

**PAUL FURRH, JR.**  
Attorney at Law  
Chief Executive Officer

**ERNEST W. BROWN, JR.**  
Attorney at Law  
Deputy Director

**ROSLYN O. JACKSON**  
Directing Attorney

**MARTHA OROZCO**  
Project Director  
Directing Attorney



**Lone Star Legal Aid  
Equitable Development Initiative**

**AMY DINN  
KIMBERLY BROWN MYLES**  
Managing Attorneys

**RODRIGO CANTÚ  
CAROLINE CROW  
ASHEA JONES  
AMANDA POWELL  
VELIMIR RASIC  
RICHARD H. VINCENT**  
Staff Attorneys

**CHASE PORTER**  
Equal Justice Works Fellow

Mailing Address:  
P.O. Box 398  
Houston, Texas 77001-0398

713-652-0077 x 8108  
800-733-8394 Toll-free

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*Via Electronic Filing [Title VI Complaints@epa.gov](mailto:Title_VI_Complaints@epa.gov)*

Dale Rhines  
Deputy Director  
U.S. Environmental Protection Agency  
Office of General Counsel (2310A)  
External Civil Rights Compliance Office  
1200 Pennsylvania Ave. NW, WCJN Room 2524  
Washington, DC 20460

**Re: Complaint under Title VI of the Civil Rights Act of 1964, 42 U.S.C. 2000d, by (b) (6), (b) (7)(C) (b) (7)(C), (b) (6) regarding the Texas Commission on Environmental Quality's Issuance of Federal Operating Permit No. 01493 to Oxbow Calcining LLC**

Dear Mr. Dale Rhines:

On behalf of the (b) (6), (b) (7)(C) (b) (6), (b) (7)(C) Lone Star Legal Aid ("LSLA") and Environmental Integrity Project submit this Complaint under Title VI of the Civil Rights Act of 1964 ("Title VI"). This Complaint concerns the Texas Commission of Environmental Quality's ("TCEQ") issuance and continued renewal of a Title V Federal Operating Permit ("FOP") to Oxbow Calcining, LLC (CN602552424) ("Oxbow") for Oxbow's calcined coke facility in Port Arthur, Texas (RN100209287) without an adequate New Source Review ("NSR").

The Oxbow facility produces anode and industrial calcined petroleum coke and is one of the highest emitters of sulfur dioxide ("SO<sub>2</sub>") in Texas. It is located directly adjacent to the West Port Arthur neighborhood. The Oxbow facility is also a direct and indirect contributor of particulate matter ("PM") pollution in West Port Arthur. West Port Arthur is a low-income, minority neighborhood which has long been subject to high levels of air pollution from nearby major industrial facilities. TCEQ's approval of the renewal of Oxbow's FOP, Permit No. 01493 (the "Permit") on September 28, 2020, under Title V of the Federal Clean Air Act ("FCAA") violates Title VI, because the operations of this facility without Best Available Control Technologies ("BACT") and effective compliance plan cause disparate impacts to residents of the

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West Port Arthur neighborhood based on race and allow exceedances to the National Ambient Air Quality Standards (“NAAQS”) for SO<sub>2</sub>.

(b) (6), (b) (7)(C) requests the U.S. Environmental Protection Agency (“EPA”) accept this Complaint and promptly investigate whether TCEQ has violated and/or continues to violate Title VI and its implementing regulations through its actions approving the renewal of Oxbow’s FOP. In addition, (b) (6), (b) (7)(C) requests that EPA take the following remedial actions:

1. Require TCEQ to affirmatively conduct a disparate impacts analysis of Permit No. O1493, which explicitly considers the race and socioeconomic status of Oxbow’s surrounding community;
2. Conduct an audit of TCEQ’s review and approval of the renewal of Permit No. O1493 for compliance with the FCAA, and, if deficient, assess penalties directly against Oxbow;
3. Exercise EPA’s authority under Section 114(a) of the FCAA, 42 U.S.C. § 7414(a) to request documents from Oxbow relating to Oxbow’s dispersion techniques, including:
  - a. The unredacted versions of Oxbow’s five-minute modeling data for the hot stacks and cold stacks, which also include feed rate information;
  - b. Documents discussing Oxbow’s SO<sub>2</sub> alert system;
  - c. Documents relating to changes, alterations, modifications, repairs, and improvements in operations and equipment (that may have triggered NSR regulations, installation of BACT, and/or required a permit amendment);
  - d. Meteorological data that the facility is gathering (and apparently using to decide when it can increase emissions with less risk of exceeding NAAQS for SO<sub>2</sub>); and
  - e. Any updates at the facility that would reflect that the facility is adhering to BACT regulations under the FCAA and the information regarding the installation of such technologies.
4. Issue an amended Permit No. O1493 with monitoring, recordkeeping, and compliance terms sufficient to ensure compliance with Oxbow’s permit limits and representations and health-based air quality standards for SO<sub>2</sub>, including:
  - a. Annual testing of each individual kiln stack to ensure compliance with emission limits for SO<sub>2</sub> and other pollutants;
  - b. Continuous monitoring of all kiln stacks for SO<sub>2</sub>;
  - c. Fence-line monitoring to ensure compliance with the SO<sub>2</sub> NAAQS;
  - d. Continuous opacity monitoring of all kiln stacks to ensure compliance with opacity limits; and
  - e. Continuous PM monitoring of all kiln stacks to ensure ongoing compliance with numeric PM limits.

5. Require Oxbow's Title V compliance plan contain a requirement, or otherwise require, that Oxbow apply for a permit amendment and conduct a public participation process for prior changes to Kiln Stack 4.
6. Conduct an audit of Oxbow's Port Arthur facility to (1) chronicle any upgrades or modifications to the facility; (2) assess compliance with BACT, and (3) determine whether: (a) Oxbow must install SO<sub>2</sub> control technology to ensure compliance with Oxbow's emissions limits and the SO<sub>2</sub> NAAQS, including but not limited to scrubbers, and (b) TCEQ must require Oxbow to apply for a permit amendment to come into compliance with BACT, thus ensuring that the public has the opportunity to comment.
7. Conduct an audit of TCEQ's issuance of the Agreed Order in August 2019 to Oxbow for the SO<sub>2</sub> NAAQS exceedances, particularly TCEQ's review of Oxbow's compliance history and penalty assessment.
8. Require the location of an additional monitor(s) in compliance with the 2015 Data Requirements Rule ("DRR"), in the area where emissions are the most likely to be highest according to (b) (6), (b) (7)(C) and TCEQ's modeling, to ensure compliance with the SO<sub>2</sub> NAAQS.
9. Require Oxbow to hold an outreach event with the West Port Arthur community, explaining what the facility does, how the facility's operations impact residents' health, any steps the facility is taking to mitigate harm to the Port Arthur community, and any upcoming public comment or public meeting opportunities.
10. Re-examine the attainment status of Jefferson County to assess whether the previous statistical reviews of ambient quality data for SO<sub>2</sub> are consistent with actual air quality as reflected in the 2017-2020 ambient air quality data. Investigative actions could include further air dispersion modeling to assess the impact on West Port Arthur residents based on 2019 and 2020 data.

This Complaint proceeds in eight sections: Section I describes the Complainant. Section II introduces the West Port Arthur neighborhood. Section III describes the Permit at issue in this Complaint, the FCAA's requirements for Title V permits, and the Permit's procedural history. Section IV provides the history of the NAAQS for SO<sub>2</sub> and Texas' State Implementation Plan. Section V provides information about Oxbow's operations in Port Arthur and environmental compliance history, as well as TCEQ's enforcement history regarding Oxbow. Section VI describes EPA's jurisdiction to investigate this Complaint. Section VII presents TCEQ's violation of Title VI. Section VIII outlines the remedies Complainant seeks. Section IX concludes this Complaint.

## I. COMPLAINANT

(b) (6), (b) (7)(C) is a 501(c)(3) community group organization based in Port Arthur, Texas. PA-CAN exists to serve the residents of West Port Arthur by facilitating community meetings and discussions, performing community education, conducting environmental and economic justice

advocacy, and developing and implementing community development projects in the West Port Arthur area.

(b) (6), (b) (7)(C) environmental and economic justice advocacy has included significant engagement in the air permitting process. Since (b) (6), (b) (7)(C) was founded in 2017 after Hurricane Harvey, (b) (6), (b) (7)(C) has commented and challenged several NSR and Title V operating permits. PA-CAN has also reported numerous violations of air permits and commented on TCEQ's proposed penalties for those violations. (b) (6), (b) (7)(C) and its membership are deeply concerned about the health and safety of the residents of West Port Arthur. Further, (b) (6), (b) (7)(C) believes that clean, safe air is a predicate for economic development and success in West Port Arthur.

## II. BACKGROUND ON WEST PORT ARTHUR

Oxbow operates a petroleum coke calcining facility at 3901 Coke Dock Road in Port Arthur, Texas. This facility sits on the southern side of the West Port Arthur neighborhood, a historically and still heavily Black neighborhood within the City of Port Arthur, Texas. This section describes the West Port Arthur neighborhood, including its long struggle with racism and segregation. This section also discusses the current demographics of West Port Arthur and the Port Arthur area.



*View of Oxbow Calcining from West Port Arthur*

**A. WEST PORT ARTHUR IS A HISTORICALLY BLACK NEIGHBORHOOD WITH A HISTORY OF RACISM AND SEGREGATION.**

The City of Port Arthur was settled in 1895 with the intention of creating a bustling port and tourist center on the Texas Gulf Coast.<sup>1</sup> Like many towns along the Gulf Coast, Port Arthur's course was forever changed by the Texas oil boom. The site of the famous Spindletop Gusher is just a few miles up State Highway 93—also known as West Port Arthur Road—from the West Port Arthur neighborhood.<sup>2</sup>

Port Arthur and the surrounding area also have a deeply-rooted history of intense racism and discrimination against Black residents since the town's beginnings. During the turbulent 1919 "Red Summer," for example, a race riot broke out in Port Arthur when a "white man objected to a Negro smoking in the presence of a white woman" on a street car.<sup>3</sup> The "trouble" left at least two Black residents in the hospital.<sup>4</sup> Similar violence occurred over the coming decades throughout the "Golden Triangle," a geographic area of southeast Texas defined by the three cities of Port Arthur, Beaumont, and Orange. For example, a 1943 race riot in Beaumont resulted in the death of three Black residents, more than fifty injuries, and over two hundred arrests.<sup>5</sup> Historical accounts note the Ku Klux Klan was quite active in the Golden Triangle area.<sup>6</sup> The town of Vidor, located no more than a 30 minute drive from West Port Arthur, was long known as a hotbed of Klan activity.<sup>7</sup> Records and oral histories from residents tell stories of lynching and deep, systemic racism and segregation in Port Arthur.<sup>8</sup>

Formal and informal racial segregation shaped—and continues to shape—the Black community of West Port Arthur.<sup>9</sup> Black persons were not allowed to live in Port Arthur until 1905,<sup>10</sup> and when allowed, were forced to live on only the west side of town. Black residents who lived in West Port Arthur "knew better than to venture east of that line after dark."<sup>11</sup>

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<sup>1</sup> Port Arthur Convention and Visitors Bureau, A Brief History of Port Arthur, <https://visitportarthurtx.com/about/history-of-port-arthur/>.

<sup>2</sup> *Id.*

<sup>3</sup> U.S. LIBRARY OF CONGRESS, *Chronicling America: Historic American Newspapers*, The Bossier Banner, July 17, 1919, <https://chroniclingamerica.loc.gov/lccn/sn85034235/1919-07-17/ed-1/seq-1/>.

<sup>4</sup> *Id.*

<sup>5</sup> James S. Olson, *Beaumont Riot of 1943*, TEXAS STATE HISTORICAL ASSOCIATION, <https://www.tshaonline.org/handbook/entries/beaumont-riot-of-1943>.

<sup>6</sup> *Id.*

<sup>7</sup> Sam Howe Verhovek, *One Man's Arrival in Town Exposes a Racial Fault Line*, THE NEW YORK TIMES, Feb. 27, 1993, <https://www.nytimes.com/1993/02/27/us/one-man-s-arrival-in-town-exposes-a-racial-fault-line.html?auth=login-email&login=email>.

<sup>8</sup> Texas Christian University, Civil Rights in Black & Brown Oral History Project, *Sinelgal/History in Port Arthur—Segregation*, <https://crbb.tcu.edu/clips/5726/history-in-port-arthur-segregation>.

<sup>9</sup> *Id.*

<sup>10</sup> Michelle Health, *Museum exhibit displays pieces of Port Arthur's segregated past*, BEAUMONT ENTERPRISE, Feb. 9, 2016, <https://www.beaumontenterprise.com/news/article/Museum-exhibit-displays-pieces-of-Port-Arthur-s-6817518.php>.

<sup>11</sup> Richard Stewart, *Port Arthur debates consolidating high schools*, HOUSTON CHRONICLE, Aug. 15, 2011, <https://www.chron.com/news/houston-texas/article/Port-Arthur-debates-consolidating-high-schools-2030221.php>.



While West Port Arthur residents' histories and experiences have been notably under-documented,<sup>12</sup> the history of the Port Arthur Independent School District ("PAISD") provides a vivid example of the neighborhood's longstanding struggle with the legacy of segregation. Until the forced end of formally segregated schools after *Brown v. Board of Education*,<sup>13</sup> Black school children in Port Arthur were limited to attending just four schools: Carver Elementary School, Lamar Elementary School, Franklin Middle School (later, an elementary school), and Lincoln High School (now a middle school.)<sup>14</sup> It was not until 1970 when, spurred by a lawsuit by the federal government against PAISD, the district created a desegregation plan.<sup>15</sup>

The desegregation plan, however, failed to achieve its stated goals. The "original desegregation plan was supposed to send more than 400 white students to Lincoln and 400 Black students to Jefferson, a traditionally all-white school on the eastern edge of town."<sup>16</sup> Contrary to the plan, "[f]ew of the white students went to Lincoln."<sup>17</sup> Rather than allowing their children to attend the formerly all-minority schools, white families changed their official addresses or moved to private schools.<sup>18</sup> Port Arthur faced its own "white flight," as many white families "fled desegregation" altogether by moving to nearby towns "such as Nederland, Port Neches, and Bridge City."<sup>19</sup>

PAISD's struggle to desegregate its schools lasted well into the twenty-first century. In 1981, over a decade since the start of the aforementioned litigation, PAISD still had not achieved compliance with desegregation rules, leading the U.S. Department of Justice and PAISD to enter into a settlement stipulating the creation of magnet schools and other measures.<sup>20</sup> In 2000, the Justice Department reported that PAISD again had not fulfilled desegregation obligations in several ways, including by maintaining one school "as a sub-standard facility and allow[ing it] to deteriorate to a deplorable state."<sup>21</sup> As a result, in 2001, PAISD entered into a consent decree with the Justice Department and the court.<sup>22</sup> Over the next several years, PAISD had a back and forth with the Justice Department,<sup>23</sup> until in August 2007 when a federal judge "finally terminated the federal court's jurisdiction over the school district" by determining that PAISD had complied with the 2001 consent decree.<sup>24</sup>

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<sup>12</sup> *See Id.*

<sup>13</sup> 347 U.S. 483 (1954).

<sup>14</sup> Mitchell, Carol T. Taylor. "The Role of Race and Culture in the Science Classroom", *Black Cultures and Race Relations*. Rowman & Littlefield, 2002. ISBN 0830415742, 9780830415748, at 223-224.

<sup>15</sup> Richard Stewart, *Port Arthur debates consolidating high schools*, HOUSTON CHRONICLE, Aug. 15, 2011, <https://www.chron.com/news/houston-texas/article/Port-Arthur-debates-consolidating-high-schools-2030221.php>.

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

<sup>20</sup> Tina M. Kibbe, *School Desegregation in Port Arthur: The Battle Between the Community, the Board, and the Justice Department*, 44 E. TEX. HIST. J. 3, 8-9 (2006), <https://core.ac.uk/download/pdf/72737955.pdf>.

<sup>21</sup> *Id.*, at 9-10.

<sup>22</sup> Marilyn Tenissen, *PAISD officially desegregated after 37 years in court*, SOUTHEAST TEXAS RECORD, Aug. 30, 2007, <https://setexasrecord.com/stories/510608351-paisd-officially-desegregated-after-37-years-in-court>.

<sup>23</sup> Tina M. Kibbe, *School Desegregation in Port Arthur: The Battle Between the Community, the Board, and the Justice Department*, 44 E. TEX. HIST. J. 3, 10-15 (2006), <https://core.ac.uk/download/pdf/72737955.pdf>.

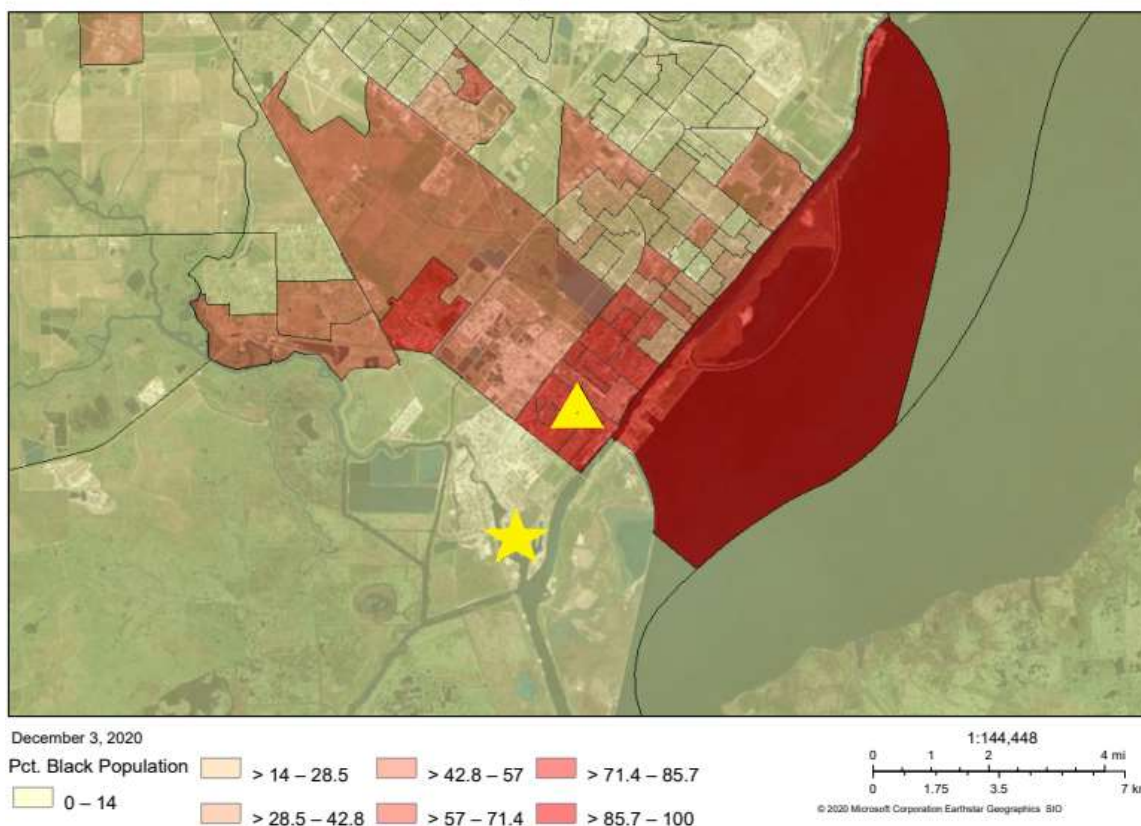
<sup>24</sup> Marilyn Tenissen, *PAISD officially desegregated after 37 years in court*, SOUTHEAST TEXAS RECORD, Aug. 30, 2007, <https://setexasrecord.com/stories/510608351-paisd-officially-desegregated-after-37-years-in-court>.

West Port Arthur's residents continue to face economic, social, and environmental challenges, including those created and exacerbated by Oxbow's operation in their community. The following section describes the demographics of the West Port Arthur and larger Port Arthur area and the relationship between the area's Black community and the Oxbow facility.

## B. WEST PORT ARTHUR HAS A HIGH CONCENTRATION OF BLACK RESIDENTS.

Residents of West Port Arthur and Port Arthur define the precise boundaries of West Port Arthur in several ways. However one draws the exact boundaries, there is a clear concentration of Black residents near Oxbow's facility and a clear decrease or absence of Black residents the further one moves away from Oxbow. **Figure 1** shows the percentage of the Black population within census blocks in the Port Arthur area. The location of West Port Arthur is marked with a triangle. The site of the Oxbow facility is marked with a star. One can clearly see that the residential areas closer to Oxbow—and the other major facilities visible on the map—have a higher concentration of Black residents, while further away from Oxbow, the proportion of Black residents invariably decreases.

**Figure 1.<sup>25</sup>**  
Percent Black Population in Port Arthur Area

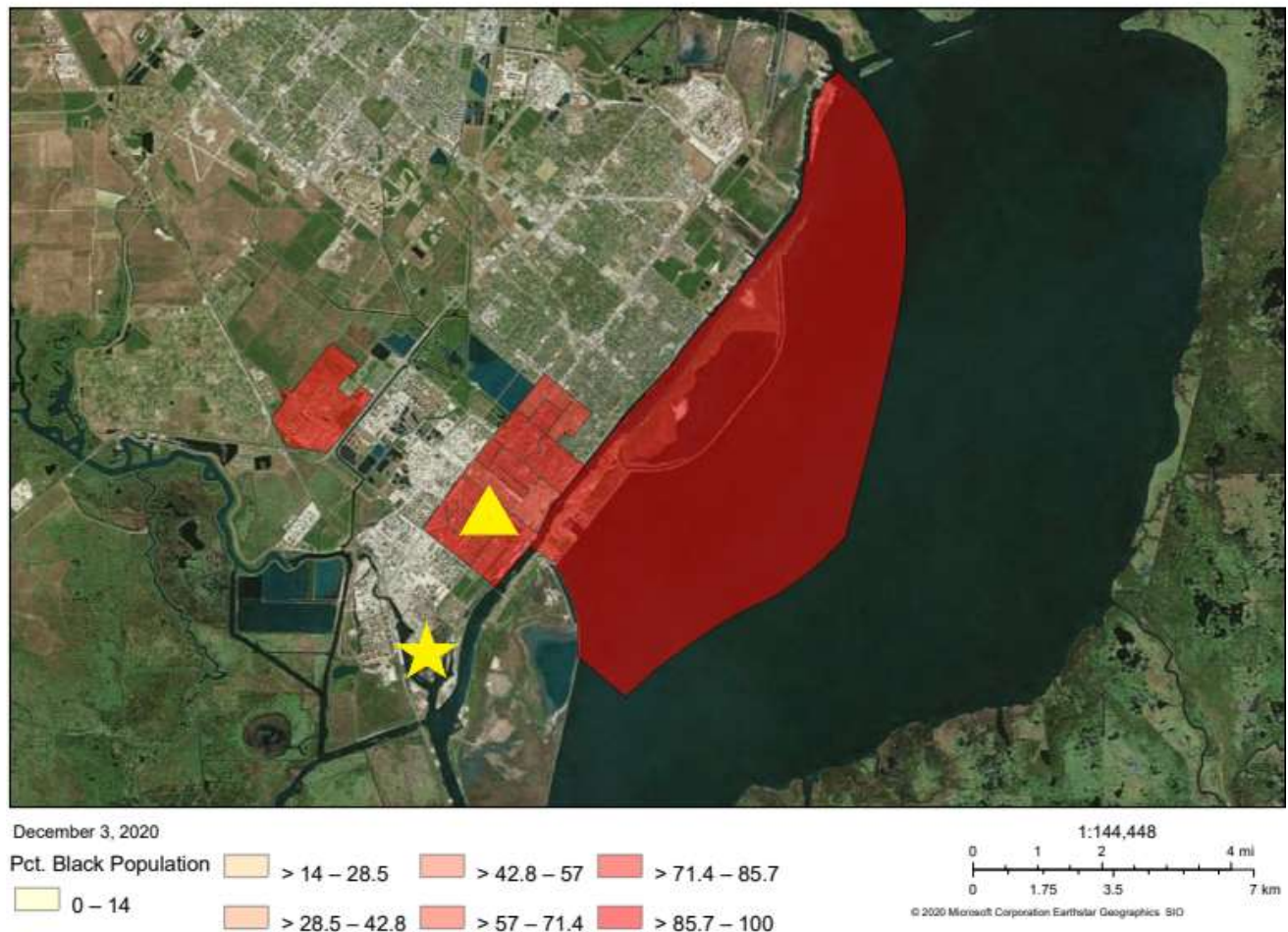


While Figure 1 is striking, **Figure 2** is perhaps more striking. **Figure 2** shows, in red, only those census blocks where the proportion of Black residents is 81% or higher. West Port Arthur

<sup>25</sup> U.S. ENVTL PROTECTION AGENCY, EPA EJ Screen Tool, <https://ejscreen.epa.gov/mapper/>.

and Oxbow are again marked with a triangle and a star, respectively. The map shows West Port Arthur, lodged between major industrial complexes. The area's population of Black residents unequivocally live uniquely close to the Oxbow facility.

**Figure 2.<sup>26</sup>**  
Census Tracts with a Black Population of 81% or Higher

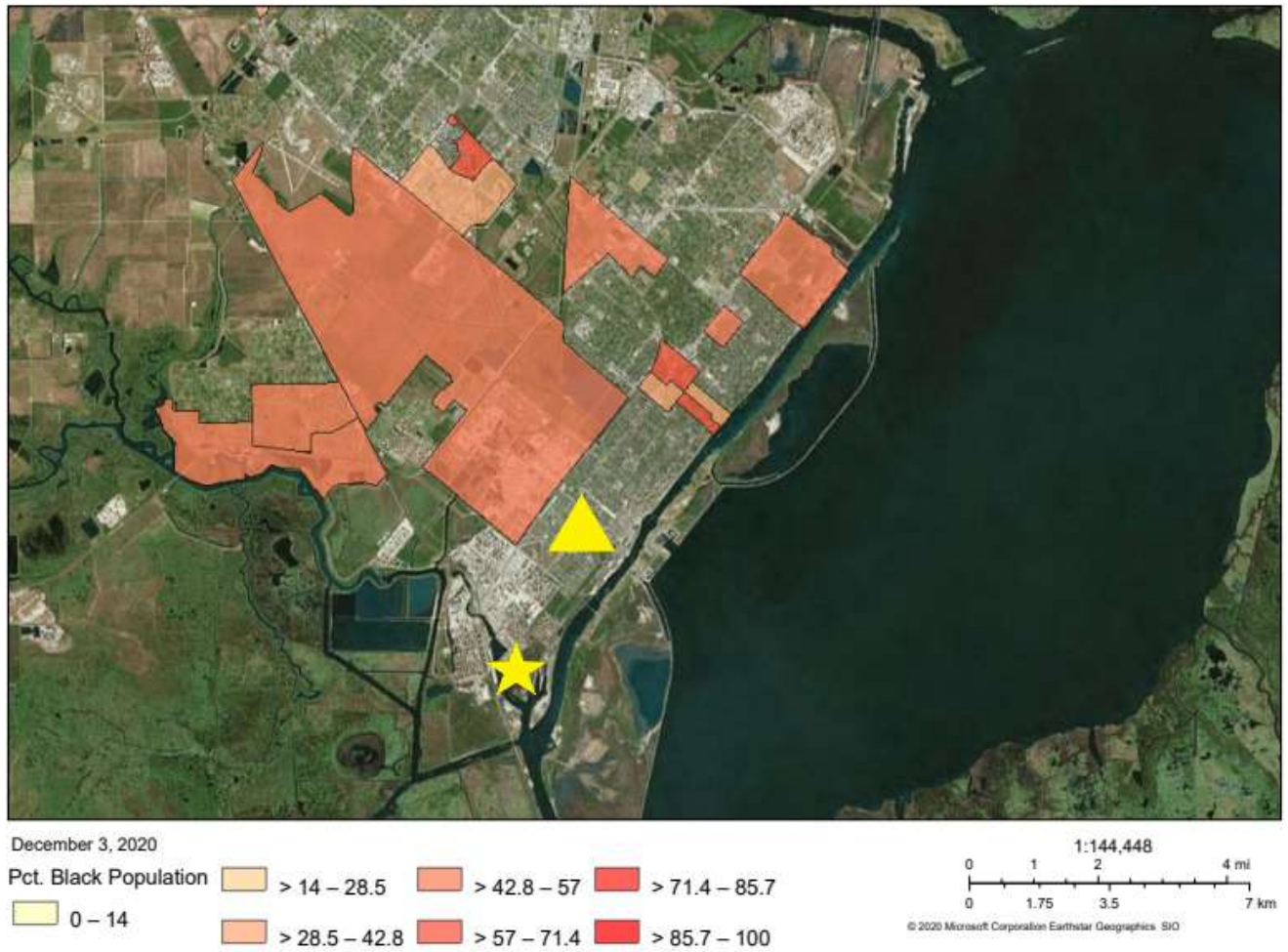


To further illustrate how the prevalence of Black residents decreases the further one moves away from Oxbow, **Figure 3** shows those census blocks which have populations between 40% and 82%. These “intermediate” areas, so to speak, form something of a buffer zone between Oxbow, Port Arthur’s industrial area, and areas with significantly lower Black populations. Oxbow is again marked with a star and West Port Arthur is marked with a triangle.

<sup>26</sup> *Id.*



**Figure 3.<sup>27</sup>**  
**Census Tracts with a Black Population Between 40% and 81%**



<sup>27</sup> *Id.*

**Figure 2** identifies 13 census blocks with Black populations of 81% or higher. **Table 1** provides the demographic makeup of each of these 13 blocks.

**Table 1. Demographics in West Port Arthur's Census Blocks<sup>28</sup>**

Block Number	Total Population	Black Population	% Black Population
482450051001	773	739	95.60%
482450051002	190	181	95.26%
482450059002	344	318	92.44%
482450059001	1020	976	95.69%
482450061003	528	443	83.90%
482450061002	173	169	97.69%
482450061001	451	421	93.35%
482450118002	612	579	94.61%
482450118001	1052	1011	96.10%
482450054002	892	725	81.28%
482450063002	506	474	93.68%
482450063001	857	707	82.50%
482450069003	343	343	100.00%

In sum, for these 13 census blocks:

- 7,741 total residents;
- 7,086 Black residents;
- 91.54% of total residents are Black.

Even if one removes Census Block 482450069003, the geographically “isolated” block on the left side of Figure 2, the 12 remaining census blocks have or are:

- 7398 total residents;
- 6,743 Black residents;
- 91.15% of total residents are Black.

