEPA or the Permittee believes that the volume and nature of requested material would make this overly burdensome, in which case, the Permittee shall respond within 30 days with the explanation and a schedule for submittal of the requested material. (See also Condition 2.9(d))

6. Certification

a. Compliance Certification

- Pursuant to Section 39.5(7)(p)(v)(C) of the Act, the source shall submit annual compliance certifications by May 1 unless a different date is specified by an applicable requirement or by a particular permit condition. The annual compliance certifications shall include the following:
 - A. The identification of each term or condition of this permit that is the basis of the certification.
 - B. The compliance status.
 - C. Whether compliance was continuous or intermittent.

•

- D. The method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.
- ii. Pursuant to Section 39.5(7) (p) (v) (D) of the Act, all compliance certifications shall be submitted to the IEPA Compliance Section. Address is included in Attachment 3.
- iii. Pursuant to Section 39.5(7)(p)(i) of the Act, all compliance reports required to be submitted shall include a certification in accordance with Condition 2.6(b).

b. Certification by a Responsible Official

Any document (including reports) required to be submitted by this permit shall contain a certification by the responsible official of the source that meets the requirements of Section 39.5(5) of the Act and applicable regulations. [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included in Attachment 4 of this permit.

7. Permit Shield

a. Pursuant to Section 39.5(7)(j) of the Act, except as provided in Condition 2.7(b) below, the source has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the IEPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this

Rain CII Carbon LLC I.D. No.: 033025AAJ Permit No.: 95120092

source and this determination (or a concise summary thereof) is included in this permit. This permit shield does not extend to applicable requirements which are promulgated after March 27, 2019 (date USEPA notice started), unless this permit has been modified to reflect such new requirements.

- b. Pursuant to Section 39.5(7)(j) of the Act, this permit and the terms and conditions herein do not affect the Permittee's past and/or continuing obligation with respect to statutory or regulatory requirements governing major source construction or modification under Title I of the CAA. Further, neither the'issuance of this permit nor any of the terms or conditions of the permit shall alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance.
- c. Pursuant to Section 39.5(7)(a) of the Act, the issuance of this permit by the IEPA does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any currently pending or future legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the IEPA or the USEPA may have against the applicant including, but not limited to, any enforcement action authorized pursuant to the provision of applicable federal and state law.

8 Title'I. Conditions

Pursuant to Sections 39(a), 39(f), and 39.5(7)(a) of the Act, as generally identified below, this CAAPP permit may contain certain conditions that relate to requirements arising from the construction or modification of emission units at this source. These requirements derive from permitting programs authorized under Title I of the Clean Air Act (CAA) and regulations thereunder, and Title X of the Illinois Environmental Protection Act (Act) and regulations implementing the same. Such requirements, including the New Source Review programs for both major (i.e., PSD and nonattainment areas) and minor sources, are implemented by the IEPA.

- a. This permit may contain conditions that reflect requirements originally established in construction permits previously issued for this source. These conditions include requirements from preconstruction permits issued pursuant to regulations approved or promulgated by USEPA under Title I of the CAA, as well as requirements contained within construction permits issued pursuant to state law authority under Title X of the Act. Accordingly, all such conditions are incorporated into this CAAPP permit by virtue of being either an "applicable Clean Air Act requirement" or an "applicable requirement" in accordance with Section 39.5 of the Act. These conditions are identifiable herein by a designation to their origin of authority.
- b. This permit may contain conditions that reflect necessary revisions to requirements established for this source in preconstruction permits previously issued under the authority of Title I of the CAA. These conditions are specifically designated herein as "TIR".
 - i. Revisions to original Title I permit conditions are incorporated into this permit through the combined legal authority of Title I of the CAA and Title X of the Act. Public participation requirements and appeal rights shall be governed by Section 39.5 of the Act.
 - ii. Revised Title I permit conditions shall remain in effect through this CAAPP permit, and are therefore enforceable under the same, so long as such conditions do not expire as a result of a failure to timely submit a complete renewal application or are not removed at the applicant's request.
- c. This permit may contain conditions that reflect new requirements for this source that would ordinarily derive from a preconstruction permit established under the authority of Title I of the CAA. These conditions are specifically designated herein as "TIN".
 - i. The incorporation of new Title I requirements into this CAAPP permit is authorized through the combined legal authority of Title I of the CAA and Title X of the Act.

Rain CII Carbon LLC I.D. No.: 033025AAJ Permit No.: 95120092

Public participation requirements and appeal rights shall be governed by Section 39.5 of the Act.

ii. Any Title I conditions that are newly incorporated shall remain in effect through this CAAPP permit, and are therefore enforceable under the same, so long as such conditions do not expire as a result of a failure to timely submit a complete renewal application or are not removed at the applicant's request.

9. Reopening and Revising Permit

a. Permit Actions

This permit may be modified, revoked, reopened and reissued, or terminated for cause in accordance with applicable provisions of Section 39.5 of the Act. The filing of a request by the source for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [Section 39.5(7)(o)(iii) of the Act]

b. Reopening and Revision

Pursuant to Section 39.5(15)(a) of the Act, this permit must be reopened and revised if any of the following occur:

- i. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- Additional requirements become applicable to the source for acid deposition under the acid rain program;
- iii. The IEPA or USEPA determines that this permit contains a material mistake or that an inaccurate statement was made in establishing the emission standards or limitations, or other terms or conditions of this permit; or
- iv. The IEPA or USEPA determines that this permit must be revised or revoked to ensure compliance with the applicable requirements.

c. Inaccurate Application

Pursuant to Sections 39.5(5)(e) and (i) of the Act, the IEPA has issued this permit based upon the information submitted by the source in the permit application referenced on page 1 of this permit. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation or reopening of this CAAPP under Section 39.5(15) of the Act.

d. Duty to Provide Information

The source shall furnish to the IEPA, within a reasonable time specified by the IEPA any information that the IEPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the source shall also furnish to the IEPA copies of records required to be kept by this permit. [Section 39.5(7)(o)(v) of the Act]

10. Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement. [Section 39.5(7)(o)(vii) of the Act]

Rain CII Carbon LLC I.D. No.: 033025AAJ Permit No.: 95120092

11. Permit Renewal ... The state of the second state of the state of the second state

- a. Upon the expiration of this permit, if the source is operated, it shall be deemed to be operating without a permit unless a timely and complete CAAPP application has been submitted for renewal of this permit. However, if a timely and complete application to renew this CAAPP permit has been submitted, the terms and all conditions of the most recent issued CAAPP permit will remain in effect until the issuance of a renewal permit. [Sections 39.5(5)(1) and (o) of the Act]
- b. For purposes of permit renewal, a timely application is one that is submitted no less than 9 months prior to the date of permit expiration. [Section 39.5(5)(n) of the Act]

12 Permanent, Shutdown, 19 11 Andrew Lands and Andrew Barris and Andrew Andre

Pursuant to Section 39.5(7)(a) of the Act, this permit only covers emission units and control equipment while physically present at the source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

13 Start-Up, Shutdown, and Malfunction Shares and Malfunction Shares and Malfunction

Pursuant to Section 39.5(7)(a) of the Act, in the event of an action to enforce the terms or conditions of this permit, this permit does not prohibit a Permittee from invoking any affirmative defense that is provided by the applicable law or rule.

Rain CII Carbon LLC I.D. No.: 033025AAJ Permit No.: 95120092

Section 3 - Source Requirements

1. Applicable Requirements

Pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act, the Permittee shall comply with the following applicable requirements. These requirements are applicable to all emission units (including insignificant activities unless specified otherwise in this Section) at the source.

a. Fugitive Particulate Matter

- i. Pursuant to 35 IAC 212.301 and 35 IAC 212.314, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source unless the wind speed is greater than 25 mph.
- ii. Compliance Method (Fugitive Particulate Matter)

On an annual basis or upon request by the IEPA, the Permittee shall conduct observations at the property line of the source for visible emissions of fugitive particulate matter from the source to address compliance with 35 IAC 212.301. For this purpose, daily observations shall be conducted for a work week (e.g., Monday through Friday) for particular area(s) of concern at the source, as deemed as representative area to demonstrate compliance with the applicable regulations or as specified in a request from the Agency. Any requested observations shall begin either within one day or three days of receipt of a written request from the IEPA, depending, respectively, upon whether observations will be conducted by employees of the Permittee or a third-party observer hired by the Permittee to conduct observations, including identity of the observer, the date and time of observations, the location(s) from which observations were made, and duration of any fugitive emissions event(s).

b. Ozone Depleting Substances

Pursuant to 40 CFR 82.150(b), the Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- i. Pursuant to 40 CFR 82.156, persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices.
- ii. Pursuant to 40 CFR 82.158, equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment.
- iii. Pursuant to 40 CFR 82.161, persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program.
- iv. Pursuant to 40 CFR 82 Subpart B, any person performing service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner shall comply with 40 CFR 82 Subpart B, Servicing of Motor Vehicle Air Conditioners.
- v. Pursuant to 40 CFR 82.166, all persons shall comply with the reporting and recordkeeping requirements of 40 CFR 82.166.

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c. Asbestos Demolition and Renovation

- i. Asbestos Fees. Pursuant to Section 9.13(a) of the Act, for any site for which the Owner or Operator must file an original 10-day notice of intent to renovate or demolish pursuant to Condition 3.1(c)(ii) below and 40 CFR 61.145(b), the owner or operator shall pay to the IEPA with the filing of each 10-day notice a fee of \$150.
- ii. Pursuant to 40 CFR 61 Subpart M, Standard of Asbestos, prior to any demolition or renovation at this facility, the Permittee shall fulfill notification requirements of 40 CFR 61.145(b).
- iii. Pursuant to 40 CFR 61.145(c), during demolition or renovation, the Permittee shall comply with the procedures for asbestos emission control established by 40 CFR 61.145(c).

d. Future Emission Standards

Pursuant to Section 39.5(15)(a) of the Act, this source shall comply with any new or revised applicable future standards of 40 CFR 60, 61, 62, or 63; or 35 IAC Subtitle B after the date issued of this permit. The Permittee shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by Condition 2.6(a). This permit may also have to be revised or reopened to address such new regulations in accordance to Condition 2.9.

2. Applicable Plans and Programs,

Pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act, the Permittee shall comply with the following applicable requirements. These requirements are applicable to all emission units (including insignificant activities unless specified otherwise in this Section) at the source.

a. Fugitive PM Operating Program

Should this source become subject to 35 IAC 212.302, the Permittee shall prepare and operate under a Fugitive PM Operating Program consistent with 35 IAC 212.310 and submitted to the IEPA for its review. The Fugitive PM Operating Program shall be designed to significantly reduce fugitive particulate matter emissions, pursuant to 35 IAC 212.309(a). Any future Fugitive PM Operating Program made by the Permittee during the permit term is automatically incorporated by reference provided the Fugitive PM Operating Program is not expressly disapproved, in writing, by the IEPA within 30 days of receipt of the Fugitive PM Operating Program. In the event that the IEPA notifies the Permittee of a deficiency with any Fugitive PM Operating Program, the Permittee shall be required to revise and resubmit the Fugitive PM Operating Program within 30 days of receipt of notification to address the deficiency pursuant to Section 39.5(7)(a) of the Act.

b. PM10 Contingency Measure Plan

Should this source become subject to 35 IAC 212.700, then the Permittee shall prepare and operate under a PM_{10} Contingency Measure Plan reflecting the PM_{10} emission reductions as set forth in 35 IAC 212.701 and 212.703. The Permittee shall, within 90 days after the date this source becomes subject to 35 IAC 212.700, submit a request to modify this CAAPP permit in order to include a new, appropriate PM_{10} Contingency Measure Plan.

c. Episode Action Plan

i. Pursuant to 35 IAC 244.141, the Permittee shall have on file with the IEPA an Episode Action Plan for reducing the levels of emissions during yellow alerts, red

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alerts, and emergencies, consistent with safe operating procedures. The Episode Action Plan shall contain the information specified in 35 IAC 244.144.

- ii. The Permittee shall immediately implement the appropriate steps described in the Episode Action Plan should an air pollution alert or emergency be declared, as required by 35 IAC 244.169, or as may otherwise be required under 35 IAC 244, Appendix D.
- iii. Pursuant to 35 IAC 244.143(d), if an operational change occurs at the source which invalidates the Episode Action Plan, a revised Episode Action Plan shall be submitted to the IEPA for review within 30 days of the change and is automatically incorporated by reference provided the revision is not expressly disapproved, in writing, by the IEPA within 30 days of receipt of the revision. In the event that the IEPA notifies the Permittee of a deficiency with any revision to the Episode Action Plan, the Permittee shall be required to revise and resubmit the Episode Action Plan within 30 days of receipt of notification to address the deficiency pursuant to Section 39.5(7)(a) of the Act.
- iv. The Episode Action Plan, as submitted by the Permittee on June 13, 2018, is incorporated herein by reference. The document constitutes the formal Episode Action Plan required by 35 IAC 244.142, addressing the actions that will be implemented to reduce SO₂, PM₁₀, NO₂, CO and VOM emissions from various emissions units in the event of a yellow alert, red alert or emergency issued under 35 IAC 244.161 through 244.165.
- v. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep a copy of the Episode Action Plan, any amendments or revisions to the Episode Action Plan (as required by Condition 3.2(c)), and the Permittee shall also keep a record of activities completed according to the Episode Action Plan.

d. Risk Management Plan (RMP)

Should this stationary source, as defined in 40 CFR 68.3, become subject to the federal regulations for Chemical Accident Prevention in 40 CFR Part 68, then the Permittee shall submit a compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or submit a certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and * submission of the Risk Management Plan, as part of the annual compliance certification required by Condition 2.6(a). This condition is imposed in this permit pursuant to 40

CFR 68.215(a)(2)(i) and (ii).

(3 STITLE I Requirements To The Third And Andrew States and Andr

As of the date of issuance of this permit, there are no source-wide Title I requirements that need to be included in this Condition.

4 Synthetic Minor Limits A State Sta

As of the date of issuance of this permit, there are no source-wide synthetic minor limits that need to be included in this Condition.

15 Reporting Requirements the difference of the second sec

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

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a. Prompt Reporting

- i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows:
 - I. Requirements in Conditions 3.1(a) (i), 3.1(b), 3.1(c), and 3.1(d).
 - II. Requirements in Conditions 3.2(a), 3.2(b), 3.2(c), and 3.2(d).
 - B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- iii. The deviation reports shall contain at a minimum the following information:
 - A. Date and time of the deviation.
 - B. Emission unit(s) and/or operation involved.
 - C. The duration of the event.
 - D. Probable cause of the deviation.
 - E. Corrective actions or preventative measures taken.
- iv. All deviation reports required in this Permit shall be identified, summarized, and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).

b. Semiannual Reporting

i. Pursuant to Section 39.5(7)(f)(i) of the Act, the Permittee shall submit a Semi-Annual Monitoring Report to the Illinois EPA, Air Compliance Section, summarizing required monitoring and identifying all instances of deviation from the permit, every six months as follows, unless more frequent reporting is required elsewhere in this Permit.

Monitoring Period	<u>Report Due Date</u>
January through June	July 31
July through December	January 31

ii. The Semiannual Monitoring Report must be certified by a Responsible Official consistent with Condition 2.6(b).

Note: Required monitoring includes all applicable monitoring, testing, recordkeeping, and reporting requirements. This may include monitoring requirements not addressed within the Compliance Method Sections of this Permit.

c. Annual Emissions Reporting

Pursuant to 35 IAC Part 254, the Source shall submit an Annual Emission Report to the Air Quality Planning Section, due by May 1 of the year following the calendar year in which the emissions took place. All records and calculations upon which the verified and reported data are based must be retained by the source.

