

TCEQ AIR QUALITY PERMIT NUMBER 45622

APPLICATION BY	§	BEFORE THE
OXBOW CALCINING LLC	§	
PETROLEUM COKE CALCINING	§	TEXAS COMMISSION ON
PLANT	§	
PORT ARTHUR, JEFFERSON COUNTY	§	ENVIRONMENTAL QUALITY

EXECUTIVE DIRECTOR’S RESPONSE TO PUBLIC COMMENT

The Executive Director of the Texas Commission on Environmental Quality (commission or TCEQ) files this Response to Public Comment (Response) on the New Source Review (NSR) Authorization application and Executive Director’s preliminary decision.

As required by Title 30 Texas Administrative Code (TAC) § 55.156, before an application is approved, the Executive Director prepares a response to all timely, relevant and material, or significant comments. The Office of Chief Clerk received timely comments from the following persons: Colin Cox, staff attorney at the Environmental Integrity Project, on behalf of the Port Arthur Community Action Network (PA-CAN) and the Sierra Club, and Chase Porter, staff attorney for Lone Star Legal Aid, on behalf of PA-CAN. This Response addresses all timely public comments received, whether or not withdrawn.

If you need more information about this permit application or the permitting process, please call TCEQ’s Public Education Program at 800-687-4040. General information about TCEQ can be found at our website at www.tceq.texas.gov.

BACKGROUND

Description of Facility

Oxbow Calcining LLC (Applicant) has applied to TCEQ for an NSR Authorization under Texas Clean Air Act (TCAA) § 382.0518. This will authorize the continued operation of an existing facility that may emit air contaminants.

This permit renewal will authorize the Applicant to continue operation of a Petroleum Coke Calcining Plant, located at 3901 Coke Dock Road Port Arthur, Jefferson County. Contaminants authorized under this permit include carbon monoxide (CO), hazardous air pollutants (HAP), nitrogen oxides (NO_x), organic compounds, particulate matter (PM), including PM with diameters of 10 microns or less (PM₁₀) and 2.5 microns or less (PM_{2.5}), lead, and sulfur dioxide (SO₂).

Procedural Background

To continue operating an existing permitted facility that may emit air contaminants, the person planning the continued operation must obtain a permit renewal from the commission. This permit application is for a permit renewal of Air Quality Permit Number 45622.

The permit application was received on November 30, 2022 and declared administratively complete on December 5, 2022. The Notice of Receipt and Intent to Obtain an Air Quality Permit Renewal for this permit application was published in English on December 21, 2022 in the *Port Arthur News*. Alternative Spanish notice was published on December 15, 2022 in *El Perico*. Because this application was received after September 1, 2015, it is subject to the procedural requirements of and rules implementing Senate Bill 709.¹

COMMENTS AND RESPONSES

Health Effects/Air Quality

Comment 1: Commenters are concerned about the effect of the emissions from the proposed project on the air quality and health and safety of the people. Commenters are concerned the emissions from the plant caused and will continue to cause violations of the health-based SO₂ one-hour National Ambient Air Quality Standard (NAAQS). (PA-CAN)

Response 1: The Executive Director is required to review permit applications to ensure they will be protective of human health and the environment. For this type of air permit application, potential impacts to human health and welfare or the environment are determined by comparing the Applicant's proposed air emissions to appropriate state and federal standards and guidelines. These standards and guidelines include the NAAQS, TCEQ Effects Screening Levels (ESL), and TCEQ rules. As described in detail below, the Executive Director determined that the emissions authorized by this permit are protective of both human health and welfare and the environment.

NAAQS

The U.S. Environmental Protection Agency (EPA) created and continues to evaluate the NAAQS, which include both primary and secondary standards, for pollutants considered harmful to public health and the environment.² Primary standards protect public health, including sensitive members of the population such as children, the elderly, and those individuals with preexisting health conditions. Secondary NAAQS protect public welfare and the environment, including animals, crops, vegetation, visibility, and buildings, from any known or anticipated adverse effects from air contaminants. EPA has set NAAQS for criteria pollutants, which include CO, lead, nitrogen dioxide (NO₂), ozone (O₃), SO₂, PM₁₀, and PM_{2.5}. This plant is authorized to emit PM, CO, volatile organic compounds (VOC), HAPs, NO_x, and SO₂.