As shown in **Table 2**, these numbers contrast sharply with the demographics of all of the City of Port Arthur, Jefferson County, and the State of Texas.

**Table 2. Percent Black Population by Geographic Division**

Geographic Area	% Black Population
West Port Arthur (12 census block area)	91.15
City of Port Arthur	38.2 <sup>29</sup>
Jefferson County	34.1 <sup>30</sup>
State of Texas	12.9 <sup>31</sup>

<sup>28</sup> *Id.*

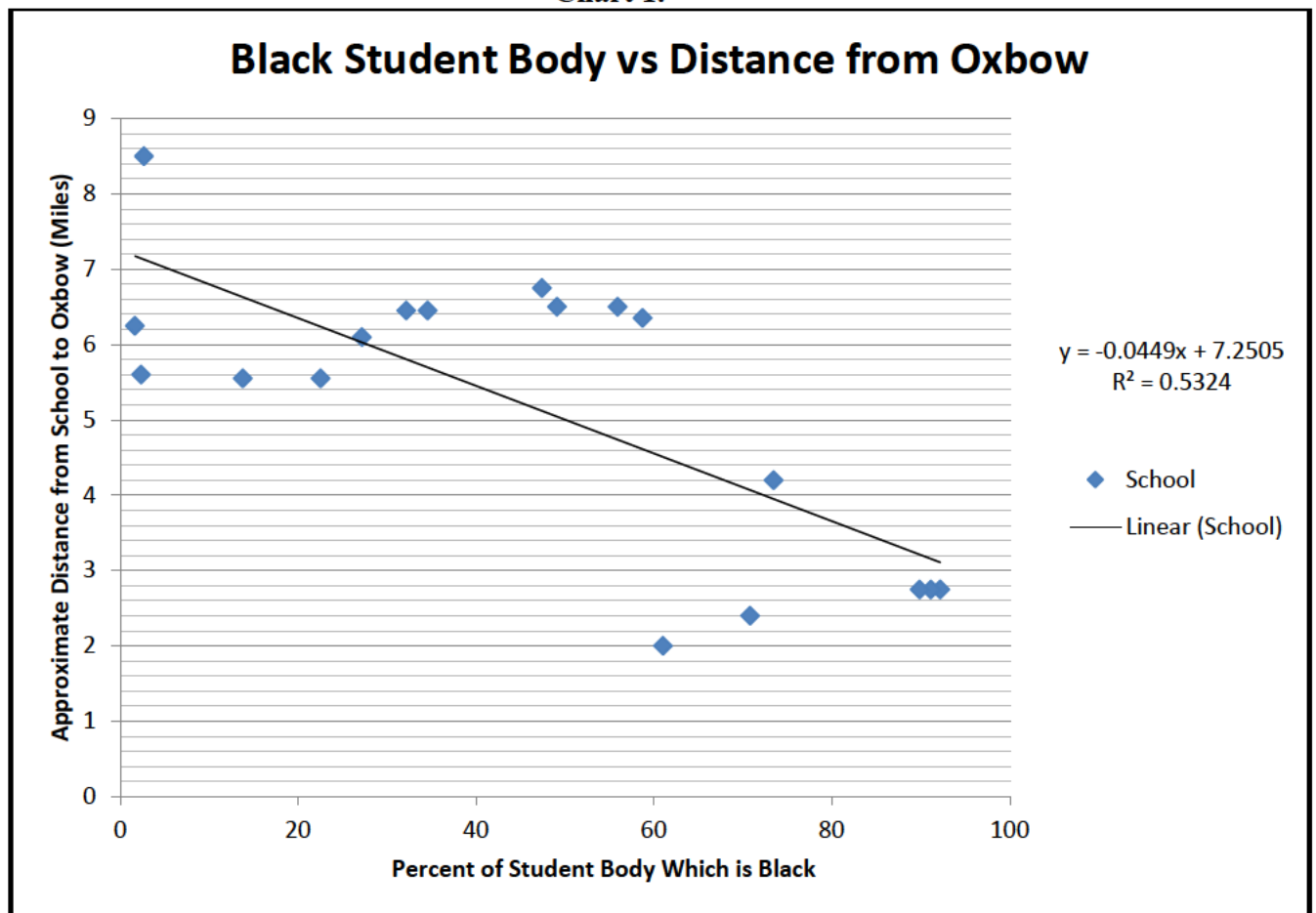
<sup>29</sup> U.S. CENSUS BUREAU, Quick Facts, Port Arthur city, Texas, <https://www.census.gov/quickfacts/portarthurcitytexas>.

<sup>30</sup> U.S. CENSUS BUREAU, Quick Facts, Jefferson County, Texas, <https://www.census.gov/quickfacts/fact/table/jeffersoncountytexas/HSG010219>.

<sup>31</sup> U.S. CENSUS BUREAU, Quick Facts, Texas, <https://www.census.gov/quickfacts/TX>.

In the previous subsection, Section II.A, this Complaint discussed the long struggle of school segregation and desegregation in Port Arthur. The racial makeup of local schools shows a distinct pattern, harkening to the area's long history of school segregation: schools with higher proportions of Black students are disproportionately closer to Oxbow than are schools with a lower proportion of Black students. **Chart 1** graphs the proportion of Black students within a school's student body versus the school's physical distance from the Oxbow facility, using data from the United States Department of Education's Common Core Data system for schools with at least six students, for the 2019-2020 academic school year.<sup>32</sup> A basic linear regression was run, producing a clear and substantial correlation between closer distances to Oxbow and proportionately higher Black student populations. For every mile closer to Oxbow, a student body is typically 22% more Black.

**Chart 1.**<sup>33</sup>



Except for one school with six students, the six schools with the highest proportion of Black students are located the closest to Oxbow. **Table 3** shows these schools, their distance from Oxbow, and the proportion of Black students in their respective student bodies.

<sup>32</sup> U.S. DEPT. OF EDUCATION, NATIONAL CENTER FOR EDUCATION STATISTICS, <https://nces.ed.gov/ccd/schoolsearch/>.

<sup>33</sup> *Id.*

**Table 3. Black Population of the Six Nearest Schools to Oxbow's Port Arthur Facility**

<b>School</b>	<b>Distance to Oxbow (Miles)</b>	<b>Proportion Black Students (%)</b> <sup>34</sup>
Lincoln Middle	2.00	60.99
Washington Elementary	2.40	70.79
Tekoa Academy (PK-5)	2.75	92.16
Tekoa Academy (6-8)	2.75	91.11
Tekoa Academy (9-12)	2.75	89.86
Dequeen Elementary	4.20	73.44

### **III. FEDERAL OPERATING PERMIT NO. O1493**

At issue in this Complaint is TCEQ's approval of an air permit renewal application for Permit No. O1493 to Oxbow Calcining, LLC. Permit No. O1493 is a FOP under Title V of the FCAA which allows Oxbow to operate adjacent to the West Port Arthur neighborhood. Accordingly, TCEQ's approval of Oxbow's Title V air permit renewal application must comport to the requirements of the FCAA, its implementing regulations, and Texas's applicable statutes and regulations, as well as protect against racial discrimination under Title VI. Oxbow's continued operation under an improper FOP leaves the West Port Arthur community vulnerable to harm from Oxbow's air emissions.

The Title V permit is intended to be "a source-specific bible for [FCAA] compliance."<sup>35</sup> Every Title V permit must "include enforceable emission limitations and standards, a schedule of compliance . . . and such other conditions as are necessary to ensure compliance with applicable requirements."<sup>36</sup> The term "applicable requirement" includes "[a]ny standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA."<sup>37</sup> In addition, each Title V permit must include "monitoring and reporting requirements."<sup>38</sup> TCEQ administers air permits pursuant to the FCAA. Accordingly, TCEQ should have ensured that Permit No. O1493 included enforceable emission limitations and standards, a compliance schedule, and adequate monitoring and reporting requirements to ensure compliance with all emission limitations.<sup>39</sup>

As described in greater detail in Section VII of this Complaint, TCEQ did not fulfill its duties under either Title V of the FCAA or under Title VI in its recent renewal of Oxbow's FOP in 2020. Oxbow filed its application to renew Permit No. O1493 on March 5, 2018. After concluding a technical review, TCEQ's Executive Director proposed to approve Oxbow's application and published notice for Draft Permit No. O1493 on June 18, 2019. Members of the public, including (b) (6), (b) (7)(C) submitted public comments during the subsequent public comment period and public hearing. Specifically, (b) (6), (b) (7)(C) identified the deficient Statement of Basis, an

<sup>34</sup> U.S. DEPT. OF EDUCATION, NATIONAL CENTER FOR EDUCATION STATISTICS, 2019-2020 school year, <https://nces.ed.gov/ipeds/data/ipedssearch/>.

<sup>35</sup> *Virginia v. Browner*, 80 F.3d 869, 873 (4th Cir. 1996).

<sup>36</sup> 42 U.S.C. § 7661c(a).

<sup>37</sup> 40 C.F.R. § 70.2 (2016); 30 TEX. ADMIN. CODE § 122.10(2) (2017).

<sup>38</sup> 42 U.S.C. § 7661c(c).

<sup>39</sup> 30 TEX. ADMIN. CODE §§ 122.10-122.606 (2002).



inaccurate and nearly absent discussion of Oxbow's recent and past compliance violations, lack of compliance schedule, and lack of monitoring requirements that ensured compliance with all applicable requirements, and how each of these deficiencies failed to regulate Oxbow's massive SO<sub>2</sub> emissions. Moreover, (b) (6), (b) (7)(C) highlighted TCEQ's failure to complete an environmental justice analysis of the Permit's impacts.

Despite hearing these concerns from (b) (6), (b) (7)(C) and other affected members of the public, TCEQ continued to move forward with approving Permit No. O1493. On July 10, 2020, TCEQ's Executive Director issued a Response to Comments on the Draft Permit and notice of Proposed Permit No. O1493. While the Executive Director made some revisions to the Draft Permit, TCEQ did not address the core issues (b) (6), (b) (7)(C) raised: (1) including terms to ensure compliance with SO<sub>2</sub> limits and the NAAQS and (2) correcting the Permit's racially disparate and adverse impacts. TCEQ responded on July 20, 2020, to (b) (6), (b) (7)(C) environmental justice concerns, stating only that:

Air permits evaluated by the agency are reviewed without reference to the socioeconomic or racial status of the surrounding community. TCEQ is committed to protecting the health of the citizens of Texas and its environment. We address environmental quality (also known as environmental justice) concerns for all Texans, including low-income and minority communities across the state, so that all Texans can fully participate in decision-making processes and enjoy the benefits of our environmental programs. TCEQ does not allow discrimination on the basis of race, color, national origin, sex, disability, age, sexual orientation, veteran status, or retaliation in the administration of our programs or activities, as required federal and state laws and regulations.<sup>40</sup>

TCEQ noted its disagreement with the rest of (b) (6), (b) (7)(C) comments, often without much supporting explanation. Furthermore, TCEQ announced its intention to grant the Permit after sending the proposed permit to the EPA for its review on July 14, 2020. The EPA's 45-day review period ended on August 28, 2020, during which the EPA did not object to the Proposed Permit. On September 8, 2020, TCEQ issued FOP No. O1493 to Oxbow. During the 60-day petition process, (b) (6), (b) (7)(C), the Lone Star Chapter of the Sierra Club, Environmental Integrity Project, and LSLA timely filed a petition to EPA regarding the FOP, restating the bases for its noncompliance with the FCAA. The EPA has not taken any action on the petition filed October 28, 2020. It has been more than 180 days since this petition was filed without (b) (6), (b) (7)(C) receiving any response from EPA.

This Complaint is timely because it is based on TCEQ's failure to regulate Oxbow's ongoing operations. Without intervention from the EPA, this lax regulation of Oxbow's operations is likely to continue. EPA regulations specify that a complaint must be filed within 180 days of the alleged discriminatory act. 40 C.F.R. § 7.120(b)(2). EPA's Office of Civil Rights has the authority and discretion to extend or waive the deadline for good cause. 40 C.F.R. § 7.120(b)(2). Here, good cause exists for extension of the deadline because the facility's operations are ongoing and will continue to have an adverse effect on West Port Arthur. Moreover, a series of incidents, including

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<sup>40</sup> TCEQ, Notice of Proposed Permit and Executive Director's Response to Public Comment for Oxbow Calcining LLC, Permit O1493, July 20, 2020, at 17, 34, 36 ("TCEQ Response to Comments") (Attachment D).

Winter Storm Uri, have contributed to delay in filing this Complaint. Winter Storm Uri was disruptive to many areas of Texas and definitely resulted in the extension of a number of national deadlines. Early on, LSLA contacted EPA regarding an extension to file. Then, the EPA failed to respond timely to the petition made by (b) (6), (b) (7)(C) regarding TCEQ's approval of the regulatory renewal. In the summer of 2020, LSLA, on behalf of (b) (6), (b) (7)(C) had intervened in litigation between PASE and Oxbow to obtain modeling information discussed and disclosed during that arbitration. Unfortunately, those documents ended up being largely sealed based on Oxbow's claims of confidentiality despite the obvious public interest in modeling and air quality impacts of the facility. Thus, (b) (6), (b) (7)(C) had to incur the time and expense to engage its own modeling experts to review the impacts of the facility on West Port Arthur. Further, TCEQ only recently disclosed on July 1, 2021, that it had performed additional modeling of the facility. This modeling further confirms (b) (6), (b) (7)(C) ultimate modeling results of the disparate impacts on West Port Arthur. LSLA promptly submitted a public records request for this modeling, which was produced by TCEQ on or about July 20, 2021. These models – both by (b) (6), (b) (7)(C) and TCEQ – demonstrate why this complaint has merit and justify the EPA's investigation and a response to (b) (6), (b) (7)(C) earlier filed petition regarding Oxbow's FOP.

#### **IV. HISTORY OF NATIONAL AMBIENT AIR QUALITY STANDARDS FOR SULFUR DIOXIDE AND TEXAS' STATE IMPLEMENTATION PLAN**

The EPA first issued annual and 24-hour primary (health-based) SO<sub>2</sub> standards as well as three-hour and annual secondary SO<sub>2</sub> standards in 1971. As a result of the EPA's review of the SO<sub>2</sub> NAAQS in 1973, EPA revoked the secondary annual SO<sub>2</sub> standard and retained the secondary three-hour standard. Following a subsequent review of the NAAQS in 1996, the EPA retained both the annual and 24-hour primary SO<sub>2</sub> standards. Additional health effects studies after 1996 led to another revision in the SO<sub>2</sub> standards. Effective August 23, 2010, the EPA revised the SO<sub>2</sub> NAAQS, adding a primary one-hour standard of 75 parts per billion ("ppb").<sup>41</sup> A one-hour standard was determined to better protect the public from exposure to high short-term SO<sub>2</sub> concentrations, especially in communities located close to coal-fired power plants, industrial boilers, petroleum refineries, metal processing plants, and diesel exhausts. In setting the 2010 primary one-hour SO<sub>2</sub> standard, the EPA revoked the annual and 24-hour primary standards, for areas not previously designated nonattainment, to become effective one year after designations for the 2010 standard were finalized.

##### **A. TCEQ REVISED ITS INFRASTRUCTURE AND STATE IMPLEMENTATION PLAN ("SIP") TO COMPLY WITH THE 2010 SO<sub>2</sub> NAAQS.**

To comply with the latest revisions to the Federal SO<sub>2</sub> NAAQS, Texas was required to develop, adopt, and submit to EPA for approval a SIP that would document how Texas would come into compliance with the NAAQS over a period of years. On April 23, 2013, TCEQ adopted the FCAA, §110(a)(1), and the Infrastructure and Transport SIP Revision for the 2010 SO<sub>2</sub> NAAQS.<sup>42</sup>

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<sup>41</sup> 74 C.F.R. § 35520 (2010).

<sup>42</sup> Project No. 2012-022-SIP-NR.

The 2013 Texas SIP revision identified the basic program elements Texas had adopted to meet infrastructure requirements for the 2010 SO<sub>2</sub> NAAQS, as stipulated in the FCAA. The revision specifically addresses FCAA, §110(a)(2)(D)(i)(I) transport requirements with a technical demonstration showing Texas does not contribute significantly to nonattainment nor interfere with maintenance of the SO<sub>2</sub> NAAQS in any other state.

## **B. EPA USED A STAGED APPROACH IN ITS IMPLEMENTATION OF THE 2010 SO<sub>2</sub> NAAQS.**

EPA implemented a staged approach for facilitating compliance with the 2010 Primary SO<sub>2</sub> NAAQS. For more information on this approach, see the EPA's Primary Sulfur Dioxide NAAQS Implementation Schedule webpage.<sup>43</sup> This staged approach was altered as noted below in response to a lawsuit against the agency and, consequently, has consisted of four rounds of evaluating whether specific counties in Texas were in "attainment" with the 2010 one-hour SO<sub>2</sub> standard. Each state reported on its recommendations for what areas to designate as in attainment, not in attainment, or not classifiable due to a lack of SO<sub>2</sub> air quality data. For those areas with inadequate data, Texas was expected to develop a plan and obtain the necessary data. For some areas with few, none, or only intermittent SO<sub>2</sub> monitoring data, Texas installed additional ambient monitoring stations. Jefferson County was one of those areas found by Texas and the EPA to have inadequate data.

### **1. Round 1 Designations**

The first round consisted of initial designations by each state. Initially, in June 2011, Texas recommended to the EPA that Jefferson County be designated as "nonattainment" for the 2010 SO<sub>2</sub> standard. Texas based its recommendation on 2009 and preliminary 2010 design values for the state's existing SO<sub>2</sub> regulatory monitors. Texas utilized a statistical approach to calculate a "design value" to compare with the standard. For those days where the standard was exceeded as a result of an industrial source having an upset that was reported, the state deleted the data for those days and recalculated an average daily value for the year, which they then compared with the standard. The apparent rationale was that the area would have been in attainment but for the upsets and could be in attainment with enforcement actions.

In April 2012, Texas submitted a revised recommendation to the EPA that Jefferson County be designated as in "attainment" for the 2010 SO<sub>2</sub> standard; this recommendation was based on a design value calculation that resulted in a design value of 68 ppb (compared to 77 ppb for the year before) for the more recent monitoring data. In response, on August 5, 2013, the EPA published final nonattainment area designations for areas with 2009 through 2011 monitoring data indicating violations of the one-hour SO<sub>2</sub> standard.<sup>44</sup> No areas of Texas were designated. EPA's designations were challenged in court in part because the agency ignored large SO<sub>2</sub> sources where no nearby SO<sub>2</sub> monitors existed and failed to make final designations.

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<sup>43</sup> U.S. ENVTL. PROT. AGENCY, Primary Sulfur Dioxide NAAQS Implementation Schedule, <https://www.epa.gov/so2-pollution/primary-sulfur-dioxide-naaqs-implementation-schedule>.

<sup>44</sup> Air Quality Designations for the 2010 Sulfur Dioxide (SO<sub>2</sub>) Primary National Ambient Air Quality Standard, 78 Fed. Reg. 47191 (Aug. 5, 2013).

## **2. Round 2 Designations**

A consent decree to resolve the EPA's failure to timely promulgate designations was ordered by the U.S. District Court for the Northern District of California on March 3, 2015. The court-ordered settlement established deadlines for the EPA to complete designations in several rounds. Areas with newly monitored violations or large emissions sources not announced for retirement as of March 2015, with 2012 SO<sub>2</sub> emissions greater than 16,000 tons per year (tpy) or greater than 2,600 tpy with an average emission rate greater than 0.45 pounds per million British thermal units, were to be designated by the EPA in Round 2 by July 2, 2016. Oxbow's Port Arthur facility was identified as one of these facilities.

In a letter dated March 20, 2015, no monitors with violations of the 2010 primary SO<sub>2</sub> NAAQS were identified by EPA in Texas. The EPA's letter provided Texas with an opportunity to revise previously recommended designations and to submit supporting data and any additional information for EPA consideration by September 18, 2015. Following the state's September 18, 2015 revised recommendation, the EPA issued a 120-day notice to Texas on February 11, 2016 with proposed designations for only the counties surrounding the 12 largest electric power plants; this list did not include Jefferson County. To bring Texas into compliance for these and other non-classified areas, Texas took different approaches as allowed by EPA: re-examination of more recent ambient monitoring data, modeling to demonstrate compliance, enforcement actions, or revising facility permits to bring the counties into compliance. No apparent action was taken to address potential exceedances of the standard in Jefferson County during this 2015 to 2016 time frame.

## **3. The Data Requirements Rule**

Subsequently, EPA issued a rule codifying this approach and identified Oxbow as being subject to this compliance enforcement/evaluation process. The EPA's DRR for the 2010 primary one-hour SO<sub>2</sub> NAAQS, finalized on August 10, 2015 and published on August 21, 2015,<sup>45</sup> provided three options for states to characterize and assess SO<sub>2</sub> air quality near sources that emit greater than 2,000 tpy such as the Oxbow facility: (a) modeling, (b) monitoring, or (c) enforceable emissions limits. Areas to be characterized by modeling and other areas without nearby monitors were to be designated by the EPA in Round 3 by December 31, 2017. Areas to be characterized by monitoring as well as any remaining undesignated areas were to be designated by the EPA in Round 4 by December 31, 2020.

The DRR required states to identify and submit a list to EPA of all applicable emissions sources by January 15, 2016. TCEQ identified sources in Texas with emissions greater than 2,000 tpy and timely notified the EPA that its list included Oxbow. By July 1, 2016, Texas was required by the EPA to identify the characterization approach planned for each identified source. For any source to be evaluated with modeling, states were to submit a modeling protocol by July 1, 2016, a modeling analysis by January 13, 2017, and annual reports to the EPA thereafter. As discussed further below, on June 29, 2016, TCEQ submitted an air quality characterization plan and modeling protocol for identified sources, referred to in TCEQ's Air Monitoring Network Plan

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<sup>45</sup> Data Requirements Rule for the 2010 1-Hour Sulfur Dioxide National Ambient Air Quality Standard, 80 Fed. Reg. 51052 (Aug. 21, 2015).



(“AMNP”). For the Oxbow facility, TCEQ’s plan was to install an ambient monitor closer to the plant than the only previously existing SO<sub>2</sub> TCEQ monitor in Jefferson County (Port Arthur West).

#### **4. Round 3 Designations**

Per the DRR, Texas submitted only one complete modeling analysis [for the Oklaunion Power Station in Wilbarger County] to the EPA on January 12, 2017. The EPA published final Round 3 area designations for the 2010 SO<sub>2</sub> NAAQS on January 9, 2018,<sup>46</sup> designating 238 Texas counties (or portions thereof) as attainment/unclassifiable, which did not include Jefferson County. The date of TCEQ’s submittal predates the start of the new ambient air monitoring station near the Oxbow facility, suggesting that TCEQ had yet to address the Oxbow plant in Jefferson County adequately via monitoring.

#### **5. Round 4 Designations**

In Round 4, the EPA was required to designate all remaining areas not yet designated for the 2010 SO<sub>2</sub> NAAQS by December 31, 2020. On May 11, 2020, TCEQ provided supplemental information in support of an attainment/unclassifiable designation for nearby Orange County. On August 13, 2020, the EPA sent a 120-day letter informing Governor Abbott of intended Round 4 area designations, including EPA’s plan to designate Jefferson County as attainment/unclassifiable and Orange County as unclassifiable. On October 16, 2020, Governor Abbott submitted a response to the EPA’s 120-day letter. By this date in 2020, TCEQ was aware of the SO<sub>2</sub> NAAQS exceedances in Jefferson County and was aware of the 2018 notice by Jefferson County to Oxbow that the facility had caused exceedances of the NAAQS for SO<sub>2</sub>. Evidently, TCEQ had assumed the actions taken by Oxbow to mitigate exceedances of the NAAQS for SO<sub>2</sub> would be sufficient. On March 26, 2021, the EPA published the final rule designating Jefferson County as “attainment/unclassifiable” and nearby Orange County as unclassifiable, with an effective date of April 30, 2021.

#### **C. THE TEXAS AIR QUALITY CHARACTERIZATION PLAN FOR AREAS WITH IDENTIFIED LARGE SO<sub>2</sub> SOURCES INCLUDES OXBOW.**

As noted above, the DRR required state air agencies to notify the EPA by July 1, 2016 of the air quality characterization method planned to evaluate areas where identified sources are located. Air agencies were also required to submit revised monitoring network plans and modeling protocols to the EPA by July 1, 2016 to address sources to be evaluated through monitoring and modeling. TCEQ identified 25 sources in Texas with emissions greater than 2,000 tpy and notified the EPA on January 15, 2016. On April 22, 2016, TCEQ requested revision of the list down to 24 sources, and the EPA concurred on May 4, 2016.

On June 29, 2016, TCEQ submitted the above noted AMNP as part of Texas’ air quality characterization plan to evaluate each of the areas where 24 sources were identified in Texas. The plan called for meeting the DRR requirements via ambient monitoring for all but one of the large sources and included reference to TCEQ’s 2016 AMNP.

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<sup>46</sup> Air Quality Designations for the 2010 Sulfur Dioxide (SO<sub>2</sub>) National Ambient Air Quality Standard, 83 Fed. Reg. 1098 (Jan. 9, 2018).

**D. IN 2015, TCEQ RECOMMENDED JEFFERSON COUNTY BE CONSIDERED IN ATTAINMENT FOR SO<sub>2</sub>.**

In its September 18, 2015 letter, Texas recommended an “attainment” designation for Jefferson County since the State concluded Jefferson County’s 2014 data “certifiable” (statistically adjusted) air monitoring data demonstrated compliance with the 2010 SO<sub>2</sub> NAAQS. EPA evidently did not immediately agree. The new air monitoring station near the Oxbow facility had yet to be installed, and Texas apparently did not submit modeling data to support the state’s recommendation for Jefferson County. Nonetheless, the area was later designated as in attainment or not classifiable even though definitive air dispersion modeling had not been provided to the EPA. Further, the new monitor downwind of the southern prevailing wind had not yet yielded data to assess whether Oxbow was having an impact on attainment of the 2010 SO<sub>2</sub> NAAQS.

**E. OXBOW’S REPORTED IMPACT ON ATTAINMENT OF THE PRIMARY SO<sub>2</sub> NAAQS FROM JANUARY 2017 TO JUNE 2018 MADE TCEQ AWARE OF OXBOW’S POTENTIAL HARM.**

Contrary to TCEQ’s assessment relying on 2014 air monitoring data for Jefferson County, TCEQ likely knew that Oxbow was causing exceedances of the SO<sub>2</sub> NAAQS in the fall of 2016 when ambient air quality monitoring began at a new monitor near the Oxbow facility and after TCEQ had performed internal air modeling to locate the monitor. TCEQ apparently took no action to inform the EPA that Jefferson County was no longer in attainment. Oxbow’s 2018 Semi-Annual Deviation Report for the period of February 26, 2018 to August 25, 2018 reported three deviations. Only Deviation 3 is reviewed for this Complaint. As Deviation 3, Oxbow reported a deviation that occurred from January 1, 2017 to June 25, 2018, a 5 ½ month period. Oxbow stated the following regarding the “cause” of these exceedances. On May 7, 2018, Oxbow was notified by Jefferson County that the county would take enforcement action if the facility continued to emit pollution causing an exceedance of the SO<sub>2</sub> NAAQS at TCEQ’s Continuous Ambient Monitoring Station (“CAMS”) 1071 monitoring site. Jefferson County’s notice, together with the certification data from this monitoring site in May 2018, are considered credible evidence of the non-compliance status of the facility of Special Condition 25 and General Condition 13 of Oxbow’s NSR Permit 45622.

Oxbow also stated that upon review of validated 2017 data from the CAMS 1071 SO<sub>2</sub> monitor site, that the exceedance of the Primary SO<sub>2</sub> NAAQS standard occurred while the facility was operating out of a least one cold stack. According to the facility, the operation through one or more cold stacks directly led to the exceedances of the SO<sub>2</sub> standard at the CAMS 1071 monitoring site during 2017. Oxbow also noted the following corrective actions:<sup>47</sup>

- As authorized in NSR Permit 45622, Oxbow reported it had ceased operating out of one or more cold stacks on June 25, 2018, and since that day, Oxbow said that it had exclusively operated out of the hot stacks.

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<sup>47</sup>Cause No. 2020-18313 *Oxbow Calcining LLC v. Port Arthur Steam Energy LP*, in the 270<sup>th</sup> Judicial District Court of Harris County, Texas (“PASE Litigation”), Exhibit 106, at 3 (Attachment J-11).

- By limiting the operational modes at the facility, Oxbow stated it is “mitigating” the operational circumstances that it stated directly caused exceedances of the SO<sub>2</sub> standard at the CAMS 1071 monitoring site.
- According to TCEQ’s review of unvalidated data from the three-month period of June through August 2018, TCEQ stated the data demonstrates that the imposed operational limitations at the facility had led to no further exceedance of the SO<sub>2</sub> standard at the CAMS 1071 monitoring site.
- Oxbow further stated it was committed to continue the corrective actions it had taken to mitigate impacts on air quality.

As part of Texas’ SIP, CAMS 1071 was placed downwind of Oxbow’s Port Arthur Plant with an activation date of September 30, 2016. As previously noted above, the placement of CAMS 1071 was completed because the DRR required the State to assess whether Oxbow, which in its 2014 Emission Inventory reported that the facility emits more than 10,000 tpy of SO<sub>2</sub> and therefore was a major emitter of SO<sub>2</sub>, had an impact on Jefferson County’s efforts to comply with the Primary SO<sub>2</sub> NAAQS. As noted above, because TCEQ had anticipated that Oxbow would be a major source, TCEQ completed a multi-year study to identify a place for an ambient monitor downwind of the Oxbow facility. TCEQ ultimately placed CAMS 1071 specifically downwind of Oxbow when the wind blows from the south. No monitor was located south of Oxbow to monitor its impact when the wind blows predominately from the north, nor was there a monitor located northwest of the facility to monitor its impact when the wind blows from the southeast. The CAMS 1071 SO<sub>2</sub> monitor is utilized to assess compliance with the SO<sub>2</sub> NAAQS for the Beaumont-Port Arthur Region and was the only monitor installed primarily to monitor Oxbow’s impact in the area. On January 15, 2016, TCEQ submitted a letter to the EPA’s Region 6 office identifying SO<sub>2</sub> sources for further evaluation and air quality characterization. In this letter, TCEQ listed Oxbow as a source that emits 2,000 tpy of SO<sub>2</sub> or more.

On April 20, 2017, TCEQ sent a letter to Oxbow informing the facility that preliminary data from CAMS 1071 indicated preliminary measurements above 75 ppb for an hourly average and that proper planning activities at all levels would need to be conducted as soon as possible. Accordingly, both TCEQ and Oxbow were aware of the negative impact of Oxbow on the ambient air quality of Jefferson County as of April 2017.