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4.1 - Material Handling and Processing Operations

Section 4 - Emission Unit Requirements

4.1 Material Handling and Processing Operations

1. Emission Units and Operations						
Operation	Emission Units	Pollutants Being Regulated	Original Construction Date	Modification/ Reconstruction Date	Air Pollution Control Devices or Measures	Monitoring Devices
	Green Coke Screening	PM	Pre-1972	N/A	None	None
	Green Coke Crushing	PM	Pre-1972	N/A	None	None
Green Coke	Green Coke Stacking_	РМ	Pre-1972	N/A	Enclosures	None
Receiving and	Green Coke Conveying	PM	Pre-1972	N/A	Enclosures	None
Storage	Green Coke Feed Bins	PM	Pre-1972	N/A	None	None
	Unloading Excavator Engine (187 hp)	PM, SO₂, NOx, VOM, CO	2007*	N/A*	None	None
	Calcined Coke Conveying	PM	Pre-1972	N/A	Oscillating Conveyor	None
Calcined Coke Load-out and Storage	Calcined Coke Storage Bins 1 & 2	PM	Pre-1972	N/A	Bin Vent Filters 1 & 2	None
	Calcined Coke Storage Bins 3 & 4	РМ	Pre-1972	N/A	None	None
	Calcined Coke Railcar Load- out	РМ	Pre-1972	N/A	Dedust Oil	None

* In 2007, the source installed a Tier 2 diesel engine (2005 model year). In 2013, the source replaced the engine with a rebuilt Tier 2 replacement engine.

2. Applicable Requirements

For the emission units in Condition 4.1.1 above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act. In addition, the material handling and processing operations units shall comply with the applicable inspection procedure plans in Section 7.6.

a. i. Opacity Requirements

A. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.

ii. Compliance Method (Opacity Requirements)

Monitoring

A. Pursuant to Sections 39.5(7) (b) and (d) of the Act, at a minimum, the Permittee shall perform observations of each emission unit listed in Condition 4.1.1, except for the Calcined Coke Storage Bins 1 & 2, in accordance with Method 22 for visible emissions at least once per month during the operation of these emission units. If visible emissions are observed, the Permittee shall take corrective action within 2 hours of such observation. Corrective action may include, but is not limited to, shut

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Section 4 - Emission Unit Requirements 4.1 - Material Handling and Processing Operations

Exhibit B

down of the emission unit, maintenance and repair, and/or adjustment of the equipment. If corrective action was taken, the Permittee shall perform a follow up observation for visible emissions in accordance with Method 22. If visible emissions continue, then measurements of opacity in accordance with Method 9 shall be conducted within one week in accordance with Condition 2.4.

B. Pursuant to Sections 39.5(7) (b) and (d) of the Act, at a minimum, the Permittee shall perform observations for opacity on Calcined Coke Storage Bins 1 & 2, in accordance with Method 22 for visible emissions at least once per week during the operation of these emission units. If visible emissions are observed, the Permittee shall take corrective action within 2 hours of such observation. Corrective action may include, but is not limited to, shut down of the emission unit, maintenance and repair, and/or adjustment of the equipment. If corrective action was taken, the Permittee shall perform a follow up observation for visible emissions in accordance with Method 22. If visible emissions continue, then measurements of opacity in accordance with Method 9 shall be conducted within one week in accordance with Condition 2.4.

Recordkeeping

- C. Pursuant to Section 39.5(7) (b) of the Act, the Permittee shall keep records for each opacity observation (Method 22) performed. These records shall include, at a minimum: date and time the observation was performed, name(s) of observing personnel, identification of which equipment was observed, whether or not the equipment was running properly, the findings of the observation including the presence of any visible emissions, and a description of any corrective action taken including if the corrective action took place within 4 hours of the observation.
- D. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep records for all opacity observations made in accordance with Method 9. These methods shall include, at a minimum: the date and time the observation was performed, the name(s) of observing personnel, identification of the equipment observed, an indication of whether the equipment was running properly, and the findings of the observation including the opacity values obtained from the Method 9 observations.

b. i. Particulate Matter Requirements (PM)

A. Pursuant to 35 IAC 212.322(a), no person shall cause or allow the emission of PM into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of PM from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.322(c). (See Condition 7.2(b)). This requirement does not apply to the unloading excavator engine.

ii. Compliance Method (PM Requirements)

Monitoring

A. Work practice requirements in Section 4.1.2(d) monitor compliance with Condition 4.1.2(b)(i)(A).

Recordkeeping

B. Pursuant to Sections 39.5(7)(b) and (d) of the Act, the Permittee shall maintain records, with supporting documentation and calculations, to

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demonstrate compliance with the PM emission rate limits in Condition 4.1.2 (b) (i) (A).

C. Pursuant to Sections 39.5(7)(b) and (d) of the Act, every month, the Permittee shall keep records of PM emissions (tons/month and tons/year) from each emission unit, with supporting documentation and calculations. The annual PM emissions shall be calculated from the 12-month rolling sum of monthly PM emissions.

c. i. Sulfur Dioxide Requirements (SO₂)

- A. Pursuant to 35 IAC 214.301, no person shall not cause or allow the emission of sulfur dioxide into the atmosphere from the unloading excavator engine to exceed 2000 ppm.
- B. Pursuant to 35 IAC 214.305(a)(2), the sulfur content of all distillate fuel oil used by the unloading excavator engine shall not exceed 15 ppm.

ii. Compliance Method (SO₂ Requirements)

Monitoring

A. Sulfur content recordkeeping requirements in Condition 4.1.2(c)(ii)(B) and inspection requirements in Condition 4.1.2(d)(ii)(F) monitor compliance with Condition 4.1.2(c)(i)(A).

Recordkeeping

- B. Pursuant to 35 IAC 214.305(a) (3) (A) and Section 39.5(7) (b) of the Act, the Permittee shall maintain records, such as records from the fuel supplier indicating the sulfur content of the fuel oil, demonstrating that the diesel fuel used by the unloading excavator engine complies with the 15-ppm maximum sulfur content requirement. For each supplier, the records shall be updated at least once each calendar year with no more than 18 months passing between successive record updates.
- C. Pursuant to Sections 39.5(7) (b) and (d) of the Act, every month, the Permittee shall keep records of SO₂ emissions (tons/month and tons/year) from the unloading excavator engine, with supporting documentation and calculations. The annual SO₂ emissions shall be calculated from the 12month rolling sum of monthly SO₂ emissions.

d. i. Work Practice Requirements

A. Pursuant to Section 39.5(7) (a) of the Act, the Permittee shall maintain and operate each emission unit according to manufacturer specifications and in a manner consistent with safety and good air pollution control practice for minimizing emissions.

ii. Compliance Method (Work Practice Requirements)

Monitoring

A. Pursuant to Section 39.5(7) (b) of the Act, at least once per month, the Permittee shall conduct external inspections of the Green Coke Stacking, Green Coke Conveying, Calcined Coke Conveying, and Calcined Coke Railcar Load-out processes in accordance with the requirements specified in Condition 7.6(g)(i).

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4.1 - Material Handling and Processing Operations

- B. Pursuant to Sections 39.5(7) (b) of the Act, at least once per month, the Permittee shall conduct external inspections of Green Coke Screening areas, Green Coke Crushing areas, Green Coke Conveying areas, Green Coke Feed Bins, and Calcined Coke Storage Bins 3 & 4 in accordance with the requirements specified in Condition 7.6(g) (ii).
- C. Pursuant to Section 39.5(7) (b) of the Act, at least once per 30 months during major turnarounds, the Permittee shall conduct inspections of the Green Coke Feed Bins in accordance with the requirements specified in Condition 7.6(c).
- D. Pursuant to Section 39.5(7) (b) of the Act, at least once per 30 months during major turnarounds, the Permittee shall conduct inspections of Calcined Coke Storage Bins 1 & 2 and Calcined Coke Storage Bins 3 & 4 in accordance with the requirements specified in Condition 7.6(d).
- E. Pursuant to Section 39.5(7) (b) of the Act, at least once per 30 months during major turnarounds, the Permittee shall conduct inspections of Bin Vent Filters 1 & 2 in accordance with the requirements specified in Condition 7.6(e).
- F. Pursuant to Section 39.5(7) (b) of the Act, at least once per month, the Permittee shall conduct inspections of the unloading excavator engine and associated auxiliary equipment.

Recordkeeping

- G. Pursuant to Sections 39.5(7)(b) and (d) of the Act, the Permittee shall keep records of inspection, maintenance, and repair activities in accordance with the requirements specified in Condition 7.6(h).
- H. Pursuant to Sections 39.5(7)(b) and (d) of the Act, in addition to the information in Condition 7.6(h), records of Bin Vent Filter 1 & 2 inspections shall specifically contain the following information:
 - I. The inspection findings required by Condition 7.6(h)(iii) shall note the condition of each filter;
 - II. The repair and maintenance activity information required by Condition 7.6(h) (vi) includes replacing a filter.
 - III. If a filter does not need to be replaced, the inspection record shall include a note explaining why the filter did not need to be replaced.
- I. Pursuant to Sections 39.5(7) (b) and (d) of the Act, the Permittee shall keep records of each inspection, along with associated maintenance and repair activities, conducted on the unloading excavator engine. These records shall include, at a minimum, the following:
 - I. Date and time inspections were performed;
 - II. Identification of equipment being inspected;
 - III. Findings of the inspections on a detailed checklist;
 - IV. Printed name(s) of the inspection personnel;
 - V. Signature(s) of the inspection personnel;

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VI. Description of all maintenance and repair activities performed including if the activity resulted in a modification or reconstruction of the piece of equipment.

3. Non-Applicability Determinations

- a. The Green Coke Screening, Green Coke Crushing, Green Coke Feed Bins, Calcined Coke Storage Bins 3 & 4, the Calcined Coke Railcar Load-out, the Calcined Coke Conveying, and the Unloading Excavator Engine are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because these emission units do not use add-on control devices to achieve compliance with any emission limitations or standards.
- b. The Green Coke Stacking, Green Coke Conveying, the Calcined Coke Storage Bins 1 & 2 are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because these emission units use a passive control measure, such as a seal, lid, or roof, that is not considered a control device because it acts to prevent the release of pollutants.
- c. The unloading excavator engine is not subject to 35 IAC 212.321 or 212.322 because based on 35 IAC 212.323, those requirements shall not apply to emission units to which a process weight rate cannot be determined.
- d. The unloading excavator engine is not subject to 35 IAC 215.301, because the engine does not use organic material that would make it subject to 35 IAC 215.301.
- e. The unloading excavator engine is not subject to 35 IAC 216.121 because that regulation applies only to fuel combustion emission sources and the engine fails to meet the fuel combustion emission unit definition provided by 35 IAC 211.2470.
- f. The unloading excavator engine is not subject to 35 IAC 217, subpart Q because it fails to meet the applicability criteria stated in 35 IAC 217.386(a). The engine is not specifically included in the Appendix G list of engines referenced by 35 IAC 217.386(a) (1), and it is in Crawford County rather than any of the areas mentioned in 35 IAC 217.386(a) (2).

4. Other Requirements

For the emission units in Condition 4.1.1 above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

a. MACT and NSPS Requirements involving the Unloading Excavator Engine

- i. 40 CFR 63 Subpart 2222, Stationary Reciprocating Internal Combustion Engines
 - A. Pursuant to 40 CFR 63.6590(c), because the unloading excavator engine is a new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, the engine shall meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII. No further requirements apply for such engines under 40 CFR 63 Subpart ZZZZ.
- ii. 40 CFR 60 Subpart IIII, Stationary Compression Ignition Internal Combustion Engines
 - A. Pursuant to 40 CFR 60.4200(a)(4), because the Permittee owns or operates stationary compression ignition (CI) internal combustion engines (ICE) that commence construction after July 11, 2005, the Permittee shall comply with the provisions of 40 CFR 60.4208.
 - B. Pursuant to 40 CFR 60.1(a), the Permittee shall comply with the provisions of 40 CFR 60 Subpart A. See Section 7.6(a).

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5. Reporting Requirements

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

a. Prompt Reporting

- i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows unless a different period is specified by a particular permit provision, i.e., NSPS or NESHAP requirement:
 - I. Requirements in Conditions 4.1.2(a)(i), 4.1.2(b)(i), 4.1.2(c)(i), and 4.1.2(d)(i).
 - II. Requirements in Condition 4.1.4(a) and 4.1.4(b).
 - III. Requirements in Section 7.6.
 - B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- iii. The deviation reports shall contain at a minimum the following information:
 - A. Date and time of the deviation.
 - B. Emission unit(s) and/or operation involved.
 - C. The duration of the event.
 - D. Probable cause of the deviation.
 - E. Corrective actions or preventative measures taken.

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4.2 Petroleum Coke Calcining Operations

1: Emi:	ssion Units and	Operation	S	<u> </u>	•	
Emis	sion Units	Pollutants Being Regulated	Original Construction Date	Modification/ Reconstruction Date	Air Pollution Control Devices or Measures*	Monitoring Devices
Petroleum Coke Calcining Line 1	Kiln 1 (37 mmBtu/hr)	PM, SO₂, and VOM	Pre 1972	N/A	Pyroscrubber 1	Thermocouples 1A & 1B at Pyroscrubber 1 inlet
	Rotary Cooler 1	PM	Pre 1972	N/A	Baghouse 1	Pressure Gauge and Inlet Temp. Monitor on Baghouse
Petroleum Coke Calcining Line 2	Kiln 2 (37 mmBtu/hr)	PM, SO ₂ , and VOM	Pre 1972	N/A	Pyroscrubber 2	Thermocouples 2A & 2B at Pyroscrubber 2 inlet
	Rotary Cooler 2	РМ	Pre 1972	N/A	Multiclone and Baghouse 2	Pressure Gauge and Inlet Temp. Monitor on Baghouse

* The control device configuration noted in Table 4.2.1 depicts the standard operational modes for calcining lines 1 & 2. See Section 4.2.4(b) for alternative operational modes.

2. Applicable Requirements

For the emission units in Condition 4.2.1 above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act. In addition, the petroleum coke calcining operations units shall comply with the applicable inspection procedure plans in Section 7.6.

a. i. Opacity Requirements

- A. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.
- ii. Compliance Method (Opacity Requirements)

Monitoring

A. Pursuant to Sections 39.5(7) (b) and (d) of the Act and Order PCB 04-137, at a minimum, the Permittee shall monitor the opacity on pyroscrubbers 1 and 2 and baghouses 1 and 2 during representative operating conditions and weather conditions determined by a qualified observer, using Reference Method 9 like visible emission observations (6-minute opacity observations with readings at 15-second intervals), at least once per operating day.

Recordkeeping

- B. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep records for each opacity observation required by Condition 4.2.2(a)(ii)(A). These records shall, at a minimum, contain the following:
 - Identification of the equipment for which the observation was conducted.
 - II. Date and time of the observation.

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- III. Name of observer(s) with documentation that the individual(s) was qualified to make such an observation.
- IV. Description of the observations that were made.
- V. Description of the operating conditions of the equipment during the observation.
- VI. The weather condition at the time of the scheduled observations, and if the observations could not be completed due to weather conditions at the time of the scheduled observations, the record shall state the reason(s) why.
- VII. The raw data sheets for the observations.
- VIII. The observed opacity.
- IX. Conclusion.

b. i. Particulate Matter Requirements (PM)

A. Pursuant to 35 IAC 212.322(a), for the kilns and rotary coolers, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.322(c) (See Condition 7.2(b)).

ii. Compliance Method (PM Requirements)

- A. Pursuant to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, the kilns are subject to 40 CFR Part 64. The Permittee shall comply with the monitoring requirements of the CAM Plan described in Condition 7.5 and Tables 7.5.2 and 7.5.4, pursuant to 40 CFR Part 64 as submitted in the Permittee's CAM plan application. At all times, the Owner or Operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment, pursuant to 40 CFR 64.7(a) and (b).
- B. Pursuant to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, the rotary coolers are subject to 40 CFR Part 64. The Permittee shall comply with the monitoring requirements of the CAM Plan described in Condition 7.5 and Tables 7.5.5 and 7.5.6, pursuant to 40 CFR Part 64 as submitted in the Permittee's CAM plan application. At all times, the Owner or Operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment, pursuant to 40 CFR 64.7(a) and (b).
 - I. Pursuant to Section 39.5(7)(b) of the Act, for up to 12 hours following baghouse maintenance, the Permittee shall use the opacity indicator to monitor baghouse performance until the pressure drop reaches 2" of H₂O. While the pressure drop is less than 2" of H₂O, opacity shall be measured using USEPA Method 9 visual observations according to the following schedule:
 - 1. At least once within the initial 30 minutes;
 - 2. At least once every hour for the next two hours; and

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- 3. At least once every two hours thereafter.
- II. Pursuant to Section 39.5(7)(b) of the Act, after the pressure drop reaches 2" of H_2O , the Permittee shall use the baghouse pressure drop indicator to monitor baghouse performance.