For a facility to be granted a permit, the owner or operator must demonstrate that the facility will comply with the rules and regulations and the intent of the TCAA. Once the

¹ Tex. S.B. 709, 84th Leg., R.S. (2015).

² Title 40 Code of Federal Regulations § 50.2.

permit is granted, it is assumed that the original demonstration is valid unless the commission concludes a condition of air pollution exists due to the operation of the facility under consideration of renewal.

This permit was initially issued on July 30, 2002 and subsequently renewed and amended on June 4, 2013. Any permit issued on or after December 1, 1991 is subject to renewal every 10 years after the date of issuance. A renewal review is intended to continue the operation for which a permit was originally sought. In accordance with 30 TAC § 116.311, it is not intended to authorize changes in operation, physical modifications, or construction of new facilities.

At the time of the June 4, 2013 permit renewal, the Applicant submitted an accompanying amendment request to include existing emission of CO, hydrochloric acid (HCl), hydrogen fluoride (HF), NO_x, SO₂, and sulfur trioxide (SO₃) emissions from the Cooler No. 3 Baghouse Stack (emission point number (EPN) CLR3DC) and Cooler No. 5 Baghouse Stack (EPN CLR5DC), based on a stack test conducted for each applicable emission point. It was at that time that emissions increase of 18.41 tons per year (TPY) of SO₂ were authorized to reflect the rates acquired from stack testing. The Applicant conducted an air quality analysis, which included air dispersion modeling, to predict the off-property impacts of emissions from its operations as a result of emission increases for CO, HCl, HF, NO_x, PM₁₀, PM_{2.5}, SO₂, and SO₃. Screening modeling of normal operation hourly emissions of HCl, HF, and SO₃ determined that the increases from EPNs CLR3DC and CLR5DC were less than 10% of their respective hourly ESL; therefore, according to step five of the Modeling and Effects Review Applicability flow chart, no further modeling was required.

Combining the Applicant's past hourly refined sitewide modeling results and the 2013 amendment screening modeling results for HCl, HF, and SO₃ determined that total hourly off-property impacts for each compound are below the respective ESL value. Screening modeling for CO, NO_x, PM₁₀, PM_{2.5}, and SO₂ determined that each pollutant's off-property result is less than each appropriate NAAQS de minimis standard. In summary, the pollutants below the de minimis level should not cause or contribute to a violation of the NAAQS and are protective of human health and the environment.

This renewal application was submitted on November 30, 2022. The rate and character of the air contaminants associated with the initial application and subsequent renewals were modeled and evaluated when the permit was initially issued and at the previous renewal/amendment request. Adhering to the requirements of 30 TAC § 116.311, because there are no increases in emissions as part of this air quality permit renewal application, conducting an air quality analysis for the currently approved emission rates is outside of the scope of this project.³ However, an air quality analysis was conducted as part of a previous permitting action, and the currently authorized levels

³ See, Response 5 for additional information on why this application is considered a no-increase renewal.

of emissions are expected to continue to be protective of human health and the environment. Details regarding the air quality analysis are discussed below.

NAAQS Analysis

The first step in the evaluation of criteria emissions is to compare the maximum predicted ground-level concentrations to the established de minimis level. Ground-level concentrations below the de minimis level are considered to be so low that they do not require further NAAQS analysis.

The pollutants below the de minimis level should not cause or contribute to a violation of the NAAQS and are protective of human health and the environment. Concentrations that exceed the de minimis level are not indicative of negative effects but rather that additional review, referred to as a "full NAAQS analysis," is warranted. The Applicant conducted a full NAAQS analysis for those pollutants above de minimis. The review considered the potential for cumulative effects by including an evaluation of all on-property sources, applicable off-property sources, and representative monitored background concentrations. The total concentrations are then compared to the NAAQS to ensure that the concentrations are below the standards.

The NAAQS analysis conducted in 2013 demonstrated that the emissions authorized by the permit are below the standard for each pollutant. Accordingly, the emissions should not cause or contribute to a violation of the NAAQS and are protective of human health and the environment.