**F. TCEQ HAS NOT INCLUDED JEFFERSON COUNTY IN THE 2021 SIP DEVELOPMENT PROCESS NOR PROPOSED MORE MONITORING.**

On March 25, 2021, TCEQ held an informational meeting for representatives of facilities located in the portions of Howard, Hutchinson, and Navarro Counties that were designated nonattainment by the EPA for the 2010 One-Hour Primary SO<sub>2</sub> NAAQS. Jefferson County was designated as “attainment/unclassifiable,” and its designation had not been revised because of the exceedances of the 2010 One-Hour Primary SO<sub>2</sub> NAAQS caused by Oxbow’s operations. No change occurred evidently because of TCEQ’s initial unsupported conclusion that the actions taken by Oxbow to operate only out of its hot stacks and thereby further disperse its emissions was sufficient for Jefferson County to comply with the 2010 One-Hour Primary SO<sub>2</sub> NAAQS. Thus,

Jefferson County was not included in the 2021 SIP development process, nor were additional SO<sub>2</sub> monitors proposed near the Oxbow facility in the 2021 AMNP.

As documented by (b) (6), (b) (7)(C) own investigation and air modeling, had TCEQ assessed the matter the agency would have found that the Oxbow facility, operating at its permitted limits with emissions only out of its hot stacks, would have still exceeded the 2010 One-Hour Primary SO<sub>2</sub> NAAQS on numerous dates during 2017. Furthermore, a comparison of the modeling-predicted air quality with the ambient SO<sub>2</sub> monitoring data from CAMS 1071 would have provided ample basis to conclude that Oxbow was likely exceeding its permitted emission rates. Indeed, as noted elsewhere, TCEQ has acknowledged it is aware that Oxbow increased its petroleum coke output in 2017. Accordingly, it is evident that TCEQ should have included Jefferson County in its 2021 SIP development process.

## V. BACKGROUND ON OXBOW CALCINING LLC

The discriminatory impact of Permit No. O1493 and TCEQ's approval of the Permit must be understood in the context of Oxbow's history, massive SO<sub>2</sub> emissions, and the facility's prior interactions with TCEQ. This section describes Oxbow's unique position as a long-time source of monumental SO<sub>2</sub> emissions without any controls, Oxbow's history of noncompliance with environmental laws, as well as TCEQ's lack of substantial enforcement actions to address these emissions or Oxbow's noncompliance.

### A. OXBOW CALCINING LLC IS A NEARLY CENTURY-OLD FACILITY THAT EMITS MORE THAN 25 MILLION POUNDS OF SO<sub>2</sub> EVERY YEAR.

Oxbow Calcining LLC has operated the petroleum coke calcining plant (the "Calcliner") in Port Arthur, Texas since 2007. Prior to 2007, Great Lakes Carbon, LLC ("GLC") owned and operated the Calcliner from 1935 to May 2007, which Oxbow's parent company acquired GLC.<sup>48</sup> The "facility receives raw petroleum coke from Gulf Coast and international oil refiners and serves domestic and international anode and industrial grade calcined petroleum coke markets."<sup>49</sup> Specifically, the Calcliner refines or "calcines" petroleum coke (also known as green coke) into calcined coke. The calcining process involves feeding green coke through rotary kilns that operate at extremely high temperatures (over 2,000 °F) to convert the green coke to calcined coke, a product which is used in manufacturing processes. The calcining process produces an extremely hot exhaust "flue" gas, i.e., waste heat, as a byproduct which contains as regulated pollutants small particulates and SO<sub>2</sub>. The Calcliner "has the capacity to produce 700,000 short tons of anode and industrial grade calcined petroleum coke."<sup>50</sup> Problematically, however, this large-scale operation relies only on mostly antiquated kiln stacks with no emissions control technology, despite generating tremendous amounts of SO<sub>2</sub>. Moreover, Oxbow holds a grandfathered permit which seemingly preserved the facility's emissions limits from the 1930s that were never reduced.

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<sup>48</sup> Oxbow Corporation, Calcining, [https://www.oxbow.com/Services\\_Value\\_Added\\_Services\\_Calcining.html](https://www.oxbow.com/Services_Value_Added_Services_Calcining.html).

<sup>49</sup> *Id.*

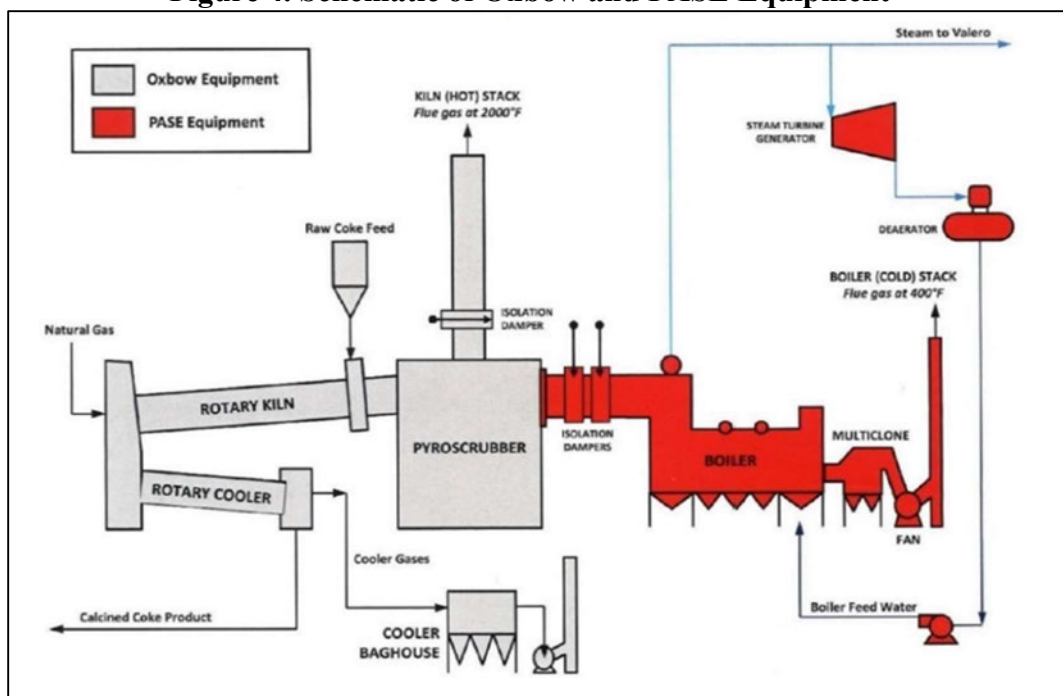
<sup>50</sup> *Id.*



## 1. Oxbow's Port Arthur operation utilizes multiple hot kiln stacks.

The heart of Oxbow's petroleum coke calcining operations occurs at four kilns known as kilns 2, 3, 4, and 5. As **Figure 4** demonstrates, after receiving petroleum coke from refineries, Oxbow heats the product in the four kilns to manufacture calcined coke.<sup>51</sup> Kiln gases, or waste heat, that result from the heating process are then dispersed directly into the atmosphere using a "kiln stack" or "hot stack" connected to each of the kilns. Until 2018, pursuant to a contract, Oxbow also routed this waste heat to an adjacent steam plant (the "Steam Plant") owned and operated by Port Arthur Steam Energy LP ("PASE"). The Steam Plant contains waste heat recovery boilers, referred to as boilers 3, 4, and 5, which extract heat from their respective kilns to boil water to make steam. Under the Oxbow-PASE contract, PASE would then sell the steam, primarily to Valero's Port Arthur Refinery.<sup>52</sup> In this process, waste heat travels from the boilers to a multicclone dust collector, which removes PM from the exhaust, is cooled, then is dispersed into the atmosphere using a boiler stack, or "cold stack."

**Figure 4. Schematic of Oxbow and PASE Equipment<sup>53</sup>**



In the early 1980s, the Steam Plant was built and connected to the Calciner. The Steam Plant used waste heat from the Calciner to generate steam through systems called "Heat Recovery Steam Generators" (also known as "HRSGs" or "boilers"). The process of producing steam cools the flue gas from approximately 2,200 °F to approximately 400 °F, which is then emitted through a "cold" stack attached to each boiler. The Steam Plant had three boilers, each of which was connected to a separate kiln (kiln nos. 3, 4, and 5). The Steam Plant operated until 2000, when its then-owner (a Dynegy subsidiary) shut it down and sold it to GLC.

<sup>51</sup> PA Litigation, Exhibit 10-1, at 4 (Attachment J-1).

<sup>52</sup> PASE Litigation, Exhibit R-6, at 52 (Attachment J-2).

<sup>53</sup> PASE Litigation, Exhibit 10-1, at 5 (Attachment J-1).

It is appropriate to provide some additional context around the historical operations of Oxbow, as recent Oxbow contractual disputes are also relevant to the operations of the Calciner. In 2002, a project development company, Integral Power, LLC (“Integral Power”), approached GLC to discuss reopening the Steam Plant. In the fall of 2004, GLC solicited bids for reopening the Steam Plant. In November 2004, GLC received two competing offers: one from Cinergy and the other from PASE. A special committee of the board of GLC entered negotiations with PASE. The negotiations culminated in the execution of a Heat Energy Agreement (“Heat Agreement”), effective February 25, 2005. However, the parties had different interpretations of this Heat Agreement. PASE spent several months and 38.5 million dollars refurbishing and upgrading the Steam Plant pursuant to the Heat Agreement. In August 2005, the Steam Plant commenced operations. Under the terms of the Heat Agreement, Oxbow provided waste heat generated by the calcining process to PASE. In turn, PASE used this waste heat to generate steam, most of which it then sold to the nearby Valero refinery under a Steam Energy Agreement. Since August 2005, PASE and GLC (and later, Oxbow) had various disputes over the operation of the Calciner and Steam Plant until they were resolved via arbitration.

In July 2010, Oxbow brought their disputes to an arbitrator. In turn, PASE filed counterclaims against Oxbow. One of the more recent claims was associated with Oxbow’s violations of its air permits with respect to particulates and SO<sub>2</sub> in 2017 and its curtailment of flue gas to PASE in June 2018. By discontinuing to provide waste heat to PASE, the emissions would be emitted from Oxbow’s hotter stacks and would be dispersed higher into the air and over a larger area of Port Arthur resulting in lower ground level concentrations, thereby helping Oxbow to mitigate its impact on air quality and helping them to comply with NAAQS for SO<sub>2</sub>.

## **2. Oxbow’s SO<sub>2</sub> emissions make up over 90% of all SO<sub>2</sub> emissions in Jefferson County.**

Oxbow’s calcining operations at the Port Arthur facility emit large amounts of numerous “criteria air pollutants”<sup>54</sup> identified by the EPA—such as PM, nitrogen oxide, carbon monoxide, and lead; however, Oxbow’s SO<sub>2</sub> emissions are the most extreme and troubling. According to the EPA’s most recent release of the National Emissions Inventory (“NEI”) Database in 2017, Oxbow emitted 22,990,995.40 pounds of SO<sub>2</sub>, largely from the kiln stacks. These emissions are immense: Oxbow’s Port Arthur facility is the fifth largest emitter of SO<sub>2</sub> in Texas, making up nearly 3% of all SO<sub>2</sub> emissions in the state, and the largest SO<sub>2</sub> emitter in Jefferson County. In fact, Oxbow’s SO<sub>2</sub> emissions constitute almost 92% of total SO<sub>2</sub> emissions in Jefferson County, even though Jefferson County is home to one of the nation’s, if the not world’s, largest clusters of industrial activity. As shown in **Table 4** below, according to the NEI data, Oxbow regularly emitted nearly 18 million to 22 million more pounds of SO<sub>2</sub>—or up to 40 times more SO<sub>2</sub> emissions—than the second highest emitter of SO<sub>2</sub> in Jefferson County in the past 10 years. While 2021 NEI data is not yet available, because Oxbow has not affirmatively reduced its SO<sub>2</sub> emissions since 2017, Oxbow likely continues to emit SO<sub>2</sub> on the same scale.

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<sup>54</sup> All data from: U.S. ENVTL. PROT. AGENCY, Criteria Air Pollutants, 2014-2019, <https://www.epa.gov/criteria-air-pollutants>.

**Table 4. Oxbow's SO<sub>2</sub> Emissions as Compared to Other Facilities in Jefferson County<sup>55</sup>**

Year	Oxbow (lbs)	Jefferson Co. Total (lbs)	Oxbow % Total	2nd highest SO <sub>2</sub> emitter (lbs)	% Total	3rd highest SO <sub>2</sub> emitter (lbs)	% Total
2011	19,236,136	21,254,012	90.5%	Premcor: 1,259,598	5.9%	Lucite Int'l: 357,728	1.7%
2014	22,638,491	24,448,005	92.6%	Lucite Int'l: 571,041	2.3%	Motiva: 558,510	2.3%
2017	22,990,995	25,065,363	91.7%	Premcor: 738,904	2.9%	Motiva: 645,8965	2.6%

As shown on the **Table 5**, based on TCEQ's 2017 emissions inventory data, Oxbow emits over 10,000 tons of SO<sub>2</sub> annually, over 90% of the SO<sub>2</sub> emitted in Jefferson County, and about 20-30 times more than the next largest emitters in the county. [Note: despite the discrepancy between the NEIC database and TCEQ 2017 database, it is evident that Oxbow has and continues to emit over 80% of SO<sub>2</sub> emitted in Jefferson County.] Oxbow's emissions are not limited by an emissions control device, such as a sulfur recovery unit. By keeping its permitted limits constant over time and characterizing its facility modifications as being allowed, the Oxbow facility has avoided triggering New Source Performance Standards ("NSPS") and the requirement to place BACT on its stacks.

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<sup>55</sup> U.S. ENVTL. PROT. AGENCY, National Emissions Inventory data, *available at* <https://www.epa.gov/air-emissions-inventories/national-emissions-inventory-nei> (last visited June 30, 2021). NEI data for 2021 was not yet available at the time the Complaint was filed. According to TCEQ documents, Oxbow's increase in SO<sub>2</sub> emissions in 2014 "was due to a large increase in the amount of coke processed by kilns 4 and 5"; similarly, in 2017, Oxbow's increase in SO<sub>2</sub> emissions and PM<sub>2.5</sub> "were caused by the increased [sic] in throughput in the year 2017 compared to that of 2016." TCEQ, Oxbow Calcining Air Emissions Inventory, JE0040F, Reporting Years 2014-2017, Phone/Email Summaries SO<sub>2</sub> Related.

**Table 5. TCEQ 2017 Emissions Inventory Data for Jefferson County**

TCEQ 2017 EMISSIONS INVENTORY DATA			
COMPANY	SITE	COUNTY	SO2 TPY
OXBOW CALCINING LLC	OXBOW CALCINING	JEFFERSON	11,495
EXXONMOBIL OIL CORPORATION	BEAUMONT REFINERY	JEFFERSON	676
PREMCO REFINING GROUP INC	VALERO PORT ARTHUR REFINERY	JEFFERSON	369
MOTIVA ENTERPRISES LLC	PORT ARTHUR REFINERY	JEFFERSON	323
TOTAL PETROCHEMICALS & REFINING USA INC	PORT ARTHUR REFINERY	JEFFERSON	307
LUCITE INTERNATIONAL INC	BEAUMONT PLANT	JEFFERSON	271
ARKEMA INC	ARKEMA BEAUMONT PLANT	JEFFERSON	268
AIR PRODUCTS LLC	AIR PRODUCTS PORT ARTHUR FACILITY	JEFFERSON	53
SUNOCO PARTNERS MARKETING & TERMINALS LP	NEDERLAND MARINE TERMINAL	JEFFERSON	14
DCP OPERATING COMPANY LP	PORT ARTHUR GAS PLANT	JEFFERSON	14
CHEMTRADE REFINERY SERVICES INC	BEAUMONT FACILITY	JEFFERSON	13
HUNTSMAN PETROCHEMICAL LLC	PORT NECHES PLANT	JEFFERSON	8
BASF TOTAL PETROCHEMICALS LLC	BASF TOTAL NAFTA REGION OLEFINS COMPLEX	JEFFERSON	7
EXXONMOBIL OIL CORPORATION	BEAUMONT CHEMICAL PLANT	JEFFERSON	7
FLINT HILLS RESOURCES PORT ARTHUR LLC	PORT ARTHUR CHEMICALS	JEFFERSON	7
CHEVRON PHILLIPS CHEMICAL COMPANY LP	PORT ARTHUR PLANT	JEFFERSON	4
PRAXAIR INC	PRAXAIR PORT ARTHUR PLANT	JEFFERSON	3
GOODYEAR TIRE & RUBBER COMPANY	BEAUMONT CHEMICAL PLANT	JEFFERSON	2
Above data reference: <a href="https://www.tceq.texas.gov/airquality/point-source-ei/psei.html">https://www.tceq.texas.gov/airquality/point-source-ei/psei.html</a>			

Note: Jefferson County has 61 air sources, above table shows sources with SO2 > 1 TPY

	SO2 TPY	SO2 %	Ratio
Oxbow SO2 Emissions	11,495	83%	4.89
All other Jefferson County SO2 emitters	2,353	17%	1
Total SO2 Emissions Jefferson County	13,849	100%	



C260-00001



As shown on in the following **Figure 5**, there are currently five air monitors in Jefferson County that collect the emissions data reflected in **Table 5**: (1) Beaumont Downtown, (2) Orange 1<sup>st</sup> Street, (3) Port Arthur West, (4) SETRPC Port Arthur, and (5) Port Arthur West 7<sup>th</sup> Street Gate 2. Based on 2017 TCEQ data, Oxbow composed over 80% of the air shed for SO<sub>2</sub> emissions in Jefferson County. There were no monitors due west or due south of the Calciner in 2017, nor have additional monitors been installed in these areas.

**Figure 5. Beaumont/ Port Arthur Air Monitoring Locations**



### **3. Oxbow’s permitting history is a piecemeal relic of outdated policies and has resulted in massive SO<sub>2</sub> emissions limits.**

Oxbow’s extraordinary SO<sub>2</sub> emissions are due in part to its piecemeal permitting history. Oxbow’s NSR Permit No. 45622 sets the current maximum allowable emission rate for SO<sub>2</sub>, as shown in **Table 6** below.<sup>56</sup> Permit No. 45622 is a Voluntary Emissions Reduction Permit (“VERP”) for grandfathered facilities. Under Texas law, facilities that were in existence prior to the enactment of the Texas Clean Air Act (“TCAA”) in 1971 were not required to comply with

<sup>56</sup> Previously, Oxbow also held NSR Permit No. 5421 for Kiln No. 5, a newer stack and thus subsequently permitted. NSR Permit No. 5421 was voided, once all four kilns were folded into NSR Permit No. 45622.

the TCAA’s new permitting requirements.<sup>57</sup> Three of Oxbow’s four kiln stacks—kilns 2, 3, and 4—are grandfathered facilities, with operational dates of 1938, 1952, and 1970, respectively.<sup>58</sup> Notably, two of these units came online even before the Civil Rights Act of 1964 was enacted, meaning that, even if Oxbow’s emissions had a significant racially disparate impact during that time, this inequity was not recognized as a violation of law then. Thus, Oxbow originally was operating not only without emissions limitations but also without prohibitions against racial discrimination for non-state actors.

**Table 6. Oxbow’s Current Maximum Allowable Emission Rate for SO<sub>2</sub>**<sup>59</sup>

<b>Element</b>	<b>Maximum Hourly Rate</b>	<b>Maximum Annual Rate</b>
Kiln No. 2 Stack	727.31 lbs/hour	2,353.83 tpy
Kiln No. 3 Stack & Kiln No. 3 Waste Heat Boiler	1,131.28 lbs/hour	3,716.60 tpy
Kiln No. 4 Stack & Kiln No. 4 Waste Heat Boiler	1,131.38 lbs/hour	3,716.60 tpy
Kiln No. 5 Stack & Kiln No. 5 Waste Heat Boiler	1,170.00 lbs/hour	5,120.00 tpy
Cooler No. 3 Baghouse Stack	1.39 lbs/hour	6.08 tpy
Cooler No. 5 Baghouse Stack	2.82 lbs/hour	12.33 tpy
<b>TOTAL:</b>	<b>4,164.08 lbs/hour</b>	<b>14,925.44 tpy</b>

Through VERP, however, grandfathered facilities could voluntarily obtain permits. VERP sought an overall reduction of emissions by requiring grandfathered facilities in “near-nonattainment or nonattainment area[s] for national air quality standards to comply with more stringent technology requirements than other facilities.”<sup>60</sup> In 2000, Oxbow’s predecessor, GLC, submitted a VERP application for the three grandfathered facilities to TCEQ’s predecessor, the Texas Natural Resource Conservation Commission (“TNRCC”).<sup>61</sup> TNRCC approved the VERP in 2002. But, and importantly, TNRCC did not require Oxbow to reduce its emissions.<sup>62</sup> Instead, TNRCC simply permitted Oxbow’s existing emissions.<sup>63</sup>

<sup>57</sup> See generally 30 TEX. ADMIN. CODE Chapter 116, subchapter H. See also TEXAS NATURAL RESOURCE CONSERVATION COMM’N, Public Notice for Proposed Changes to §39.404, Applicability for Certain Initial Applications for Air Quality Permits for Grandfathered Facilities, [https://www.tceq.texas.gov/assets/public/legal/rules/hist\\_rules/Complete.01s/01076116/01076039\\_pro.pdf](https://www.tceq.texas.gov/assets/public/legal/rules/hist_rules/Complete.01s/01076116/01076039_pro.pdf).

<sup>58</sup> These are Kiln No. 2 Stack, Kiln No. 3 Stack, and Kiln No. 4 Stack. See TCEQ Technical Review, NSR Permit No. 45622, Voluntary Emission Reduction Permit (Aug. 8, 2002), at 1 (Attachment G).

<sup>59</sup> Oxbow NSR Permit No. 45622, MAERT (Oct. 30, 2019), at 1-5 (Attachment G).

<sup>60</sup> Bill Summary of S.B. 766, 76<sup>th</sup> TEX. LEGIS. (1999), <https://capitol.texas.gov/billlookup/BillSummary.aspx?LegSess=76R&Bill=SB766>; 30 TEX. ADMIN. CODE § 116.811(3).

<sup>61</sup> TNRCC, New Source Review Permits Division, Request for Comments – Draft Conditions, Air NSR No. 45622 (June 7, 2002), 1-3.

<sup>62</sup> TCEQ Technical Review, NSR Permit. No. 45622, Voluntary Emission Reduction Permit (Aug. 8, 2002), at 4 9 (Attachment G).

<sup>63</sup> *Id.*

Similarly, TNRCC could have required GLC to install BACT then, but did not.<sup>64</sup> Instead, TNRCC determined that “[c]onsidering the uniqueness of the petroleum coke calcining process, flue gas volumes, and high stack exhaust temperatures, the facilities covered by this application are *currently equipped with 10-year old BACT*.”<sup>65</sup> This determination was made without any modeling.<sup>66</sup> Accordingly, the VERP authorized a 1930s facility to continue operating without reducing its emissions and with, at best, outdated BACT from the 1990s.

## **B. OXBOW HAS A LONG HISTORY OF ENVIRONMENTAL NON-COMPLIANCE.**

As TCEQ is aware, Oxbow’s notoriously high and uncontrolled SO<sub>2</sub> emissions have created a track record of environmental noncompliance. For example, when Oxbow caused multiple exceedances of the SO<sub>2</sub> NAAQS, one former TCEQ executive director testified, “[e]verybody knows what’s causing the exceedances, 22 million pounds of SO<sub>2</sub>.”<sup>67</sup> The public, including (b) (6), (b) (7)(C) has also raised the issues of Oxbow’s SO<sub>2</sub> emissions, their harmful impacts, and the need for stricter compliance measures on multiple occasions with TCEQ and Oxbow.<sup>68</sup> This section describes Oxbow’s history of avoiding and neglecting environmental duties, exceeding the SO<sub>2</sub> NAAQS, and applying questionable “control” methods for SO<sub>2</sub> emissions.

### **1. Oxbow has a history of poor maintenance and a documented resistance to controlling its pollution.**

Oxbow’s previous practices reflect a pattern of neglect and doing the bare minimum at its Port Arthur facility. In 2011, a panel arbitrating a contractual dispute between Oxbow and PASE found that there was “overwhelming” evidence of “poor operations and maintenance” at Oxbow’s Port Arthur facility.<sup>69</sup> This evidence, “including evidence from Oxbow’s current and former employees and consultants,” established that “Oxbow routinely has had uncontrolled openings in

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<sup>64</sup> 30 TEX. ADMIN CODE § 116.811(B) (“A grandfathered facility located in a nonattainment area for a national ambient air quality standard, . . . , shall use the more stringent of: (i) a control method at least as beneficial as [the best available control technology (BACT)]; or (ii) a control method that the commission finds is demonstrated to be generally achievable for facilities in that area of the same type that are permitted under this section, considering the age and remaining useful life of the facility.”).

<sup>65</sup> TCEQ Technical Review, NSR Permit. No. 45622, Voluntary Emission Reduction Permit (Aug. 8, 2002), at 4 (emphasis added).

<sup>66</sup> *Id.*

<sup>67</sup> PASE Litigation, Exhibit 6, at 564 (Attachment J-3) (Testimony of Jeff Saitas).

<sup>68</sup> See, e.g., Kaitlin Bain, *Emissions concerns arise over Port Arthur Plant*, BEAUMONT ENTERPRISE, Apr. 8, 2019, <https://www.beaumontenterprise.com/news/article/Emissions-concerns-arise-over-Port-Arthur-plant-13749804.php>; Companies should want to be better, pollute less, AP, Apr. 9, 2019, <https://apnews.com/article/4241747b41324d58abd83dcc553ef1e9>; Kaitlin Bain, *SETX residents implore plant to stop polluting neighborhoods*, BEAUMONT ENTERPRISE, Nov. 17, 2019, <https://www.beaumontenterprise.com/news/article/SETX-residents-implore-plant-to-stop-polluting-14840143.php>; Editorial, *Oxbow needs more than minimal compliance*, BEAUMONT ENTERPRISE, Nov. 18, 2019, <https://www.beaumontenterprise.com/opinions/editorials/article/ENTERPRISE-EDITORIAL-Oxbow-needs-more-than-14844373.php>; Editorial, *State, federal agencies must require Oxbow, all plants to meet standards*, BEAUMONT ENTERPRISE, Nov. 18, 2020, <https://www.beaumontenterprise.com/opinions/editorials/article/ENTERPRISE-EDITORIAL-State-federal-agencies-15735042.php>.

<sup>69</sup> PASE Litigation, Exhibit 4, at 8 (Attachment J-4).



its pyroscrubber, inadequate instrumentation inside the pyroscrubber, leakage in damper seals, improper insulation in the pyroscrubber, and improper fan controls.”<sup>70</sup>

For years, Oxbow has avoided the cost of investing in necessary pollution control equipment. In the 2011 Oxbow-PASE contractual dispute, a key issue had been who would bear the cost of installing pollution control equipment at the Oxbow facility. Oxbow and PASE had entered into an agreement for Oxbow to deliver waste heat generated by the calcining process from its kilns to PASE, which was then routed to the cold stacks.<sup>71</sup> Pursuant to this agreement, PASE had installed one type of pollution control system, but, because Oxbow believed it to be less effective, Oxbow subsequently installed a different pollution control system and then sought to recover installation costs from PASE. The arbitration panel determined that PASE had met its contractual obligations and found that “Oxbow, which is contractually and legally responsible for complying with its air permits, bears the risk of installing and maintaining pollution control equipment that will ensure the Plant’s operation in accordance with Oxbow’s air permits and any other applicable environmental laws.”<sup>72</sup>

Similarly, Oxbow followed a pattern of evasion and cost-cutting maneuvers when, in 2018, TCEQ’s recently installed SO<sub>2</sub> monitor began detecting exceedances at Oxbow. Documents reveal that Oxbow had made no changes to comply with the 2010 1-hour SO<sub>2</sub> NAAQS until TCEQ began monitoring Oxbow’s facility and “because the EPA . . . was starting to ramp up enforcement in 2015.”<sup>73</sup> Once in the hot seat, Oxbow decided to shut down its cold stacks and essentially terminate its agreement with PASE to reach compliance, rather than install scrubbers that could reduce its SO<sub>2</sub> emissions by at least 95% and allow the continued use of the cold stacks.<sup>74</sup>

News reports suggest that, even then, Oxbow used questionable methods that sought to leverage the NAAQS violations to the company’s advantage. According to the *Beaumont Enterprise*, an Oxbow attorney (who did not reveal a connection to Oxbow), suggested that Jefferson County Judge Jeff Branick send a letter to Oxbow, threatening enforcement action against the company if Oxbow did not reach compliance with the SO<sub>2</sub> NAAQS.<sup>75</sup> While Judge Branick was given the impression that his letter would convince Oxbow “to spend money on pollution-control equipment,” Oxbow used the letter as justification for shutting down its cold stacks and terminating its contract with PASE.<sup>76</sup> In Oxbow’s view, “scrubbers ha[d] no payback potential, *their only advantage being environmental compliance*,”<sup>77</sup> and, as such, “Oxbow would shut down the Port Arthur plant before it would invest in the capital costs to buy, install and operate

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<sup>70</sup> *Id.* at 8.

<sup>71</sup> In 2005, Oxbow and PASE entered into a Heat Energy Agreement, stating Oxbow would “provide[] waste heat generated by the calcining process to PASE,” and PASE would “use[] this waste heat to generate steam, most of which it then sells to the nearby Valero refinery.” PASE Litigation, Exhibit 4, at 3.

<sup>72</sup> *Id.* at 5.

<sup>73</sup> PASE Litigation, Exhibit 12, at 7 (Attachment J-5).

<sup>74</sup> PASE Litigation, Exhibit 7 (Attachment J-6) (Letter from Daniel A. Rosendale, Oxbow Vice President of Operations, to PASE).

<sup>75</sup> Kaitlin Bain, *Branick: I was ‘played’ in Oxbow case*, BEAUMONT ENTERPRISE, July 22, 2020, <https://www.beaumontenterprise.com/news/article/Branick-I-was-played-in-Oxbow-case-15427613.php>.

<sup>76</sup> Kaitlin Bain, *Halting deal, Oxbow cited Branick letter*, BEAUMONT ENTERPRISE, Apr. 8, 2019, <https://www.beaumontenterprise.com/news/article/Halting-deal-Oxbow-cited-Branick-letter-13749983.php>.

