Ellie Guerra

From: PUBCOMMENT-OCC
Sent: Friday, November 18, 2022 3:09 PM
To: PUBCOMMENT-OCC2; PUBCOMMENT-OPIC; PUBCOMMENT-ELD; PUBCOMMENT-APD
Subject: FW: Public comment on Permit Number 140763
Attachments: Formosa Point Comfort Hearing Request 11.18 FINAL.pdf

PM
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From: colincox@environmentalintegrity.org <colincox@environmentalintegrity.org>
Sent: Friday, November 18, 2022 3:05 PM
To: PUBCOMMENT-OCC <PUBCOMMENT-OCC@tceq.texas.gov>
Subject: Public comment on Permit Number 140763

REGULATED ENTY NAME FORMOSA POINT COMFORT PLANT

RN NUMBER: RN100218973

PERMIT NUMBER: 140763

DOCKET NUMBER:

COUNTY: CALHOUN

PRINCIPAL NAME: FORMOSA PLASTICS CORPORATION TEXAS

CN NUMBER: CN600130017

FROM

NAME: Colin Cox

EMAIL: colincox@environmentalintegrity.org

COMPANY:

ADDRESS: 1206 SAN ANTONIO ST
AUSTIN TX 78701-1834

PHONE: 8323160580

FAX:

COMMENTS: Please see the attached public meeting request and contested case hearing request from San Antonio Bay Estuarine Waterkeeper.

ENVIRONMENTAL INTEGRITY PROJECT

1206 San Antonio St.
Austin, Texas 78701
www.environmentalintegrity.org

November 18, 2022

Ms. Laurie Gharis
Chief Clerk, MC-105
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Via Electronic Filing

Re: Public Meeting and Contested Case Hearing Request on the Application to Amend Air Quality Permit Nos. 140763, PSDTX1500M1, GHGPSDTX46M1, 19871, PSDTX1236M1, GHGPSDTX22, 91780, PSDTX1240M1, GHGPSDTX223, 19200, PSDTX1237M1, GHGPSDTX218, 19168, PSDTX1226M1, GHGPSDTX224, 107518, PSDTX1383M2, GHGPSDTX48M1, 20203, PSDTX1224M1, GHGPSDTX222, 40157, PSDTX1222M1, GHGPSDTX225, 19201, PSDTX1232M1, and GHGPSDTX219 to Increase Emissions at Formosa Plastics Corporation's Point Comfort Plant

Dear Ms. Gharis,

Formosa Plastics Corporation ("Formosa") has applied to the Texas Commission on Environmental Quality ("TCEQ") for an amendment to Air Quality Permit Nos. 140763, PSDTX1500M1, GHGPSDTX46M1, 19871, PSDTX1236M1, GHGPSDTX22, 91780, PSDTX1240M1, GHGPSDTX223, 19200, PSDTX1237M1, GHGPSDTX218, 19168, PSDTX1226M1, GHGPSDTX224, 107518, PSDTX1383M2, GHGPSDTX48M1, 20203, PSDTX1224M1, GHGPSDTX222, 40157, PSDTX1222M1, GHGPSDTX225, 19201, PSDTX1232M1, and GHGPSDTX219 ("Amendments") to authorize additional emissions of carbon monoxide, nitrogen oxides, volatile organic compounds, sulfur dioxide, and greenhouse gases from its Formosa Point Comfort Plant (the "Plant") in Calhoun County, Texas. Collectively, these Amendments will authorize 2,262 tons per year of criteria air pollutants and 323,028 tons per year of greenhouse gases.

San Antonio Bay Estuarine Waterkeeper appreciates this opportunity to request a public meeting and a contested case hearing on Formosa's Amendments.

I. Contested Case Hearing Request

San Antonio Bay Estuarine Waterkeeper requests a contested case hearing on Formosa's Amendments.