Testing

- C. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall conduct tests of PM emissions from each calcining line. The Permittee shall conduct these tests according to the following specifications:
 - I. Measurements of PM shall be made in accordance with Condition 7.1 of this permit and applicable USEPA Test Method(s), specifically Method 5.
 - II. The Permittee shall conduct tests for PM emissions into the atmosphere from either rotary cooler after the emissions are controlled by Baghouse 1. As long as at least one calcining line is operational, this test shall occur by no later than six months after issuance of this renewal permit. If both calcining lines are shut down, this test shall occur within 90 days after a line resumes operation.
 - III. The Permittee shall conduct tests for PM emissions into the atmosphere from either rotary cooler after the emissions are controlled by Baghouse 2. As long as at least one calcining line is operational, this test shall occur by no later than six months after issuance of this renewal permit. If both calcining lines are shut down, this test shall occur within 90 days after a line resumes operation.
 - IV. For the standard operational modes indicated in Table 4.2.1, the Permittee shall conduct tests for PM emissions from each kiln no later than May 31, 2022. Subsequent tests shall be conducted at least once every five years. No more than 60 months shall pass between successive tests. If a test deadline date occurs while a calcining line is shut down, the test involving that line shall be conducted within 90 days after that line resumes operations.
 - V. Upon request by IEPA or USEPA, the Permittee shall conduct tests for PM emissions from each calcining line for the alternative operational modes permitted by Conditions 4.2.4(b)(i)(C & D). If a test deadline date occurs while a calcining line is shut down, the test involving that line shall be conducted within 90 days after that line resumes operations.

Recordkeeping

- D. Pursuant to Sections 39.5(7)(b) and (d) of the Act, the Permittee shall ⁴ maintain records, with supporting documentation and calculations, to demonstrate compliance with the PM emission rate limits in Condition 4.2.2(b)(i)(A).
- E. Pursuant to Sections 39.5(7) (b) and (d) of the Act, every month, the Permittee shall keep records of PM emissions (tons/month and tons/year) from each kiln and rotary cooler, with supporting documentation and calculations. The annual PM emissions shall be calculated from the 12-month rolling sum of monthly PM emissions.

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c. i. Sulfur Dioxide Requirements (SO₂)

- A. Pursuant to 35 IAC 214.301, for the kilns, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm.
- ii. Compliance Method (SO₂ Requirements)

Monitoring

A. Pursuant to Section 39.5(7)(b) of the Act, each week, the Permittee shall sample and analyze calcined coke to determine actual sulfur content.

Testing

- B. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall conduct tests for SO₂ emissions from each calcining line. The Permittee shall conduct these tests according to the following specifications:
 - I. Measurements of SO₂ emissions shall be made in accordance with Condition 7.1 of this permit and applicable USEPA Test Method(s), specifically Method 6 and/or 6C.
 - II. For the standard operational modes indicated in Table 4.2.1, the Permittee shall conduct tests for SO₂ emissions from each kiln no later than May 31, 2022. Subsequent tests shall be conducted at least once every five years. No more than 60 months shall pass between successive tests. If a test deadline date occurs while a calcining line is shut down, the test involving that line shall be conducted within 90 days after that line resumes operations.
 - III. Upon request by IEPA or USEPA, the Permittee shall conduct tests for SO₂ emissions from each calcining line for the alternative operational modes permitted by Conditions 4.2.4 (b) (i) (C & D). If a test deadline date occurs while a calcining line is shut down, the test involving that line shall be conducted within 90 days after that line resumes operations.

Recordkeeping

- C. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain the following records:
 - I. Calculations of the concentration of SO₂ emissions from each kiln, calculated weekly;
 - II. Data used in the calculations;
 - III. A file, with supporting data, documenting the methodology used for the calculations;
 - IV. A file comparing the concentration of SO_2 emissions measured during each stack test to the concentration of SO_2 emissions obtained using the documented methodology.
- D. Pursuant to Sections 39.5(7) (b) and (d) of the Act, every month, the Permittee shall keep records of SO₂ emissions (tons/month and tons/year) from each kiln, with supporting documentation and calculations. The annual SO₂ emissions shall be calculated from the 12-month rolling sum of monthly SO₂ emissions.

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d. i. Volatile Organic Material Requirements (VOM)

- A. I. Pursuant to 35 IAC 215.301, no person shall cause or allow.the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from the kilns, except as provided in Condition 4.2.2(d)(i)(A)(II), below.
 - II. Pursuant to 35 IAC 215.302(c), for the kilns, emissions of organic material in excess of those permitted by 35 IAC 215.301 are allowable if VOM emissions are controlled by air pollution control equipment capable of reducing by 85 percent or more the uncontrolled organic material that would be otherwise emitted to the atmosphere.

ii. Compliance Method (VOM Requirements)

A. Pursuant to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, the kilns are subject to 40 CFR Part 64. The Permittee shall comply with the monitoring requirements of the CAM Plan described in Condition 7.5 and Tables 7.5.1 and 7.5.3, pursuant to 40 CFR Part 64 as submitted in the Permittee's CAM plan application. At all times, the Owner or Operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment, pursuant to 40 CFR 64.7(a) and (b).

Testing

- B. I. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall conduct tests for VOM emissions from each calcining line. The Permittee shall conduct these tests according to the following specifications:
 - Measurements of VOM shall be made in accordance with Condition 7.1 of this permit and applicable USEPA Test Method(s), specifically Method 25 and/or 25A.
 - 2. Upon request by IEPA or USEPA, the Permittee shall conduct tests for VOM emissions from each kiln for the standard operational modes listed in Table 4.2.1. If a test deadline date occurs while a calcining line is shut down, the test involving that line shall be conducted within 90 days after that line resumes operations.
 - 3. Upon request by IEPA or USEPA, the Permittee shall conduct tests for VOM emissions from each calcining line for the alternative operational modes permitted by Conditions 4.2.4(b)(i)(C & D). If a test deadline date occurs while a calcining line is shut down, the test involving that line shall be conducted within 90 days after that line resumes operations.
 - II. Pursuant to Section 39.5(7)(c) of the Act, if results from the tests required by Condition 4.2.2(d)(ii)(B)(I) indicate VOM emissions greater than 8 lb/hr from Calcining Line 1, the Permittee shall conduct follow-up tests to determine the VOM destruction efficiency of Pyroscrubber 1. The Permittee shall conduct these tests according to the following specifications:
 - Measurements of VOM destruction efficiency for Pyroscrubber 1 shall be made in accordance with Condition 7.1 of this permit and applicable USEPA Test Method(s), specifically Method 25 and/or 25A.

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- The Permittee shall measure the VOM destruction efficiency for Pyroscrubber 1 during the standard operational mode indicated in Table 4.2.1.
- 3. The Permittee shall measure the VOM destruction efficiency for Pyroscrubber 1 during the alternative operational mode permitted by Condition 4.2.4(b)(i)(C).
- The follow-up testing shall be conducted no later than 180 days after conducting the tests required by Condition
 4.2.2 (d) (ii) (B) (I).
- III. Pursuant to Section 39.5(7) (c) of the Act, if results from the tests required by Condition 4.2.2(d) (ii) (B) (I) indicate VOM emissions greater than 8 lb/hr from Calcining Line 2, the Permittee shall conduct follow-up tests to determine the VOM destruction efficiency of Pyroscrubber 2. The Permittee shall conduct these tests according to the following specifications:
 - Measurements of VOM destruction efficiency for Pyroscrubber 2 shall be made in accordance with Condition 7.1 of this permit and applicable USEPA Test Method(s), specifically Method 25 and/or 25A.
 - 2. The Permittee shall measure the VOM destruction efficiency for Pyroscrubber 2 during the standard operational mode indicated in Table 4.2.1.
 - 3. The Permittee shall measure the VOM destruction efficiency for Pyroscrubber 2 during the alternative operational mode permitted by Condition 4.2.4 (b) (i) (D).
 - 4. The follow-up testing shall be conducted no later than 180 days after conducting the tests required by Condition 4.2.2 (d) (ii) (B) (I).

Recordkeeping

- C. Pursuant to Sections 39.5(7)(b) and (d) of the Act, the Permittee shall maintain records for at least one of the following involving VOM emissions from each calcining line:
 - I. The method used, including supporting documentation, to determine the VOM emission rate from each kiln (lb/hr).
 - II. The destruction efficiency, including supporting documentation, of each pyroscrubber.
- D. Pursuant to Sections 39.5(7) (b) and (d) of the Act, every month, the Permittee shall keep records of VOM emissions (tons/month and tons/year) from each kiln, with supporting documentation and calculations. The annual VOM emissions shall be calculated from the 12-month rolling sum of monthly VOM emissions.

e. i. Operational and Production Requirements

A. Pursuant to Section 39.5(7) (a) of the Act, pipeline quality natural gas shall be the only supplemental heat source fired in each kiln and/or pyroscrubber.

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B. Pursuant to Construction Permit #04080044 and Permit #75110042, kiln 1 and kiln 2 shall not exceed the following green coke feed rate limits: [T1]

	Green Coke Feed Rate Limit <u>(Tons/Hr)</u>
Kiln 1	28
Kiln 2	28

C. Pursuant to Permit #75110042, operation of the coolers shall not exceed the following limits: [T1]

	Process Weight Rate (Tons/Hr)
Rotary Cooler 1	29.9
Rotary Cooler 2	29.9

ii. Compliance Method (Operational and Production Requirements)

Recordkeeping

- A. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain the following records:
 - I. Hours of operation for each kiln, hr/day, hr/mo, and hr/yr.
 - II. Hours of operation for each rotary cooler, hr/mo and hr/yr.
 - III. Throughput of green coke, T/day, T/mo, and T/yr, method used to determine the throughput.
 - IV. Green coke feed rate to each kiln, T/hr, with supporting calculations.
 - V. Operation of each rotary cooler, T/hr, with supporting calculations.
- B. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain the following records related to the natural gas fired at the facility:
 - I. Natural gas fuel usage (scf/mo and scf/yr, and/or mmBtu/mo and mmBtu/yr).
 - II. If fuel usage records are maintained using scf/mo and scf/yr, the heat content of the natural gas (Btu/ft³), with supporting documentation, on a guarterly basis.
- C. Compliance with annual limits shall be determined from a running total of 12 months of monthly data.

f. i. Work Practice Requirements

A. Pursuant to Section 39.5(7) (a) of the Act, the Permittee shall maintain and operate all equipment associated with the Petroleum Coke Calcining Operations according to manufacturer specifications and in a manner consistent with safety and good air pollution control practice for minimizing emissions.

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- B. Pursuant to Section 39.5(7) (a) of the Act, before restarting operations involving any equipment, the Permittee shall repair the equipment whenever associated inspections reveal conditions inconsistent with either safety or good air pollution control practices for minimizing emissions. If the equipment is operating at the time an inspection reveals the inconsistent conditions, the Permittee shall immediately initiate protocols so repairs may take place. This requirement applies to the equipment in the following list, but the list does not restrict the equipment to which the requirement applies:
 - I. The walls of the kilns;
 - II. Cooler exhaust ductwork;
 - III. Dust chamber inlet ductwork; and
 - IV. The dust collector exhaust fans.
- C. Pursuant to Section 39.5(7)(a) of the Act and Order PCB 04-137, the Permittee shall ensure that at least one replacement fan is always on-site for each baghouse, except when a fan has been replaced. Immediately following the replacement of an existing baghouse fan, for whatever reason, the Permittee shall begin the procurement process for a new fan.
- D. Pursuant to Section 39.5(7) (a) of the Act and Order PCB 04-137, the Permittee shall maintain a reserve of at least 525 replacement bags for Baghouse 1 and at least 351 bags for Baghouse 2 by immediately initiating the procurement process when a bag change is scheduled.
- E. Pursuant to Section 39.5(7)(a) of the Act and Order PCB 04-137, except during start-up and malfunction/breakdown conditions of either Line #1 (Kiln #1) or Line #2 (Kiln #2), the Permittee shall operate its pyroscrubbers as follows:
 - I. Maintain a 3-hour rolling average minimum temperature of 1800°F, measured at the thermocouples located at the inlet to each pyroscrubber. See Section 7.5.
- F. Pursuant to Section 39.5(7)(a) of the Act and Order PCB 04-137, the Permittee shall operate a redundant thermocouple at each pyroscrubber inlet. See Section 7.5.
- ii. Compliance Method (Work Practice Requirements)

Monitoring

- A. Pursuant to Section 39.5(7) (b) of the Act, at a minimum, the Permittee shall conduct weekly external inspections, in accordance with the requirements specified in Section 7.6(g) (iii), of the following equipment for both lines: Pyroscrubber, Dust Chamber, Kiln, Cooler, Baghouse, and Multiclone.
- B. Pursuant to Section 39.5(7)(b) of the Act, at least once every 30 months, in accordance with the requirements specified in Condition 7.6(b), the Permittee shall conduct general internal refractory inspections of the stacks, pyroscrubbers, dust chambers, kilns, and coolers.
- C. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall conduct annual inspections of the baghouses according to the requirements specified in Condition 7.6(a).

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- D. Pursuant to Section 39.5(7)(b) of the Act, at least once every 30 months, the Permittee shall conduct inspections of the multiclone according to the requirements specified in Condition 7.6(f).
- E. I. Pursuant to Section 39.5(7) (b) of the Act and Order PCB 04-137, the Permittee shall monitor kiln cooler exhaust temperatures of each unit so as to ensure that the bags are not exposed to excessive temperatures (i.e., temperatures above 700°F).
 - II. Pursuant to Section 39.5(7) (b) of the Act, the Permittee shall utilize controls, such as a Programmable Logic Controller, that automatically reroutes cooler exhaust to the associated pyroscrubber and shuts down the baghouse if the temperature of the cooler exhaust exceeds the temperature at which the bags are rated. Such controls shall alert the operators to initiate appropriate maintenance protocols
- F. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall follow the detailed inspection procedure submitted to IEPA when either of the facility's baghouses are shut down for internal maintenance or bag replacement. See Section 7.6(a).
- G. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall monitor dust collector exhaust fans and cooler exhaust ductwork. See Section 7.6.
- H. Pursuant to Section 39.5(7) (b) of the Act, the Permittee shall monitor pyroscrubber inlet ductwork. See Section 7.6.
- I. I. Pursuant to Section 39.5(7)(b) of the Act and Order PCB 04-137, the Permittee shall continue to conduct its quarterly Vibration Analysis Program.
 - II. Pursuant to Section 39.5(7) (b) of the Act and Order PCB 04-137, when inspections and/or vibration data indicate possible issues with the proper operation of equipment, the Permittee shall take appropriate measures to rectify the issues.
 - III. Pursuant to Section 39.5(7)(b) of the Act and Order PCB 04-137, the Vibration Analysis Program shall be performed by a third-party consulting firm which provides quarterly reports to the Permittee.
- J. Pursuant to Sections 39.5(7) (a) & (b) of the Act and Order PCB 04-137, except during start-up and malfunction/breakdown conditions of either Line #1 (Kiln #1) or Line #2 (Kiln #2), the Permittee shall monitor its pyroscrubbers as follows:
 - I. Monitor the pyroscrubber inlet temperatures of each unit, so as to ensure that the minimum temperature is maintained. See Condition 4.2.2(f)(i)(G) and Section 7.5.
 - II. Utilize the inlet temperature of each pyroscrubber as the CAM indicator. See Section 7.5.
- K. Pursuant to Sections 39.5(7) (a) & (b) of the Act and Order PCB 04-137, the Permittee shall monitor the inlet temperature in each pyroscrubber by using the redundant thermocouple in parallel with the corresponding existing thermocouple for temperature and possible thermocouple failure. See Condition 4.2.2(f) (i) (H) and Section 7.5.

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I. Pursuant to Section 39.5(7) (b) of the Act, the source shall repair or replace a malfunctioning thermocouple within 15 days. During the time interval in which the thermocouple is being repaired or replaced, the source may monitor the temperature at the inlet of the associated pyroscrubber with a single thermocouple.