<sup>77</sup> PASE Litigation, Exhibit 12, at 12 (Attachment J-5) (citing to testimony of Ray Schorsche, Oxbow’s Executive Vice President of Operations.)

scrubbers.”<sup>78</sup> After seeing how Oxbow used his letter, not to improve environmental compliance but actively avoid it, Judge Branick stated that he was “played like a cheap harmonica.”<sup>79</sup>

## 2. Oxbow has caused numerous exceedances of the 1-hour SO<sub>2</sub> Primary NAAQS in Port Arthur.

In 2016, TCEQ sited an SO<sub>2</sub> monitor, CAMS 1071,<sup>80</sup> specifically for Oxbow because of the facility’s unparalleled SO<sub>2</sub> emissions and in response to the EPA’s 2010 1-hour SO<sub>2</sub> Primary NAAQS and concomitant DRR.<sup>81</sup> The monitor site, originally at 7th Street and Texaco Island Road, was chosen based on Oxbow’s profile at the time: “4 stacks total; one is 38 meters and the other three are 56 meters each.”<sup>82</sup> Immediately following the monitor’s installation, CAMS 1071 captured Oxbow repeatedly exceeding the 1-hour SO<sub>2</sub> health-based standard of 75 parts per billion (“ppb”). In 2017, Oxbow “exceeded the national primary one-hour annual ambient air quality standard for SO<sub>2</sub> of 75 ppb” on eight occasions.<sup>83</sup> In 2018, Oxbow had three exceedances of the 1-hour NAAQS. These exceedances are listed in **Table 7**.

**Table 7. SO<sub>2</sub> Exceedances at the CAMS 1071 Air Monitor in Port Arthur, Texas**

Date of Exceedance	Time	SO <sub>2</sub> ppb)
January 10, 2017	3:00	79.8
January 10, 2017	4:00	88.1
February 11, 2017	1:00	80.1
March 7, 2017	11:00	75.4
April 2, 2017	18:00	122
May 3, 2017	9:00	85.7
May 3, 2017	10:00	112.3
May 26, 2017	2:00	85.9
January 22, 2018	2:00	90.4
April 17, 2018	23:00	77.2
April 18, 2018	0:00	77.3

<sup>78</sup> *Id.* at 9.

<sup>79</sup> Kaitlin Bain, *Halting deal, Oxbow cited Branick letter*, BEAUMONT ENTERPRISE, Apr. 8, 2019, <https://www.beaumontenterprise.com/news/article/Halting-deal-Oxbow-cited-Branick-letter-13749983.php>.

<sup>80</sup> TCEQ 2016 Annual Monitoring Network Plan. *See also* [https://www.tceq.texas.gov/assets/public/compliance/monops/air/annual\\_review/historical/EPA2016AMNP.pdf](https://www.tceq.texas.gov/assets/public/compliance/monops/air/annual_review/historical/EPA2016AMNP.pdf) (approving the new site).

<sup>81</sup> The DRR required states to identify emissions sources responsible for emitting more than 2,000 tpy of SO<sub>2</sub> and to provide SO<sub>2</sub> air quality characterization around these sources through either source-oriented monitoring and/or modeling. Data Requirements Rule for the 2010 1-Hour Sulfur Dioxide (SO<sub>2</sub>), 80 C.F.R. § 51,052 (2015). *See also* PASE Litigation, Exhibit 33 (Attachment J-7). (“The placement of CAMS 1071 was due to Oxbow demonstrating through their 2014 Emission Inventory that the facility emits more than 10,000 tons per year of SO<sub>2</sub> per year.”)

<sup>82</sup> TCEQ 2016 Annual Monitoring Network Plan, E-42. *See also* Graphic, RTP Environmental Associates, Inc., Locations of Modeled 1-hr SO<sub>2</sub> National Ambient Air Quality Standard Exceedances with Actual Emissions and Hot Stack Operation, PASE Litigation Exhibit 107, at 16-17 (Attachment J-22)(Expert Report of David Keen, QEP (Sept. 12, 2019).

<sup>83</sup> TCEQ, Agreed Order, Dkt. No. 2018-1687-AIR-E, In the Matter of an Enforcement Action Concerning Oxbow Calcining LLC, RN 100209287 (Aug. 14, 2019), 2 (“2019 TCEQ Agreed Order”) (Attachment I).



In 2019, TCEQ issued an Agreed Order against Oxbow for these exceedances.<sup>84</sup> Notably, Michael de la Cruz, the Manager of TCEQ’s Air Enforcement Section, testified that he “was unable to identify any other facility that TCEQ ever brought an enforcement action against due to an alleged NAAQS SO<sub>2</sub> exceedance.”<sup>85</sup> As this Complaint describes in Section V.C.1, *infra*, pp. 34-35, however, the Agreed Order was deficient.

**3. Oxbow continues to emit hazardous levels of SO<sub>2</sub>, and its attempts at controlling SO<sub>2</sub> emissions are only elaborate dilution.**

Oxbow has used three methods to address its SO<sub>2</sub> exceedances, all of which TCEQ approved: (1) shutting down its cold stacks and operating only out of hot stacks; (2) seeking a permit alteration to increase the stack height and narrow the stack diameter for Kiln 4 stack; and (3) evidently after modeling wind data to gauge wind impacts on SO<sub>2</sub> emission dispersion and detection by CAMS 1071, monitoring meteorological data to alter its level of production and adjust its emissions. [Note: it is evident from our modeling investigation discussed in Section V.D that if Oxbow were emitting at permitted emission rates, Oxbow would, depending on meteorological conditions, still cause exceedances of the 2010 One-Hour Primary SO<sub>2</sub> NAAQS even though it has ceased operating out of its cold stacks.]

**a. Method 1: Shut Down of the Cold Stacks**

First, as previously noted, Oxbow shut down its cold stacks. According to Oxbow, facility exceedances only occurred when at least one cold stack was in use, as compared to when the facility only used hot stacks.<sup>86</sup> Oxbow presented a summary of modeling data to TCEQ that purported to show this was the case.<sup>87</sup> In Oxbow’s Semi-annual Deviation Report to TCEQ for the period of February 26, 2018 through August 15, 2018, Oxbow reported:

In review of validated 2017 data from the CAMS 1071 SO<sub>2</sub> monitor site Oxbow Calcining was able to conclude that the exceedance of the SO<sub>2</sub> standard occurred while the facility was operating out of at least one cold stack (EPN Nos. WHBS3, WHBS4, WHBS5). The facility operation through one or more cold stacks directly led to the exceedance of the SO<sub>2</sub> standard at the CAMS 1071 monitoring site during 2017. . . . As authorized in NSR Permit 45622, Oxbow Calcining ceased operating out of one or more cold stacks on June 15, 2018, and since that day has exclusively operated out of the hot stacks. By limiting the operational modes at the Facility, Oxbow Calcining is mitigating the operational

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<sup>84</sup> *Id.*

<sup>85</sup> PASE Litigation, Exhibit 19, at 13 (Attachment J-8).

<sup>86</sup> PASE Litigation, Exhibit 62, at 1 (Attachment J-9) (Email from Daniel Rosendale, Oxbow, to Ted Boriack and Ray Deyoe of PASE, Re: Kiln ¾ Operational Update, Mar. 16, 2017) (“I am writing this email to inform you that available data gathered to date by Oxbow indicates that continued use of the cold stacks associated with Kiln 3 and Kiln 4 will prevent Oxbow from meeting this requirement. . . . To mitigate the potential material harm to Oxbow associated with this risk, Oxbow is hereby indefinitely suspending production and delivery of flue gas from Kilns 3 and 4 to PASE.”)

<sup>87</sup> PASE Litigation, Exhibit 105, at 1 (Attachment J-10) (Email from Pam Giblin, Baker Botts, to David Brymer, TCEQ, Re: Port Arthur Data, Nov. 17, 2017) (sharing “[s]lides showing the monitor readings for different operations of the kilns,” and “[s]ummary of modeling results for monitor placement when Port Arthur is operating through hot stack”).

circumstances that directly caused exceedance of the SO<sub>2</sub> standard at the CAMS 1071 monitoring site.<sup>88</sup>

Based on this information, TCEQ allowed Oxbow to shut down its cold stacks and to operate only out of its hot stacks by a permit alteration instead of a permit amendment and with no permit requirements to verify it was doing so.<sup>89</sup>

**b. Method 2: Permit Alteration for Stack Height and Diameter Changes to Kiln 4**

Second, shortly after shutting down its cold stacks, Oxbow sought a permit alteration for one of its hot stacks, the Kiln 4 stack, in August 2018.<sup>90</sup> Specifically, Oxbow sought to increase the stack height by twenty feet (from 150 feet to 170 feet) and to make the stack narrower in diameter by almost three feet (from 13.5 feet to 10.58 feet).<sup>91</sup> Originally, Oxbow had proposed to TCEQ increasing the Kiln 4 stack to 213 feet and reducing the stack's diameter by two feet (from 15 feet to 13 feet).<sup>92</sup> This originally proposed height of 213 feet, or 65 meters, is the maximum stack height EPA considers "Good Engineering Practice"; dispersion through stacks greater than this height are "prohibited dispersion techniques."<sup>93</sup>

In its alteration request, Oxbow stated it needed to replace the Kiln 4 stack "*due to corrosion and structural issues* that has caused the current stack to be a potential safety risk."<sup>94</sup> Oxbow claimed these changes would not cause "[a] change in the method of control of emissions; [a] change in the character of emissions; or [a]n increase in the emission rate of any air contaminant."<sup>95</sup> Yet, Oxbow and TCEQ have made statements that the primary purpose of replacing the Kiln 4 stack was to increase the stack height and to narrow the stack diameter *in order to control SO<sub>2</sub> emissions* in response to the NAAQS exceedances. Oxbow's Environmental Manager Doug Landwehr testified that, prior to this time, Oxbow had modeled "different stack heights to see how the dispersion was."<sup>96</sup> Moreover, Oxbow has admitted that it relies largely—if not solely—on dispersion to control SO<sub>2</sub> emissions from its stacks.<sup>97</sup> Indeed, in the alteration request, Oxbow acknowledged that the changes "will provide *better dispersion* from the Kiln 4

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<sup>88</sup> PASE Litigation, Exhibit 106, at 3 (Attachment J-11).

<sup>89</sup> 2019 TCEQ Agreed Order at § IV.3.a (Attachment I) ("Within 30 days after the effective date of this Order, submit an administratively complete permit alteration application for NSR Permit No. 45622 to remove the authorization to operate the cold stacks.")

<sup>90</sup> Letter from TCEQ to Michael Holtham, Plant Manager, Oxbow Calcining LLC, Re: Permit Alteration to NSR Permit No. 45622, Sept. 20, 2018 (Attachment to Oxbow, Air NSR Permit No. 45622, Permit Alteration, at 12 (emphasis added)) ("2018 NSR Permit No. 45622 Permit Alteration") (Attachment G).

<sup>91</sup> *Id.*

<sup>92</sup> PASE Litigation, Exhibit 105 (Attachment J-10).

<sup>93</sup> 40 C.F.R. § 51.100 (1986).

<sup>94</sup> 2018 NSR Permit No. 45622 Permit Alteration, at 12 (Attachment G).

<sup>95</sup> *Id.* (emphasis added).

<sup>96</sup> PASE Litigation, Exhibit 6, at 903 (Attachment J-3) (PASE cross-examination of Douglas Landwehr, Oxbow Environmental Manager).

<sup>97</sup> PASE Litigation, Exhibit 100, at 18 (Attachment J-12) (Slide show notes titled "Oxbow Calcining Port Arthur," which states that "Cold Stacks provide suboptimal dispersion," whereas "Hot Stacks provide improved dispersion").

stack.”<sup>98</sup> In other words, achieving dispersion was not an auxiliary benefit of replacing a corroding stack but the main goal of doing so.

Despite the contradictory statements in the permit alteration request and TCEQ’s knowledge of Oxbow’s SO<sub>2</sub> exceedances, TCEQ still approved Oxbow’s request without a permit amendment.

### **c. Method 3: Wind Dispersion Modeling**

Third, documents demonstrate that Oxbow undertook a comprehensive analysis of how wind conditions impacted the CAMS 1071 monitor’s ability to detect SO<sub>2</sub> exceedances from Oxbow, enabling Oxbow to seemingly manipulate its operations to avoid detection at the monitor site.

Beginning in January 2017, Oxbow conducted 75 experiments that measured SO<sub>2</sub> levels detected by CAMS 1071 every five minutes under various configurations of kiln stack operations, wind speed, wind direction, wind gust, and outdoor temperature.<sup>99</sup> In addition, the experiments took feed rates into consideration,<sup>100</sup> though exactly how is unclear as the actual feed rate information is not publicly accessible.<sup>101</sup> According to Oxbow’s Vice President of Calciner Operations Daniel Rosendale, Oxbow ran these tests “to best determine a permanent operations protocol which achieves ideal dispersions at all times.”<sup>102</sup> Oxbow’s Environmental Manager also confirmed that the experiments had been run “to determine the effects it would have on the dispersion.”<sup>103</sup> The experiment results served as the basis for Oxbow’s claim that operating the cold stacks resulted in exceedances of the SO<sub>2</sub> NAAQS.<sup>104</sup>

At the same time, Oxbow developed an SO<sub>2</sub> alert system using wind data.<sup>105</sup> It appears that Oxbow may be collecting and responding to wind monitoring data and meteorological data being collected at its own facility. In addition, the alert system sent out a notification when CAMS 1071 detected SO<sub>2</sub> levels above 25 parts per billion.<sup>106</sup> When Oxbow’s alert system notified the facility of an exceedance, Oxbow would, at times, adjust the dampers to its stacks.<sup>107</sup>

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<sup>98</sup> 2018 NSR Permit No. 45622 Permit Alteration, at 12 (Attachment G) (emphasis added).

<sup>99</sup> PASE Litigation, Exhibit 16 (Attachment J-13) (Oxbow 5-Minute Data).

<sup>100</sup> PASE Litigation, Exhibit 105 (Attachment J-10).

<sup>101</sup> PASE Litigation, Exhibit 16 (Attachment J-10). *See also* PASE Litigation, Exhibit 103 (Attachment J-14) (Oxbow Calcining LLC Kiln Feed Rates, heavily redacted).

<sup>102</sup> PASE Litigation, Exhibit 6, at 563 (Attachment J-3) (quoting letter from Daniel Rosendale to PASE, dated Jan. 18, 2017).

<sup>103</sup> PASE Litigation, Exhibit 6, at 869 (Attachment J-3).

<sup>104</sup> PASE Litigation, Exhibit 10-1, at 21 (Attachment J-1); *see also* PASE Litigation, Exhibit 105 (Attachment J-10).

<sup>105</sup> *See* PASE Litigation, Exhibit 85 (Attachment J-15) (Email from Sri Vedala to Kris Kissel-Weir, Oxbow, Re: SO<sub>2</sub> exceeds 25 at Port Arthur, Jan. 11, 2017); PASE Litigation, Exhibit 86 (Attachment J-16) (Email from Daniel Rosendale, Oxbow, to Roy Schorsch, Oxbow, Re: SO<sub>2</sub> Emissions Reporting Status Update, Feb. 13, 2017); PASE Litigation, Exhibit 87 (Attachment J-17) (Email from Ryan Glander to Kris Kissel-Weir, Oxbow, Re: SO<sub>2</sub> Exceeds 25 at Port Arthur, Feb. 1, 2017); PASE Litigation, Exhibit 88 (Attachment J-18) (Email from Michael Holtham, Oxbow, to Kris Kissel-Weir, Oxbow, Re: SO<sub>2</sub> readings at Port Arthur, Apr. 29, 2017).

<sup>106</sup> PASE Litigation, Exhibit 6, at 864 (Attachment J-3) (testimony of Douglas Landwehr).

<sup>107</sup> *Id.* at 922-25 (Attachment J-3) (testimony of Douglas Landwehr).

TCEQ was not provided with this data;<sup>108</sup> instead, Oxbow provided a pared-down summary with graphics that purported to analyze the modeling data.

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The three methods outlined above demonstrate Oxbow's long and deliberate attempt to prevent further exceedances of the SO<sub>2</sub> NAAQS at one particular spot in Port Arthur—the nearby CAMS 1071 air monitor. Importantly, none of the methods actually reduces emissions of SO<sub>2</sub> or ensures that Black residents who live in West Port Arthur are not exposed to high levels of SO<sub>2</sub>. Permanently shutting down the cold stacks and increasing the height and decreasing the diameter of Stack 4 both increase dispersion, essentially causing SO<sub>2</sub> to fly higher and further before returning to ground level. But neither method of dispersion addresses the fact that, unless Oxbow decreases its SO<sub>2</sub> emissions, Oxbow's emissions remain large enough to cause violations of the SO<sub>2</sub> NAAQS, as discussed in Section V.B.2-3. Instead, these methods simply dilute pollution with respect to the nearby monitor. Even worse, the wind dispersion modeling and SO<sub>2</sub> alert system allow Oxbow to manipulate its emissions to avoid causing an exceedance at that monitor. These efforts are tailored not to prevent dangerous SO<sub>2</sub> levels generally across Port Arthur, but only to prevent dangerous SO<sub>2</sub> levels at only the CAMS 1071 monitor.

**C. TCEQ HAS TAKEN LITTLE ENFORCEMENT ACTION AGAINST OXBOW AND MINIMIZED OXBOW'S COMPLIANCE HISTORY, WHICH IMPACTS FUTURE PERMITTING.**

TCEQ has taken minimal enforcement actions against Oxbow, despite being well-aware of Oxbow's extraordinary SO<sub>2</sub> emissions and numerous violations of environmental standards. Compliance history is an important factor that TCEQ considers for future permitting decisions for a facility, including permit renewal applications such as that submitted by Oxbow for Permit No. O1493. According to a former TCEQ executive director and district court judge, there is more than enough evidence to demonstrate that Oxbow has and continues to engage in questionable, if not illegal, behavior.<sup>109</sup> Yet TCEQ appears to have taken a blind eye toward this evidence. Through

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<sup>108</sup> *Id.* at 1529-30, 1534 (Attachment J-3) (testimony of Michael de la Cruz read into transcript).

<sup>109</sup> According to former TCEQ executive director Jeff Saitas,

If the EPA and TCEQ . . . looked at the information in this proceeding . . . , I believe the EPA would look at that monitor and say that impermissible dispersion techniques have occurred, the purpose of which is to keep the emissions from recording what otherwise would be normal operations.

PASE Litigation, Exhibit 6, at 502 (Attachment J-3). Similarly, in the *PASE v. Oxbow* matter, the district court held:

The Court received uncontroverted, clear evidence that Oxbow engaged in dispersion techniques to try to avoid SO<sub>2</sub> detection at the TCEQ monitor. The Court concludes that Oxbow intends to continue to try to avoid SO<sub>2</sub> exceedance readings at the TCEQ monitor for the balance of the three-year monitoring program by discharging its flue gas exclusively through its Hot Stacks. . . . Meanwhile, Oxbow's intentions are clear: Oxbow intends to remain in business, operate its four kilns at any level it chooses by discharging flue gas through its Hot Stacks, avoid having to purchase or maintain pollution control equipment to control SO<sub>2</sub> emissions, and keep PASE from generating steam revenues to have Heat Payments that PASE can offset to collect its Judgment.

the years, TCEQ's actions—and lack thereof, including its failure to investigate whether Oxbow's mitigating corrective measures would prevent exceedances of NAAQS—have created a snowball effect, preventing current enforcement against Oxbow by affirmatively misrepresenting Oxbow's compliance history, tacitly approving Oxbow's dispersion techniques, and disregarding the likelihood of disparate impacts on surrounding communities.

**1. TCEQ's insubstantial investigation of Oxbow's SO<sub>2</sub> NAAQS exceedances resulted in the issuance of an Agreed Order, but its investigation was inadequate.**

In response to Oxbow's exceedances of the SO<sub>2</sub> NAAQS in 2017 and 2018, TCEQ filed an Enforcement Action Referral.<sup>110</sup> The referral states that TCEQ was investigating Oxbow's alleged “[f]ailure to prevent air emissions from exceeding the NAAQS 1-hour SO<sub>2</sub> average.”<sup>111</sup> The referral also notes that such a violation would violate: Rules 101.21 (relating to the NAAQS), 116.115(c) (relating to special conditions in a permit), and 122.143(4) (requiring a permit holder to comply with all terms and conditions of a permit) of Title 30 of the Texas Administrative Code<sup>112</sup>; Section 382.085(b) of the Texas Health and Safety Code<sup>113</sup>; Special Condition 25 and General Condition 13 of Oxbow's NSR Permit No. 45622; and the General Terms and Conditions and Special Terms and Conditions 8 of Oxbow's Title V Permit No. O1493.<sup>114</sup> TCEQ's investigation was limited in scope; it verified violations had occurred but failed to assess the veracity of Oxbow's statements regarding the causes and alleged effectiveness of its corrective actions.

The referral concluded that the exceedances were a violation and that this violation was a “[s]ignificant deviation of [Permit 45622]”<sup>115</sup> Accordingly, TCEQ reported that “[a] notice of enforcement will be issued to the regulated entity.”<sup>116</sup> Notably, the referral documented Oxbow's compliance history, reporting that Oxbow “has been issued several Notice of Violation (NOV) letters and no Notice of Enforcement (“NOE”) letters within the past five years.”<sup>117</sup>

On August 14, 2019, TCEQ issued an Agreed Order against Oxbow for the SO<sub>2</sub> exceedances.<sup>118</sup> This Agreed Order, however, only amounted to a slap on the wrist. First, TCEQ issued an administrative penalty in the amount of \$39,000, of which \$15,600 could be offset through a Supplemental Environmental Project and \$7,800 would be deferred for prompt resolution.<sup>119</sup> At TCEQ's public agenda meeting on the Agreed Order, LSLA “argued that TCEQ

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PASE Litigation Exhibit 8, at 7 (Attachment J-19) (Order Granting Post-Judgment Turnover Relief, *PASE v. Oxbow*, No. E-201894, in the 172<sup>nd</sup> Judicial District Court of Jefferson County, Texas (Sept. 12, 2018), *vacated on different grounds*).

<sup>110</sup> PASE Litigation, Exhibit 33 (Attachment J-7).

<sup>111</sup> *Id.* at 5.

<sup>112</sup> 30 TEX. ADMIN. CODE §§ 101.21, 116.115(c), & 122.143(4).

<sup>113</sup> 5 Tex. Health & Safety Code § 382.085 (“A person may not cause, suffer, allow, or permit the emission of any air contaminant or the performance of any activity in violation of this chapter or of any commission rule or order.”).

<sup>114</sup> PASE Litigation, Exhibit 33, at 4-5 (Attachment J-7).

<sup>115</sup> *Id.* at 2, 6.

<sup>116</sup> *Id.* at 6.

<sup>117</sup> *Id.* at 5.

<sup>118</sup> 2019 TCEQ Agreed Order (Attachment I).

<sup>119</sup> *Id.* at 1, § I.4; *see also* PASE Litigation, Exhibit 41, at 9 (Attachment J-20) (Report of [REDACTED] Privacy (b)(7)(C) Ent. Priv.)



should have assessed a greater penalty due to the seriousness of the violations,” but “TCEQ rejected those arguments.”<sup>120</sup>

Second, TCEQ only entered a “non-findings order,” rather than a “findings order,” which would have required Oxbow to admit to its violations. The Agreed Order states, “[t]he occurrence of any violation is in dispute and the entry of this Order shall not constitute an admission by the Respondent of any violation alleged in Section II (“Allegations”), nor of any statute or rule.”<sup>121</sup> The Agreed Order also states, “[t]he Respondent generally denies each allegation in Section II.”<sup>122</sup> As explained by an Oxbow expert, a non-findings order is merely pro forma:

TCEQ’s preferred route for settlement of violations is a non-findings Order, like the one here. . . . The denial provision in Section III of the Order issued to Oxbow is boilerplate language and is present in all non-findings Orders issued by the Commission.<sup>123</sup>

This decision by TCEQ is important because a non-findings order keeps a facility’s compliance history “clean,” despite the existence of the violations. A better compliance history allows TCEQ to issue permits to a facility that it otherwise should not issue:

The Order also allowed Oxbow to enter into a non-findings order which has a less serious future impact on Oxbow’s compliance history. *Compliance history is important as the TCEQ uses it in future permitting and enforcement reviews for the facility.*<sup>124</sup>

In other words, TCEQ made a conscious decision in the Agreed Order to not only reduce the assessed penalties related to Oxbow’s noticed violation but also to provide Oxbow a better compliance history than it deserved. Further, TCEQ assumed and accepted at face value, without an adequate investigation, the purported accuracy of Oxbow’s assessment of the cause and effectiveness of its alleged corrective actions.

## **2. TCEQ approved shutting down the cold stacks without conducting any due diligence to rule out other factors for Oxbow’s SO<sub>2</sub> exceedances.**

As discussed in Section V.D, it is evident from (b) (6), (b) (7)(C) modeling investigation that were Oxbow emitting at its permitted emission rates, Oxbow would have still caused exceedances of the 2010 One-Hour Primary SO<sub>2</sub> NAAQS in 2017 and 2018 even though it had ceased operating out of its cold stacks. In addition, it is evident that Oxbow likely exceeded its permitted emission rates. TCEQ may have already known of this likelihood from the earlier air modelling the agency performed of the Oxbow facility for its SIP and 2016 AMNP.

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<sup>120</sup> PASE Litigation, Exhibit 41, at 9-10 (Attachment J-20).

<sup>121</sup> 2019 TCEQ Agreed Order, at 1, § I.3 (Attachment I).

<sup>122</sup> 2019 TCEQ Agreed Order at 3, § III (Attachment I).

<sup>123</sup> PASE Litigation, Exhibit 41, at 8 (Attachment J-20).

<sup>124</sup> *Id.* (emphasis added).

TCEQ's 2019 Agreed Order also allowed Oxbow to submit a permit alteration to stop operating its cold stacks instead of a permit amendment.<sup>125</sup> According to Michael de la Cruz, TCEQ's Air Section Manager, TCEQ did not investigate Oxbow's claims that the cold stacks were the cause of the SO<sub>2</sub> exceedances but simply relied on Oxbow's representations.<sup>126</sup> TCEQ neither considered nor asked Oxbow to provide data to show that the hot stacks did not contribute to SO<sub>2</sub> exceedances.<sup>127</sup> Though TCEQ initially suggested that it might complete an "analysis regarding any other factors that might have impacted ambient SO<sub>2</sub> levels during this time frame" other than the cold stacks, there is no evidence that TCEQ conducted such an analysis. TCEQ accepted Oxbow's explanation, without question, "that utilizing hot stacks likely disperses emissions more effectively than utilizing cold stacks."<sup>128</sup>

Yet, as former TCEQ Executive Director Jeff Saitas testified, removing the cold stacks from operation does not solve the problem, as "the fact that [22 million pounds of SO<sub>2</sub> emissions] are pushed higher and go elsewhere does not mean that concentrations above 75 parts per billion are not occurring."<sup>129</sup> Saitas further testified:

[I]f this room were Jefferson County and the tip of this pen was the monitor itself, and if I were a smoker and I'm smoking and blowing smoke right at that pen and it reads something, then the fact that if I move my head up and send the smoke higher or turn my head and send it here does not mean that the problem is solved. It means it's going somewhere else.<sup>130</sup>

Further, there were numerous factors for TCEQ to consider. For example, TCEQ authorized the shutdown of the cold stacks without considering how operating solely out of hot stacks would impact readings by CAMS 1071. CAMS 1071 was originally sited in a location that was "expected to capture the highest ambient concentrations near the Oxbow facility when operating in 'cold' stack mode."<sup>131</sup> TCEQ subsequently not only received public comments stating that the CAMS 1071 was no longer appropriately sited "to capture peak concentrations due to operational changes at Oxbow Calcining" but TCEQ also noted that its own modeling "show[ed]"

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<sup>125</sup> 2019 TCEQ Agreed Order, at 3, § IV.3 (Attachment I).

<sup>126</sup> PASE Litigation, Exhibit 6, at 1531 (Attachment J-3) (excerpts of a deposition of Michael de la Cruz, Air Section Manager at TCEQ, read into the transcript) ("It was my understanding that while the operations were coming from the cold stack they resulted in those eight exceedances that are identified in this enforcement action."); *Id.* at 1532 ("I can't recall if the investigator looked into [the cold stacks] but it was represented that during the operation of the cold stacks that was correlated to the operation or the exceedances of the NAAQS."); *Id.* at 1533 (affirming that "the agency rel[ie]d upon these representations that the cold stacks were the cause of the exceedances"); *see also* PASE Litigation, Exhibit 55 (Attachment J-21) (TCEQ Letter to Tony Botello, Plant Contact, Oxbow Calcining, LLC, Re: Follow-up from November Meeting) ("From conversations with Oxbow representatives, TCEQ staff understand that cold stacks were used during those eight hours.").

<sup>127</sup> PASE Litigation, Exhibit 6, at 1538-39 (Attachment J-3) (testimony of Michael de la Cruz) ("Based on the information that we had, it was all the data that was coming out of the cold stacks so we did not look at any hot stack information.").

<sup>128</sup> PASE Litigation, Exhibit 55 (Attachment J-21).

<sup>129</sup> PASE Litigation, Exhibit 6, at 501-02 (Attachment J-23).

<sup>130</sup> *Id.* at 502.

<sup>131</sup> PASE Litigation Exhibit 107, at 4 (Attachment J-22) (Expert Report of David Keen, QEP).

peak concentrations located closer to the source than the current monitor location.”<sup>132</sup> Even though TCEQ was in discussions with the EPA about relocating the CAMS 1071 in response to these comments—and the CAMS 1071 was subsequently moved—there is no evidence that TCEQ took the CAMS 1071 location into consideration when Oxbow approached TCEQ about shutting down the cold stacks.

Nor did TCEQ know that Oxbow’s agreement to provide steam energy to PASE impacted the cold stacks<sup>133</sup> and that, for business reasons prior to its exceedances, Oxbow was seeking to terminate its agreement with PASE to operate out of its cold stacks.

Shutting down the cold stacks also had the effect of removing the PM pollution controls from the calcining process, resulting in higher emissions of PM. As detailed in **Figure 4**, *supra*, p. 21, the cold stack process flow included multiclone PM pollution controls prior to exhausting the stream through the stack. This technology uses centrifugal force to remove PM from a gas stream.<sup>134</sup> No such technology is present for the hot stacks. While Oxbow’s permit allowed essentially the same level of PM for the hot and cold stacks, this misrepresents the reality that a significant amount of PM was being controlled when the cold stacks were in use. TCEQ’s approval of the removal of the cold stacks resulted in a real increase in PM emissions from Oxbow without a permit amendment.