San Antonio Bay Estuarine Waterkeeper ("Waterkeeper") is a volunteer-run, local affiliate of the national Waterkeeper Alliance and is an unincorporated association organized under the laws of Texas. Waterkeeper was started in 2012 as a project of Calhoun County Research Watch, a 501(c)(3) non-profit organization. Waterkeeper's mission is to protect Lavaca Bay, Matagorda Bay, and San Antonio Bay and to educate the public about these ecologically important estuarine systems. Waterkeeper promotes the preservation of local wetlands and waterways for fishing and other recreational uses, such as swimming, boating, and other watersports, to further the appreciation of these beautiful natural resources.

Diane Wilson is a fourth-generation fisherwoman from Seadrift, Texas and the co-founder and Executive Director of San Antonio Bay Estuarine Waterkeeper. She resides at 600 Ramona Road, Seadrift, Texas 77983. Ms. Wilson has spent 30 years fighting to protect Matagorda and Lavaca Bays from industrial pollution and habitat degradation. Following in the footsteps of her parents and her grandparents, Ms. Wilson worked in Lavaca Bay, Matagorda Bay, and San Antonio Bay for forty years as a commercial fisherwoman, shrimper, oysterman, fin fisher, and as a manager at a fish house. In addition to supporting her economically, the Bays are also precious to her. Ms. Wilson cares deeply about the aesthetic beauty and the environmental health of these Bays, wetlands, and shores, and the wildlife dependent on those resources. Ms. Wilson frequently recreates in and around Lavaca, Matagorda, and San Antonio Bays including walking on the beaches, kayaking, and swimming with her family. She swims with her children and grandchildren in Lavaca and Matagorda Bay and at Magnolia Beach.

As part of her work with Waterkeeper, Ms. Wilson routinely visits Lavaca Bay and Cox Bay to observe whether plastics have been discharged from Formosa's Point Comfort Plant. Ms. Wilson visits areas near Formosa's stormwater and wastewater outfalls for several hours by kayak, motorboat, or on foot at least once a week and as frequently as three times a week. Ms. Wilson began visiting many of these sites as early as 2016 and will continue to visit them to monitor Formosa's compliance with the Consent Decree entered in *San Antonio Bay Estuarine Waterkeeper, et. al., v. Formosa Plastics, Texas et. al.*, No. 6:17-cv-00047 (S. D. Texas, Dec. 9, 2019).

Ms. Wilson is concerned about the impact additional pollution from Formosa could have on her health when she is recreating in the waters and wetlands around Formosa's Plant. She is especially concerned about her exposure to harmful pollution when she frequently visits sites very close to the Formosa Plant as part of her ongoing efforts to enforce water pollution limits that Formosa has agreed to.

Ms. Wilson has standing in her own right to request a contested case hearing. The interests that San Antonio Bay Estuarine Waterkeeper seeks to protect, including the health and safety its members and the local community, as well as the area's natural beauty and resources, are germane to the organization's purpose. And neither the claim asserted, nor the relief requested requires the participation of the individual members in this case.

II. Disputed Issues of Fact

San Antonio Bay Estuarine Waterkeeper provides the following list of disputed issues that are relevant and material to the Commission's decision on this application, for consideration as part of the requested contested case hearing:

- Whether the proposed emissions will threaten the health and safety of nearby residents.
- Whether the proposed emissions will cause or contribute to exceedances of National Ambient Air Quality Standards.
- Whether the proposed emissions will exceed allowable Prevention of Significant Deterioration Increments.
- Whether the proposed emissions will cause nuisance conditions violating 30 Tex. Admin. Code § 101.4.
- Whether Draft Permit conditions are adequate to protect the public from cumulative risks in accordance with Tex. Water Code § 5.130.
- Whether the expanded plant will be protective of welfare, including wildlife and the environment in the surrounding area.
- Whether Formosa's air quality analysis complies with TCEQ's rules and guidance.
- Whether the new and modified sources will utilize Best Available Control Technology.
- Whether greenhouse gas controls reflect the use of Best Available Control Technology.
- Whether the emissions calculation methodologies used in the application are flawed or outdated.
- Whether proposed air monitoring and reporting requirements are adequate to ensure compliance with the Clean Air Act and protect local residents.
- Whether Formosa and TCEQ adequately considered the environmental justice impacts of the proposed pollution increases.