Recordkeeping

- L. Pursuant to Section 39.5(7) (b) of the Act, the Permittee shall keep records of each inspection performed along with a maintenance and repair log according to the requirements in Condition 7.6(i).
- M. Pursuant to Section 39.5(7) (b) of the Act and Order PCB 04-137, the Permittee shall utilize its updated log system for tracking malfunctions and breakdowns such that the log links work orders for the corresponding repairs.
- N. I. Pursuant to Section 39:5(7)(b) of the Act and Order PCB 04-137, the Permittee shall maintain an electronic log of cooler gas diversions.
 - II. Pursuant to Section 39.5(7) (b) of the Act, these records shall include, at a minimum, the following:
 - The date and time of the diversion;
 - 2. Reason for the diversion; and
 - 3. Either an explanation for why no action was taken if no maintenance or repair activities occurred due to the diversion or a reference linking the diversion to the corresponding maintenance or repair activities.
 - I. Pursuant to Section 39.5(7) (b) of the Act, the Permittee shall maintain records of the number of baghouse replacement bags onsite for each baghouse. These records shall be updated whenever the number for either baghouse changes.
 - II. Pursuant to Section 39.5(7) (b) of the Act, the Permittee shall maintain records of baghouse bag procurement processes. Such records shall include the date each process was initiated and the number of replacement bags ordered.

- a. The petroleum coke calcining lines are not subject to the New Source Performance Standards (NSPS) for Calciners and Dryers in Mineral Industries, 40 CFR Part 60 Subpart UUU, because the petroleum coke calcining lines are not located at a mineral processing plant as defined by 40 CFR 60.731.
- b. The Kilns 1 & 2 are not subject to 40 CFR Part 63 Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, because the kilns by definition are not boilers or process heaters as defined by 40 CFR 63.7575.
- c. The kilns associated with the Petroleum Coke Calcining Operations are not subject to 35 IAC 214.122 because the kilns are not by definition "new emission sources" pursuant to 35 IAC 201.102.

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- d. The kilns are not subject to 35 IAC 216.121, emissions of carbon monoxide from fuel combustion emission units, because the kilns are not fuel combustion emission units as defined by 35 IAC 211.2470.
- e. The kilns are not subject to 35 IAC 217.141, emissions of nitrogen oxides from existing fuel combustion emission sources, because the kilns are not fuel combustion emission units as defined by 35 IAC 211.2470.
- f. The kilns are not subject to 40 CFR Part .64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, for SO₂, because the kilns do not use an add-on control device to achieve compliance with an emission limitation or standard associated with SO₂.

4. Other Requirements

For the emission units in Condition 4.2.1 above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

a. Start-up, Shutdown, and Malfunction Breakdown Requirements

- i. Authorization for State Requirements
 - A. Start-up Requirements

Pursuant to 35 IAC 201.149, 201.261, and 201.262, the source is authorized to operate kiln 1 and kiln 2 and their associated pyroscrubbers (i.e., pyroscrubber 1 and pyroscrubber 2) in violation of the applicable requirements of Conditions 4.2.2(a) (i) (A), 4.2.2(b) (i) (A), and 4.2.2(d) (i) (A) during start-up. The start-up time shall be no more than 24 hours. For this purpose, the start-up time is defined as the duration from when green coke feed is introduced to the kiln until the temperature at the pyroscrubber inlet achieves the minimum operating temperature indicated in the CAM plan. The Permittee shall comply with all applicable requirements in Section 7.3 of this permit.

B. Malfunction Breakdown Requirements

Pursuant to 35 IAC 201.149, 201.261, and 201.262, the source is authorized to continue operation in violation of the applicable requirements of Conditions 4.2.2(a) (i) (A), 4.2.2(b) (i) (A), and 4.2.2(d) (i) (A) during malfunction breakdown. The Permittee shall comply with all applicable requirements in Section 7.4 of this permit.

b. Operational Flexibility Requirements

- i. Pursuant to Section 39.5(12)(a) of the Act, the Permittee is allowed to operate the Petroleum Coke Calcining Operation using the following operational methods:
 - A. If Kiln 1 operates while Kiln 2 is not operating, emissions from Cooler 1 may be vented through Baghouse 2 rather than Baghouse 1 if Baghouse 2 is in working condition.
 - B. If Kiln 2 operates while Kiln 1 is not operating, emissions from Cooler 2 may be vented through Baghouse 1 rather than Baghouse 2 if Baghouse 1 is in working condition.
 - C. For Baghouse 1 maintenance lasting up to thirty minutes, emissions from Cooler 1 may be vented through Pyroscrubber 1.
 - D. For Baghouse 2 maintenance lasting up to thirty minutes, emissions from Cooler 2 may be vented through Pyroscrubber 2.

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5. Reporting Requirements

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

a. Prompt Reporting

- i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows unless a different period is specified by a particular permit provision, i.e., NSPS or NESHAP requirement:
 - I. Requirements in Conditions 4.2.2(a) (i), 4.2.2(b) (i), 4.2.2(c) (i), 4.2.2(d) (i), 4.2.2(e) (i), and 4.2.2(f) (i).
 - II. Requirements in Conditions 4.2.4(a) and 4.2.4(b).
 - III. Requirements in Section 7.6.
 - B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- iii. The deviation reports shall contain at a minimum the following information:
 - A. Date and time of the deviation.
 - B. Emission unit(s) and/or operation involved.
 - C. The duration of the event.
 - D. Probable cause of the deviation.
 - E. Corrective actions or preventative measures taken.

b. Operational Flexibility Reporting

- Pursuant to Section 39.5(7) (b) of the Act, the Permittee shall summarize and report cooler gas diversions leading to operation according to the alternative methods listed in Conditions 4.2.4(b) (i) (A D) as part of the Semiannual Monitoring Report required by Condition 3.5(b). These summaries shall include the following information, at a minimum, for each such cooler gas diversion that occurred during the reporting period:
 - A. The date, time, and duration of the diversion;
 - B. The reason for the diversion;
 - C. For diversions which led to maintenance or repair actions, descriptions of the actions taken; and
 - D. For diversions which did not lead to any maintenance or repair actions, brief explanations for why no action was taken.

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4.3 Fugitive Dust

Emission Unit	Description	Pollutants Being Regulated	Original Construction Date	Modification/ Reconstruction Date	Air Pollution Control Devices or Measures	Monitoring Devices
Fugitive Emissions	Vehicular Traffic on Roadways, Parking Lots, and Other Open Areas Unloading Operations (Uncontrolled) Storage Piles and	РМ	N/A	N/A	Moisture Content	None
	Associated Activities (Green Coke Storage Piles, Etc.)					

2. Applicable Requirements

For the emission units in Condition 4.3.1 above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

a. i. Opacity Requirements

- A. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit.
- ii. Compliance Method (Opacity Requirements)

Monitoring

- A. At least once each year or if requested by the Illinois EPA, pursuant to Section 39.5(7)(a) and Section 39.5(7)(d) of the Act, as provided by 35 IAC 212.107, for both fugitive and non-fugitive particulate matter emissions, a determination as to the presence or absence of visible emissions from emission units shall be conducted in accordance with Method 22, 40 CFR Part 60, Appendix A, except that the length of the observing period shall be at the discretion of the observer, but not less than one minute. This test method shall be used to determine compliance with 35 IAC 212.123. If visible emissions are observed, the Permittee shall conduct a Method 9 in accordance with Condition 4.3.2(a)(ii)(B), below.
- B. Pursuant to Section 39.5(7) (a) and Section 39.5(7) (d) of the Act, upon reasonable request by the Illinois EPA or following an observation as described in Condition 4.3.2(a) (ii) (A), above, in which visible emissions were observed the Permittee shall conduct a Method 9 in accordance with the following, as provided by 35 IAC 212.109, measurements of opacity shall be conducted in accordance with Method 9, 40 CFR Part 60, Appendix A, except that for roadways and parking areas the number of readings required for each vehicle pass will be three taken at 5-second intervals. The first reading shall be at the point of maximum opacity and second and third readings shall be made at the same point, the observer standing at right angles to the plume at least 15 feet away from the plume and observing 4 feet above the surface of the roadway or parking area. After four vehicles have passed, the 12 readings will be averaged.

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Recordkeeping

- C. Pursuant to Section 39.5(7) (b) of the Act, for Condition 4.3.2(a) (ii) (A), the Permittee shall keep records for each opacity observation performed. These records shall include, at a minimum: date and time the observation was performed, name(s) of observing personnel, identification of what was observed, whether the findings of the observation including the presence of any visible emissions, and a description of any corrective action taken including if the corrective action took place within 4 hours of the observation.
- D. Pursuant to Section 39.5(7) (b) of the Act, for Condition 4.3.2(a) (ii) (B), the Permittee shall keep records for all opacity measurements made in accordance with Method 9. These records shall include, at a minimum: date and time the Method 9 was performed, name(s) of observing personnel, identification of which equipment, roadway, or parking lot was observed, whether or not the equipment was running properly, and the opacity readings observed.

b. i. Particulate Matter Requirements (PM)

- A. The affected operations shall comply with the standard in Condition
 3.1(a)(i), which addresses visible emissions of fugitive particulate matter, as defined by 35 IAC 211.2490. Specifically, 35 IAC 212.301.
- ii. Compliance Method (PM Requirements)

The source shall comply with the monitoring and recordkeeping in Condition 3.1(a) (ii).

- c. i. Work Practice Requirements
 - A. Pursuant to Section 39.5(7)(a) of the Act, the Permittee shall maintain and operate all equipment, roadways, parking lots, and storage piles in a manner consistent with safety and good air pollution control practice for minimizing emissions.
 - ii. Compliance Method (Work Practice Requirements)

Monitoring

A. Pursuant to Sections 39.5(7) (a) & (b) of the Act, at a minimum, the Permittee shall perform monthly inspections of the unloading hopper, the load-out spouts, and associated auxiliary equipment.

Recordkeeping

B. Pursuant to Section 39.5(7) (b) of the Act, the Permittee shall keep records of each inspection performed along with a maintenance and repair log. These records shall include, at a minimum: date and time inspections were performed, name(s) of inspection personnel, identification of equipment being inspected, findings of the inspections, operation and maintenance procedures, and a description of all maintenance and repair activities performed including if the activity resulted in a modification or reconstruction of the piece of equipment.

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3.	Non-Applicabilit	v Determinations
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- a. Fugitive emissions at the source are not subject to the requirements of 35 IAC 212.302, therefore, 35 IAC 212.304 through 212.310 and 35 IAC 212.312 do not apply, because the source is not located in a geographical area as listed in 35 IAC 212.302.
- b. Pursuant to 35 IAC 212.323, fugitive emissions at the source are not subject to the requirements of 35 IAC 212.321 or 212.322, Process Weight Rate, because due to the disperse nature of such emission units, such rules cannot reasonably be applied.
- c. The fugitive emissions at the facility are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because there are no add-on control devices used to achieve compliance with an emission limitation or standard.

4. Other Requirements

As of the date of issuance of this permit, there are no other requirements that need to be included in this Condition.

5. Reporting Requirements

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

a. Prompt Reporting

- i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows unless a different period is specified by a particular permit provision, i.e., NSPS or NESHAP requirement:
 - I. Requirements in Conditions 4.3.2(a)(i), 4.3.2(b)(i), and 4.3.2(c)(i).
 - B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- iii. The deviation reports shall contain at a minimum the following information:
 - A. Date and time of the deviation.
 - B. Emission unit(s) and/or operation involved.
 - C. The duration of the event.
 - D. Probable cause of the deviation.
 - E. Corrective actions or preventative measures taken.

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4.4 Storage Tanks

Emission Units	Pollutants Being Regulated	Original Construction Date	Modification/ Reconstruction Date	Air Pollution Control Devices or Measures	Monitoring Devices
15,000 Gallon Dedust Oil Storage Tank	VOM	1996	N/A	Submerged Loading Pipe	None

For the emission units in Condition 4.4.1 above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

a. i. Volatile Organic Material Requirements (VOM)

A. Pursuant to 35 IAC 215.122(b), for the dedust oil tank, no person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 liters (250 gal), unless such tank is equipped with a permanent submerged loading pipe.

ii. Compliance Method (VOM Requirements)

Monitoring

A. Pursuant to Sections 39.5(7) (a) of the Act, at a minimum, the Permittee shall perform an annual inspection of the dedust oil storage tank and its associated auxiliary equipment. During the inspection, the Permittee shall ensure the presence of submerged loading pipe in the tank that is in working condition.

Recordkeeping

- B. Pursuant to Section 39.5(7) (b) of the Act, the Permittee shall keep records of each inspection performed along with a maintenance and repair log. These records shall include, at a minimum, the following:
 - I. Date and time inspections were performed;
 - II. Name(s) of inspection personnel;
 - III. Identification of equipment being inspected;
 - IV. Findings of the inspections, which shall specifically note the presence of a submerged loading pipe;
 - V. Operation and maintenance procedures; and
 - VI. A description of all maintenance and repair activities performed including if the activity resulted in a modification or reconstruction of the piece of equipment.
- C. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain the following records:
 - I. 1. Emissions from tanks shall be calculated in accordance with AP-42 Chapter 7.1.

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 Emissions of VOM from the dedust oil tank, tons/mo and ton/yr (12-month rolling average, calculated monthly), with supporting calculations;

4.4 - Storage Tanks

- II. Design information for the dedust oil tank showing the presence of a permanent submerged loading pipe;
- III. The type of liquid stored in the dedust tank and throughput of the dedust oil tank, gal/month and gal/yr.

.3. Non-Applicability Determinations

- a. The dedust oil storage tank is not subject to the New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels), 40 CFR Part 60 Subpart Kb, because it does not have design capacities that are equal to or greater than 75 m³ (19,800 gallons).
- b. The dedust oil storage tank is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the dedust oil storage tank uses a passive control measure, such as a seal, lid, or roof, that is not considered a control device because it acts to prevent the release of pollutants.

4. A. Other Requirements ? State of How State of the Late of the State of State of the State of

As of the date of issuance of this permit, there are no other requirements that need to be included in this Condition.

5. Reporting Requirements

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

a. <u>Prompt Reporting</u>

- A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows unless a different period is specified by a particular permit provision, i.e., NSPS or NESHAP requirement:
 - I. Requirements in Conditions 4.4.2(a)(i).
 - B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).
- iii. The deviation reports shall contain at a minimum the following information:
 - A. Date and time of the deviation.
 - B. Emission unit(s) and/or operation involved.
 - C. The duration of the event.
 - D. Probable cause of the deviation.
 - E. Corrective actions or preventative measures taken.

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Section 5 - Additional Title I Requirements

Exhibit B

Section 5 - Additional Title I Requirements

This Section is reserved for Title I requirements not specified in Sections 3 or 4. As of the date of issuance of this permit, there are no Title I requirements that need to be separately addressed in this Section.