### **3. TCEQ improperly approved Oxbow’s stack height change without public notice or public comment.**

As previously mentioned in this Complaint, in 2018, TCEQ approved Oxbow’s permit alteration request to increase the Kiln 4 stack’s height and to narrow its dimensions. TCEQ, however, should have required Oxbow to apply for a permit *amendment*, rather than allow for a permit *alteration*.

Under the Texas Administrative Code, alterations may only be used to authorize changes that: (1) result in a decrease in authorized emissions (which this change did not do) or (2) do not cause (i) a change in the method of control of emissions; (ii) a change in the character of emissions; or (iii) an increase in the emission rate of any air contaminant.”<sup>135</sup> Permit alterations are not subject to public notice requirements. Permit alterations that “result in an increase in off-property concentrations of air contaminants,” however, require prior approval by the TCEQ Executive Director.<sup>136</sup> By contrast, permit amendments are necessary when permit conditions “cause (A) a

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<sup>132</sup> TCEQ, 2019 Annual Monitoring Network Plan, at N-18, available at [https://www.tceq.texas.gov/assets/public/compliance/monops/air/annual\\_review/historical/2019-AMNP.pdf](https://www.tceq.texas.gov/assets/public/compliance/monops/air/annual_review/historical/2019-AMNP.pdf). By August 2019, CAMS 1071 was relocated to the end of West 7th Street, Gate 2. *See* [https://www17.tceq.texas.gov/tamis/index.cfm?fuseaction=report.view\\_site&site\\_AQS=482451071](https://www17.tceq.texas.gov/tamis/index.cfm?fuseaction=report.view_site&site_AQS=482451071). The monitor is now “less than a mile southwest of the [original] site” and is “closer to the facility to the north.” PASE Litigation, Exhibit 6, at 983, 992 (Attachment J-3).

<sup>133</sup> In excerpts of a deposition, Michael de la Cruz, Air Section Manager at TCEQ, affirms that he did not “have an understanding of how the PASE steam plant fit into” Oxbow’s process of discharging flue gas through its hot stacks or cold stacks. *See* PASE Litigation, Exhibit 6, at 1531(Attachment J-3).

<sup>134</sup> U.S. ENVTL. PROT. AGENCY, Cyclones - Air Pollution Control Technology Fact Sheet, <https://www3.epa.gov/ttnchie1/mkb/documents/fcyclon.pdf>.

<sup>135</sup> 30 TEX. ADMIN. CODE § 116.116(c).

<sup>136</sup> 30 TEX. ADMIN. CODE § 116.116(c)(2)(A).

change in the method of control of emissions; (B) a change in the character of the emissions; or (C) an increase in the emission rate of any air contaminant” and are subject to public notice requirements.<sup>137</sup>

Oxbow’s permit alteration request reflects a change in Oxbow’s emissions control methodology, and as noted below, this change was likely required to offset the discontinued use of the PM controls only on the cold stacks. Oxbow’s permit alteration further acknowledged that the stack changes “will provide *better dispersion* from the Kiln 4 stack” and concluded without any analysis that the changes would result in “lower off-property ambient concentrations of air contaminants.” No modeling was performed by TCEQ to assess the impact of this change in stack dimensions nor of the discontinued use of the cold stack PM controls on air quality. Despite this admission that the stack changes would provide better dispersion, TCEQ simply accepted Oxbow’s explanation that it was a simple alteration that was “only a change to permit representations,” rather than explicitly to control the facility’s SO<sub>2</sub> emissions in excess of the NAAQS.<sup>138</sup> In contradiction, TCEQ also stated in the NSR Permit’s Source Analysis and Technical Review that the “request will not result in a change in method of control of emissions” but that “[t]he increase in stack height and decrease in diameter is expected to result in better dispersion of emissions.”<sup>139</sup>

TCEQ would have known that Oxbow’s alteration request was not for mere maintenance reasons: the request came after TCEQ had recorded SO<sub>2</sub> exceedances at Oxbow and while Oxbow was actively in communicating with TCEQ regarding these exceedances. Yet, TCEQ approved the changes instead of treating the changes as a permit amendment request and requiring public notice or an opportunity for public comment.<sup>140</sup> Furthermore, TCEQ accepted Oxbow’s statement that the changes in stack height and diameter would not increase off-property concentrations and determined that the alteration request did not require TCEQ executive director’s approval nor a public participation process.<sup>141</sup>

#### **4. TCEQ failed to take action regarding Oxbow’s likely illegal dispersion techniques.**

Because of TCEQ’s superficial review of Oxbow’s SO<sub>2</sub> exceedances and subsequent requests, TCEQ failed to investigate—or ignored—Oxbow’s use of potentially illegal dispersion techniques and elimination of the cold stack PM emission controls.

Under EPA regulations, a “dispersion technique which varies the rate at which pollutants are emitted to the atmosphere according to meteorological conditions and/or ambient concentrations of the pollutant, in order to prevent ground-level concentrations in excess of applicable ambient air quality standards” is an “intermittent control system” (“ICS”).<sup>142</sup> An ICS is a dispersion technique “whether used alone, used with other dispersion techniques, or used as a supplement to continuous emission controls (*i.e.*, used as a supplemental control system).”<sup>143</sup> A technique “which attempts to affect the concentration of a pollutant in the ambient air” by “varying

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<sup>137</sup> 30 TEX. ADMIN. CODE §§ 116.116(b)(1), (b)(3).

<sup>138</sup> 2018 NSR Permit No. 45622 Permit Alteration, at 4 (Attachment G).

<sup>139</sup> *Id.*

<sup>140</sup> *Id.*

<sup>141</sup> *Id.*

<sup>142</sup> 40 C.F.R. § 51.100(nn) (1986).

<sup>143</sup> 40 C.F.R. § 51.100(nn) (1986).

the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant” is a dispersion technique.<sup>144</sup> An ICS is generally only permissible in establishing emissions limitations if it was in use prior to 1971.<sup>145</sup>

As described in Section V.B.3.c, *infra*, pp. 32-33, Oxbow experimented with how wind conditions impacted the CAMS 1071 monitor’s ability to detect SO<sub>2</sub> exceedances from Oxbow.<sup>146</sup> The wind data was used to develop an alert system so that when an exceedance occurred, the facility could, at times, adjust the dampers controlling the feed rates to its stacks.<sup>147</sup> The purpose of these experiments was to determine “ideal dispersions at all times.”<sup>148</sup> As such, it is apparent that Oxbow was testing an intermittent control system. Thus, TCEQ should have reviewed whether Oxbow’s dispersion techniques were prohibited by the EPA.

The experiment results had served as the basis for Oxbow’s claim that operating the cold stacks resulted in exceedances of the SO<sub>2</sub> NAAQS.<sup>149</sup> Had TCEQ conducted any investigation of Oxbow’s claim, then TCEQ might have learned of these experiments and concluded that Oxbow’s operating out of the cold stacks was not the cause of the exceedances. Instead, TCEQ’s Michael de la Cruz later stated that the agency might have asked Oxbow for this data if they had known it existed.<sup>150</sup>

## **5. TCEQ did not require Oxbow to install pollution control technology.**

At no point during its conversations with and review of Oxbow for SO<sub>2</sub> exceedances, for the purpose of finalizing the 2019 Agreed Order did TCEQ require Oxbow to install SO<sub>2</sub> pollution control technology. Initially, TCEQ appeared to suggest in its initial correspondence in April and June 2017 that Oxbow “may be required to install emissions controls and obtain emissions offsets” as well as “additional emissions controls . . . to attain the SO<sub>2</sub> NAAQS.”<sup>151</sup> By December 2017, however, TCEQ had already accepted Oxbow’s explanation that the cold stacks were the cause of the exceedances and made no mention of installing emissions controls.<sup>152</sup> Oxbow did not provide TCEQ with any modeling for scrubbers, nor is there evidence to suggest that TCEQ sought this information.<sup>153</sup> Nor did TCEQ perform its own modeling or assessment of the cause of the exceedances nor of the effect of discontinuing use of the cold stack PM emission controls.

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<sup>144</sup> 40 C.F.R. § 51.100(hh)(1)(ii) (1986).

<sup>145</sup> 40 C.F.R. § 51.119(a)(1) (1986).

<sup>146</sup> See PASE Litigation, Exhibit 16 (Attachment J-13); PASE Litigation, Exhibit 105 (Attachment J-10).

<sup>147</sup> PASE Litigation, Exhibit 6, at 922-25 (Attachment J-3) (testimony of Douglas Landwehr).

<sup>148</sup> *Id.* at 563 (Attachment J-3) (quoting letter from Daniel Rosendale to PASE, Jan. 18, 2017). See also *id.* at 869.

<sup>149</sup> PASE Litigation, Exhibit 10-1, at 21 ¶ 43 (Attachment J-1).

<sup>150</sup> PASE Litigation, Exhibit 6, at 1529-30, 1534 (Attachment J-3).

<sup>151</sup> PASE Litigation Exhibit 53 (Attachment J-23) (TCEQ Letter to Scott E. Stewart, Vice President of Environmental Health & Safety, Oxbow Carbon Group, Re: Preliminary Air Quality Monitoring nearby Oxbow Calcining Plant; RN100209287, Apr. 20, 2017); PASE Litigation, Exhibit 54 (Attachment J-24) (TCEQ Letter to Tony Botello, Plant Contact, Oxbow Calcining, LLC, Re: Preliminary Air Quality Monitoring; RN100209287, June 13, 2017).

<sup>152</sup> PASE Litigation, Exhibit 55 (Attachment J-21).

<sup>153</sup> PASE Litigation, Exhibit 6, at 905 (Attachment J-3) (testimony of Douglas Landwehr).



## 6. TCEQ failed to take into consideration any disparate impacts on West Port Arthur.

At no point during its conversations with and review of Oxbow for SO<sub>2</sub> exceedances did TCEQ affirmatively conduct a disparate impacts analysis of Oxbow's SO<sub>2</sub> emissions or operations. For example, when Oxbow sought the permit alteration to increase the Kiln 4 stack height and narrow the stack, TCEQ determined the stack changes would not increase off-property concentrations but provided no explanation or analysis.<sup>154</sup> Similarly, in approving the permit alteration, TCEQ determined that the area was not “a sensitive location with respect to nuisance,” even though no modeling was conducted.<sup>155</sup>

TCEQ should have been aware, however, that Oxbow is located next to West Port Arthur, a well-known environmental justice community. In 2019, for example, TCEQ received comments on its Annual Monitoring Network Plan, including “that air permitting has failed to address local environmental justice complaints,” which “TCEQ has been ineffective in investigating complaints, and that TCEQ needed to carry out more rigorous reviews due to the high levels of air pollution in Port Arthur and Port Neches.”<sup>156</sup> In response, TCEQ stated that “[s]ource emissions, measured exceedances, facility air permitting, and complaint investigation effectiveness are outside the scope of the AMNP.”<sup>157</sup>

In response to comments submitted on the 2021 AMNP regarding Oxbow's SO<sub>2</sub> emissions in 2021, TCEQ acknowledged that it had modeled SO<sub>2</sub> concentrations at the facility, but it did not state when this modeling occurred.<sup>158</sup> After a public records request, Complainant learned in July 2021 that TCEQ conducted this modeling in connection with its draft 2019 AMNP to determine the new location for the Oxbow monitor. And as further demonstrated in Section V.D, *infra*, that modeling reveals impacts in West Port Arthur that should have further put TCEQ on notice of the disparate impacts on Black residents in West Port Arthur.

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Each of the acts described above represents a failure by TCEQ to ensure that one of the largest SO<sub>2</sub> emitters in the state, and a major contributor of PM pollution, complied with the law, even before the agency reviewed Permit No. O1493. Worse, TCEQ's failures were made with the knowledge that Oxbow was taking deliberate steps to inappropriately manipulate its operations to skirt the law—even though a Black, low-income community bears the brunt of Oxbow's pollution. These actions culminated in TCEQ's approval of Permit No. O1493. The next sections describe how, under these circumstances, TCEQ's actions with respect to Permit No. O1493 represent a violation of Title VI.

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<sup>154</sup> 2018 NSR Permit No. 45622 Permit Alteration, at 4 (Attachment G).

<sup>155</sup> *Id.*

<sup>156</sup> TCEQ, 2019 Annual Monitoring Network Plan, N-19, *available at* [https://www.tceq.texas.gov/assets/public/compliance/monops/air/annual\\_review/historical/2019-AMNP.pdf](https://www.tceq.texas.gov/assets/public/compliance/monops/air/annual_review/historical/2019-AMNP.pdf).

<sup>157</sup> *Id.*

<sup>158</sup> TCEQ, 2021 Annual Monitoring Network Plan, N-25 to N-26 (Attachment L).

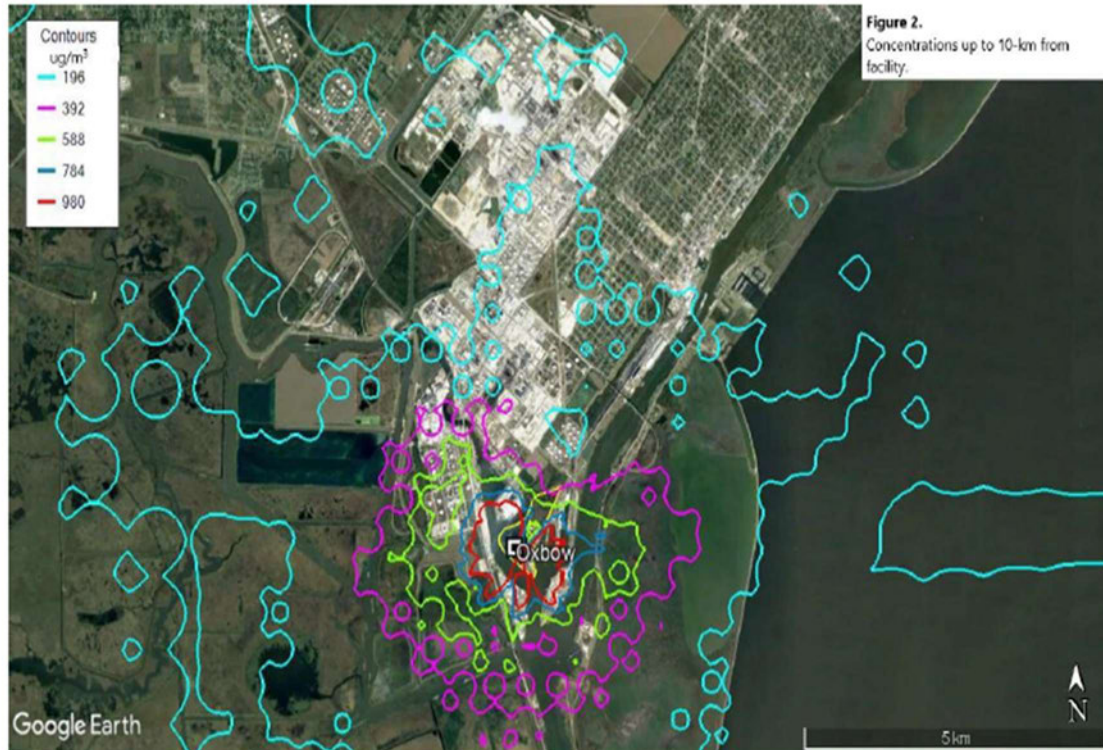
**D. MODELING DEMONSTRATES DISPARATE IMPACTS ON PORT ARTHUR'S BLACK RESIDENTS.**

In preparation of this Complaint, (b) (6), (b) (7)(C) has not only reviewed TCEQ's most recent air modeling of the Calciner done in connection with the 2019 AMNP but also conducted its own modeling. Specifically, after being unable to obtain modeling performed by Oxbow by intervening in the PASE Litigation in 2020 because of Oxbow's claims that such information proprietary and confidential, (b) (6), (b) (7)(C) retained an expert, I2M Associates, LLC, to conduct an SO<sub>2</sub> air quality analysis for Port Arthur, Texas. The results of (b) (6), (b) (7)(C)'s air modeling demonstrated that:

- Oxbow's SO<sub>2</sub> emissions at their permitted rates are predicted, based on AERMOD modeling of Oxbow hot stacks using Oxbow's emission point input parameter values, to result in significant numbers of exceedances of the SO<sub>2</sub> NAAQS one-hour standard in Port Arthur, Texas and Jefferson County. The modeling results are consistent with the ambient monitoring data for local monitors, substantiating the exceedances of the SO<sub>2</sub> NAAQS one-hour standard in Jefferson County.
- The SO<sub>2</sub> NAAQS one-hour standard is predicted to be exceeded despite any mitigating corrective actions taken by Oxbow.
- The comparison of the air modeling hour to hour impact with the ten dates of data for ambient monitoring stations suggests that Oxbow exceeded its permitted rates of emissions.

The results of this analysis are captured in **Figure 6** and **Table 8** below:

**Figure 6. Concentrations up to 10-km from Oxbow**



**Table 8. Impacts Table for Air Modeling of Oxbow's SO<sub>2</sub> Sources**

The impacts table below summarizes the inputs and results.

Group ID	Source Description	SO <sub>2</sub> Emission Rate <sup>1</sup>	1-HR SO <sub>2</sub> NAAQS	Modeled Impact
		lb/hr	ug/m <sup>3</sup>	ug/m <sup>3</sup>
ALL	Max Impact including all sources	--	196	1573.04481
K2_H	Kiln 2 – Hot	727.31		458.89975
K3_H	Kiln 3 – Hot	1131.28		585.54334
K4_H	Kiln 4 – Hot	1131.38		951.51305
K5_H	Kiln 5 – Hot	1170.00		545.5044

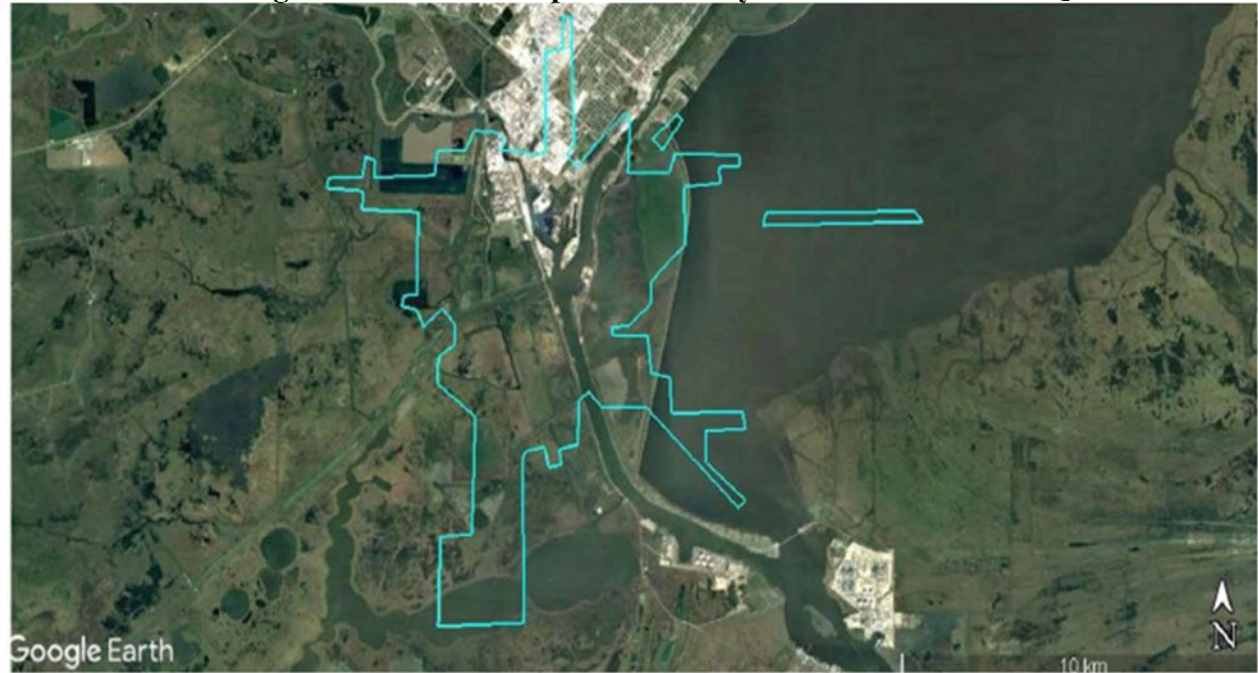
1. Emission rates pulled from MAERT dated 10/30/2019

2. 1 Hour SO<sub>2</sub> NAAQS 75 ppb is equivalent to 196 ug per cubic meter. The air modeling results are in ug per cubic meter.

As is apparent from Table 8 and Figure 6 and those following, a significant portion of Jefferson County was predicted to have exceeded the SO<sub>2</sub> NAAQS one-hour standard of 196 ug/m<sup>3</sup> (75 ppb), despite the corrective actions of Oxbow to mitigate their SO<sub>2</sub> emissions. The maximum predicted impact of 1573 ug/m<sup>3</sup> is eight times the SO<sub>2</sub> NAAQS one-hour standard of 196 ug/m<sup>3</sup> (75 ppb).

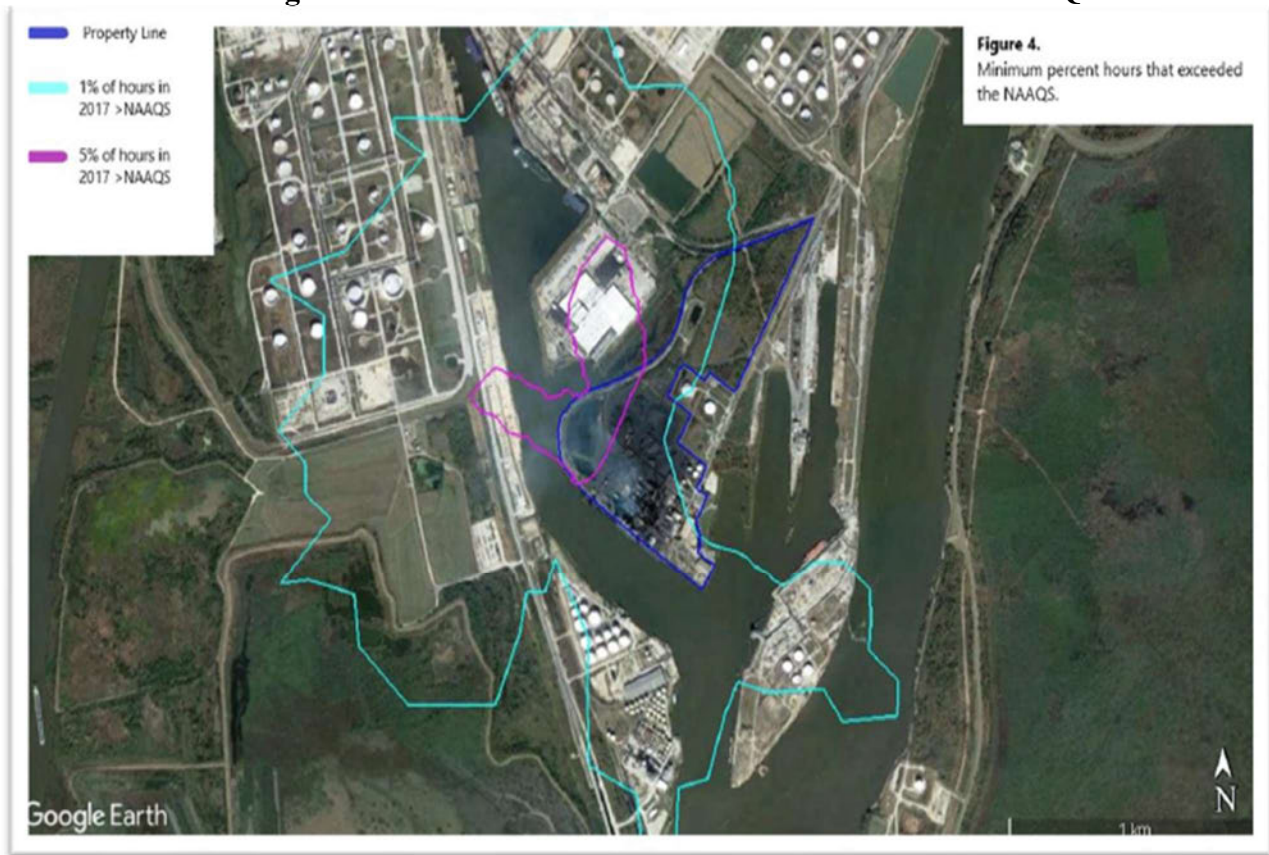
As shown below in **Figure 7** and **Figure 8** below, I2M Associates' Model shows that a substantial portion of Jefferson County was predicted to exceed the SO<sub>2</sub> NAAQS one-hour standard of 196 ug/m<sup>3</sup> (75 ppb) in 2017, even with permitted emissions only being emitted from the facility's "hot stacks". A large area around the facility was predicted to exceed the SO<sub>2</sub> NAAQS one-hour standard of 196 ug/m<sup>3</sup> (75 ppb) over 5 percent of the time.

**Figure 7. Area of Receptors with Any Exceedances of NAAQS**





**Figure 8. Minimum Percent Hours that Exceeded the NAAQS**



For some of the dates, the modeled results were less than the monitor data suggesting the facility may have exceeded permitted emission rates. As is apparent from **Table 9**, for February 11, 2017, the modeling suggests that the actual amounts of emissions from the Oxbow facility on this date—even assuming they were all emitted from hot stacks—may have exceeded permitted rates for several hours.



**Table 9. Example Hourly Comparison of Model Results and Ambient SO<sub>2</sub> Monitor Data for February 11, 2017**

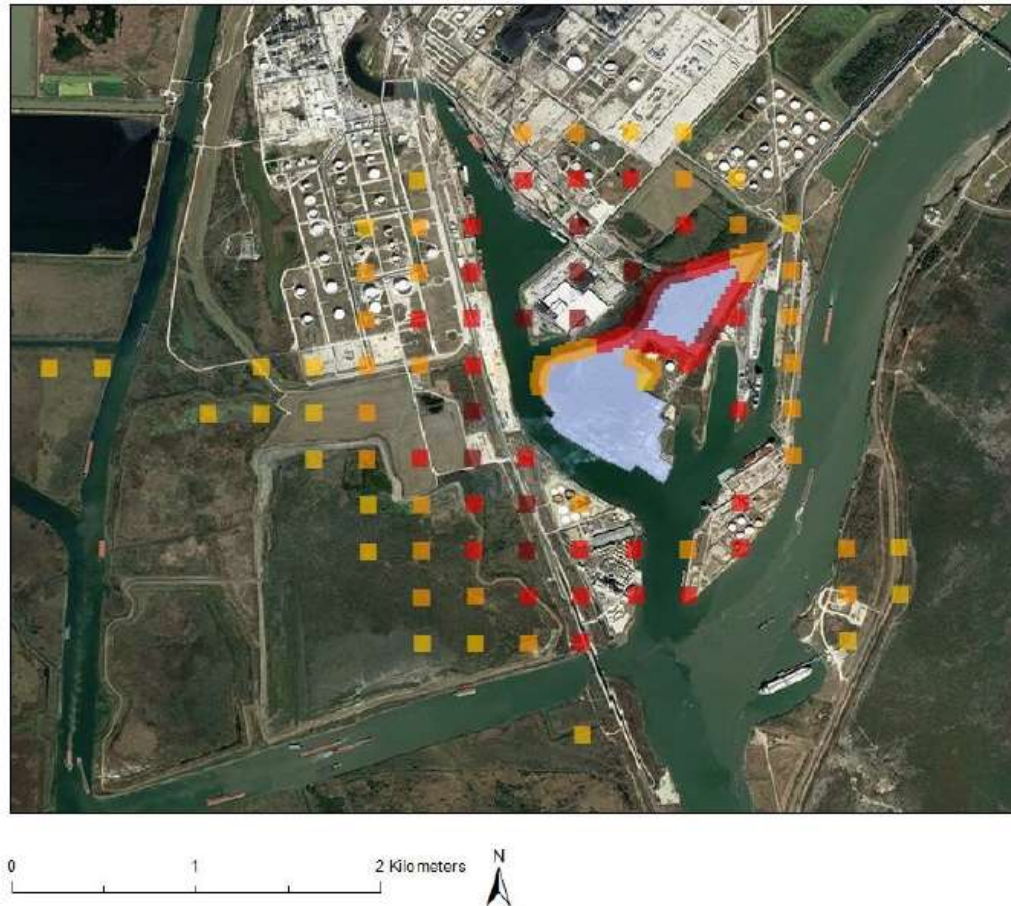
Model Time Stamp	Model Concentrations (ug/m3)			Monitor Concentrations (ug/m3)		
	PA 7th St	SETRPC PA	PA West	PA 7th St	SETRPC PA	PA West
17021101	185.9409	0.0096	0.2345	2.4452	4.5981	0.9036
17021102	2.2211	0.0071	0.0260	209.8547	3.8994	0.9367
17021103	0.0741	0.0092	0.0198	182.0392	4.5239	0.8154
17021104	0.0190	0.0098	0.0156	136.5544	4.6789	0.7934
17021105	0.0429	0.0035	0.0126	167.8107	4.7531	0.6942
17021106	0.0003	0.0995	0.0107	183.0128	4.6811	0.6281
17021107	0.0007	0.0072	0.0074	87.2190	4.8754	0.7273
17021108	0.0102	0.0040	0.0108	88.7460	4.8099	0.7640
17021109	3.2219	1.7058	0.0247	150.0859	4.6636	0.5436
17021110	14.2392	3.4827	0.0286	133.7219	4.7619	0.8375
17021111	7.6591	26.7672	0.0304	51.1940	8.1613	1.0138
17021112	1.0474	44.7346	0.0293	15.7222	86.7024	0.9587
17021113	1.1551	45.0164	0.0293	21.0884	29.8373	1.0138
17021114	3.1090	31.3096	0.0270	57.2682	15.4296	0.9697
17021115	1.9250	37.9362	0.0260	45.7394	39.9943	0.9367
17021116	1.3975	37.3570	0.0271	10.8872	57.1815	0.9477
17021117	1.0528	27.3665	0.0267	29.6964	23.5625	0.8926
17021118	0.0068	0.1863	0.0265	41.0923	13.2092	0.9587
17021119	0.0570	0.0051	0.0150	61.8710	9.9931	0.7053
17021120	209.0299	0.0015	0.0102	LIM	LIM	LIM
17021121	288.7582	0.0015	0.0137	LIM	LIM	LIM
17021122	2.4236	0.0021	0.0110	45.9731	4.7902	0.7273
17021123	0.2616	0.0013	0.0075	54.3349	4.2379	0.9587
17021124	0.1675	0.0009	0.0053	54.8455	8.6023	0.9477

In **Table 9** above, “LIM” for limitation indicates SO<sub>2</sub> levels at the monitor that were out of calibration. It is possible that these readings may have exceeded the monitor upper concentration range. This modeling result signals that it is possible that limitations on the monitoring equipment may be preventing the monitor from recording the highest exceedances.