- Whether Formosa and TCEQ supplied the public with adequate information to verify the bases for the Formosa's claims and for TCEQ's decision to issue the permits.

III. Public Meeting Request

Diane Wilson and San Antonio Bay Estuarine Waterkeeper request a public meeting on Formosa's Amendments. As explained above, Ms. Wilson, both personally and in her capacity as Executive Director of Waterkeeper, has a significant interest in Formosa's application to authorize over 2,000 tons per year of additional air pollution. Ms. Wilson and Waterkeeper request that TCEQ and Formosa hold a public meeting to share information about the proposed changes with the surrounding communities and to accept public comment.

IV. Conclusion

San Antonio Bay Estuarine Waterkeeper appreciates the opportunity to file these requests for a public meeting and for a contested case hearing. Waterkeeper reserves the right to provide additional information on the matters discussed in this document as allowed by the Clean Air Act, the Texas Clean Air Act, and regulations implementing these statutes.

/s/Colin Cox
ENVIRONMENTAL INTEGRITY PROJECT
Colin Cox
Staff Attorney
1206 San Antonio St.
Austin, Texas 78701
832-316-0580
colincox@environmentalintegrity.org

Attorney for San Antonio Bay Estuarine Waterkeeper

ENVIRONMENTAL INTEGRITY PROJECT

1206 San Antonio St.
Austin, Texas 78701
www.environmentalintegrity.org

February 2, 2023

Ms. Laurie Gharis
Chief Clerk, MC-105
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Via Electronic Filing

Re: Comments on the Application to Amend Air Quality Permit Nos. 140763, PSDTX1500M1, GHGPSDTX46M1, 19871, PSDTX1236M1, GHGPSDTX22, 91780, PSDTX1240M1, GHGPSDTX223, 19200, PSDTX1237M1, GHGPSDTX218, 19168, PSDTX1226M1, GHGPSDTX224, 107518, PSDTX1383M2, GHGPSDTX48M1, 20203, PSDTX1224M1, GHGPSDTX222, 40157, PSDTX1222M1, GHGPSDTX225, 19201, PSDTX1232M1, and GHGPSDTX219 to Increase Emissions at Formosa Plastics Corporation's Point Comfort Plant

Dear Ms. Gharis,

Formosa Plastics Corporation ("Formosa") has applied to the Texas Commission on Environmental Quality ("TCEQ") for an amendment to Air Quality Permit Nos. 140763, PSDTX1500M1, GHGPSDTX46M1, 19871, PSDTX1236M1, GHGPSDTX22, 91780, PSDTX1240M1, GHGPSDTX223, 19200, PSDTX1237M1, GHGPSDTX218, 19168, PSDTX1226M1, GHGPSDTX224, 107518, PSDTX1383M2, GHGPSDTX48M1, 20203, PSDTX1224M1, GHGPSDTX222, 40157, PSDTX1222M1, GHGPSDTX225, 19201, PSDTX1232M1, and GHGPSDTX219 ("Amendment") to authorize additional emissions of carbon monoxide, nitrogen oxides, volatile organic compounds, sulfur dioxide, and greenhouse gases from its Formosa Point Comfort Plant (the "Plant") in Calhoun County, Texas. Formosa is applying to build four new ground flares to comply with new EPA rules, and to increase flaring emission limits at its existing elevated flares. Collectively, these Amendments will authorize 2,262 tons per year of criteria air pollutants and 323,028 tons per year of greenhouse gases.

San Antonio Bay Estuarine Waterkeeper ("Waterkeeper") appreciates this opportunity to provide public comments on Formosa's Amendments.

I. We oppose Formosa's application to increase flaring emissions.

San Antonio Bay Estuarine Waterkeeper opposes Formosa's request for dramatically increased flaring limits. Formosa has not been a good neighbor. Its record of environmental violations is long, and its behavior should not be rewarded with permits that allow more flaring and more air pollution.