State Property Line Analysis

Because the permit authorizes sulfur emissions, the Applicant also conducted a state property line analysis at the time of the renewal/amendment request in 2013 to demonstrate compliance with TCEQ rules in 30 TAC Chapter 112 for net ground-level concentrations of SO₂. The analysis demonstrated that the predicted ground-level concentrations did not exceed the applicable state standard.

Effects Screening Levels

ESLs are specific guideline concentrations used in TCEQ's evaluation of certain pollutants. These guidelines are derived by TCEQ's Toxicology Division and are based on a pollutant's potential to cause adverse health effects, potential to cause odor nuisances, and potential effects on vegetation. Health-based ESLs are set below levels reported to produce adverse health effects, and are set to protect the general public, including sensitive subgroups such as children, the elderly, or people with existing respiratory conditions. TCEQ's Toxicology Division specifically considers the possibility of cumulative and aggregate exposure when developing the ESL values that are used in air permitting, creating an additional margin of safety that accounts for potential cumulative and aggregate impacts. Adverse health or welfare effects are not

expected to occur if the air concentration of a pollutant is below its respective ESL. If an air concentration of a pollutant is above the screening level, it is not necessarily indicative that an adverse effect will occur, but rather that further evaluation is warranted.

In summary, all of the contaminants authorized by this permit were reviewed and evaluated as required by federal and state statutes and regulations. Based on the emissions concentrations reviewed by the Executive Director's staff, adverse health effects on the general public, including sensitive subgroups, in addition to effects on the public welfare and the environment are not expected as a result of the emissions authorized by this permit.

Dust Control/Nuisance

Comment 2: Commenters are concerned whether emissions will cause nuisance conditions violating 30 TAC § 101.4. (PA-CAN)

Response 2: The primary activities resulting from this project that have the potential to cause nuisance conditions are the PM emissions (i.e., dust) from vehicle traffic, material handling, and product transfer. All of the potential dust concentrations from the permitted sources have been evaluated based on operating parameters represented in the application and compared to the federal criteria mentioned above. The proposed permit contains the required control processes to minimize dust. When a company operates in compliance with the proposed permit there should be no deterioration of air quality or the generation of dust such that it impacts visibility. While nuisance conditions are not expected if the facility is operated in compliance with the terms of the permit, operators must also comply with 30 TAC § 101.4, which prohibits nuisance conditions.

Best Available Control Technology (BACT)

Comment 3: Commenters questioned the control technology proposed in the application. Commenters are concerned whether the emission sources will utilize pollution control technology reflecting use of BACT. Commenters have stated that TCEQ must require Oxbow to submit an impacts analysis to show that after installing pollution controls it will not cause or contribute to further violations of the SO₂ NAAQS. (PA-CAN)

Response 3: BACT is an air pollution control method for a new or modified facility that, through experience and research, has proven to be operational, obtainable, and capable of reducing or eliminating emissions from the facility, and is considered technically practical and economically reasonable for the facility. BACT may be numerical limitations, the use of an add-on control technology, design considerations, the implementation of work practices, or operational limitations. The Applicant has

represented in the permit application that BACT will be used for the proposed new and modified sources.

The contaminants authorized by this permitting action are PM, CO, VOCs, NO_x, SO₂, and HAPs. The primary control measures applied to this facility are spray bars, dedust oil application, baghouses, low NO_x burners, pyroscrubbers, covered conveyors, and the pneumatic transfer of materials.

As described in Response 1, because the Applicant did not request an increase in authorized emissions as part of this renewal application, air dispersion modeling was not required. For renewal certification applications that do not request an increase in the maximum allowable emissions rates authorized by the permit and do not seek authorization to emit a contaminant not previously emitted, the technical review is limited to the evaluation of emissions from the facility as operated within the boundaries established by the current permit. The permit reviewer evaluated the current BACT and confirmed it to be acceptable.