Further, TCEQ conducted its own report on its air modeling siting analysis for the Oxbow Monitor in Port Arthur to justify the relocation of Oxbow’s monitor in 2019. Based on information and belief, this monitor siting analysis was transmitted to EPA on or about the same time as the 2019 AMNP in June of 2019. TCEQ conducted modeling using normalized emissions to calculate

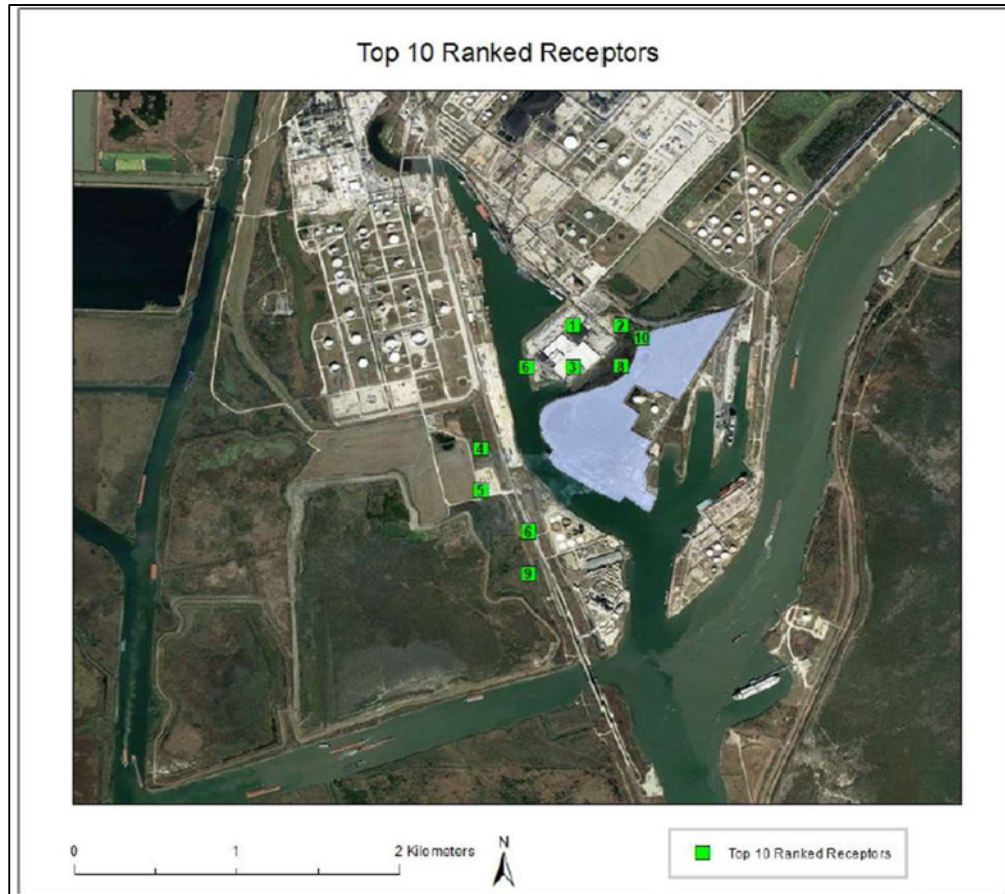
a normalized design value (“NDV”). TCEQ mapped the Top 150 Normalized Design Values using this model in **Figure 9** below.

**Figure 9. Top 150 Normalized Design Values**



In addition to locations of peak NDV, TCEQ also looked at the frequency in which a receptor sees daily maximum concentrations. Looking at the frequency of the locations, it was determined that the model showed that the following 10 receptors are the locations that would experience both high NDV and frequencies of 1-hour daily maximum. As shown in **Figure 10** below, TCEQ determined three locations are located north, west, and south of Oxbow’s facility.

**Figure 10. Top 10 Ranked Receptors from TCEQ's Modeling Analysis**



In response to public comments received on the 2021 AMNP, TCEQ acknowledged that the areas south of facility, where the model indicated locations likely to experience both high NDV and high frequencies of one-hour daily maximum concentrations during favorable wind conditions, were not viable for a monitor due to property access restrictions or lack of available power.<sup>159</sup> The modeling and conclusions stated in the 2021 AMNP demonstrate that TCEQ is more than aware of the offsite impacts of this facility. Yet TCEQ failed to act to protect the predominately Black population of West Port Arthur.

In conclusion, (b) (6), (b) (7)(C) own individual investigation showed NAAQS violations even if the emissions were only from the hot stacks. Moreover, this independent investigation also revealed that these emissions likely exceeded NAAQS emission limits. Further, if TCEQ had done its due diligence and used its own modeling to assess Oxbow's cold stack explanation, the agency likely would have determined that there were gross violations. When Oxbow abandoned the cold stacks, TCEQ should have viewed this change as a permit amendment because the modification to Oxbow's operations increased emissions. Thus, TCEQ should have treated it as an NSR triggering permit amendment, which would have required TCEQ to perform its own modeling to verify Oxbow's assertions. These conservative modeling results both from (b) (6), (b) (7)(C) independent

<sup>159</sup> *Id.* (Attachment L).



analysis and TCEQ's modeling efforts, although limited, demonstrate that Oxbow is likely emitting SO<sub>2</sub> in amounts greater than it its permit.

**E. RECENT PHOTOGRAPHS OF OXBOW'S CALCINER REVEAL REGULAR COMMUNITY IMPACTS.**

Complainant (b) (6), (b) (7)(C) wanted to share some of the recent photographs taken of the facility showing regular visual impacts to the community's air quality.<sup>160</sup>



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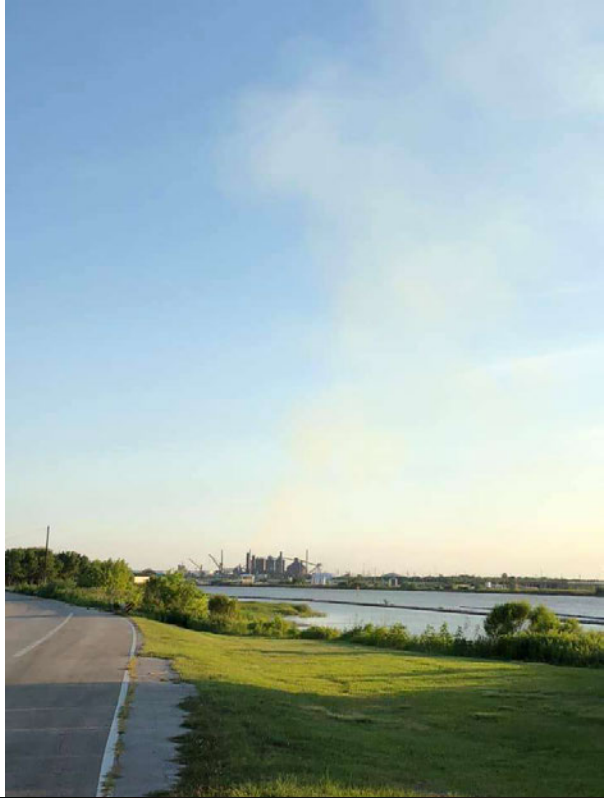
<sup>160</sup> Photographs by (b) (6), (b) (7)(C) Founder, Chairman and President of (b) (6), (b) (7)(C)





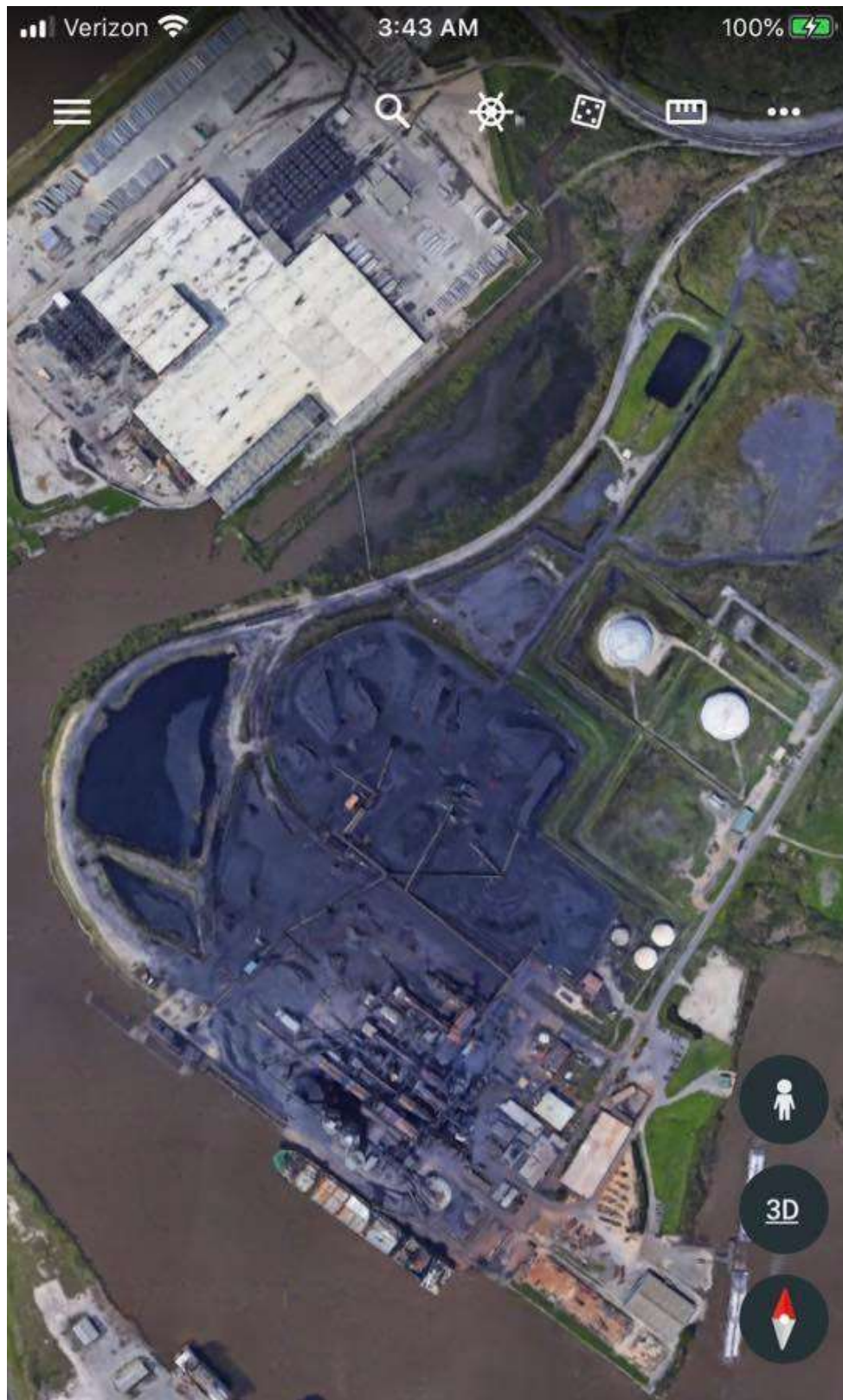












✕ Port Arthur City in Texas















These pictures are important for the EPA to consider, as the air quality impacts of Oxbow on the neighborhood community of West Port Arthur are visible to all.

## **VI. JURISDICTION**

This Complaint against TCEQ properly falls under the EPA's jurisdiction under Title VI.

### **A. TITLE VI PROHIBITS INTENTIONAL DISCRIMINATION AND DISPARATE IMPACT.**

Title VI prohibits recipients of federal funding from engaging in discrimination:

No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

42 U.S.C. § 2000d.

While Title VI itself proscribes intentional discrimination,<sup>161</sup> Section 602 of Title VI “authorizes agencies to adopt implementing regulations that also prohibit discriminatory effects.”<sup>162</sup> These disparate impact regulations recognize that “even benignly-motivated policies that appear neutral on their face may be traceable to the nation’s long history of invidious race discrimination.”<sup>163</sup> The EPA has promulgated such regulations. 40 C.F.R. Part 7, Subpart B. Specifically, any recipient of EPA financial assistance:

[S]hall not use criteria or methods of administering its program or activity which have the effect of subjecting individuals to discrimination because of their race, color, national origin, or sex, or have the effect of defeating or substantially impairing accomplishment of the objectives of the program or activity with respect to individuals of a particular race, color, national origin, or sex.

40 C.F.R. § 7.35(b). Thus, no recipient of EPA federal financial assistance may engage in intentional discrimination or disparate impact discrimination, and EPA has a duty to ensure that its recipients do not engage in any sort of prohibited discrimination. Under Title VI disparate impact regulations, “even benignly-motivated policies that appear neutral on their face may be traceable to the nation’s long history of invidious race discrimination.”<sup>164</sup>

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<sup>161</sup> *Alexander v. Sandoval*, 532 U.S. 275 (2001).

<sup>162</sup> U.S. ENVTL. PROT. AGENCY, Draft Title VI Guidance for EPA Assistance Recipients Administering Environmental Permitting Programs (Draft Recipient Guidance) and Draft Revised Guidance for Investigating Title VI Administrative Complaints Challenging Permits (Draft Revised Investigation Guidance), 65 Fed. Reg. 39,650, 36,668 (June 27, 2000), available at [https://www.epa.gov/sites/production/files/2016-04/documents/frn\\_t6\\_pub0627\\_2000.pdf](https://www.epa.gov/sites/production/files/2016-04/documents/frn_t6_pub0627_2000.pdf). See also 42 U.S.C. § 2000d-1.

<sup>163</sup> U.S. DEP’T OF JUSTICE, CIVIL RIGHTS DIV., TITLE VI LEGAL MANUAL, § VII, 2, available at <https://www.justice.gov/crt/book/file/1364106/download>.

<sup>164</sup> *Id.*



## **B. TCEQ IS A RECIPIENT OF EPA FEDERAL FINANCIAL ASSISTANCE.**

TCEQ is a recipient of EPA financial assistance. EPA regulations define “EPA assistance” as “any grant or cooperative agreement, loan, contract (other than a procurement contract or a contract of insurance or guaranty), or any other arrangement by which EPA provides or otherwise makes available assistance,” including in the form of “funds.”<sup>165</sup>

In Fiscal Year 2020, TCEQ’s operating budget included \$37.4 million from federal funds,<sup>166</sup> including nearly \$20 million from the EPA’s Performance Partnership Grant.<sup>167</sup> In Fiscal Year 2019, TCEQ had also received EPA assistance through the Environmental Information Exchange Network, which TCEQ expended for its air quality permitting program.<sup>168</sup> Accordingly, TCEQ must not administer its programs or activities in violation of Title VI.

## **C. TCEQ’S TITLE V AIR OPERATING PERMIT PROGRAM IS A “PROGRAM OR ACTIVITY”.**

TCEQ’s administration of operating permits under Title V of the FCAA constitutes a “program or activity” covered by Title VI. According to the EPA, a “program or activity and program mean all of the operations of any entity,” including a state agency, “*any part of which is extended Federal financial assistance.*”<sup>169</sup> Because “[a]cceptance of EPA funding creates an obligation on the recipient to comply with the regulations for as long as *any* EPA funding is extended,” even “those programs and activities that are not EPA-funded” are subject to Title VI.<sup>170</sup>

As established in the preceding section, TCEQ receives EPA financial assistance. As such, all programs TCEQ administers are subject to Title VI. Even if TCEQ does not directly expend federal funding pursuant to its air permitting program, TCEQ’s Title V program is a “program or activity” under Title VI and EPA’s implementing regulations. Thus, when administering Title V air operating permits, TCEQ has a mandatory duty to not use criteria or methods which have the effect of discriminating on the basis of race, color, or national origin.

## **VII. TCEQ’S TITLE VI VIOLATION**

TCEQ’s approval of Oxbow’s Title V Permit No. O1493 has a racially disparate impact in violation of Title VI. Not only does Permit No. O1493 cause new, adverse, and disparate impacts on Port Arthur’s communities of color, but Permit No. O1493 furthers historical discrimination.

### **A. TCEQ’S APPROVAL OF PERMIT NO. O1493 WAS A DISCRIMINATORY ACT.**

TCEQ’s approval of Oxbow’s Title V Permit No. O1493 constituted a discriminatory act. As the EPA recognizes, “the failure to take action, or to adopt an important policy” can be

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<sup>165</sup> 40 C.F.R. § 7.25 (2010).

<sup>166</sup> TCEQ, OPERATING BUDGET FOR FISCAL YEAR 2020, SFR-030/20, § 2.A.3 (2019), *available at* [https://www.tceq.texas.gov/assets/public/comm\\_exec/pubs/sfr/030-20.pdf](https://www.tceq.texas.gov/assets/public/comm_exec/pubs/sfr/030-20.pdf),

<sup>167</sup> *Id.* at § 4.C, 1.

<sup>168</sup> *Id.* at § 3.A, 8.

<sup>169</sup> 40 C.F.R. § 7.25 (2010).

<sup>170</sup> U.S. ENVTL. PROT. AGENCY, OFFICE OF ENFORCEMENT AND COMPLIANCE ASSURANCE, INTERIM GUIDANCE FOR INVESTIGATING TITLE VI ADMINISTRATIVE COMPLAINTS CHALLENGING PERMIT (1998).



discriminatory.<sup>171</sup> Here, TCEQ failed to affirmatively conduct a disparate impact analysis and failed to require adequate permit conditions to ensure compliance with the Clean Air Act. Moreover, “neutral” actions that “freeze the ‘status quo’ of prior discriminatory [ ] practices” are also discriminatory.<sup>172</sup> Because TCEQ knew of Oxbow’s baseline SO<sub>2</sub> emissions, which already had a disparate impact on Port Arthur’s communities of color, yet did not require Oxbow to address these extreme SO<sub>2</sub> emissions in Permit No. O1493, TCEQ’s issuance of Title V Permit No. O1493 was discriminatory.

## 1. TCEQ Failed to Affirmatively Conduct a Disparate Impact Analysis.

First, TCEQ did not affirmatively conduct a disparate impact analysis of Permit No. O1493, despite receiving public comments that Permit No. O1493 would have a racially disparate and harmful impact. (b) (6), (b) (7)(C) commented to TCEQ that issuing Permit No. O1493 “would result in unjustified and serious adverse impacts” to communities of color in West Port Arthur, who comprise “80-95% of the population surrounding the Oxbow plant.”<sup>173</sup> The comments noted that, in particular, African American persons and low-income persons would be exposed “to excessive levels of SO<sub>2</sub> and other pollution.”<sup>174</sup> In response to these comments in July 2020, TCEQ only provided its boilerplate policy that “[a]ir permits evaluated by the agency are reviewed without reference to the socioeconomic or racial status of the surrounding community.”<sup>175</sup>

Despite being explicitly notified that Permit No. O1493 would have racially disparate impacts, TCEQ chose to again disregard Port Arthur residents’ race. Yet, unless TCEQ had considered Port Arthur residents’ race, TCEQ could not have assured its decision to approve Permit No. O1493 would comply with Title VI’s prohibition against disparate impact. Federal regulations state that recipients may not “utilize criteria or methods of administration which *have the effect* of subjecting individuals to discrimination because of their race, color, or national origin.”<sup>176</sup> Deliberate ignorance of the surrounding community’s racial composition does not immunize TCEQ when a disparate impact occurs because of TCEQ’s actions.

Further, the EPA has made clear that “compliance with environmental laws does not necessarily constitute compliance with federal civil rights laws.”<sup>177</sup> As such, TCEQ cannot claim that only reviewing Permit No. O1493 for compliance with the Clean Air Act implies the Permit has no racially disparate impacts. Nor could TCEQ make that claim. Had TCEQ affirmatively

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<sup>171</sup> EPA, External Civil Right Compliance Office, Dear Colleague Letter (Jan. 18, 2017), 19 n.46 (citing *United States v. Maricopa Cty.*, 915 F. Supp. 2d 1073, 1079 (D. Ariz. 2012), for the proposition that a “disparate impact violation based on national origin properly alleged where recipient ‘failed to develop and implement policies and practices to ensure [limited English proficient] Latino inmates have equal access to jail services’ and discriminatory conduct of detention officers was facilitated by ‘broad, unfettered discretion and lack of training and oversight’ resulting in denial of access to important services”), available at [https://www.epa.gov/sites/production/files/2017-01/documents/toolkit-chapter1-transmittal\\_letter-faqs.pdf](https://www.epa.gov/sites/production/files/2017-01/documents/toolkit-chapter1-transmittal_letter-faqs.pdf) [hereinafter 2017 EPA Dear Colleague].

<sup>172</sup> *Griggs v. Duke Power Co.*, 401 U.S. 424, 430 (1971).

<sup>173</sup> Port Arthur Community Action Network, Public Comments and Request for Notice and Comment Hearing on Draft Federal Operating Permit O1493: Oxbow Calcining LLC, July 18, 2019, at 17 [hereinafter (b) (6), (b) (7)(C) Comments] (Attachment C).

<sup>174</sup> (b) (6), (b) (7)(C) Comments, at 17 (Attachment C).

<sup>175</sup> TCEQ Response to Comments, at 17 (Attachment D).

<sup>176</sup> 28 C.F.R. § 42.104(b)(2) (2003).

<sup>177</sup> 2017 EPA Dear Colleague, at 13.

conducted a disparate impact analysis of Oxbow's renewal application, TCEQ should have seen that the Permit was deficient even under the Title V requirements and that these deficiencies created a disparate impact on West Port Arthur's Black residents.

Because TCEQ failed to conduct a disparate impact analysis, TCEQ failed to consider how Permit No. O1493 froze and furthered historically disparate impacts. As Complainant discussed in Section V.A.3, *supra*, pp. 25-27, three of Oxbow's kiln stacks have SO<sub>2</sub> emissions limits that are grandfathered into the Clean Air Act, and two of the stacks were operational in 1938 and 1952, respectively, prior to Title VI's enactment and any protections against discriminatory operations. As Complainant describes below in Section VII.B, *infra*, pp. 68-75, Port Arthur's residents of color, particularly Black residents, have historically and presently suffered disparate harms from Oxbow's SO<sub>2</sub> emissions. Thus, because Oxbow's SO<sub>2</sub> emissions are, at base, racially discriminatory, TCEQ's inaction to address Oxbow's SO<sub>2</sub> emissions and freezing of the status quo constitutes racial discrimination.

## **2. TCEQ Failed to Accurately Assess Oxbow's Compliance History or Require a Compliance Schedule.**

Second, TCEQ failed to accurately assess Oxbow's compliance history in issuing Permit No. O1493. The Statement of Basis for Permit No. O1493 describes Oxbow's compliance rating as "high," stating only that "[t]here were no investigations, violations or audits conducted for this site during the five-year compliance history."<sup>178</sup> Yet, as this Complaint has documented, this statement is patently false. Oxbow violated the SO<sub>2</sub> NAAQS multiple times in the five-year period prior to Permit No. O1493's issuance, and TCEQ had issued an Agreed Order to Oxbow for these exceedances. Discussion of these violations and Agreed Order are notably absent from the Permit.

In response to comments highlighting this deficiency, TCEQ merely stated that "[t]here is no requirement under the CAA or 40 CFR Part 70 or 30 TAC § 122 . . . that the [Statement of Basis] include a discussion of . . . consent decrees and orders."<sup>179</sup> TCEQ also stated that no consent decree or agreed order was included in the Statement of Basis, since the permit applicant had not included any in the renewal application.<sup>180</sup> This response does not make sense, given that TCEQ still knew of Oxbow's violations and Agreed Order. The violations and subsequent enforcement action did not disappear just because Oxbow chose to omit this information in the renewal application, nor did TCEQ's duty to review the application to ensure compliance. Further, this response does not explain how TCEQ determined Oxbow's "high" compliance rating.

The failure to incorporate Oxbow's compliance history created another permit deficiency: TCEQ failed to provide a compliance schedule in Permit No. O1493. In response, TCEQ stated, "[t]here is no requirement under the CAA or 40 CFR Part 70 or 30 TAC § 122 . . . that the [Statement of Basis] include a discussion of compliance schedule, consent decrees and orders."<sup>181</sup> However, Title V of the Clean Air Act states, "[e]ach permit issued under this subchapter shall

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<sup>178</sup> See Draft Permit No. O1493, Statement of Basis of the Federal Operating Permit (prepared May 39, 2019), at 23; Final Permit No. O1493, Statement of Basis of the Federal Operating Permit (revised July 10, 2020), at 29 (Attachment B).

<sup>179</sup> TCEQ Response to Comments, 22 (Attachment D).

<sup>180</sup> *Id.*

<sup>181</sup> *Id.*

include . . . a schedule of compliance.”<sup>182</sup> TCEQ also stated that in March 2018, Oxbow had indicated in a form that they were in compliance, and because of this assurance, there was no need for a compliance schedule.<sup>183</sup> But Oxbow had exceeded the SO<sub>2</sub> NAAQS again in April 2018.<sup>184</sup> Further, Oxbow had not completely shut down its cold stacks until June 2018,<sup>185</sup> had not reported this shutdown to TCEQ until it submitted its Semi-Annual Deviation Report in September 2018, and did not receive permission to remove authorization for the cold stacks (nor its emission controls) from its NSR Permit No. 45622 until the Agreed Order issued in August 2019.<sup>186</sup> Because TCEQ was actively working with Oxbow to resolve the facility’s SO<sub>2</sub> NAAQS violations, TCEQ should have known Oxbow was not in compliance and should have required a compliance schedule.

TCEQ’s inaccurate—and possibly deliberately fabricated—compliance rating for Oxbow in Permit No. O1493 did not assure Oxbow’s compliance with Title V. Importantly, by not requiring Oxbow to make any changes to address its lack of compliance, TCEQ allowed Oxbow to continue operating in a manner that harms West Port Arthur’s residents of color.<sup>187</sup> Thus, TCEQ’s approval of Permit No. O1493 without accurately assessing Oxbow’s compliance history and requiring a compliance schedule was discriminatory.

### **3. TCEQ Failed to Ensure Compliance Regarding Recent Facility Changes Intended to Achieve Greater Dispersion.**

Third, TCEQ failed to require permit conditions in Permit No. O1493 that would ensure that Oxbow’s changes to its operations and facilities in response to the SO<sub>2</sub> NAAQS exceedances were compliant with Title V’s requirements. As already detailed in this Complaint, in 2018, Oxbow requested and received a permit alteration from TCEQ to increase the stack height for Kiln Stack 4 and to narrow the stack’s diameter. The purpose of these changes was to achieve greater dispersion of SO<sub>2</sub> emissions.

The Texas SIP and the Permit require compliance with provisions prohibiting actions which “will, without resulting in an actual reduction of air contaminants, conceal or appear to minimize the effects of an emissions which would otherwise constitute a violation of the Act or regulations.” As described in Sections V.B.3.b, *supra*, pp. 31-32 and V.C.3-4, *supra*, pp. 37-39, the change in stack height and diameter served this exact purpose—to change dispersion methods so to conceal or minimize effects of emissions without actually lowering emissions.

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<sup>182</sup> 42 U.S.C. § 7661c(a); *see also* 42 U.S.C. § 7661(3) (“The term ‘schedule of compliance’ means a schedule of remedial measures, including an enforceable sequence of actions or operations, leading to compliance with an applicable implementation plan, emission standard, emission limitation, or emission prohibitions.”).

<sup>183</sup> TCEQ Response to Comments, 22 (Attachment D).

<sup>184</sup> *See* Table 7 of this Complaint.

<sup>185</sup> PASE Litigation, Exhibit 7 (Attachment J-6).

<sup>186</sup> PASE Litigation, Exhibit 106 (Attachment J-11); 2019 TCEQ Agreed Order (Attachment I).

<sup>187</sup> Significantly, TCEQ’s “high” compliance rating has provided Oxbow with cover against the public’s criticism of its operations. *See, e.g.*, Kaitlin Bain, *SETX residents implore plant to stop polluting neighborhoods*, BEAUMONT ENTERPRISE, Nov. 17, 2019, <https://www.beaumontenterprise.com/news/article/SETX-residents-implore-plant-to-stop-polluting-14840143.php>. (Reporting that Oxbow’s plant manager Mike Holtham had “said TCEQ has recognized the Port Arthur plant, which sits on a 112-acre waterfront site near the Sabine Neches Ship Channel, as a high performer, [which is] the state’s highest ranking for regulation compliance”).

Despite new facility construction to alter Kiln Stack 4, Permit No. O1493's Statement of Basis does not discuss this critical change. Instead, the Statement of Basis only states that Kiln Stack 4's "Construction Date" was "[o]n or before January 31, 1972."<sup>188</sup> Permit No. O1493 does not explain how this clear change in control method was authorized by a permit alteration rather than a permit amendment.<sup>189</sup>

Further, Permit No. O1493 failed to include adequate monitoring requirements to ensure Oxbow's shutdown of its cold stacks and sole operation out of hot stacks (nor to ensure PM compliance despite the discontinued use of the cold stack emission control devices). TCEQ is required to ensure that a FOP includes "periodic monitoring requirements that are sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit."<sup>190</sup> In addition, "[t]he rationale for the selected monitoring requirements must be clear and documented in the permit record."<sup>191</sup>

As Oxbow had explained and TCEQ understood, the purpose of this change was also to increase dispersion of SO<sub>2</sub> emissions.<sup>192</sup> Complainant previously described how changes in dispersion could impact the ability of the CAMS 1071 SO<sub>2</sub> monitor to detect exceedances from Oxbow. In fact, during its 2019 Annual Monitoring Network Plan approval process, TCEQ admitted that its own modeling "show[ed] peak concentrations [of SO<sub>2</sub>] located closer to the source than the current monitor location," and was "working with EPA Region 6 to evaluate relocation options for the Port Arthur 7th street SO<sub>2</sub> air monitoring site."<sup>193</sup>

Despite Oxbow's change shutting down the cold stacks, however, TCEQ continued to only require visual monitoring for all four of Oxbow's kiln stacks.<sup>194</sup> In TCEQ's response to public comments, TCEQ further claimed that already existing Special Conditions that "limit the sulfur content of the feed material" were adequate.<sup>195</sup> TCEQ's response does not explain how existing conditions and visual monitoring address Oxbow's changes intended to achieve greater dispersion. Nor does TCEQ's response acknowledge that the terms of Permit No. O1493 were clearly inadequate to ensure compliance with the NAAQS in 2017 and 2018 and, if continued, will be inadequate in the future.