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Date Received: 03/26/2018 Date Issued: 05/13/2019 Date Revised: 05/16/2022

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Section 6 - Insignificant Activities Requirements

1. Insignificant Activities Subject to Specific Regulations

Pursuant to 35 IAC 201.210 and 201.211, the following activities at the source constitute insignificant activities. Pursuant to Sections 9.1(d) and 39.5(6)(a) of the Act, the insignificant activities are subject to specific standards promulgated pursuant to Sections 111, 112, 165, or 173 of the Clean Air Act. The Permittee shall comply with the following applicable requirements:

Insignificant Activity	Number of Units	Insignificant Activity Category
Gas turbines and stationary reciprocating internal combustion engines < 112 kW (150 hp) power output. - Kiln Aux. Engine 1 (89.9 hp, non-emergency, 2010) - Kiln Aux. Engine 2 (89.9 hp, non-emergency, 2010) - Aux. Water Pump Engine 3 (50 hp, emergency, 1998)	3	35 IAC 201.210(a)(15)

a. Applicable Requirements

Pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act, the Permittee shall comply with the following applicable requirements in addition to the applicable requirements in Condition 6.4:

i. New Source Performance Standard Requirements (NSPS)

Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40 CFR 60 Subpart JJJJ)

- A. Pursuant to 40 CFR 60.4230(a)(4)(iii), for Kiln Auxiliary Engines 1 & 2, the Permittee shall comply with the applicable requirements of 40 CFR 60 Subpart JJJJ, which include, but is not be limited to, the following:
 - I. Pursuant to 40 CFR 60.4233(d), the Permittee shall comply with the emission standards for field testing in 40 CFR 1048.101(c) for their non-emergency stationary spark ignition (SI) internal combustion engines (ICE). Owners and operators of stationary SI ICE with a maximum engine power greater than 19 kW (25 hp) and less than 75 kW (100 hp) manufactured prior to January 1, 2011, that were certified to the standards in Table 1 to 40 CFR 60 Subpart JJJJ applicable to engines with a maximum engine power greater than or equal to 100 hp and less than 500 hp, may optionally choose to meet those standards.
 - II. Pursuant to 40 CFR 60.4243(b), the Permittee shall demonstrate compliance with the emission standards specified in 40 CFR 60.4233(d) according to one of the methods specified in 40 CFR 60.4243(b)(1) and (2).
 - III. Pursuant to 40 CFR 60.4245(a), the Permittee shall keep records of the information in 40 CFR 60.4245(a)(1) through (4).
 - IV. Pursuant to 40 CFR 60.4246, the Permittee shall comply with the applicable General Provisions in 40 CFR 60.1 through 60.19, as specified in 40 CFR 60 Subpart JJJJ, Table 3.

ii. National Emission Standards for Hazardous Air Pollutants (NESHAP)

Standards of Performance for Stationary Reciprocating Internal Combustion Engines (40 CFR 60 Subpart ZZZZ)

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- A. Pursuant to 40 CFR 63.6590(c), for Kiln Auxiliary Engines 1 & 2, the Permittee shall meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart JJJJ. No further requirements apply for Kiln Auxiliary Engines 1 & 2 under 40 CFR 63 Subpart ZZZZ.
- B. Pursuant to 40 CFR 63.6585, for Auxiliary Water Pump Engine 3, the Permittee shall comply with the applicable requirements of 40 CFR 63 Subpart ZZZZ which include, but are not limited to, the following:
 - I. Pursuant to 40 CFR 63.6602, the Permittee shall comply with the applicable requirements in 40 CFR Part 63, Subpart ZZZZ Table 2c.
 - II. Pursuant to 40 CFR 63.6640(a), the Permittee shall demonstrate continuous compliance with the applicable requirements in Table 2c to 40 CFR 63 Subpart ZZZZ according to one of the following methods specified in Table 6 to 40 CFR 63 Subpart ZZZZ:
 - 1. Operating and maintaining the stationary reciprocating internal combustion engine (RICE) according to the manufacturer's emission-related operation and maintenance instructions; or
 - 2. Develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
 - III. Pursuant to 40 CFR 63.6640(f), the Permittee shall either operate the emergency stationary RICE according to the requirements in 40 CFR 63.6640(f)(1) through (4) or comply with the applicable requirements of 40 CFR 63 Subpart 2222 for non-emergency engines.
 - IV. Pursuant to 40 CFR 63.6655(a), the Permittee shall keep the applicable records described in 40 CFR 63.6655(a)(1) through (a)(5).
 - V. Pursuant to 40 CFR 63.6655(d), the Permittee shall keep the records required in Table 6 of 40 CFR 63 Subpart 2222.
 - VI. Pursuant to 40 CFR 63.6655(e), the Permittee shall keep records of the maintenance conducted on the stationary RICE.
 - VII. Pursuant to 40 CFR 63.6655(f), the Permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for nonemergency operation.
 - VIII. Pursuant to 40 CFR 63.6665, the Permittee shall comply with the applicable General Provisions of 40 CFR 63 Subpart A as shown in Table 8 to 40 CFR 63 Subpart ZZZZ.

2. Insignificant Activities in 35 IAC 201.210(a)

In addition to any insignificant activities identified in Condition 6.1, the following additional activities at the source constitute insignificant activities pursuant to 35 IAC 201.210 and 201.211:

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Insignificant Activity	Number of Units	Insignificant Activity Category
Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as further detailed in 35 IAC 201.210(a)(4). - space heaters (natural gas, less than 2.5 mmBtu/hr)	9	35 IAC 201.210(a)(4)
Storage tanks as further detailed in 35 IAC 201.210(a)(10). - T1FS (diesel, 8000 gal, horizontal fixed roof AST) - T2FS (diesel, 8000 gal, horizontal fixed roof AST) - T3FS (gasoline, 250 gal, submerged loading) - T4FS (diesel, 300 gal, horizontal fixed roof AST) - T5FS (used oil, 300 gal, horizontal fixed roof AST) - T6FS (kerosene, 300 gal, horizontal fixed roof AST)	6	35 IAC 201.210(a)(10)

3. Insignificant Activities in 35 IAC 201.210(b)

Pursuant to 35 IAC 201.210, the source has identified insignificant activities as listed in 35 IAC 201.210(b)(1) through (28) as being present at the source. The source is not required to individually list the activities.

4. Applicable Requirements

Insignificant activities in Conditions 6.1 and 6.2 are subject to the following general regulatory limits notwithstanding status as insignificant activities. The Permittee shall comply with the following requirements, as applicable:

- a. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 IAC 212.122, except as provided in 35 IAC 212.123(b).
- b. Pursuant to 35 IAC 212.321 or 212.322 (see Conditions 7.2(a) and (b)), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceed the allowable emission rates specified 35 IAC 212.321 or 212.322 and 35 IAC Part 266.
- c. Pursuant to 35 IAC 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2,000 ppm, except as provided in 35 IAC Part 214.
- d. Pursuant to 35 IAC 214.305(a)(2), the sulfur content of all distillate fuel oil used by any process emission unit shall not exceed 15 ppm.
- e. Pursuant to 35 IAC 215.301, no person shall cause or allow the discharge of more than 8 lbs/hr of organic material into the atmosphere from any emission source, except as provided in 35 IAC 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 215 Subpart K shall apply only to photochemically reactive material.
- f. Pursuant to 35 IAC 215.122(b), no person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 250 gal, unless such tank is equipped with a permanent submerged loading pipe, submerged fill, or an equivalent device approved by the IEPA according to 35 IAC Part 201 or unless such tank is a pressure tank as described in 35 IAC 215.121(a) or is fitted with a recovery system as described in 35 IAC 215.121(b)(2). Exception as provided in 35 IAC 215.122(c): If no odor nuisance exists the limitations of 35 IAC 215.122 shall only apply to the loading of volatile organic liquid with a vapor pressure of 2.5 psia or greater at 70°F.

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5. Compliance Method

Pursuant to Section 39.5(7)(b) of the Act, the source shall maintain records of the following items for the insignificant activities in Conditions 6.1 and 6.2:

- a. List of all insignificant activities, including insignificant activities added as specified in Condition 6.6, the categories the insignificant activities fall under, and supporting calculations as needed.
- b. Potential to emit emission calculations before any air pollution control device for each insignificant activity listed in Condition 6.2.
- c. For each storage tank of organic liquids, except gasoline and gasoline/ethanol blend fuel tanks, records of the throughput (gal/yr).
- d. Records demonstrating that the fuel oil used by any process emission source complies with the applicable standard for maximum sulfur content.

6. Notification Requirements for Insignificant Activities

The source shall notify the IEPA accordingly to the addition of insignificant activities:

a. Notification 7 Days in Advance

- i. Pursuant to 35 IAC 201.212(b), for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(a)(1) and 201.211 and is not currently identified in Conditions 6.1 or 6.2, a notification to the IEPA Permit Section 7 days in advance of the addition of the insignificant activity is required. Addresses are included in Attachment 3. The notification shall include the following pursuant to 35 IAC 201.211(b):
 - A. A description of the emission unit including the function and expected operating schedule of the unit.
 - B. A description of any air pollution control equipment or control measures associated with the emission unit.
 - C. The emissions of regulated air pollutants in lb/hr and ton/yr.
 - D. The means by which emissions were determined or estimated.
 - E. The estimated number of such emission units at the source.
 - F. Other information upon which the applicant relies to support treatment of such emission unit as an insignificant activity.
- ii. Pursuant to 35 IAC 201.212(b), for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(a)(2) through 201.210(a)(18) and is not currently identified in Conditions 6.1 or 6.2, a notification to the IEPA Permit Section 7 days in advance of the addition of the insignificant activity is required. Addresses are included in Attachment 3.
- iii. Pursuant to Sections 39.5(12)(a)(i)(b) and 39.5(12)(b)(iii) of the Act, the permit shield described in Section 39.5(7)(j) of the Act (see Condition 2.7) shall not apply to any addition of an insignificant activity noted above.

b. Notification Required at Renewal

Pursuant to 35 IAC 201.212(a) and 35 IAC 201.146(kkk), for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(a) and is currently

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identified in Conditions 6.1 or 6.2, a notification is not required until the renewal of this permit.

c. <u>Notification Not Required</u>

Pursuant to 35 IAC 201.212(c) and 35 IAC 201.146(kkk), for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(b) as described in Condition 6.3, a notification is not required.

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Section 7 - Other Requirements

1. Testing

a.	least otherw Compli testin the pr protoc Specia	ant to Section 39.5(7)(a) of the Act, a written test protocol shall be submitted at sixty (60) days prior to the actual date of testing, unless it is required wise in applicable state or federal statutes. The IEPA may at the discretion of the liance Section Manager (or designee) accept protocol less than 60 days prior to ing provided it does not interfere with the IEPA's ability to review and comment on protocol and does not deviate from the applicable state or federal statutes. The bool shall be submitted to the IEPA, Compliance Section and IEPA, Stack Test alist for its review. Addresses are included in Attachment 3. This protocol shall ribe the specific procedures for testing, including as a minimum:							
	i.	The na	meand	identification of the emission unit(s) being tested.					
	ii.	Purpos test.	Purpose of the test, i.e., permit condition requirement, IEPA or USEPA requesticest.						
	iii.		who will be performing sampling and analysis and their experience tests.						
	iv.	discus the me	ne specific conditions under which testing will be performed, including a iscussion of why these conditions will be representative of maximum emissions ar ne means by which the operating parameters for the emission unit and any control quipment will be determined.						
	v.	The specific determinations of emissions and operation which are intended t made, including sampling and monitoring locations.							
	vi.	method	nod(s) that will be used, with the specific analysis method, if the e used with different analysis methods. Include if emission tests 35 IAC 283 will be used.						
	vii.	circum waiver	anges in standard methodology proposed to accommodate the specific s of testing, with detailed justification. This shall be included as a e test procedures. If a waiver has already been obtained by the IEPA en the waiver shall be submitted.						
	viii.	shall	use of an alternative test method, with detailed justification. This Luded as a waiver of the test procedures. If a waiver has already been the IEPA or USEPA, then the waiver shall be submitted.						
	ix.	Sampling of materials, QA/QC procedures, inspections, etc.							
	х.	Notwithstanding conditions 7.1 above, a test plan need not be submitted under the following circumstances:							
		A.	Where Howeve	the Permittee intends to utilize a test plan previously submitted. r, the Permittee must submit a notice containing the following:					
			I.	The purpose of the test;					
			II.	Date the previously submitted test plan was submitted; and					
			III.	A statement that the source is relying on a previously submitted test plan.					

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- B. Where the source intends to use a standard test method or procedure. However, the Permittee must submit a notice containing the following:
 - I. The purpose of the test; and
 - II. The standard test method or procedure to be used.
- b. The IEPA, Compliance Section shall be notified prior to these tests to enable the IEPA to observe these tests pursuant to Section 39.7(a) of the Act as follows:
 - i. Notification of the expected date of testing shall be submitted in writing a minimum of thirty (30) days prior to the expected test date, unless it is required otherwise in applicable state or federal statutes.
 - Notification of the actual date and expected time of testing shall be submitted in writing a minimum of five (5) working days prior to the actual date of the test. The IEPA may at its discretion of the Compliance Section Manager (or designee) accept notifications with shorter advance notice provided such notifications will ' not interfere with the IEPA's ability to observe testing.
- c. Copies of the Final Report(s) for these tests shall be submitted to the IEPA, Compliance Section within fourteen (14) days after the test results are compiled and finalized but no later than ninety (90) days after completion of the test, unless it is required otherwise in applicable state or federal statutes or the IEPA may at the discretion of the Compliance Section Manager (or designee) agree upon an alternative date in advance pursuant to Section 39.7(a) of the Act. The Final Report shall include as a minimum:
 - i. General information including emission unit(s) tested.
 - ii. A summary of results.
 - iii. Discussion of conditions during each test run (malfunction/breakdown, startup/shutdown, abnormal processing, etc.).
 - iv. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
 - v. Detailed description of test conditions, including:
 - A. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption.
 - B. Control equipment information, i.e., equipment condition and operating parameters during testing.
 - C. A discussion of any preparatory actions taken, i.e., inspections, maintenance and repair.
 - vi. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
 - vii. An explanation of any discrepancies among individual tests or anomalous data.
 - viii. Results of the sampling of materials, QA/QC procedures, inspections, etc.
 - ix. Discussion of whether protocol was followed and description of any changes to the protocol if any occurred.
 - x. Demonstration of compliance showing whether test results are in compliance with applicable state or federal statutes.

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d. Copies of all test reports and other test related documentation shall be kept on site as required by Condition 2.5(b) pursuant to Section 39.5(7)(e)(ii) of the Act.

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Date Received: 03/26/2018 Date Issued: 05/13/2019 Date Revised: 05/16/2022

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2. PM Process Weight Rate Requirements

a. New Process Emission Units - 35 IAC 212.321

New Process Emission Units for Which Construction or Modification Commenced on or After April 14, 1972. [35 IAC 212.321]

- i. No person shall cause or allow the emission of PM into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of PM from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c). See Condition 7.2(a) (iii) below. [35 IAC 212.321(a)]
- ii. Interpolated and extrapolated values of the data in 35 IAC 212.321(c) shall be determined by using the equation: [35 IAC 212.321(b)]

 $E = A(P)^{B}$

Where:

- P = Process weight rate (T/hr) E = Allowable emission rate (lbs/hr)
- A. Process weight rates of less than 450 T/hr:

A = 2.54B = 0.53

B. Process weight rates greater than or equal to 450 T/hr:

A = 24.8B = 0.16

iii. Limits for New Process Emission Units: [35 IAC 212.321(c)]

Р	É	P	E
(T/hr)	(lbs/hr)	<u>(T/hr)</u>	(lbs/hr)
0.05	0.55	25.00	14.00
0.10	0.77	30.00	15.60
0.20	1.10	35.00	17.00
0.30	1.35	40.00	18.20
0.40	1.58	45.00	19.20
0.50	1.75	50.00	20.50
0.75	2.40	100.00	29.50
1.00	2.60	150.00	37.00
2.00	3.70	200.00	43.00
3.00	4.60	250.00	48.50
4.00	5.35	300.00	53.00
5.00	6.00	350.00	58.00
10.00	8.70	400.00	62.00
15.00	10.80	450.00	66.00
20.00	12.50	500.00	67.00

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Section 7 - Other Requirements 7.2 - PM Process Weight Rate Requirements

b. Existing Process Emission Units - 35 IAC 212.322

Existing Process Emission Units for Which Construction or Modification Commenced Prior to April 14, 1972. [35 IAC 212.322]

- i. No person shall cause or allow the emission of PM into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of PM from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.322(c)). See Condition 7.2(b)(iii) below. [35 IAC 212.322(a)]
- ii. Interpolated and extrapolated values of the data in 35 IAC 212.322(c) shall be determined by using the equation: [35 IAC 212.322(b)]

 $E = C + A(P)^{B}$

Where:

- P = Process weight rate (T/hr)
 E = Allowable emission rate (lbs/hr)
- A. Process weight rates of less than 30 T/hr:

A = 4.10 B = 0.67C = 0

B. Process weight rates greater than or equal to 30 T/hr:

A = 55.0 B = 0.11C = -40.0

iii. Limits for Existing Process Emission Units: [35 IAC 212.322(c)]

Р	E	Р	E
(T/hr)	(lbs/hr)	<u>(T/hr)</u>	<u>(lbs/hr)</u>
0.05	0.55	25.00	35.40
0.10	0.87	30.00	40.00
0.2	1.40	35.00	41.30
0.30	1.83	40.00	42.50
0.40	2.22	45.00	43.60
0.50	2.58	50.00	44.60
0.75	3.38	100.00	51.20
1.00	4.10	150.00	55.40
2.00	6.52	200.00	58.60
3.00	8.56	250.00	61.00
4.00	10.40	300.00	63.10
5.00	12.00	350.00	64.90
10.00	19.20	400.00	66.20
15.00	25.20	450.00	67.70
20.00	30.50	500.00	69.00

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3. Start-Up Requirements

a. Start-Up Provisions

Pursuant to 35 IAC 201.149, 201.261, and 201.262, the source is authorized to operate in violation of the applicable requirements (as referenced in Section 4.2.4(a)(i)(A) of this CAAPP permit) during start-up. The source has applied for such authorization in its application, generally describing the efforts that will be used "...to minimize start-up emissions, duration of individual starts, and frequency of start-ups." As provided by 35 IAC 201.265, authorization in this CAAPP permit for excess emissions during start-up does not shield the source from enforcement for any violation of applicable emission standard(s) that occurs during start-up and only constitutes a prima facie defense to such an enforcement action provided that the source has fully complied with all terms and conditions connected with such authorization.