Applicant's authorized facilities (i.e., units) have either been evaluated for BACT, 10-year BACT, or Generally Accepted Control Technology since initial issuance of the permit. Modified facilities will be subject to BACT review upon applicability to major NSR or minor modification pursuant to 30 TAC §§ 116.10(9) and 116.111(a)(2)(C). If a BACT review is required, then the Applicant should follow TCEQ and EPA guidance as outlined in TCEQ's Air Pollution Control Guidance (APDG).⁴

Pursuant to the technical review documents, the Applicant conducted a tiered BACT analysis for adding additional controls when authorizing emissions of lead (NSR Project No. 126875), adding controls when authorizing emissions of HCl and SO₃ (NSR Project No. 152731), and adding controls when authorizing emissions of HF (NSR Project No. 161538).

In 2013, an amendment was issued (NSR Project No. 174990), which reviewed the BACT for the cooler baghouse stacks 3 and 5. A BACT review was conducted on the affected facilities and found that they met BACT. Based on review of past projects, the kilns have not been modified since they were authorized in the initial Voluntary Emission Reduction Permit (VERP) permit. At the time of the VERP authorization, Oxbow would have had to show compliance with the SO₂ NAAQS, which included standards for the 3-hr, 24-hr, and annual averaging times. According to the technical review and VERP application associated with the initial issuance of NSR Permit No. 45622/NSR Project No. 75395, there was no ground level concentration of any pollutant that would cause a violation of the NAAQS. Under the TCAA, TCEQ may only review units for additional control that an applicant is seeking to modify. Texas Health and Safety Code

⁴ APDG 6110 can be found at:
https://www.tceq.texas.gov/assets/public/permitting/air/Guidance/NewSourceReview/airpoll_guidance.pdf

§ 382.055(e) states that TCEQ may not impose conditions more stringent than the existing permit unless the commission determines more stringent conditions are necessary to avoid a condition of air pollution or to ensure compliance with other state and federal air quality control requirements.

Title VI Compliance

Comment 4: Commenters raised concerns regarding whether TCEQ adequately addressed environmental justice concerns and complied with Title VI of the Civil Rights Act in reaching the decisions to issue Air Quality Permit number 45622. Additionally, commenters are concerned that violations by the Applicant have a disproportionate impact on the black residents of West Port Arthur and that this is an environmental racism problem. (PA-CAN)

Response 4: In issuing permits, TCEQ adheres to all relevant federal and state statutes and regulations. Accordingly, air permits evaluated by TCEQ are reviewed without reference to the socioeconomic or racial status of the surrounding community. TCEQ is committed to protecting Texas' environment and the health of its citizens regardless of location. An air quality analysis was conducted as part of a previous permitting action, and the currently authorized levels of emissions are expected to continue to be protective of human health and the environment.

TCEQ encourages participation in the permitting process. TCEQ's Office of the Chief Clerk works to help the public participate in the regulatory process to ensure that agency programs that may affect human health or the environment operate without discrimination and to make sure that concerns are considered thoroughly and are handled in a way that is fair to all. The Office of the Chief Clerk may be contacted at 512-239-3300 for further information. Additionally, more information may be found on the TCEQ website.⁵

Demonstrate Compliance with Permit

Comment 5: Commenters are concerned whether the proposed air monitoring and reporting requirements are adequate to ensure compliance with Clean Air Act and protect the local residents. Additionally, commenters provided modeling which they say demonstrates that Oxbow is causing exceedances of the SO₂ NAAQS. (PA-CAN)

Response 5: The permit's Maximum Allowable Emissions Rate Table (MAERT) lists the only emissions authorized to be emitted from the proposed facility. This application is considered a no-increase renewal because the renewal application does not request an increase in the maximum allowable emissions rates authorized by the permit and does not seek authorization to emit a contaminant not previously emitted. Special

⁵ TCEQ's Title VI Compliance website can be found at:
<https://www.tceq.texas.gov/agency/decisions/participation/title-vi-compliance>.

conditions are included as part of the permit to ensure the Applicant will demonstrate compliance with the emission limitations set forth in the MAERT. Emissions are monitored by stack sampling, continuous emissions monitoring systems, daily visible emission observations, runtime meters, flow rates, temperature monitoring, and throughputs. The Applicant, as the permit holder, is also required to maintain records to demonstrate compliance, including the monitoring listed above. Records must be made available upon request to representatives of TCEQ, EPA, or any local air pollution control program having jurisdiction. The TCEQ Regional Office may perform investigations of the plant as required. The investigation may include an inspection of the site—including all equipment, control devices, and monitors—and a review of all calculations and required recordkeeping.