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<sup>188</sup> Final Permit No. O1493, Statement of Basis, Determination of Applicable Requirements, 15 (Attachment B).

<sup>189</sup> See U.S. ENVTL. PROT. AGENCY, Chapter 1200-3-24, Good Engineering Practice Stack Height Regulations, 53 Fed. Reg. 40881 (Oct. 19, 1988); U.S. ENVTL. PROT. AGENCY, Regulation No. 62.7, Good Engineering Practice Stack Height, 52 Fed. Reg. 19859 (May 28, 1987).

<sup>190</sup> 40 C.F.R. § 70.6(a)(3)(i)(B) (2014); see also 30 TEX. ADMIN CODE § 122.142(c); Statement of Basis for O1493, pp.19-20 (Attachment B).

<sup>191</sup> 40 C.F.R. § 70.7(a)(5) (2020); *In the Matter of United States Steel, Granite City Works* ("Granite City I Order"), Order on Petition No. V-2009-03 at 7-8 (January 31, 2011) (state agency failed to explain how recordkeeping and pollution control inspection requirements, in the absence of any actual monitoring requirements, would ensure compliance with applicable PM limits and yield reliable data representative of compliance with the permit).

<sup>192</sup> PASE Litigation, Exhibit 100, at 15 (Attachment J-12) (stating that "Cold Stacks provide suboptimal dispersion," whereas "Hot Stacks provide improved dispersion").

<sup>193</sup> TCEQ, 2019 Annual Network Monitoring Plan, at N-18, available at [https://www.tceq.texas.gov/assets/public/compliance/monops/air/annual\\_review/historical/2019-AMNP.pdf](https://www.tceq.texas.gov/assets/public/compliance/monops/air/annual_review/historical/2019-AMNP.pdf).

<sup>194</sup> Final Permit No. O1493, Statement of Basis, at 21-28 (Attachment B).

<sup>195</sup> TCEQ Response to Comments, at 30 (Attachment D).

Thus, TCEQ's approval of Permit No. O1493 failed to ensure compliance with the facility's SO<sub>2</sub> emissions limits. Because this failure did not ensure that Oxbow's dispersion techniques would not have a racially disparate impact on Port Arthur's communities of color, TCEQ's approval was discriminatory. Further, because Permit No. O1493 merely froze the status quo of Oxbow's discriminatory SO<sub>2</sub> emissions, TCEQ's approval was discriminatory.

#### **4. TCEQ's Approval of Oxbow's Kiln 4 Alteration Without a Public Participation Process Was Discriminatory.**

Fourth, TCEQ inappropriately allowed Oxbow to modify Kiln 4 through a permit alteration which does not provide for public notice or public comment. As stated by TCEQ itself, "public input is essential to quality decision making at the agency."<sup>196</sup> In fact, "it is imperative [in accomplishing TCEQ's mission to protect human health] that the commission and the agency seek and consider a full range of views and opinions from members of the public."<sup>197</sup>

However, even though the agency knew West Port Arthur to be an environmental justice community and that its residents are and would continue to be at risk from Oxbow's emissions, TCEQ allowed Oxbow to modify its facility without allowing for public input and without justification for that decision. By completely shutting out West Port Arthur's Black residents and residents of color from participating in the permit alteration process, TCEQ's decision to allow the modification without public input was discriminatory.

#### **5. Oxbow's Title V Permit Fails to Ensure Compliance with All Incorporated NSR Permits.**

Emission limits in NSR permits are incorporated by reference into a Title V permit and are "applicable requirements." Every Title V permit must contain monitoring, recordkeeping, and reporting conditions necessary and adequate to ensure compliance with all applicable requirements. Further, the record must clearly document the rationale for all monitoring requirements. As noted in (b) (6), (b) (7)(C) comments on Oxbow's Draft Permit to TCEQ, "the Draft Permit is deficient because (1) it fails to specify monitoring methods that ensure compliance with emission limits in incorporated NSR permits, including Permits by Rule (PBR); and (2) the permit record does not contain a reasoned justification for the monitoring methods included in the permit."<sup>198</sup>

Oxbow's Title V permit, Permit No. O1493, incorporates several NSR permits, including Permits No. 103303 and No. 45622. Permit No. O1493 also incorporates by reference various permits by rule and standard permits through its Special Condition Numbers 9, 10, and 11. Therefore, emission limits in each of these permits are applicable requirements of the Title V permit. Given Oxbow's immense SO<sub>2</sub> emissions, compliance with its NSR permits is of critical importance to the people of West Port Arthur. Yet, as detailed below, TCEQ failed to assure such compliance despite (b) (6), (b) (7)(C) comments.

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<sup>196</sup> TCEQ, RESOLUTION CONCERNING PUBLIC PARTICIPATION (1996), *available at* [https://www.tceq.texas.gov/agency/decisions/participation/permitting-participation/particip\\_res.html](https://www.tceq.texas.gov/agency/decisions/participation/permitting-participation/particip_res.html).

<sup>197</sup> *Id.*

<sup>198</sup> (b) (6), (b) (7)(C) Comments, at 10 (Attachment C).



**a. TCEQ's fails to acknowledge that visual monitoring does not assure compliance.**

TCEQ failed to ensure that visual monitoring of Oxbow's kiln stacks would assure compliance with PM emissions. Permit No. O1493 only specifies visual opacity monitoring of Kiln Stacks 2, 3, 4, and 5 to monitor visible emissions, such as PM. Yet, TCEQ knows visible monitoring alone does not assure Oxbow's compliance with PM limits in its New Source Review Permit No. 45622. Oxbow has submitted numerous State of Texas Environmental Electronic Reporting System reports documenting opacity violations (some as high as 90%); however, none of these reports mention PM. If opacity is an indicator of PM, then Oxbow should be self-reporting PM violations when opacity exceeds specified limits, but Oxbow is not doing so. While the Statement of Basis for Draft Permit O1493 suggested that opacity monitoring has been used as an "indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH," it failed to discuss how this method assured compliance with the numeric PM limits in Permit 45622.

Oxbow's own reports to TCEQ make clear that visual opacity monitoring does not assure that required monitoring, recordkeeping, and reporting occur. In one deviation report for an excess opacity event, Oxbow stated that it could not provide specific details or adequately respond to TCEQ's questions about the event, because the observer—the sole person conducting the monitoring—was preoccupied with other responsibilities:

- "The observer checked the time but can't be any more specific because he was reacting to the incident and involved in mitigation and control."<sup>199</sup>
- "[D]ue to work being done to mitigate and control, the observer was unable to make a contemporaneous written record."<sup>200</sup>

This deviation report, which TCEQ has, confirms that an observer is unable to provide even basic details of excess opacity events or make a written record, as required by law. (b) (6), (b) (7)(C) had alerted TCEQ in its comments on Permit No. O1493 that relying on "a human being looking at the stacks" is a grossly inadequate monitoring scheme and had urged TCEQ to require Continuous Emissions Monitoring systems at Oxbow instead.<sup>201</sup> TCEQ did not take heed.

Similarly, Oxbow's reports demonstrate that Oxbow cannot conduct effective visual opacity monitoring at night. In a 2015 report of an evening excess opacity event to TCEQ, Oxbow stated, "[i]t is possible that opacity exceeded the permit limit of 5% for EPN CLR3DC during the failure and shutdown period, but it was not possible to conduct Visible Emissions Observations (Opacity Reading) from the exhaust stack due to low ambient lighting conditions (nightfall)."<sup>202</sup>

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<sup>199</sup> PASE Litigation, Exhibit 106, at 5 (Attachment J-11)(Oxbow Response to TCEQ Excess Opacity Event Information Request regarding "Excess Opacity Event – Incident 287634, 7/3/2018 @ 11:30 hrs").

<sup>200</sup> *Id.*

<sup>201</sup> (b) (6), (b) (7)(C) Comments, at 12, 19 (Attachment C).

<sup>202</sup> TCEQ, Air Emission Event Report Database, Incident 215801 (June 15, 2015), *available at* <https://www2.tceq.texas.gov/occeer/index.cfm?fuseaction=main.getDetails&target=215801>.

This reporting is problematic. As (b) (6), (b) (7)(C) has commented to TCEQ, Oxbow emits frequently in the evening and during periods of heavy cloud cover.<sup>203</sup> In addition, (b) (6), (b) (7)(C) members have commented that foul odors (a potential indication of excessive SO<sub>2</sub> and PM emissions and ground level NAAQS exceedances) are most frequently noticeable in the early morning hours before dawn. The authorized monitoring scheme appears to allow Oxbow to emit nearly at will from dusk to dawn and during periods between expected inspections and when the wind direction and meteorological conditions will not result in an impact at CAMS 1071. Indeed, Oxbow may emit between dusk and dawn with the goal of evading detection. Yet, TCEQ merely repeated in its response to comments that “the Draft Permit includes all applicable terms and conditions and applicable requirements including sufficient monitoring requirements to demonstrate compliance with applicable state and federal regulations”<sup>204</sup> and approved the Draft Permit.

Oxbow’s 2018 permit alteration also had the effect of removing what little continuous monitoring Oxbow had. The cold stacks included continuous opacity monitoring. The hot stacks, in contrast, have no such monitoring and thus rely on visual opacity monitoring. Thus, with the retirement of the cold stacks, the capacity for continuous monitoring was lost.

Furthermore, while visual monitoring may assure compliance with opacity violations, visual monitoring cannot ensure compliance with numeric emissions limits based on pounds released per hour or tons released per year.

**b. Annual testing limited to only one kiln is inadequate; extending testing to once every three years is also inadequate.**

TCEQ is required to ensure that a FOP includes “periodic monitoring requirements that are sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.”<sup>205</sup> In addition, “[t]he rationale for the selected monitoring requirements must be clear and documented in the permit record.”<sup>206</sup>

Special Condition 30 of Oxbow’s NSR Permit No. 45622 provides, “[w]ith TCEQ Regional Manager approval, annual testing may be limited to testing only one of the four kilns, with the non-tested kilns being tested in follow-on years.”<sup>207</sup> As described in **Table 6, *supra***, p. 26, each of the four kilns have unique emissions and emission limits for SO<sub>2</sub> (and other pollutants). For example, Kiln 2 has a limit of 727.31 lbs/hour SO<sub>2</sub> while Kiln 5 has a limit of 1,170 lbs/hour, twice as high as Kiln 2. Because emissions limits vary significantly depending on the kiln, a stack test of a single kiln certainly will not be representative of emissions at any of the other three kilns.

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<sup>203</sup> (b) (6), (b) (7)(C) Comments, at 12 (Attachment C).

<sup>204</sup> TCEQ Response to Comments, at 17, 34, 36 (Attachment D).

<sup>205</sup> 40 C.F.R. § 70.6(a)(3)(i)(B) (2014); *see also* 30 TEX. ADMIN CODE § 122.142(c); Final Permit No. O1493, Statement of Basis, at 19-20 (Attachment B).

<sup>206</sup> 40 C.F.R. § 70.7(a)(5)(2020); Granite City I Order, Order on Petition No. V-2009-03 at 7-8 (January 31, 2011) (state agency failed to explain how recordkeeping and pollution control inspection requirements, in the absence of any actual monitoring requirements, would ensure compliance with applicable PM limits and yield reliable data representative of compliance with the permit).

<sup>207</sup> NSR Permit No. 45622, Special Conditions (Oct. 30, 2019), at 6 (Attachment G).

Special Condition 30 also allows for testing to be extended to once every three years. In effect, this condition allows testing of one kiln to take place only *once every twelve years*—clearly inadequate to ensure compliance with Oxbow’s SO<sub>2</sub> emission limits within relevant time periods. Moreover, even though Kiln Stack 4 now disperses SO<sub>2</sub> emissions in a different manner than the other stacks, the Permit nevertheless adopts a monitoring scheme which would allow the uniquely designed Kiln Stack 4 to be tested only once every 12 years. This requirement essentially amounts to no monitoring requirement for up to 11 years.

Infrequent and inadequate testing plainly exposes Black residents of West Port Arthur to new violations of Oxbow’s various NSR permits and West Port Arthur to high levels of SO<sub>2</sub>. Therefore, the current testing scheme for the four kilns is discriminatory.

## **B. TCEQ’S APPROVAL OF PERMIT NO. O1493 CAUSES RACIALLY DISPARATE AND ADVERSE HEALTH IMPACTS FROM SO<sub>2</sub> AND PM.**

TCEQ’s approval of Permit No. O1493 disproportionately has an adverse health impact on Black residents of Port Arthur. Oxbow’s very high emissions of SO<sub>2</sub> put the residents of West Port Arthur at risk of numerous negative health issues and outcomes. This section describes: (1) the well-established human health consequences of SO<sub>2</sub> exposure, (2) the ways SO<sub>2</sub> is an established major contributor to PM, and, therefore, (3) the well-established health consequences of PM exposure. In addition, the Permit’s inadequate PM monitoring puts the Black residents of West Port Arthur at risk to higher than permitted PM levels. The health consequences of these two pollutants, SO<sub>2</sub> and PM, include a wide range of respiratory, cardiovascular, and associated hematological issues. Finally, this section also provides health data for the area, showing residents face significant health challenges.

### **1. SO<sub>2</sub> Exposure is Associated with Multiple Negative Health Effects.**

SO<sub>2</sub> is one of a group of highly reactive gases called sulfur oxides (“SO<sub>x</sub>”). Both short-term and long-term exposure to SO<sub>2</sub> can have negative human health consequences. According to the EPA, “[s]hort-term exposures to SO<sub>2</sub> can harm the human respiratory system and make breathing difficult.”<sup>208</sup> This exposure also “irritates the skin and mucous membranes of the eyes, nose, throat, and lungs. High concentrations of SO<sub>2</sub> can cause inflammation and irritation of the respiratory system,” additionally “affect[ing] lung function, worsen[ing] asthma attacks, and worsen[ing] existing... disease in sensitive groups.”<sup>209</sup> Higher exposures of SO<sub>2</sub> may also “cause a build-up of fluid in the lungs (pulmonary edema)...with severe shortness of breath.”<sup>210</sup> Repeated exposure “can cause loss of sense of smell, headache, nausea, and dizziness” as well as “cause bronchitis to develop with coughing, phlegm, and/or shortness of breath.”<sup>211</sup> The American Lung Association, citing the EPA’s most recent Integrated Science Assessment for Sulfur Oxides, summarizes the health impacts of SO<sub>2</sub> air pollution as:

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<sup>208</sup> U.S. ENVTL. PROT. AGENCY, Sulfur Dioxide Basics, <https://www.epa.gov/so2-pollution/sulfur-dioxide-basics>.

<sup>209</sup> U.S. NAT’L PARK SERV., Sulfur Dioxide Effects on Health, <https://www.nps.gov/subjects/air/humanhealth-sulfur.htm#:~:text=most%20urban%20areas,-,How%20can%20sulfur%20dioxide%20affect%20your%20health%3F,especially%20during%20heavy%20physical%20activity>.

<sup>210</sup> N.J. DEP’T OF HEALTH, Right to Know Hazardous Substance Fact Sheet for Sulfur Dioxide, <https://nj.gov/health/eoh/rtkweb/documents/fs/1759.pdf>

<sup>211</sup> *Id.*

- “Wheezing, shortness of breath and chest tightness and other problems, especially during exercise or physical activity;
- Continued exposure at high levels increases respiratory symptoms and reduces the ability of the lungs to function;
- Short exposures to peak levels of SO<sub>2</sub> in the air can make it difficult for people with asthma to breathe when they are active outdoors; and
- Increased risk of hospital admissions or emergency room visits, especially among children, older adults, and people with asthma.”<sup>212</sup>

## 2. SO<sub>2</sub> is a Precursor of PM.

PM “is a mixture of microscopic solids and liquid droplets suspended in the air” and is “made up of a number of components, including acids (such as...sulfates) [and] organic chemicals.”<sup>213</sup> Sulfur oxides such as SO<sub>2</sub> form several “secondary pollutants,” including “sulfate aerosols [and] particulate matter,”<sup>214</sup> through various methods of oxidation in the ambient air.<sup>215</sup> SO<sub>2</sub> emissions which “lead to high concentrations of SO<sub>2</sub> in the air generally also lead to the formation of other SO<sub>x</sub>.”<sup>216</sup> SO<sub>x</sub> can then react with other compounds in the atmosphere to form small particles, which contribute to PM pollution.<sup>217</sup> Oxidation of SO<sub>2</sub> “is commonly regarded as a major driver for new particle formation in the atmosphere.”<sup>218</sup> In addition, secondary pollutants “formed by the atmospheric oxidation of primary emissions . . . can be the most concerning . . . pollutants from a health perspective.”<sup>219</sup> Therefore, understanding the health consequences of exposure to PM is appropriate and necessary to understanding the health consequences of SO<sub>2</sub>.

## 3. PM Exposure is Associated with Negative Health Effects.

Those who are exposed to PM may suffer from various symptoms, even when they are otherwise healthy, including “irritation of the eyes, nose, and throat; coughing; phlegm; chest tightness; and shortness of breath.”<sup>220</sup> Both long-term and short-term exposures to PM are associated with serious, negative health consequences.<sup>221</sup> In fact, “[f]ine particulate matter

<sup>212</sup> American Lung Association, Sulfur Dioxide, <https://www.lung.org/clean-air/outdoors/what-makes-air-unhealthy/sulfur-dioxide>; citing U.S. ENVTL. PROT. AGENCY, Integrated Science Assessment for Sulfur Oxides - Health Criteria. EPA/600/R-08/047F, (Sept. 2008).

<sup>213</sup> U.S. ENVTL. PROT. AGENCY, Particle Pollution And Your Health Flyer (Sept. 2003).

<sup>214</sup> MINNESOTA POLLUTION CONTROL AGENCY, Sulfur dioxide (SO<sub>2</sub>), <https://www.pca.state.mn.us/air/sulfur-dioxide-so2#:~:text=Sulfur%20dioxide%20is%20also%20a,particulate%20matter%2C%20and%20acid%20rain>.

<sup>215</sup> See UNITED KINGDOM ENVIRONMENT AGENCY, Processes and parameters influencing the oxidation of SO<sub>2</sub> and NO<sub>x</sub> in plumes, Science Report: SC030171/SR1 (Nov. 2007), [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/290984/scho0907bnhe-e-e.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/290984/scho0907bnhe-e-e.pdf), at 11.

<sup>216</sup> U.S. ENVTL. PROT. AGENCY, Sulfur Dioxide Basics, <https://www.epa.gov/so2-pollution/sulfur-dioxide-basics>.

<sup>217</sup> *Id.*

<sup>218</sup> He Meng, et. al., Roles of SO<sub>2</sub> oxidation in new particle formation events, NATIONAL INSTITUTES OF HEALTH, DOI: 10.1016/j.jes.2014.12.002 (Feb. 2015), , <https://pubmed.ncbi.nlm.nih.gov/25872713/>

<sup>219</sup> [https://30360media.com/wp-content/uploads/2020/12/Helmig\\_2020\\_medical-symposiums-slides.pdf](https://30360media.com/wp-content/uploads/2020/12/Helmig_2020_medical-symposiums-slides.pdf).

<sup>220</sup> U.S. ENVTL. PROT. AGENCY, Particle Pollution And Your Health Flyer (Sept. 2003).

<sup>221</sup> *Id.*; U.S. ENVTL. PROT. AGENCY, Health and Environmental Effects of Particulate Matter (PM), <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>.



pollution is responsible for more than 100,000 deaths each year from heart attacks, strokes, lung cancer and other diseases.”<sup>222</sup>

Short-term exposure over hours or a few days “can aggravate lung disease, cause asthma attacks and acute bronchitis, and may also increase susceptibility to respiratory infections.”<sup>223</sup> For example, “[f]or those with heart disease, short-term exposures have been linked to heart attacks and arrhythmias.”<sup>224</sup> Heart attacks and other “serious problems” linked to PM may come “with no warning signs.”<sup>225</sup> Even just a “short-term increase in . . . PM<sub>2.5</sub> concentration increases the risk for myocardial infarctions, strokes, and heart failure exacerbations.”<sup>226</sup>

Long-term exposure “has been associated with problems such as reduced lung function and the development of chronic bronchitis—and even premature death.”<sup>227</sup> PM “has been associated with excess deaths from, and increases in hospital admissions for, cardiovascular disease among older people”, perhaps due to hematological effects.<sup>228</sup>

Beyond asthma and other respiratory conditions, PM can also have serious negative consequences for those with pre-existing risks of heart attack, high blood pressure, and elevated cholesterol levels.<sup>229</sup> Exposure to ambient PM<sub>2.5</sub> “can increase [blood pressure] within a period of a few days while long-term exposure might also promote the development of chronic hypertension.”<sup>230</sup> Further, “[n]ew studies . . . suggest that exposure to high particle levels may also be associated with low-birth weight in infants, pre-term deliveries, and possibly fetal and infant deaths.”<sup>231</sup>

#### **4. Health Indicators and Outcomes Indicate West Port Arthur Faces Severe Health Challenges.**

West Port Arthur, the City of Port Arthur, and Jefferson County, Texas are associated with a number of particularly negative health indicators and outcomes. This section describes some of these health indicators. This section focuses on those indicators and outcomes which are known consequences of exposure to SO<sub>2</sub> and PM—the two main pollutants emitted from Oxbow’s facility and covered by this Complaint.

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<sup>222</sup> UW News Staff, *Black and Hispanic Americans bear a disproportionate burden from air pollution*, UW NEWS (Mar. 11, 2019), <https://www.washington.edu/news/2019/03/11/diproportionate-burden-from-air-pollution/>.

<sup>223</sup> U.S. ENVTL. PROT. AGENCY, Particle Pollution and Your Health Flyer (Sept. 2003).

<sup>224</sup> *Id.*

<sup>225</sup> *Id.*

<sup>226</sup> Robert D. Brook and Sanjay Rajagopalan, *Particulate matter, air pollution, and blood pressure*, JOURNAL OF THE AMERICAN SOCIETY OF HYPERTENSION (Vol. 3, Issue 5), 332-350 (Sept.-Oct. 2009).

<sup>227</sup> U.S. ENVTL. PROT. AGENCY, Particle Pollution and Your Health Flyer (Sept. 2003).

<sup>228</sup> Seaton, A, et. al., *Particulate matter and the blood*, THORAX (Vol. 3, Issue 5), 1027-1032 (Nov. 1999).

<sup>229</sup> U.S. ENVTL. PROT. AGENCY, Particle Pollution And Your Health Flyer (Sept. 2003).

<sup>230</sup> Robert D. Brook and Sanjay Rajagopalan, *Particulate matter, air pollution, and blood pressure*, JOURNAL OF THE AMERICAN SOCIETY OF HYPERTENSION (Vol. 3, Issue 5), 332-350 (Sept.-Oct. 2009).

<sup>231</sup> U.S. ENVTL. PROT. AGENCY, Particle Pollution And Your Health Flyer (Sept. 2003).

### a. The Overall Health Picture

Overall, Jefferson County, Texas has the 215<sup>th</sup> poorest overall health outcomes out of 244 ranked Texas counties.<sup>232</sup> In 2019, Jefferson County ranked 196<sup>th</sup> of all Texas counties and has consistently remained at the bottom tier of all Texas Counties for the past 10 years.<sup>233</sup> In regards to overall health factors, Jefferson County ranks 229<sup>th</sup> out of 244 counties in 2020 and was 230<sup>th</sup> in 2019.<sup>234</sup> In 2019, Jefferson County was 190<sup>th</sup> out 244 counties in premature death, as measured by years of potential life lost before age 75 per 100,000 population.<sup>235</sup> Premature deaths were particularly acute for Jefferson County's Black population. Jefferson County's rate was 9,500 years lost for the overall population but 13,300 in its Black population.<sup>236</sup> This rate of 13,300 years is double the statewide average of 6,700 years.<sup>237</sup> Overall health challenges in Jefferson County also manifest themselves in excess hospital stay data. In 2017, Texas, overall, had 5,011 hospital stays for ambulatory-care sensitive conditions per 100,000 Medicare enrollees.<sup>238</sup> Jefferson County, however, had 5,931 hospital stays.<sup>239</sup> More strikingly, Black residents in Jefferson County had 7,736.<sup>240</sup>

While this data is at the county level, given the concentration of Black residents near the Oxbow facility, it can be reasonably inferred that residents in West Port Arthur suffer significantly more premature deaths and have more hospital stays than other residents of Jefferson County and, by an extraordinary margin, the population of Texas as a whole. **Table 10** presents premature death and hospital stay data for Jefferson County, broken down by race.

**Table 10. Premature Deaths and Preventable Hospital Stays in Jefferson County, Texas<sup>241</sup>**

Race	Premature Death Rate	Preventable Hospital Stays
Asian	4,100	1,544
Black	<b>13,300</b>	<b>7,736</b>
Hispanic	4,400	4,350
White	9,400	5,346
All	9,500	5,931

<sup>232</sup> County Health Rankings, University of Wisconsin Population Health Institute, Texas 2011 Overview, <https://www.countyhealthrankings.org/app/texas/2011/overview>.

<sup>233</sup> *Id.*

<sup>234</sup> *Id.*

<sup>235</sup> County Health Rankings, University of Wisconsin Population Health Institute, Texas 2016-2018 Health Outcomes—Premature Death, <https://www.countyhealthrankings.org/app/texas/2020/measure/outcomes/1/map>.

<sup>236</sup> County Health Rankings, University of Wisconsin Population Health Institute, Texas—Jefferson County Overall, <https://www.countyhealthrankings.org/app/texas/2020/rankings/jefferson/county/outcomes/overall/snapshot>.

<sup>237</sup> *Id.*

<sup>238</sup> County Health Rankings, University of Wisconsin Population Health Institute, Texas 2016-2018 Health Factors—Preventable Hospital Stays, <https://www.countyhealthrankings.org/app/texas/2020/measure/factors/5/map>.

<sup>239</sup> *Id.*

<sup>240</sup> County Health Rankings, University of Wisconsin Population Health Institute, Texas—Jefferson County Overall, <https://www.countyhealthrankings.org/app/texas/2020/rankings/jefferson/county/outcomes/overall/snapshot>.

<sup>241</sup> County Health Rankings, University of Wisconsin Population Health Institute, Texas—Jefferson County Overall, <https://www.countyhealthrankings.org/app/texas/2020/rankings/jefferson/county/outcomes/overall/snapshot>.

Other community health data information from the United States Center for Disease Control's Community also shows residents on Jefferson County suffer negative overall health situations. According to the most recent BRFSS Prevalence & Trends Data,<sup>242</sup> residents of the Beaumont-Port Arthur area (roughly Jefferson County) reported the following:

- 25.8% reported their health status was fair to poor (25.6% adjusted for age); and
- 6.4% reported their overall health was poor (6.1% adjusted for age).

Of the 18 Texas metropolitan areas for which data is available, Beaumont-Port Arthur ranks 14<sup>th</sup> in fair to poor health status and 13<sup>th</sup> in poor overall health.

#### **b. Asthma**

SO<sub>2</sub> and PM<sub>2.5</sub> are associated with both causing asthma as well as aggravating asthma. Data from the Center for Disease Control ("CDC") estimates 9.2% of Beaumont-Port Arthur residents currently have asthma (as of 2019) and at least 16.8% who have had asthma.<sup>243</sup> Adjusted for age, the estimates sit at 9.3% and 17.1%, respectively.<sup>244</sup> Of the 16 Texas metropolitan areas with non-age adjusted "currently have asthma" data available, Beaumont-Port Arthur ranks fourteenth.<sup>245</sup> Of the 18 metropolitan areas with non-age adjusted "ever had asthma" data available, Beaumont-Port Arthur is listed as seventeen.<sup>246</sup>

#### **c. General Cardiovascular and Heart Disease**

CDC data estimates the following:

- 4% of Beaumont-Port Arthur residents have been told they have cardiovascular disease (3.5%, adjusted for age);
- 4.2% have been told they had a heart attack at some point (3.7%, adjusted for age.); and
- 6.3% have been told they have a cardiovascular disease or have had a heart attack at some point (5.6%, adjusted for age).<sup>247</sup>

Beaumont-Port Arthur ranks among Texas metropolitan areas as follows:

- Tied for 9<sup>th</sup> out of 17 in most told they had cardiovascular disease (non-age adjusted);
- 10<sup>th</sup> out 16 in most told they have had a heart attack at some point (non-age adjusted); and
- 8<sup>th</sup> out 10 in most told they have cardiovascular disease or had had a heart attack at some point (non-age adjusted).

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<sup>242</sup> U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION, PBRFSS Prevalence & Trends Data, <https://www.cdc.gov/brfss/brfssprevalence/>.

<sup>243</sup> *Id.*

<sup>244</sup> *Id.*

<sup>245</sup> *Id.* Crude prevalence. Many areas do not have age-adjusted estimates available.

<sup>246</sup> *Id.* Crude prevalence. Many areas do not have age-adjusted estimates available.

<sup>247</sup> *Id.*

#### **d. Cardiovascular Disease—Strokes**

CDC data also estimates that 4.6% of Beaumont-Port Arthur residents have been told they have suffered a stroke.<sup>248</sup> Adjusted for age, the CDC estimates 4.3% have been told they have suffered a stroke. Beaumont-Port Arthur ranks 15<sup>th</sup> out of 18 studied Texas metropolitan areas.<sup>249</sup>

#### **e. Hypertension**

CDC data estimates 41.9% of Beaumont-Port Arthur residents have been told they have hypertension.<sup>250</sup> Adjusted for age, it is estimated 38.8% have been told they have hypertension. Amongst the 16th metropolitan areas in Texas with data, Beaumont-Port Arthur ranks last.<sup>251</sup>

### **5. Wind Dispersion Patterns in the Area Put West Port Arthur at Increased Risk.**

TCEQ has recognized that wind direction greatly impacts SO<sub>2</sub> readings at the CAMS 1071 monitor. According to TCEQ, “[u]p to half the 2017 measurements, when wind is from the south (passing by/through Oxbow), had concentrations at 90th or greater percentile.”<sup>252</sup> Further, TCEQ noted “that all measurements greater than 75 ppb have been when winds were blowing from the south – the direction of Oxbow.”<sup>253</sup>

Wind direction, in addition to nominal amounts of pollutants a facility emits, can put some areas at higher risk of adverse impacts from those emissions. In the NEPA context, for example, EPA guidance states that, when considering when an action may violate Executive Order 12898:

Certain communities may be at high risk from environmental hazards or exposed to substantial environmental hazards due to geographic factors that isolate them from other surrounding communities or that tend to allow pollutants to accumulate in the environment surrounding the community. Such factors include, but are not limited to: Climate Weather patterns (e.g., prevailing winds) that may concentrate pollutants in a certain area, allow pollutants to migrate, increase certain exposure pathways (such as respiration), or cause pollutants to behave in a manner that differs from that expected under normal weather conditions.<sup>254</sup>

**Figure 11**, below, shows prevailing winds in the Port Arthur area. Prevailing winds in the Port Arthur area typically come from the south throughout most of the year. West Port Arthur sits directly north—and directly downwind—from Oxbow and is thus at a particular “high[er] risk” of suffering adverse effects from Oxbow’s emissions.