- i. This authorization does not relieve the source from the continuing obligation to demonstrate that all reasonable efforts are made to minimize start-up emissions, duration of individual starts, and frequency of start-ups.
- ii. The source shall conduct start-ups in accordance with written start-up procedures prepared by the source and maintained at the source, that are specifically developed to minimize start-up emissions, duration of individual starts, and frequency of start-ups.
- iii. The authorization provided by Condition 4.2.4(a)(i)(A) is subject to the following:
 - A. Implementation of established start-up procedures;
 - B. Neither kiln shall begin green coke feed if the baghouse controlling that kiln cooler is not operating properly unless the other kiln is not in service and its baghouse is available for control of PM emissions.
 - C. Neither kiln shall begin green coke feed unless the temperature at the pyroscrubber inlet is at least 400°F.
 - D. Natural gas shall be used as a supplemental heat source to the kiln in order to reach sufficient pyroscrubber operating temperature at a rate in accordance with the refractory manufacturer's guidelines. Sufficient pyroscrubber operating temperature corresponds to the inlet pyroscrubber temperature indicator range in the CAM plan. See Tables 7.5.1 - 7.5.4.
 - E. Sufficient pyroscrubber operating temperature shall be achieved within 24 hours after introducing green coke feed to the kiln.

b. Monitoring - Recordkeeping

Pursuant to Section 39.5(7)(b) of the Act, the source shall maintain the following records for start-up:

- i. Records for each individual start-up that contains at a minimum:
 - A. Date, time, duration, and description of the start-up.
 - B. Whether the most recent start-up procedures were followed. If not followed, an explanation as to what procedures were not followed and why these procedures were not followed.
 - C. Whether normal operation was achieved in the allowed duration (as referenced in Section 4.2.4(a)(i)(A) of this CAAPP permit). If not achieved, an explanation why normal operation was not achieved in the allowed duration.

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c. Monitoring - Reporting

Pursuant to Sections 39.5(7)(b) and (f) of the Act, the source shall submit the following reports:

i. Prompt Reporting

A Deviation Report shall be submitted to the IEPA, Compliance Section (address is included in Attachment 3) within five (5) days if a start-up exceeded the emission estimates in the start-up procedures or emissions exceeded any applicable standard or limit not authorized to be violated during start-up.

ii. Semiannual Reporting

As part of the required Semiannual Monitoring Reports, the source shall submit a start-up report including the following at a minimum: a list of the start-ups including the date, duration, and description of each start-up where the start-up exceeded any applicable standard or limit accompanied by an explanation where the applicable start-up procedures were not performed and where normal operation was not achieved in the allowed duration.

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4. Malfunction Breakdown Requirements

a. Malfunction Breakdown Provisions

Pursuant to 35 IAC 201.149, 201.261, and 201.262, the source is authorized to continue operation in violation of the applicable requirements (as referenced in Section 4.2.4 of the CAAPP permit) during malfunction or breakdown. The source has applied for such authorization in its application, generally describing "such continued operation is necessary to prevent injury to persons or severe damage to equipment; or that such continued operation is required to provide essential services; provided, however, that continued operation solely for the economic benefit of the source shall not be sufficient for granting of permission." As provided by 35 IAC 201.265, authorization in this CAAPP permit for continued operation during malfunction or breakdown does not shield the source from enforcement for any violation of applicable emission standard(s) that occurs during malfunction or breakdown and only constitutes a prima facie defense to such an enforcement action provided that the source has fully complied with all terms and conditions connected with such authorization.

- i. Upon continued operation in violation of the applicable requirements during malfunction or breakdown, the source shall as soon as practical, remove from service and repair the emission unit(s) or undertake other measures as described in the application so that any violation of the applicable requirements cease.
- ii. For continued operation in violation of the applicable requirements during malfunction or breakdown, the time shall be measured from the start of a particular incident and ends when violation of the applicable requirements ceases. The absence of a violation of the applicable requirements for a short period shall not be considered to end the incident if a violation of the applicable requirements resume. In such circumstances, the incident shall be considered to continue until corrective measures are taken so that a violation of the applicable requirements cease or the source takes the emission unit(s) out of service.
- iii. Following notification to the IEPA of continued operation in violation of the applicable requirements during malfunction or breakdown, the source shall comply with all reasonable directives of the IEPA with respect to such incident, pursuant to 35 IAC 201.263.
- iv. In the event of a malfunction or breakdown of a baghouse leading to conditions in which the source cannot operate according the alternative operational methods listed in Conditions 4.2.4(b)(i)(A - D), the Permittee shall comply with the following procedures to minimize emissions that may result from the malfunction or breakdown:
 - A. During a malfunction or breakdown event of Baghouse 1, the Permittee shall divert the exhaust from Rotary Cooler 1 to Pyroscrubber 1 for up to 24 hours.
 - B. During a malfunction or breakdown event of Baghouse 2, the Permittee shall divert the exhaust from Rotary Cooler 2 to Pyroscrubber 2 for up to 24 hours.
 - C. If baghouse repairs cannot be completed within 24 hours, the Permittee shall shut down green coke feed to one or both kilns. Green coke feed to one kiln may continue only if a baghouse is available to control emissions from the cooler. If neither baghouse is available, the Permittee shall shut down green coke feed to both kilns.
- v. In the event of a malfunction or breakdown of both thermocouples at the inlet of a pyroscrubber, the Permittee shall comply with the following procedures to minimize emissions that may result from the malfunction or breakdown:

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- A. Repair or replace at least one of the thermocouples within 24 hours.
- B. Green coke feed to a kiln shall cease within 24 hours unless at least one thermocouple at the inlet of that kiln's pyroscrubber functions properly.

b. Monitoring - Recordkeeping

Pursuant to Section 39.5(7)(b) of the Act and 35 IAC 201.263, the source shall maintain records of continued operation in violation of the applicable requirements during malfunction or breakdown. The records shall include at a minimum:

- i. Date and duration of the malfunction or breakdown.
- ii. A detailed explanation of the malfunction or breakdown.
- iii. An explanation why the emission unit(s) continued operation.
- iv. The measures used to reduce the opacity and quantity of emissions and the duration of the event.
- v. The steps taken to prevent similar malfunctions or breakdowns and reduce their frequency and severity.

c. Monitoring - Reporting

Pursuant to Sections 39.5(7)(b) and (f) of the Act and 35 IAC 201.263, the source shall provide the following notification and reports to the IEPA, Compliance Section and Regional Field Office (addresses are included in Attachment 3) concerning continued operation in violation of the applicable requirements during malfunction or breakdown:

i. Prompt Reporting

When continued operation in violation of the applicable requirements during malfunction or breakdown:

- A. The source shall notify the IEPA's regional office by telephone and/or electronic mail as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction or breakdown.
- B. Upon achievement of compliance, the source shall give a written follow-up notice within 15 days to the IEPA, Air Compliance Section and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation was necessary, the length of time during which operation continued under such conditions, the measures taken by the source to minimize and correct deficiencies with chronology, and when the repairs were completed or when the unit(s) was taken out of service.
- C. If compliance is not achieved within 5 working days of the occurrence, the source shall submit interim status reports to the IEPA, Air Compliance Section and Regional Field Office, within 5 days of the occurrence and every 14 days thereafter, until compliance is achieved. These interim reports shall provide a brief explanation of the nature of the malfunction or breakdown, corrective actions accomplished to date, actions anticipated to occur with schedule, and the expected date on which repairs will be complete or the emission unit(s) will be taken out of service.

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ii. <u>Semiannual Reporting</u>

As part of the required Semiannual Monitoring Reports, the source shall submit a semiannual malfunction breakdown report including the following at a minimum:

- A. A listing of all malfunctions and breakdowns where the malfunction breakdown exceeded any applicable standard or limit, in chronological order, that includes: the date, time, and duration of each incident; and identity of the affected operation(s) involved in the incident.
- B. Dates of the notices and reports required by Prompt Reporting requirements of 7.4(c)(i) above.
- C. If there have been no such incidents during the reporting period where the malfunction breakdown exceeded any applicable standard or limit, this shall be stated in the report.

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5. Compliance Assurance Monitoring (CAM) Requirements

a. <u>CAM Provisions</u>

i. <u>Proper Maintenance</u>

Pursuant to 40 CFR 64.7(b), at all times, the source shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

ii. Continued Operation

Pursuant to 40 CFR 64.7(c), except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the source shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutantspecific emissions unit (PSEU) is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 CFR Part 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The source shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

iii. Response to Excursions or Exceedances

- Pursuant to 40 CFR 64.7(d)(1), upon detecting an excursion or exceedance, Α. the source shall restore operation of the PSEU (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any start-up, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused start-up or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- B. Pursuant to 40 CFR 64.7(d) (2), determination of whether the source has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

b. <u>Monitoring - Monitoring</u>

Pursuant to 40 CFR 64.7(a), the source shall comply with the monitoring requirements of the CAM Plans as described in 7.5(e) below, pursuant to 40 CFR Part 64 as submitted in the source's CAM plan application.

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c. <u>Monitoring - Recordkeeping</u>

Pursuant to 40 CFR 64.9(b)(1), the source shall maintain records of the monitoring data, monitor performance data, corrective actions taken, monitoring equipment maintenance, and other supporting information related to the monitoring requirements established for CAM.

d. Monitoring - Reporting

Pursuant to Sections 39.5(7)(b) and (f) of the Act, the source shall submit the following reporting requirements:

i. Semiannual Reporting

As part of the required Semiannual Monitoring Reports, the source shall submit a CAM report including the following at a minimum:

- A. Summary information on the number, duration, and cause of excursions or exceedances, and the corrective actions taken pursuant to 40 CFR 64.6(c)(3) and 64.9(a)(2)(i).
- B. Summary information on the number, duration, and cause for monitoring equipment downtime incidents, other than downtime associated with calibration checks pursuant to 40 CFR 64.6(c)(3) and 64.9(a)(2)(ii).

e. CAM Plans

The following tables contain the CAM Plans in this CAAPP permit:

Table	Emission Unit Section	PSEU Designation	. Pollutant
7.5.1	4.2	Kiln 1	VOM
7.5.2	4.2	Kiln l	PM
7.5.3	4.2	Kiln 2	VOM
7.5.4	4.2	Kiln 2	PM
7.5.5	4.2	Cooler 1	PM
7.5.6	4.2	Cooler 2	PM

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Date Received: 03/26/2018 Date Issued: 05/13/2019 Date Revised: 05/16/2022

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Table 7.5.1 - CAM Plan

Emission Unit Section: 4.2			
PSEU Designation:		Kiln 1	
Pollutant			
Indicators:	#1) Pyroscrubber No. 1 Inlet Temperature		<pre>#2) Prroscrubber No. 1 Inlet Temperature</pre>
General Criteria			
The Monitoring Approach Used to Measure the Indicators:	Thermocouple 1A		Thermocouple 1B
The Indicator Range Which Provides a Reasonable Assurance of Compliance:	Minimum of 1,800°F		Minimum of 1,800°F
Quality Improvement Plan (QIP) Threshold Levels:	Accumulation of exceedances or excursions exceeding 5% duration of unit's operating time		Accumulation of exceedances or excursions exceeding 5% duration of unit's operating time
The Specifications for Obtaining Representative Data:	Thermocouple 1A on inlet of Pyroscrubber 1, installed per manufacture's specifications		Thermocouple 1B on inlet of Pyroscrubber 1, installed per manufacture's specifications
Verification Procedures to Confirm the Operational Status of the Monitoring:	Manufacture's specifications for installation, calibration, and start-up operation		Manufacture's specifications for installation, calibration, and start-up operation
Quality Assurance and Quality Control (QA/QC) Practices that Ensure the Validity of the Data:	Calibration of Thermocouple 1A per manufacture's specifications		Calibration of Thermocouple 1B per manufacture's specifications
The Monitoring Frequency:	Minimum of four or more data values equally spaced over each hour		Minimum of four or more data values equally spaced over each hour
The Data Collection Procedures That Will Be Used:	Temperature logged via facility's process control system		Temperature logged via facility's process control system
The Data Averaging Period for Determining Whether an Excursion or Exceedance Has Occurred:	Three-hour average, when in operation		Three-hour average, when in operation

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Table 7.5.2 - CAM Plan

Emission Unit Section: 4.2			
	PSEU Designation: Kiln 1		
	Pollutant: PM		
Indicators:	<pre>#1) Pyroscrubber No. 1 Inlet Temperature</pre>	#2) Pyroscrubber No. 1 Inlet Temperature	
General Criteria	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
The Monitoring Approach Used to Measure the Indicators:	Thermocouple 1A	Thermocouple 1B	
The Indicator Range Which Provides a Reasonable Assurance of Compliance:	Minimum of 1,800°F	Minimum of 1,800°F	
Quality Improvement Plan (QIP) Threshold Levels:	Accumulation of exceedances or excursions exceeding 5% duration of unit's operating time	Accumulation of exceedances or excursions exceeding 5% duration of unit's operating time	
· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	
The Specifications for Obtaining Representative Data:	Thermocouple 1A on inlet of Pyroscrubber 1, installed per manufacture's specifications	Thermocouple 1B on inlet of Pyroscrubber 1, installed per manufacture's specifications	
Verification Procedures to Confirm the Operational Status of the Monitoring:	Manufacture's specifications for installation, calibration, and start-up operation	Manufacture's specifications for installation, calibration, and start-up operation	
Quality Assurance and Quality Control (QA/QC) Practices that Ensure the Validity of the Data:	Calibration of Thermocouple 1A per manufacture's specifications	Calibration of Thermocouple 1B per manufacture's specifications	
The Monitoring Frequency:	Minimum of four or more data values equally spaced over each hour	Minimum of four or more data values equally spaced over each hour	
The Data Collection Procedures That Will Be Used:	Temperature logged via facility's process control system	Temperature logged via facility's process control system	
The Data Averaging Period For Determining Whether an Excursion or Exceedance Has Occurred:	Three-hour average, when in operation	Three-hour average, when in operation	

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Quality Assurance and
Quality Control (QA/QC)
Practices that Ensure
the Validity of the
Data:Calibration of Thermocouple 2A per
manufacture's specificationsCalibration of Thermocouple 2B per
manufacture's specificationsThe MonitoringMinimum of four or more data valuesMinimum of four or more data values

equally spaced over each hour equally spaced over each hour Frequency: The Data Collection Temperature logged via facility's Temperature logged via facility's Procedures That Will Be process control system process control system Used: The Data Averaging Period for Determining Three-hour average, when in operation Three-hour average, when in operation Whether an Excursion or Exceedance Has Occurred:

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Table 7.5.4 - CAM Plan

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Emis	sion Unit Section:	4.2	· · · ·	
	PSEU Designation:	Kiln 2		
	Pollutant:	PM	M	
Indicators:	#1) Pyroscrubber Temperature	No. 2 Inlet	<pre>#2) Pyroscrubber No. 2 Inlet Temperature</pre>	
General Criteria	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
The Monitoring Approach Used to Measure the Indicators:	Thermocouple 2A		Thermocouple 2B	
The Indicator Range Which Provides a Reasonable Assurance of Compliance:	Minimum of 1,800°F		Minimum of 1,800°F	
Quality Improvement Plan (QIP) Threshold Levels:	excursions exceeding 5% duration of		Accumulation of exceedances or excursions exceeding 5% duration of unit's operating time	
	· · ·	<u>`</u>		
The Specifications for Obtaining Representative Data:	Thermocouple 2A on inlet of Pyroscrubber 2, installed per manufacture's specifications		Thermocouple 2B on inlet of Pyroscrubber 2, installed per manufacture's specifications	
Verification Procedures to Confirm the Operational Status of the Monitoring:	Manufacture's specifications for installation, calibration, and start-up operation		Manufacture's specifications for installation, calibration, and start-up operation	
Quality Assurance and Quality Control (QA/QC) Practices that Ensure the Validity of the Data:	Calibration of Thermocouple 2A per manufacture's specifications		Calibration of Thermocouple 2B per manufacture's specifications	
The Monitoring Frequency:	Minimum of four or more data values equally spaced over each hour		Minimum of four or more data values equally spaced over each hour	
The Data Collection Procedures That Will Be Used:	Temperature logged via facility's process control system		Temperature logged via facility's process control system	
The Data Averaging Period for Determining Whether an Excursion or Exceedance Has Occurred:	Three-hour average, when in operation		Three-hour average, when in operation	