The commenter provided a modeling analysis which cannot be validated, and approaches described in the modeling report are not consistent with EPA or TCEQ guidance. For example, EPA strongly discourages paired modeled and observed concentrations to evaluate model performance. This approach is severely limited by uncertainties in both source and meteorological data; therefore, it is difficult to precisely estimate the concentration at an exact location for a specific increment of time. Such uncertainties make calibration of models of questionable benefit. Additionally, modeled refinements, such as using site-specific meteorology, were not considered. Since all monitored design values for Jefferson County show compliance with the one-hour SO₂ NAAQS, TCEQ has no reason to find that there is a predicted violation of the NAAQS or that the permit is not protective of the public's health or welfare.

As described in Response 1, because the Applicant did not request an increase in authorized emission as part of this renewal application, air dispersion modeling was not required. The controls in use at the plant meet the current BACT requirements. Under the TCAA, the commission may not impose requirements more stringent than those of the existing permit unless the commission determines that the requirements are necessary to avoid a condition of air pollution or to ensure compliance with otherwise applicable federal or state air quality control requirements.

To be granted a permit renewal, the permit holder shall submit information which demonstrates compliance with the requirements of 30 TAC § 116.311. The Applicant may be granted a permit renewal if the facility is being operated in accordance with all requirements and conditions of the existing permit and the representations in the application for subsequent amendments. During the technical review of this renewal application, it was determined that the facility adheres to the requirements of 30 TAC § 116.311 for permit renewal and qualified for the renewal certification option.

TCEQ evaluates all complaints received. If a facility is found to be out of compliance with the terms and conditions of its permit, it will be subject to investigation and possible enforcement action. Individuals are encouraged to report any concerns about nuisance issues or suspected noncompliance with terms of any permit or other

environmental regulation by contacting the TCEQ Beaumont Regional Office (Region 4) at 817-588-5800 or by calling the 24-hour toll-free Environmental Complaints Hotline at 888-777-3186.

Citizen-collected evidence may be used in such an action.⁶ Under the citizen-collected evidence program, individuals can provide information on possible violations of environmental law. The information, if gathered according to agency procedures and guidelines, can be used by TCEQ to pursue enforcement. In this program, citizens can become involved and may eventually testify at a hearing or trial concerning the violation.⁷

TCEQ's Responsibility to the Community

Comment 6: Commenters asked that TCEQ consider residents and their wishes and choose not to approve the permit renewal for the proposed plant. (PA-CAN)

Response 6: The Executive Director's staff has reviewed the permit application in accordance with the applicable state and federal statutes, regulations, policy, and procedures, and TCEQ's mission to protect the state's human and natural resources consistent with sustainable economic development. TCEQ cannot deny authorization or renewal of a facility if a permit application contains a demonstration that all applicable statutes and regulations will be met.

Resolution of Violations

Comment 7: Commenters are concerned whether Oxbow's actions have adequately resolved past documented violations of the NAAQS. (PA-CAN)

Response 7: Alleged violations documented during an investigation are initially addressed through a Notice of Violation letter, which generally allows the operator a specified period of time within which to comply. The violation is considered resolved upon timely corrective action. If a violation is not timely corrected, is repeated, or causes an impact to the environment or neighboring properties, formal enforcement action will begin according to TCEQ's Enforcement Initiation Criteria.⁸

TCEQ cannot impose requirements more stringent than those required for other petroleum coke calcining facilities unless there is a documented unsatisfactory

⁶ See, 30 TAC § 70.4, Enforcement Action Using Information Provided by Private Individual, for details on gathering and reporting such evidence.

⁷ See, TCEQ publication, "Do You Want to Report an Environmental Problem? Do You Have Information or Evidence?" for more information. Available in English and Spanish on TCEQ's website found at <http://www.tceq.texas.gov> (under Publications, search for document number 278) or from TCEQ's Publications office at 512-239-0028.