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<sup>248</sup> *Id.*

<sup>249</sup> *Id.* Crude prevalence. Many areas do not have age-adjusted estimates available.

<sup>250</sup> *Id.*

<sup>251</sup> *Id.* Crude prevalence.

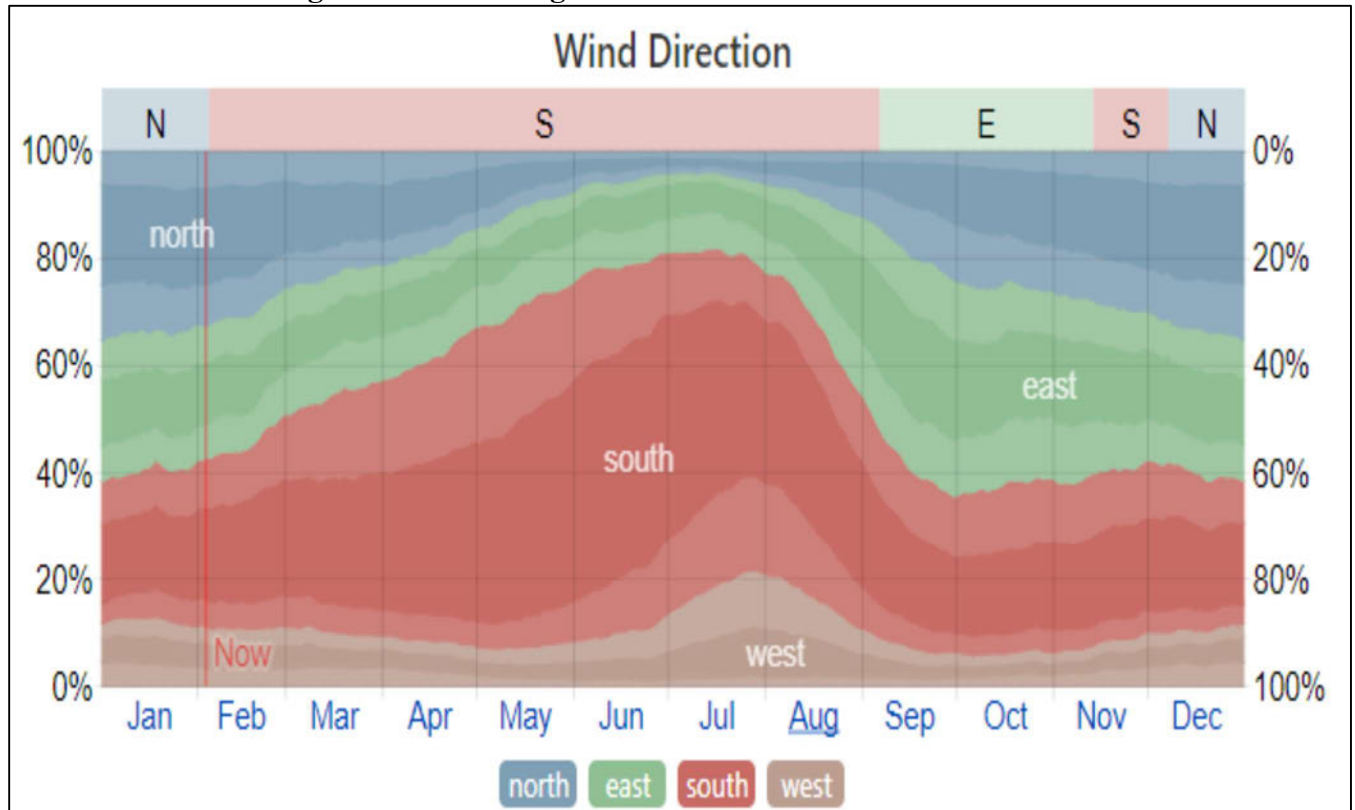
<sup>252</sup> PASE Litigation, Exhibit 100, at 29)(Attachment J-12)(TCEQ graphic showing the location of CAMS 1071 and wind direction).

<sup>253</sup> *Id.*

<sup>254</sup> U.S. ENVTL. PROT. AGENCY, Final Guidance for Incorporating Environmental Justice Concerns in EPA’s NEPA Compliance Analyses (April 1998), [https://www.epa.gov/sites/production/files/2015-02/documents/ej\\_guidance\\_nepa\\_epa0498.pdf](https://www.epa.gov/sites/production/files/2015-02/documents/ej_guidance_nepa_epa0498.pdf), at 26.



**Figure 11. Prevailing Winds in Port Arthur Area<sup>255</sup>**



In the 2021 AMNP, TCEQ admits that its own modeling indicates that areas south of Oxbow's facility are likely to experience both high normalized design value and high frequencies of one-hour daily maximum concentrations of SO<sub>2</sub> during favorable wind conditions.<sup>256</sup> The only reason TCEQ could offer as to why this area was not being monitored was because of property access restrictions or lack of available power. It seems that the agency could overcome these obstacles in this area if there was a will to do so. The fact that TCEQ knows that there are higher levels of SO<sub>2</sub> in this area yet refuses to recognize the impact on the residents that live there, either by requiring monitoring in this area or addressing the facility's noncompliance with the FCAA as shown by its own modeling of the facility is particularly egregious. The logical conclusion remains that the agency is hesitant to address the problem despite repeated public comments and concerns and in addition to TCEQ's own modeling.

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If TCEQ had affirmatively conducted a disparate impact analysis, then TCEQ could not have avoided the clear conclusion that Oxbow's renewal application for Permit No. O1493 would adversely and disparately impact Port Arthur's Black residents. Because TCEQ explicitly did not consider race, however, TCEQ's approval of Permit No. O1493 was racially discriminatory.

<sup>255</sup> Weather Spark, Average Weather In Port Arthur, Texas, United States, <https://weatherspark.com/y/10137/Average-Weather-in-Port-Arthur-Texas-United-States-Year-Round#:~:text=The%20predominant%20average%20hourly%20wind,of%2069%25%20on%20June%209.>

<sup>256</sup> TCEQ, 2021 Annual Monitoring Network Plan, N-25 to N-26 (Attachment L).

## **C. TCEQ HAD LESS DISCRIMINATORY ALTERNATIVES AVAILABLE.**

Though TCEQ had available to it less discriminatory alternatives to approving Oxbow's Permit No. O1493 as is, TCEQ not only failed to consider them but also expressly chose not to employ the less discriminatory alternatives.

### **1. TCEQ Should Have Affirmatively Conducted a Disparate Impact Analysis.**

First, TCEQ could have easily conducted a disparate impact analysis of Permit No. O1493 during the permit review stage. As previously detailed in this Complaint, Oxbow's historical and current operations, as continually approved by Permit No. O1493, have clear, racially disparate impacts on Port Arthur residents of color, particularly West Port Arthur's Black residents. These impacts are severe and cause adverse health consequences. A straightforward review of Permit No. O1493 that explicitly considered the race of residents living in Oxbow's vicinity and who are most harmed by Oxbow's operations would have revealed these disparate impacts.

Yet, despite being placed on notice of these racially disparate impacts, through various comments, including comments on the Draft Permit, TCEQ refused to affirmatively conduct a disparate impact analysis, merely repeating its policy that that "[a]ir permits evaluated by the agency are reviewed without reference to the socioeconomic or racial status of the surrounding community."<sup>257</sup> Thus, even when TCEQ had the opportunity to employ a less discriminatory alternative to approving Permit No. O1493 as it did, the agency simply chose not to.

### **2. TCEQ Should Have Reviewed Oxbow's Modeling Related to the Hot Stacks.**

Second, as soon as TCEQ became aware of Oxbow's modeling that purportedly supported Oxbow's conclusion to operate only out of hot stacks to avoid SO<sub>2</sub> exceedances, TCEQ should have required Oxbow to provide the modeling data during the permit review process. By reviewing the modeling, TCEQ could have independently evaluated Oxbow's conclusion—rather than accepting the company's word—and could have ensured that Permit No. O1493 included provisions that assured compliance with the SO<sub>2</sub> NAAQS, as well as Title VI. Such a review is especially critical given that Oxbow's admission that the entirety of its current ability to comply with the SO<sub>2</sub> NAAQS depends on the hot stacks. According to Oxbow briefs from its litigation against PASE, Oxbow has stated that "*if Oxbow were unable to comply in only hot stacks at Port Arthur in the future, it is undisputed Oxbow would shut Port Arthur down and move production to Oxbow's other plants.*"<sup>258</sup>

Reviewing Oxbow's modeling for the hot stacks would also have better assured the public that TCEQ was thoroughly reviewing Permit No. O1493, rather than cursorily, and had a less discriminatory result. TCEQ's Air Enforcement Section Manager Michael De La Cruz himself had given testimony that if Oxbow had data "demonstrat[ing] there was an exceedance out of the hot

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<sup>257</sup> TCEQ Response to Comments, at 17 (Attachment D).

<sup>258</sup> PASE Litigation, Exhibit 40, at 12 (Attachment J-25)(emphasis added).

stacks to contribute the exceedances, then [TCEQ] would expect it.”<sup>259</sup> Still, TCEQ never requested such data from Oxbow nor sought to check Oxbow’s conclusions.

### **3. TCEQ Must Require Oxbow to Install Modern SO<sub>2</sub> Control Technology.**

Finally, TCEQ could have required Oxbow to install SO<sub>2</sub> control technology, such as scrubbers. Scrubbers reference flue gas desulfurization technology, which is capable of removing 90 to 95 percent of SO<sub>2</sub> emissions from a facility and have existed for at least the past twenty years.<sup>260</sup> For Oxbow, this capability means removing up to *nearly 21.8 million pounds* of SO<sub>2</sub>. This reduction would significantly improve the SO<sub>2</sub>-related health impacts Port Arthur’s residents of colors endure because of Oxbow’s operations.

Oxbow remains one of the last facilities of its kind—one that emits extraordinary amounts of SO<sub>2</sub> emissions yet has no sulfur emissions-control equipment at all. All of Texas’s other largest emitters of SO<sub>2</sub> have installed sulfur emissions-control equipment, including SO<sub>2</sub> scrubbers, as have other high SO<sub>2</sub> emitters in Port Arthur, such as Motiva and Valero.<sup>261</sup> In fact, former TCEQ Executive Director Jeff Saitas testified that he had “worked with many companies that have spent that money to put scrubbers on over the years.”<sup>262</sup> Similarly, an expert for Oxbow testified that Oxbow “could have gone to TCEQ and proposed a solution that included scrubbers” in response to its NAAQS exceedances.<sup>263</sup> However, neither TCEQ nor Oxbow seems to have broached the subject of scrubbers leading up to or as part of the application and review process for Permit No. O1493.

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<sup>259</sup> PASE Litigation, Exhibit 6, at 1546 (Attachment J-3).

<sup>260</sup> Srivastava, R K., et al., *SO<sub>2</sub> Scrubbing Technologies: A Review*, 20 ENVTL. PROGRESS & SUSTAINABLE ENERGY 219, 219-27 (2001), available at [https://cfpub.epa.gov/si/si\\_public\\_record\\_Report.cfm?Lab=NRMRL&dirEntryId=65468](https://cfpub.epa.gov/si/si_public_record_Report.cfm?Lab=NRMRL&dirEntryId=65468).

<sup>261</sup> Kaitlin Bain, *SETX residents implore plant to stop polluting neighborhoods*, BEAUMONT ENTERPRISE, Nov. 17, 2019, <https://www.beaumontenterprise.com/news/article/SETX-residents-implore-plant-to-stop-polluting-14840143.php>.

<sup>262</sup> PASE Litigation, Exhibit 6, at 549 (Attachment J-3).

<sup>263</sup> PASE Litigation, Exhibit 15, at 26 (Attachment J-26).

**Table 11. Comparing SO<sub>2</sub> Controls at Some SO<sub>2</sub> Emitting Facilities in Texas<sup>264</sup>**

TCEQ 2017 EMISSIONS INVENTORY DATA				State Wide SO <sub>2</sub> Rank Industrials Only	SO <sub>2</sub> Controls ?
COMPANY	SITE	COUNTY	SO <sub>2</sub> TPY		
OXBOW CALCINING LLC	OXBOW CALCINING	JEFFERSON	11,495	1	no SO <sub>2</sub> scrubbers
SID RICHARDSON CARBON LTD	BORGER CARBON BLACK PLT	HUTCHINSON	6,950	2	Wet gas SO <sub>2</sub> Scrubbers now required per 12/22/17 EPA news release
SID RICHARDSON CARBON LTD	BIG SPRING CARBON BLACK PLANT	HOWARD	5,328	3	Must meet new sulfur limits on feed stock per 12/22/17 EPA news release
ORION ENGINEERED CARBONS LLC	ORANGE CARBON BLACK PLANT	ORANGE	4,078	4	Must repair/replace combustion technology per 12/22/17 EPA news release
ORION ENGINEERED CARBONS LLC	BORGER CARBON BLACK PLANT	HUTCHINSON	3,706	5	SO <sub>2</sub> scrubbers potentially required, Orion choice between Borger and Belpre OH If no scrubbers at Borger then SO <sub>2</sub> cap of 4,714 tons per year by December 31, 2023 per 12/22/2017 EPA news release and EPC consent decree
TRNLWS LLC	STREETMAN PLANT	NAVARRO	3,493	6	
INTERNATIONAL PAPER COMPANY	ORANGE MILL	ORANGE	2,042	7	
CABOT CORPORATION	PAMPA PLANT	GRAY	1,983	8	Sulfur content in feedstock limited to 1.75% annual per 11/19/13 EPA news release
Ref: <a href="https://www.tceq.texas.gov/airquality/poimt-source-el/pseil.html">https://www.tceq.texas.gov/airquality/poimt-source-el/pseil.html</a> 2013-2017statesum.xlsx				<a href="https://www.epa.gov/newsreleases">https://www.epa.gov/newsreleases</a>	

As early as 2015, prior to TCEQ installing CAMS 1071 and recording SO<sub>2</sub> exceedances at Oxbow, records show that Oxbow had considered SO<sub>2</sub> scrubbers for its Port Arthur calcining facility.<sup>265</sup> In one email discussing the installation of scrubbers, Oxbow's Executive Vice President Roy Schorsch noted that, by January 2020, the "[c]lock starts ticking on reductions."<sup>266</sup> In other internal Oxbow communications, Schorsch even "acknowledged that, '[a]t some point, *all Calciners [sic] will have to install SO<sub>2</sub> controls to meet the new [SO<sub>2</sub> NAAQS] standards.*'"<sup>267</sup> In 2016, Oxbow also began to accept bids for proposed scrubber systems, including those that could remove up to 95 percent of the facility's SO<sub>2</sub>.<sup>268</sup> Despite recognizing that Oxbow could not operate without exceeding the SO<sub>2</sub> NAAQS unless it installed SO<sub>2</sub> scrubbers; however, Oxbow subsequently determined that scrubbers were cost-prohibitive and abandoned them.<sup>269</sup>

This evidence demonstrates that Oxbow had previously prioritized the reduction of SO<sub>2</sub> emissions and installation of control technology; none of the earlier emails discuss dispersion or employing other methods to achieve compliance with the SO<sub>2</sub> NAAQS. In other words, Oxbow

<sup>264</sup> This table was part of Oxbow's own evidence provided to the court in its litigation against PASE. See Exhibit 14, at 6 (Attachment J-27).

<sup>265</sup> PASE Litigation, Exhibit 20, at 9 (Attachment J-28).

<sup>266</sup> PASE Litigation, Exhibit A-2 (Attachment J-29)(Email from Daniel Rosendale, Oxbow, to Sri Vedala, Oxbow, Re: SO<sub>2</sub> Compliance, Sept. 4, 2015).

<sup>267</sup> PASE Litigation, Exhibit 20 at 9 (Attachment J-28)(emphasis added).

<sup>268</sup> PASE Litigation, Exhibit H of Exhibit 49, at Oxbow-0022295 (Attachment J-30)(Five Solios Corp. Proposal: Oxbow SO<sub>2</sub> Scrubbing Project, Port Arthur, TX).

<sup>269</sup> Kaitlin Bain, *SETX residents implore plant to stop polluting neighborhoods*, BEAUMONT ENTERPRISE, Nov. 17, 2019, <https://www.beaumontenterprise.com/news/article/SETX-residents-implore-plant-to-stop-polluting-14840143.php> (quoting Oxbow's plant manager Mike Holtham, who "said Oxbow previously looked into the cost of installing pollution control measures and 'you have to make decisions for whether you can do that or not'"). See also PASE Litigation, Exhibit 40, at 12-13 (Attachment J-25)(quoting Oxbow's Executive VP Roy Schorsch, who had testified that "[s]crubbers 'just will not economically pencil out'").



already understood that installing SO<sub>2</sub> control equipment, like scrubbers, was the *only* way to ensure true compliance with the SO<sub>2</sub> NAAQS while remaining fully operational—but pivoted to interfering with various processes at the facility instead to avoid the cost of installation. By approving Permit No. O1493, TCEQ has allowed Oxbow to continue operating in a manner that is known to still exceed the SO<sub>2</sub> NAAQS and that is more racially discriminatory.

Moreover, TCEQ’s approval meant the company could only further delay adoption of BACT that the rest of the industry is using. TCEQ must be consistent in its regulatory practices and should not allow one entity to operate without emission controls that the law and TCEQ requires of other facilities. This conduct constitutes an abdication of the agency’s duties under the FCAA and TCAA. The EPA should use its authority to compel TCEQ to treat Port Arthur’s Facility consistently, not only for the benefit of (b) (6), (b) (7)(C) members and residents directly impacted by the unauthorized emissions but also to ensure consistency in regulation of the Jefferson County air shed. And if the county is not in attainment, then the agency must force TCEQ to take action to remedy that situation for benefit of all.

TCEQ has the regulatory authority to require Oxbow to install SO<sub>2</sub> control technology, like scrubbers, to ensure compliance with the SO<sub>2</sub> NAAQS. Moreover, TCEQ has the authority to require scrubbers to reduce the racially discriminatory harms Oxbow’s operations, as authorized by Permit No. O1493, inflict on Port Arthur’s residents of color. It is not TCEQ’s duty, under FCAA or the Civil Rights Act, to protect Oxbow’s bottom line.<sup>270</sup>

## VIII. RELIEF REQUESTED

Complainant (b) (6), (b) (7)(C) requests the following relief from the EPA to address TCEQ’s issuance of the racially discriminatory Permit No. O1493 to Oxbow:

1. Require TCEQ to affirmatively conduct a disparate impacts analysis of Permit No. O1493, which explicitly considers the race and socioeconomic status of Oxbow’s surrounding community;
2. Conduct an audit of TCEQ’s review and approval of Permit No. 1493, and, if deficient, assess penalties directly against Oxbow;
3. Exercise EPA’s authority under Section 114(a) of the FCAA, 42 U.S.C. § 7414(a) to request documents from Oxbow relating to Oxbow’s dispersion techniques, including:
  - a. The unredacted versions of Oxbow’s five-minute modeling data for the hot stacks and cold stacks, which also include feed rate information;
  - b. Documents discussing Oxbow’s SO<sub>2</sub> alert system;

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<sup>270</sup> See, e.g., PASE Litigation, Exhibit 22, at 9 (Attachment J-31)(Rebuttal Expert Report of Dr. Michael Sadler noting that, “[o]rdinarily, installing pollution control is done to meet contractual or regulatory requirements” and “are not typically decided upon on the basis of whether such purchases will increase the bottom line of the company”).

- c. Documents relating to changes, alterations, modifications, repairs, and improvements in operations and equipment (that may have triggered NSR regulations, installation of BACT, and/or required a permit amendment);
  - d. Meteorological data that the facility is gathering (and apparently using to decide when it can increase emissions with less risk of exceeding NAAQS for SO<sub>2</sub>); and
  - e. Any updates at the facility that would reflect that the facility is adhering to BACT regulations under the FCAA and the information regarding the installation of such technologies; and
  - f. Any updates at the facility that would reflect that the facility is adhering to BACT regulations under the FCAA and the information regarding the installation of such technologies.
4. Issue an amended Permit No. O1493 with monitoring, recordkeeping, and compliance terms sufficient to ensure compliance with Oxbow's permit limits and representations and health-based air quality standards for SO<sub>2</sub>, including:
    - a. Annual testing of each individual kiln stack to ensure compliance with emission limits for SO<sub>2</sub> and other pollutants;
    - b. Continuous monitoring of all kiln stacks for SO<sub>2</sub>;
    - c. Fence-line monitoring to ensure compliance with the SO<sub>2</sub> NAAQS;
    - d. Continuous opacity monitoring of all kiln stacks to ensure compliance with opacity limits; and
    - e. Continuous PM monitoring of all kiln stacks to ensure ongoing compliance with numeric PM limits.
  5. Require Oxbow's Title V compliance plan contain a requirement, or otherwise require, that Oxbow apply for a permit amendment and conduct a public participation process for changes to Kiln Stack 4.
  6. Conduct an audit of Oxbow's Port Arthur facility to: (1) chronicle any upgrades or modifications to the facility; (2) assess compliance with BACT, and (3) determine whether: (a) Oxbow must install SO<sub>2</sub> control technology to ensure compliance with Oxbow's emissions limits and the SO<sub>2</sub> NAAQS, including but not limited to scrubbers, and (b) TCEQ must require Oxbow to apply for a permit amendment to come into compliance with BACT, thus ensuring that the public has the opportunity to comment.
  7. Conduct an audit of TCEQ's issuance of the Agreed Order in August 2019 to Oxbow for the SO<sub>2</sub> NAAQS exceedances, particularly TCEQ's review of Oxbow's compliance history and penalty assessment

8. Require the location of an additional monitor(s) in compliance with the 2015 DRR, in the area where emissions are the most likely to be highest according to (b) (6), (b) (7)(C) and TCEQ's modeling, to ensure compliance with the SO<sub>2</sub> NAAQS.
9. Require Oxbow to hold an outreach event with the West Port Arthur community, explaining what the facility does, how the facility's operations impact residents' health, any steps the facility is taking to mitigate harm to the Port Arthur community, and any upcoming public comment or public meeting opportunities.
10. Re-examine the attainment status of Jefferson County to assess whether the previous statistical reviews of ambient quality data for SO<sub>2</sub> are consistent with actual air quality as reflected in the 2017-2020 ambient air quality data. Investigative actions could include further air dispersion modeling to assess the impact on Port Arthur residents based on 2019 and 2020 data.

## **IX. CONCLUSION**

In conclusion, Complainant (b) (6), (b) (7)(C) respectfully requests that the EPA:

- (a) accept this civil rights complaint under Title VI of the Civil Rights Act of 1964;
- (b) investigate the disparate impacts that TCEQ's continued grant of a federal operating permit to Oxbow Calcining, LLC without requiring the facility to implement best available control technology and effective compliance mechanisms is having on the largely Black community in West Port Arthur, Texas; and
- (c) implement all requests for relief stated in Section VIII this Complaint.

Respectfully submitted,

(b)(6)

Attachments to Complaint:

No.	Description	Date
A	FOP Oxbow Calcining LLC, Port Arthur Plant – O1493	09/01/2020
B	Statement of Basis of the FOP O1493	05/30/2019
C	(b) (6), (b) (7)(C) Public Comments and Request for Notice and Comment Hearing on Draft FOP O1493: Oxbow Calcining LLC	07/18/2019
D	TCEQ, Notice of Proposed Permit and Executive Director's Response to Public Comment	07/10/2020
E	(b) (6), (b) (7)(C) Petition to Object to Title V Permit No. O1493 Issued by TCEQ	10/28/2020
F	TCEQ, PIR45702 AirEI Oxbow SO <sub>2</sub> Correspondence Summaries	2014-2017
G	TCEQ, NSR Permit 45622 File for New Source Review Permit on Oxbow Calcining LLC	09/20/2018
H	TCEQ, File on Great Lakes Carbon Corporation Air Permits	06/28/2002-06/23/2003



No.	Description	Date
I	TCEQ Agreed Order - 2018-1687-AIR-E	08/14/2019
<b><i>J Attachments : Exhibits Filed in Cause No. 2020-18313, Oxbow Calcining, LLC v. Port Arthur Steam Energy (PASE) in the 270<sup>th</sup> Judicial District Court of Harris County, Texas</i></b>		
J-1	Exhibit 10-1 to Oxbow Calcining LLC's Amended Answering Statement and Counterclaims in <i>PASE v. Oxbow Calcining LLC</i> , No. 01-19-0000-5680, Am. Arb. Ass'n	07/10/2019
J-2	Exhibit R-6 to Plaintiff's Petition & Application for Post-Judgment Enforcement Orders in <i>PASE v. Oxbow Calcining LLC</i> , No. E-201894, District Court of Jefferson County, Texas	06/08/2018
J-3	Exhibit 6, Testimony of Jeff Saitas in Arbitration Proceedings in <i>PASE v. Oxbow Calcining LLC</i> , AAA No. 01-19-0000-5680, Am. Arb. Ass'n	11/04/2019
J-4	Exhibit 4, Award in <i>Oxbow Calcining LLC v. PASE</i> , AAA No. 70-421-YI-00575-10, Am. Arb. Ass'n	12/09/2011
J-5	Exhibit 12, Final Award in <i>PASE v. Oxbow Calcining LLC</i> , AAA No. 01-19-0000-5680, Am. Arb. Ass'n	03/17/2020
J-6	Exhibit 7, Letter from Daniel A. Rosendale, Oxbow Vice President of Operations, to PASE	06/22/2018
J-7	Exhibit 33, TCEQ Enforcement Action Referral, Inv. # 1524751, CN602552424 – Oxbow Calcining LLC	10/30/2018
J-8	Exhibit 19, PASE Pre-Hearing Brief in <i>PASE v. Oxbow Calcining LLC</i> , AAA No. 01-19-0000-5680, Am. Arb. Ass'n	10/25/2019
J-9	Exhibit 62, Email from Daniel Rosendale, Oxbow, to Ted Boriack and Ray Deyoe of PASE, Re: Kiln ¾ Operational Update	03/16/2017
J-10	Exhibit 105, Email from Pam Giblin, Baker Botts, to David Brymer, TCEQ, Re: Port Arthur Data	11/17/2017
J-11	Exhibit 106, Title V Semi-Annual Deviation Report, FOP O1493	09/20/2018
J-12	Exhibit 100, Documents Responsive to Open Records Request by PASE to Jefferson County, including Oxbow Calcining Port Arthur Presentation	11/19/2018
J-13	Exhibit 16, Spreadsheet by Oxbow Tracking 5-Minute Data on SO <sub>2</sub> Emissions	1/1/2017-7/8/2019
J-14	Exhibit 103, Oxbow Calcining LLC Kiln Feed Rates (Redacted)	N/A
J-15	Exhibit 85, Email from Sri Vedala to Kris Kissel-Weir, Oxbow, Re: SO <sub>2</sub> exceeds 25 at Port Arthur	01/11/2017
J-16	Exhibit 86, Email from Daniel Rosendale, Oxbow, to Roy Schorsch, Oxbow, Re: SO <sub>2</sub> Emissions Reporting Status Update	02/13/2017
J-17	Exhibit 87, Email from Ryan Glander to Kris Kissel-Weir, Oxbow, Re: SO <sub>2</sub> Exceeds 25 at Port Arthur	02/01/2017
J-18	Exhibit 88, Email from Michael Holtham, Oxbow, to Kris Kissel-Weir, Oxbow, Re: SO <sub>2</sub> readings at Port Arthur	04/29/2017

No.	Description	Date
J-19	Exhibit 8, Order Granting Post-Judgment Turnover Relief, <i>PASE v. Oxbow Calcining, LLC</i> , No. E-201894, District Court of Jefferson County, Texas, 172 <sup>nd</sup> Judicial District, <i>vacated on different grounds</i>	09/12/2018
J-20	Exhibit 41, Report of (b)(6) Privacy, (b)(7)(C) Ent. Privac	10/11/2019
J-21	Exhibit 55, TCEQ Letter to Tony Botello, Plant Contact, Oxbow Calcining, LLC, Re: Follow-up from November Meeting	12/20/2017
J-22	Exhibit 107, Expert Report of David Keen, QEP	09/12/2019
J-23	Exhibit 53, TCEQ Letter to Scott E. Stewart, Vice President of Environmental Health & Safety, Oxbow Carbon Group, Re: Preliminary Air Quality Monitoring nearby Oxbow Calcining Plant; RN100209287	04/20/2017
J-24	Exhibit 54, TCEQ Letter to Tony Botello, Plant Contact, Oxbow Calcining, LLC, Re: Preliminary Air Quality Monitoring; RN100209287	06/13/2017
J-25	Exhibit 40, Oxbow Calcining LLC's Post-Hearing Brief in <i>PASE v. Oxbow Calcining LLC</i> , Case No. 01-19-0000-5680, Am. Arb. Ass'n	12/ 13/2019
J-26	Exhibit 15, PASE's Post-Hearing Brief in <i>PASE v. Oxbow Calcining LLC</i> , Case No. 01-19-0000-5680, Am. Arb. Ass'n	12/18/2019
J-27	Exhibit 14, Table presented by Oxbow on TCEQ 2017 Emissions Inventory Data	2017
J-28	Exhibit 20, Revised Expert Report of Dr. Michael Sadlier in <i>PASE v. Oxbow Calcining LLC</i> , AAA No. 01-19-0000-5680, Am. Arb. Ass'n	10/09/2019
J-29	Exhibit A-2, Email from Daniel Rosendale, Oxbow, to Sri Vedala, Oxbow, Re: SO <sub>2</sub> Compliance	09/04/2015
J-30	Exhibit 49, Five Solios Corp. Proposal: Oxbow SO <sub>2</sub> Scrubbing Project, Port Arthur, TX (Exh H)	08/07/2019
J-31	Exhibit 22, Rebuttal Expert Report of Dr. Michael Sadler in <i>PASE v. Oxbow Calcining, LLC</i> , AAA No. 01-19-0000-5680, Am. Arb. Ass'n	10/27/2019
K	EPA, Response to TCEQ 2016 Air Monitoring Network Plan	10/27/2016
L	TCEQ, 2021 Air Monitoring Network Plan	07/01/2021
M	TCEQ, PA Report, Air Modeling for 2019 Air Monitoring Network Plan	06/21/2019