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Table 7.5.5 - CAM Plan

Emis	sion Unit Section:	4.2	
PSEU Designation Pollutant		Rotary Cooler 1	
		PM	
Indicators:	#1) Baghouse Pres	ssure Drop	#2) Opacity
General Criteria		_	
The Monitoring Approach Used to Measure the Indicators:			Opacity
The Indicator Range Which Provides a Reasonable Assurance of Compliance:	Minimum pressure drop of 2" H ₂ O, Maximum pressure drop of 8" of H ₂ O		Opacity ≤30%.
Quality Improvement Plan (QIP) Threshold Levels:	excursions exceeding 5% duration of the		Accumulation of exceedances or excursions exceeding 5% duration of the unit's operating time
Performance Criteria	······	•	
The Specifications for Obtaining Representative Data:	Pressure gauge across Baghouse, installed per manufacture's specifications		Opacity at the baghouse stack
Verification Procedures to Confirm the Operational Status of the Monitoring:	Manufacture's specifications for installations, calibration, and start- up operation		USEPA Method 9
Quality Assurance and Quality Control (QA/QC) Practices that Ensure the Validity of the Data:	Calibration of pressure gauge per manufacture's specifications		Certified observer
The Monitoring Frequency:	Minimum of four or more data values equally spaced over each hour		As needed following baghouse maintenance
The Data Collection Procedures That Will Be Used:	Pressure Drop logged via facility's process control system		Recordkeeping
The Data Averaging Period for Determining Whether an Excursion or Exceedance Has Occurred:	Three-hour average, when in operation		Six-minute periods

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Table 7.5.6 - CAM Plan

Emission Unit Section: PSEU Designation:

4.2 Rotary Cooler 2

Pollutant: PM

Indicators:	#1) Baghouse Pressure Drop	#2) Opacity	
General Criteria		· · · · · · · · · · · · · · · · · · ·	
The Monitoring Approach Used to Measure the Indicators:	Pressure Drop Gauge	Opacity	
The Indicator Range Which Provides a Reasonable Assurance of Compliance:	Minimum pressure drop of 2″ H₂O, Maximum pressure drop of 8″ of H₂O	Opacity ≤30%.	
Quality Improvement Plan (QIP) Threshold Levels:	Accumulation of exceedances or excursions exceeding 5% duration of the unit's operating time	Accumulation of exceedances or excursions exceeding 5% duration of the unit's operating time	
Performance Criteria			
The Specifications for Obtaining Representative Data:	Pressure gauge across Baghouse, installed per manufacture's specifications	Opacity at the baghouse stack	
Verification Procedures to Confirm the Operational Status of the Monitoring:	Manufacture's specifications for installations, calibration, and start- up operation	USEPA Method 9	
Quality Assurance and Quality Control (QA/QC) Practices that Ensure the Validity of the Data:	Calibration of pressure gauge per manufacture's specifications	Certified observer	
The Monitoring Frequency:	Minimum of four or more data values equally spaced over each hour	As needed following baghouse maintenance	
The Data Collection Procedures That Will Be Used:	Pressure Drop logged via facility's process control system	Recordkeeping	
The Data Averaging Period for Determining Whether an Excursion or Exceedance Has Occurred:	Three-hour average, when in operation	Six-minute periods	

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Section 7 - Other Requirements 7.6 - Inspection Procedure Plan Requirements

Exhibit B

6. Inspection Procedure Plan Requirements

a. Baghouse Inspection Requirements:

i. Check the interior and exterior of the baghouse for damage, corrosion, and wear.

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- ii. Check baghouse doors, airlines, seals, and housing for leaks.
- iii. Check bag conditions looking at the cages and the bags for damage, corrosion, deterioration, and wear.
- iv. Check differential pressure gauges and lines for damage, corrosion, deterioration, and wear.
- v. Check motor and gear boxes for any damage, corrosion, deterioration, and wear.
- vi. Check fan, ductwork, and all housing for damage, corrosion, deterioration, and wear.

These inspection requirements are found in the Internal Inspection Baghouse #1 and #2 PM work orders in the maintenance electronic data system.

b. General Internal Refractory Inspection Requirements:

- i. The internal inspection conducted on the stack, pyroscrubber, dust chamber, kiln, and cooler includes inspecting the refractory and structure of the equipment.
- ii. Refractory inspections include checking the following:
 - A. Inspect refractory for visible failures, exposed anchors, and/or excessive gaps (not normal gapping from contraction due to cool down), significant spalling, or visible evidence that the anchor system has failed.
 - B. Where possible, check the refractory liner's thickness.
 - C. Areas to inspect are:
 - I. Cooler liner, thimble, and transfer chute
 - II. Kiln liner, hood, and nose ring
 - III. Dust chamber thimble, walls, roof, floor, and bullnoses
 - IV. Pyroscrubber walls, roof, floor, and bullnoses
 - V. Stack breach and stack liner

c. Green Bin Inspection Requirements:

i. Inspect the exterior and interior of the Green Bin for any damage, corrosion, or wear.

d. Calcinated Bin Inspection Requirements:

i. Inspect the exterior and interior of Calcined Bin for any damage, corrosion, or wear.

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e. Calcined Bin Vent Inspection Requirements:

i. Check the bin vents for leaks, bag condition, pulse jet alignment, corrosion, damage, or wear.

f. Multiclone Inspection Requirements:

- i. Inspect the exterior and interior of the multiclone.
- ii. Inspect the seals, tubes, vanes, hoppers, and airlines for any leaks, damage, corrosion, or wear.

g. External Inspections:

- i. Monthly external inspections are required for the Green Coke Stacking, Green Coke Conveying, Calcined Coke Conveying, and Calcined Coke Railcar Loadout processes to ensure PM emission control measures (i.e., enclosures, conveyors, and dedust oil operation) are in place and properly implemented to ensure compliance.
- ii. Monthly external inspections are required on the following equipment for both lines: Green Coke Screening areas, Green Coke Crushing areas, Green Coke Conveying areas, Green Coke Storage Bins, and Calcined Coke Storage Bins 3 & 4. The following items need to be included on the inspection:
 - A. Check the areas for leaks;
 - B. Verify control equipment is in working order and in good condition; and
 - C. Check for damage and corrosion.
- iii. Weekly external inspections are required on the following equipment for both lines: Pyroscrubber, Dust Chamber, Kiln, Cooler, Baghouse, and Multiclone. The following items need to be included on the inspection:
 - A. Check the areas for leaks;
 - B. Verify control equipment is in working order and in good condition; and
 - C. Check for damage and corrosion.

h. Monitoring - Recordkeeping

Pursuant to Sections 39.5(7)(b) and (f) of the Act, the source shall maintain records of the monitoring data, monitor performance data, corrective actions taken, monitoring equipment maintenance, and other supporting information related to the monitoring requirements established for inspection procedure plans. At a minimum, the following items are required when conducting an inspection:

- i. Date and time of the inspection;
- ii. Equipment inspected;
- iii. Inspection findings;
- iv. Printed name of the person conducting the inspection;
- v. Signature of the person conducting the inspection; and

Rain CII Carbon LLC I.D. No.: 033025AAJ Permit No.: 95120092

vi. Whether any repairs or maintenance were conducted and what was done to repair the damaged areas. Record the maintenance electronic data system notification numbers and completed work order numbers for reference.

i. Monitoring - Reporting

Pursuant to Sections 39.5(7)(b) and (f) of the Act, the source shall submit the following reporting requirements:

i. Semiannual Reporting

As part of the required semiannual monitoring reports, the source shall submit an inspection procedure plan report including the following, at a minimum:

- A. Summary information on the number, duration, and cause of excursions or exceedances, and the corrective actions taken.
- B. Summary information on the number, duration, and cause for monitoring equipment downtime incidents, other than downtime associated with calibration checks.

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Section 8 - State Only Requirements

- 1 -	Permitted Emissions for Fees		•.
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a. The annual emissions from the source solely for purposes of "Duty to Pay Fees" of Condition 2.3(e), not considering insignificant activities as addressed by Section 6, shall not exceed the following: [Section 39.5(18)(a)(ii) of the Act]

Pollutant		<i>Tons/Year</i>
Volatile Organic Material	(VOM)	3.00
Sulfur Dioxide	(SO ₂)	2719.00
Particulate Matter	(PM)	163.80
Nitrogen Oxides	(NO _x)	183.00
HAP, not included in VOM or PM	(HAP)	25.00
	Total	3093.80

b. The overall source emissions shall be determined by adding emissions of the above pollutants from all emission units (not including insignificant activities) on a calendar year basis. The Permittee shall maintain records of annual emissions for fee purposes. [Section 39.5(18)(a)(ii) of the Act]

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Attachment 1 - List of Emission Units at This Source

Section	Emission Units	Description
4.1	Green Coke Screening	The Coke passes the green coke screening operation when it is unloaded and prior to entering the green coke crusher.
4.1	Green Coke Crushing	Green coke crushing uses a single roller crusher to reduce the size of the oversized coke, or the coke that is larger than 4 inches. The crusher is used to prepare the oversized coke for the kilns.
4.1	Green Coke Stacking	Green coke stacking uses an enclosed conveyor to transport excess properly sized coke to storage piles, where the stockpiled green coke is eventually reclaimed and conveyed to the green coke storage bins. The conveyor essentially "stacks" or piles the green coke.
4.1	Green Coke Conveying	Green coke conveying uses an enclosed conveyor to transport the green coke from the green coke crusher or the stockpiles to the green coke feed bins.
4.1	Green Coke Feed Bins	The green coke feed bins are the final storage place for green coke that is prepared and ready to enter the kilns.
4.1	Unloading Excavator Engine	Powers unloading excavator
4.1	Calcined Coke Conveying	Calcined coke exits one of the rotary coolers and is transferred using an oscillating covered conveyor to an elevator. The elevators take the calcined coke that was conveyed from the rotary cooler, and they load it into one of four overhead calcined coke storage bins.
4.1	Calcined Coke Storage Bins	There are four overhead calcined coke storage bins at the source. Two of the bins use bin vent filters to reduce PM emissions. All of the bins use good operating practices to minimize emissions. The overhead storage bins hold the finished product to eventually be unloaded.
4.1	Calcined Coke Railcar Load-out	The calcined coke leaves the overhead calcined coke storage bins via load-out spouts. The finished product is loaded into railcars for distribution to commercial markets. The calcined coke railcar load-out uses a heavy naphthlenic petroleum distillate, referred to as dedust oil, to control the PM emissions during railcar loading.

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Section	Emission Units	Description
4.2	Petroleum Coke Calcining Line 1 and Petroleum Coke Calcining Line 2	Petroleum Coke Calcining Lines 1 and 2 consist of a rotary kiln, a pyroscrubber, a rotary cooler, and a baghouse. The kiln for each line can process 28 T/hr of green coke feed. The calcining process reduces VOM and moisture content of the green petroleum coke and chemically reforms the carbon content of the material to produce a final product, referred to as calcined coke. Calcined coke is a high-purity carbon compound used primarily by the aluminum and steel industries. Natural gas is used during start-up of the kilns to reach optimum operating temperature (about 2,400°F) and simultaneously during operation to maintain the optimum operation temperature. The combustion of VOM from the green coke feed and the consumption of green coke provide the primary source of heat for the calcining process. The heating process consumes approximately 20% of the green coke feed, with the remaining material forming the final product, calcined coke.
4.3	Fugitive Dust	Emissions caused by moving vehicles that creates particulate matter (road dust) emissions on paved and unpaved roadways. Particulate Matter is also emitted from loading/unloading operations and storage piles at the source. Emissions of fugitive dust from storage piles at the facility are controlled by the quality and moisture content of materials as received and application of dust suppressants if needed to prevent emissions.
4.4	Dedust Oil Storage Tank	The dedust oil storage tank is a 15,000 gallon tank used to store a dedust oil used at the source to limit PM emissions associated with the calcined coke load-out operation.

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Attachment 2 - Acronyms and Abbreviations

acfm	Actual cubic feet per minute
ACMA	Alternative Compliance Market Account
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ATU	Allotment trading unit
BACT	Best Available Control Technology
BAT	Best Available Technology
BTU	British Thermal Units
САА	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAIR	Clean Air Interstate Rule
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CISWI	Commercial Industrial Solid Waste Incinerator
со	Carbon monoxide
CO ₂	Carbon dioxide
COMS	Continuous Opacity Monitoring System
CPMS	Continuous Parameter Monitoring System
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
EAF	Electric arc furnace
ERMS	Emissions Reduction Market System
°F	Degrees Fahrenheit
GHG	Greenhouse gas
gr	Grains
НАР	Hazardous air pollutant
Hg	Mercury
HMIWI	Hospital medical infectious waste incinerator
HP	Horsepower
hr	Hour
H ₂ S	Hydrogen sulfide
I.D. No.	Identification number of source, assigned by IEPA
IAC	Illinois Administrative Code
ILCS	Illinois Compiled Statutes
IEPA	Illinois Environmental Protection Agency
KW	Kilowatts
LAER	Lowest Achievable Emission Rate

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lb	Pound	
m	Meter	
MACT	Maximum Achievable Control Technology	
mm	Million	
mon	Month	
MSDS	Material Safety Data Sheet	
MSSCAM	Major Stationary Sources Construction and Modification (Non-attainment New Source Review)	
MW	Megawatts	
NESHAP	National Emission Standards for Hazardous Air Pollutants	
NOx	Nitrogen oxides	
NSPS	New Source Performance Standards	
NSR	New Source Review	
PM	Particulate matter	
PM10	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods	
PM _{2.5}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 microns as measured by applicable test or monitoring methods	
ppm	Parts per million	
ppmv	Parts per million by volume	
PSD	Prevention of Significant Deterioration .	
PSEU	Pollutant-Specific Emission Unit	
psia	Pounds per square inch absolute	
PTE	Potential to emit	
RACT	Reasonable Available Control Technology	
RMP	Risk Management Plan	
scf	Standard cubic feet	
SCR	Selective catalytic reduction	
SIP	State Implementation Plan	
SO ₂	Sulfur dioxide	
Т1	Title I - identifies Title I conditions that have been carried over from an existing permit	
TIN	Title I New - identifies Title I conditions that are being established in this permit	
TIR	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit	
USEPA	United States Environmental Protection Agency	
VOM	Volatile organic material	

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Attachment 3 - Contact and Reporting Addresses

IEPA Compliance Section	Illinois EPA, Bureau of Air Compliance & Enforcement Section (MC 40) 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276 Phone No.: 217/782-2113
IEPA Stack Test Specialist	Illinois EPA, Bureau of Air Compliance Section Source Monitoring - Third Floor 9511 Harrison Street Des Plaines, Illinois 60016 Phone No.: 847/294-4000
IEPA Air Quality Planning Section	Illinois EPA, Bureau of Air Air Quality Planning Section (MC 39) 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276 Phone No.: 217/782-2113
IEPA Air Regional Field Operations Regional Office #3	Illinois EPA, Bureau of Air Regional Office #3 2009 Mall Street Collinsville, Illinois 62234 Phone No.: 618/346-5120
IEPA Permit Section	Illinois EPA, Bureau of Air Permit Section (MC 11) 1021 North Grand Avenue East P.O. Box 19506 Springfield, Illinois 62794-9506 Phone No.: 217/785-1705
USEPA Region 5 - Air Branch	USEPA (AR - 17J) Air and Radiation Division 77 West Jackson Boulevard Chicago, Illinois 60604 Phone No.: 312/353-2000

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Attachment 4 - Example Certification by a Responsible Official

	SIGNATURE BL	OCK
NOTE: THIS CERTI INCOMPLET		ICATIONS WITHOUT A SIGNED CERTIFICATION WILL BE DEEMED AS
INFORMATION CON FICTITIOUS, OR FR SUBSEQUENT OFF	PENALTY OF LAW THAT, BASED ON INFORMATION AND BELIEF FO VTAINED IN THIS APPLICATION ARE TRUE, ACCURATE AND COMP AUDULENT MATERIAL STATEMENT, ORALLY OR IN WRITING, TO ENSE AFTER CONVICTION IS A CLASS 3 FELONY. (415 ILCS 5/44(O SIGNATURE:	'LETE. ANY PERSON WHO KNOWINGLY MAKES A FALSE, THE ILLINOIS EPA COMMITS A CLASS 4 FELONY. A SECOND OR
BY: _		
	AUTHORIZED SIGNATURE	TITLE OF SIGNATORY
-		///
	TYPED OR PRINTED NAME OF SIGNATORY	DATE

Rain CII Carbon LLC I.D. No.: 033025AAJ Permit No.: 95120092

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EXHIBIT C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5

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In the Matter of: Rain CII Carbon LLC

Robinson, IL

EPA-5-23-113(a)-IL-03

Proceeding Under Sections 113(a)(1)(3) and 114(a)(1) of the Clean Air Act, 42 U.S.C. §§ 7413(a)(1)(3) and 7414(a)(1)

Administrative Consent Order

1. The Director of the Enforcement and Compliance Assurance Division, U.S. Environmental Protection Agency (EPA), Region 5, is issuing this Order to Rain CII Carbon LLC (you or Rain CII Carbon) under Sections 113(a)(3) and 114(a)(1) of the Clean Air Act (CAA), 42 U.S.C. §§ 7413(a)(3) and 7414(a)(1).