⁸ TCEQ's Enforcement Initiation Criteria can be found at: <https://www.tceq.texas.gov/compliance/enforcement/eic.html>.

compliance history. The Applicant has a satisfactory compliance history. In addition, TCEQ does not have jurisdiction to prohibit owners or operators from seeking authorization to emit air contaminants; nor can TCEQ prohibit owners and operators from receiving authorization to emit air contaminants if they comply with all statutory and regulatory requirements.

TCEQ has received numerous complaints about the facility. The complainants generally alleged that dust, smoke, and chemical odor from the facility were causing nuisance conditions. TCEQ conducted separate site and file review compliance investigations between April 17, 2018 and November 29, 2022. Three onsite compliance investigations were conducted on November 28, 2018, August 25, 2022, and September 8, 2022. During an investigative records review on October 24, 2018, an investigator documented that the Applicant failed to comply with the primary one-hour SO₂ NAAQS. On October 30, 2018, a Notice of Enforcement was sent to the plant. On August 19, 2019, the commission considered and approved an Agreed Order resolving this enforcement action. The commission assessed an administrative penalty in the amount of \$39,000. The Applicant paid \$15,600 of the penalty; and pursuant to Texas Water Code § 7.067, \$15,600 of the penalty was conditionally offset by timely and satisfactory completion of a Supplemental Environmental Project.⁹ Additionally, the Applicant was required to implement and complete a Supplemental Environmental Project and to alter their permit to remove the authorization of the cold stacks. The Applicant has completed the requirements of the Agreed Order.

During the technical review of permit applications, a compliance history review of both the company and the site is conducted based on the criteria in 30 TAC Chapter 60. The compliance history is reviewed for the five-year period prior to the date the permit application was received and includes multimedia compliance-related components about the site under review. These components include enforcement orders, consent decrees, court judgments, criminal convictions, chronic excessive emissions events, investigations, notices of violations, audits and violations disclosed under the Environmental, Health, and Safety Audit Privilege Act, environmental management systems, voluntary on-site compliance assessments, voluntary pollution reduction programs, and early compliance.

A company and site may have one of the following classifications and ratings:

- High: rating below 0.10 - complies with environmental regulations extremely well;
- Satisfactory: rating 0.10 - 55.00 - generally complies with environmental regulations;
- Unsatisfactory: rating greater than 55.00 - fails to comply with a significant portion of the relevant environmental regulations.

⁹ Additional information may be found on the Commissioners' Integrated Database at <https://www14.tceq.texas.gov/epic/eCID/> by searching TCEQ Docket No. 2018-1687-AIR-E.

As of the date the application was submitted, the site's compliance history was rated as 1.26 and classified as Satisfactory. The company has a rating of 1.26 and a classification of Satisfactory. The company's rating reflects the average of the ratings for all sites the company owns in Texas.

The compliance history review does not include an analysis of each violation, audit disclosure, or other rating components. Such a review is beyond the scope of the application review. Further, according to 30 TAC § 60.3(g): "A person or site classification itself shall not be a contested issue in a permitting or enforcement hearing." The preamble to this rule states: "A person or site classification will be established outside the contested case process and not litigated and re-litigated in the context of permitting and enforcement actions."¹⁰

Request a Contested Case Hearing

Comment 8: PA-CAN and the Sierra Club request a contested case hearing on this application. (PA-CAN)

Response 8: A contested case hearing is a legal proceeding similar to a civil trial in a state district court. A person who may be affected by emissions of air contaminants from the facility is entitled to request a hearing. However, there is no right to a contested case hearing on a no-increase renewal, such as the current application.¹¹

¹⁰ 27 Tex. Reg. 7897 (2002).

¹¹ See, Tex. Health & Safety Code § 382.056(g).

CHANGES MADE IN RESPONSE TO COMMENT

No changes to the draft permit have been made in response to public comment.

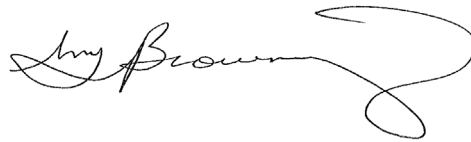
Respectfully submitted,

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REPRESENTING THE
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