Statutory and Regulatory Background

2. Each state must submit to the Administrator of EPA a plan for attaining and maintaining the National Ambient Air Quality Standards under Section 110 of the CAA, 42 U.S.C. § 7410.

3. On May 31, 1972, EPA approved 35 Illinois Administrative Code ("Ill. Adm. Code" or "IAC") Title (tit.) 201, "Permits and General Conditions," into the federally enforceable SIP of Illinois. 37 Fed. Reg. 10,862 (May 31, 1972) (codified at 40 C.F.R. 52.722). Since then, EPA has approved several revisions of 35 IAC tit. 201 into the federally enforceable SIP. *See, e.g.*, 82 Fed. Reg. 30,363 (June 30, 2017).

4. 35 Ill. Adm. Code 201.144 states that "[n]o person shall cause or allow the operation of any existing emission source or any existing air pollution control equipment without first obtaining an operating permit from the [Illinois Environmental Protection] Agency ("Agency" or "IEPA"), except as provided in Section 201.146."

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5. On December 17, 1992, EPA approved the incorporation of the Illinois state operating permit program into the federally enforceable SIP of Illinois as 40 C.F.R. § 52.737. 57 Fed. Reg. 59,935 (Dec. 17, 1992).

6. 40 C.F.R § 52.737 states that "[e]mission limitation and other provisions contained in operating permits issued by the State in accordance with the provisions of the federally approved permit program shall be the applicable requirements of the federally approved Illinois SIP for the purpose of section 113 of the Clean Air Act and shall be enforceable by USEPA and by any person in the same manner as other requirements of the SIP."

7. Under Section 113(a)(1) of the CAA, 42 U.S.C. § 7413 (a)(1), the Administrator of EPA may issue an order requiring compliance to any person who has violated or is violating a SIP.

8. The Administrator of EPA may require any person who owns or operates an emission source under Section 114(a)(1) of the CAA, 42 U.S.C. § 7414(a)(1). The Administrator has delegated this authority to the Director of the Enforcement and Compliance Assurance Division.

Findings

9. Rain CII Carbon owns and operates a petroleum and coal products manufacturing facility at 12187 E 950th Avenue, Robinson, IL 62454.

On January 2, 2014, the IEPA issued Permit No. 95120092 (2014 Permit) to Rain
CII Carbon.

Section 4.2(2)(f)(i)(A) of the 2014 Permit sets forth that pursuant to Section
39.5(7)(a) of the Illinois Environmental Protection Act ("Act"), Rain CII Carbon "shall maintain

and operate all equipment associated with the Petroleum Coke Calcining Operations in a manner consistent with safety and good air pollution control practice for minimizing emissions."

12. Section 4.2(2)(d)(i)(A)(II) of the 2014 Permit sets forth that pursuant to 35 IAC 215.302(c), for the kilns, emissions of organic material in excess of those permitted by 35 IAC 215.301 are allowable if Volatile Organic Materials ("VOM") emissions are controlled by air pollution control equipment capable of reducing by 85 percent or more the uncontrolled organic material that would be otherwise emitted to the atmosphere.

13. On March 17, 2015, the Office of the Attorney General, on behalf of the People of the State of Illinois ("People"), filed a third amended complaint against Rain CII Carbon, LLC (Respondent). *See* Third amended compl., People v. Rain CII Carbon LLC, PCB No. 04-137 (Mar. 17, 2015).

14. On January 10, 2017, Rain CII Carbon electronically received the Stipulation and Settlement Agreement in the case referenced in item 13 above. In the terms of settlement, the "future compliance" section sets forth that:

- a. "Except during startup and malfunction/breakdown conditions of either Line #1 (Kiln #1) or Line #2 (Kiln #2), Respondent shall operate its pyro scrubbers as follows:
- b. Maintain a minimum temperature of 1800°F, measured at the thermocouple(s) located at the inlet to each pyro scrubber, using a 3-hour rolling average as per current Compliance Assurance Monitoring Plan ("CAM Plan") and current CAAPP Permit; Monitor the pyro scrubber inlet temperatures of each unit, so as to ensure that the minimum temperature is maintained; and,

c. Utilize the inlet temperature of each pyro scrubber as the CAM indicator and develop a CAM indicator range."

On May 13, 2019, the IEPA issued Permit No. 95120092 to Rain CII Carbon
("2019 Permit"). This permit reflects the future compliance set forth in the January 10, 2017
Stipulation and Settlement Agreement.

16. Section 4.2(4)(a)(i)(A) of the 2019 Permit sets forth that pursuant to 35 IAC 201.149, 201.261, and 201.262, Rain CII Carbon is authorized to operate kiln 1 and kiln 2 and their associated pyroscrubbers in violation of the applicable requirements of Condition 4.2(2)(a)(i)(A), 4.2(2)(b)(i)(A), and 4.2(2)(d)(i)(A) during start-up. The start-up time shall be no more than 24 hours. For this purpose, the start-up time is defined as the duration from when green coke feed is introduced to the kiln until the temperature at the pyroscrubber inlet achieves the minimum operating temperature indicated in the CAM plan.

17. Pursuant to 40 C.F.R. 64.7(a) and Section 7.5(b). of the 2019 Permit, Rain CIICarbon shall comply with the monitoring requirements of the CAM Plans described in Section7.5(e) of the 2019 Permit.

18. Section 4.2(2)(f)(i)(A) of the 2019 Permit sets forth that the Permittee shall maintain and operate all equipment associated with the Petroleum Coke Calcining Operations according to manufacturer specifications and in a manner consistent with safety and good air pollution control practice for minimizing emissions.

19. Section 4.2(2)(f)(i)(E) of the 2019 Permit sets forth that except during start-up and malfunction/breakdown conditions of either Line #1 (Kiln #1) or Line #2 (Kiln #2), the Permittee must maintain a 3-hour rolling average minimum temperature of 1800°F at its pyroscrubbers, measured at the thermocouples located at the inlet to each pyroscrubber.

20. Section 4.2(4)(b)(i)(C)-(D) of the 2019 Permit sets forth that for baghouse maintenance lasting up to thirty minutes, emissions from Cooler 1 may be vented through Pyroscrubber 1, and emissions from Cooler 2 may be vented through Pyroscrubber 2.

21. Rain CII Carbon owns or operates an "emission source" within the meaning of Section 114 (a)(1) of the CAA, 42 U.S.C. § 7414(a)(1). Therefore, Rain CII Carbon is subject to the requirements of Section 114(a)(1).

22. On September 9th, 2021, EPA issued to Rain CII Carbon a Notice of Violation alleging that it violated the SIP provisions for federally enforceable operating permit limitations and provisions by failing to maintain a 3-hour rolling average minimum temperature of 1800°F at its pyroscrubbers and repeat cooler gas diversions for non-maintenance offline baghouse cleanouts.

23. On November 3, 2021, representatives of Rain CII Carbon and EPA discussed the September 9th, 2021, Notice of Violation.

24. Rain CII Carbon violated 35 IAC 215.302(c), Section 39.5(7)(a) of the Act, and Section 4.2(2)(d)(i)(A)(II) of the 2014 Permit by failing to maintain the pyroscrubbers at a 3-hour rolling average minimum temperature of 1800°F for four events where coke was in the kiln.

25. Rain CII Carbon violated Section 4.2(2)(f)(i)(E) of the 2019 Permit by failing to maintain a 3-hour rolling average minimum temperature of 1800°F, measured at the thermocouples located at the inlet to each pyroscrubber for seven events where coke was in the kiln.

26. Rain CII Carbon violated Section 4.2(2)(f)(i)(A) of the 2019 Permit by diverting cooler gas through pyroscrubbers during 449 offline baghouse cleanouts between May 14, 2019, and February 12, 2020. In particular, for 155 of those 449 offline baghouse cleanouts, multiple offline baghouse cleanouts occurred within a 24-hour period on 62 days.

Exhibit C

Compliance Program

27. By the effective date of this Order, Rain CII Carbon must achieve, demonstrate and maintain compliance with the SIP at its Robinson, IL facility.

28. Within 60 days of the effective date of this Order, to ensure compliance with record keeping requirements, Rain CII must revise the Programmable Logic Controller so that it

only records feed entering the kiln and not all coke going across the weighfeeder as the kiln

feedrate.

29. Within one year of the effective date of this Order, to ensure compliance with the

minimum pyroscrubber temperature requirement at all times when coke is in the kiln, Rain CII

Carbon must:

- a. Increase each existing kiln burners' natural gas firing capacity to help maintain temperature in the pyroscrubber during short-term feed stoppages;
- b. Install an air cannon in each green coke feed chute to assist in clearing feed chute plugs more quickly;
- c. Replace each green coke bin inverted cone with an upgraded model with antifriction coating to reduce frictional forces and help reduce plugs; and,
- d. Engineer and manufacture a green bin plug dislodging device to help clear plugs in the green coke bins.
- 30. Within one year of the effective date of this Order, to minimize cooler gas

diversions through a pyroscrubber, Rain CII Carbon must:

- a. Install bin level indicators at each baghouse, with the bin level data tied into the DCS system and available to the operators;
- b. Upgrade each baghouse's rotary airlock to more efficiently remove baghouse fines and improve functioning of the bags;
- c. Install hopper devices for each baghouse to reduce bridging and allow the evacuation system to operate more efficiently; and,
- d. Revise and improve baghouse procedures to: (1) address the new equipment and requirements; and (2) provide guidance on handling baghouse issues, and (3) state that cooler gas diversions should be minimized.
- 31. Rain CII Carbon must submit a certification of completion by no later than 30

days after completing all actions in subparagraphs 28, 29, and 30 above.

32. Within 60 days of the effective date of this Order, in order to minimize and address repeat cooler gas diversions through a pyroscrubber, Rain CII Carbon must create and adhere to a new written procedure for carrying out various checks and repairs for a given baghouse if there are more than sixty minutes of cooler gas diversions at a single (i.e., the same) kiln through a pyroscrubber in a 24-hour period. Rain CII Carbon shall submit this procedure to EPA for review and approval within 60 days of the effective date of this Order. If Rain CII Carbon has more than ninety minutes of cooler gas diversions at a single (i.e., the same) kiln through a pyroscrubber in a 24-hour period, it must shut down that kiln and not resume operation until an inspection of the affected equipment is completed, the cause(s) of the repeated cooler gas diversions is determined, and corrective action(s), if any, have been completed to address the cause(s) of the repeated cooler gas diversions. The above requirements are not intended to affect the provisions of Section 7.4(4)(a) of the 2019 Permit.

33. Rain CII Carbon must submit to EPA semiannual reports under Section 114(a)(1) of the CAA, 42 U.S.C. § 7414(a)(1). For each timeframe, these reports shall include:

- a. The start and end date and time of each instance where the 3-hour average pyroscrubber temperature was not maintained at 1800°F while coke was in the kiln; the reason for the excursion, and actions taken to address the excursion;
- b. Start and end date and time of all cooler gas diversions;
- c. Brief narrative explanation of cause and reason for cooler gas diversions through a pyroscrubber;
- d. Maintenance activities performed during cooler diversions through a pyroscrubber;
- e. Date and time of any kiln startup or shutdown;
- f. Corrective action(s), if any, taken to address the cause of the repeat offline cooler gas diversions through a pyroscrubber; and,
- g. Date(s) corrective action(s), if any, were completed.

The report covering the January 1 to June 30 period must be submitted by July 31; the report covering the July 1 to December 31 period must be submitted by January 31. The first report will cover the period from the effective date of this Order until June 30, 2023, and be submitted on July 31, 2023.

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Exhibit C

34. Rain CII Carbon must send all reports required by paragraph 32 of this Order by electronic mail to r5airenforcement@epa.gov, Virginia Galinsky at galinsky.virginia@epa.gov, Karyn Defranco at defranco.karyn@epa.gov, and Robert H. Smith at smith.roberth@epa.gov. If you are unable to send a report to these addresses due to email size restrictions or other problems, use these email addresses to make additional arrangements for transmission of the report.

General Provisions

35. Rain CII Carbon admits to the jurisdictional allegations in this Order, and neither admits nor denies the factual allegations and conclusions of law in this Order.

36. Rain CII Carbon consents to the transmission of this Order by e-mail at the following e-mail address(es): Dan Fearday, Plant Manager (dan.fearday@raincarbon.com) with copies to Randy McCaskill, General Counsel (randy.mccaskill@raincarbon.com) and Todd Silliman, Dentons US, LLP (todd.silliman@dentons.com).

37. This Order does not affect Rain CII Carbon's responsibility to comply with other federal, state, and local laws.

38. This Order does not restrict EPA's authority to enforce the CAA and its implementing regulations.

39. Failure to comply with this Order may subject Rain CII Carbon to penalties of up to \$109,024 per day for each violation under Section 113 of the CAA, 42 U.S.C. § 7413, and 40 C.F.R. Part 19.

40. The terms of this Order are binding on Rain CII Carbon, its assignees and successors. Rain CII Carbon must give notice of this Order to any successors in interest prior to transferring ownership and must simultaneously verify to EPA, at the above address, that it has given the notice.

41. Rain CII Carbon may assert a claim of business confidentiality under 40 C.F.R.

Part 2, Subpart B, for any portion of the information it submits to EPA. Information subject to a business confidentiality claim is available to the public only to the extent allowed by 40 C.F.R. Part 2, Subpart B. If Rain CII Carbon fails to assert a business confidentiality claim, EPA may make all submitted information available, without further notice, to any member of the public who requests it. Emission data provided under Section 114 of the CAA, 42 U.S.C. § 7414, is not entitled to confidential treatment under 40 C.F.R. Part 2, Subpart B. "Emission data" is defined at 40 C.F.R. § 2.301.

42. This order is not subject to the Paperwork Reduction Act, 44 U.S.C. § 3501 *et seq.*, because it seeks collection of information by an agency from specific individuals or entities as part of an administrative action or investigation.

43. EPA may use any information submitted under this Order in an administrative, civil judicial, or criminal action.

44. Rain CII Carbon agrees to the terms of this Order. Rain CII Carbon waives any remedies, claims for relief, and otherwise available rights to judicial or administrative review that it may have with respect to any issue of fact or law set forth in this Order, including any right of judicial review under Section 307(b) of the CAA, 42 U.S.C. § 7607(b).

45. This Order is effective on the date of signature by the Director of the Enforcement and Compliance Assurance Division. This Order will terminate two years from the effective date, provided that Rain CII Carbon has complied with all terms of the Order throughout its duration.

Rain CII Carbon LLC

13FEB23

Date

Dan Fearday Date: 2023.02.13 15:38:47 -06'00'

Dan Fearday Plant Manager Rain CII Carbon LLC

United States Environmental Protection Agency



Digitally signed by MICHAEL HARRIS Date: 2023.02.21 10:51:36 -06'00'

Michael D. Harris Director Enforcement and Compliance Assurance Division U.S. Environmental Protection Agency, Region 5