Recently, San Antonio Bay Estuarine Waterkeeper and Diane Wilson sued Formosa in federal court for ongoing violations of the Clean Water Act - dumping of plastic pellets and powder in the lakes, rivers, and bays around its Point Comfort plant.[1] In March 2019, Federal Judge Hoyt ruled in favor of Waterkeeper and described Formosa as a "serial offender." Just Hoyt wrote that Formosa's violations of the Clean Water Act were "extensive, historical, and repetitive." That case resulted in a $50 million settlement between Formosa, Waterkeeper, and Diane Wilson that included a number of pollution mitigation projects. Unfortunately, that settlement has not stopped Formosa from discharging plastic pollution into the bay. Since June of 2020, Formosa has acknowledged 397 additional violations of its water pollution limits - including polluting the bay and creek with plastic pellets, plastic powder, and plastic flakes. Formosa has paid more than $9 million in penalties for these violations, though these penalties have not proven severe enough to actually stop Formosa from polluting. The most recent documented violation was on January 24, 2023, just over one week ago.

In addition to its frequent and ongoing water pollution violations, Formosa also has a history of air pollution violations. In the past six years, Formosa has reported 90 unauthorized emissions events collectively releasing over three million pounds of unauthorized air pollution from its Point Comfort Plant. During these events, Formosa has released a variety of pollutants, including carcinogens like benzene, ethylene oxide

[1] *See* No More Nurdles, https://www.nomorenurdles.org/

and 1,3-butadiene, as well as lung irritants like nitrogen oxides and other ozone-forming organic compounds.

Because Formosa has repeatedly violated air and water pollution limits, we oppose any attempt by the company to increase flaring in Point Comfort. TCEQ should protect the people who live, work, and recreate near this plant by denying this permit.

The following comments are provided knowing that TCEQ is likely to grant this permit over our objections.

II. Formosa has not explained why it is seeking to increase flaring limits.

With this amendment, Formosa is requesting to build four new ground flares and increase flaring emission limits at its existing elevated flares. According to Formosa, the sole purpose of this amendment is to comply new EPA rules. While we support and advocate for compliance with environmental regulations, this does not explain Formosa's request to increase flaring limits significantly beyond current levels.

According to Formosa, building the new ground flares will result in the following pollution increases:

Volatile organic compounds (VOC) – 0.07 tons per year

Nitrogen Oxides (NO_x) – 95.89 tons per year

Sulfur Dioxide (SO_2) – 2.23 ton per year

Carbon Monoxide (CO) – 588.74 tons per year

This is a total of 686.93 tons per year of criteria pollutants. You can see these numbers in the following table from Formosa's application: [2]

[2] Formosa Plastics, Air Dispersion Modeling Protocol, Flare Improvement Project – Formosa Plastics Corporation, Texas at 2-3 (November 2021).

TABLE 2-1. ANNUAL POTENTIAL-TO-EMIT (PTE) EMISSIONS FOR THE FLARE IMPROVEMENT PROJECT

Plant	EPN(s)			Draft EGF PTE (tpy): Routine + MSS				
	Existing System	MAERT	New	NOx tpy	CO tpy	SO_2 tpy	VOC tpy	$PM_{2.5}$ tpy
Pilot*	-	-	EGF 1&2	0.59	0.49	0.00	0.03	-
Pilot*	-	-	EGF 3&4	0.59	0.49	0.00	0.03	-
OLI	1018	1018	EGF 1&2	21.36	36.24	1.95E-03	2.24E-03	-
OLII	1067	1067	EGF 3&4	18.73	57.49	4.09E-03	-	-
FRACII	1018	1018	EGF 1&2	-	1.67	0.59	4.86E-04	-
OL3 & PDH	OL3-FLRA/B	OL3-FLRA/B	EGF 3&4	18.59	5.55	1.57	-	-
PEI	1018/1067	1018/1067	EGF 1&2	0.33	21.69	-	-	-
PEII	1018/1067	1018/1067	EGF 3&4	-	54.17	0.01	-	-
PPI	1018/1067	1018/1067	EGF 1&2	6.80	25.08	0.01	1.70E-03	-
PPII	1018/1067	1018/1067	EGF 3&4	5.23	26.38	0.03	-	-
LLDPE	1018/1067	1018/1067	EGF 1&2	2.69	-	-	-	-
UT3*	OL3-FLRA/B	OL3-FLRA/B	EGF 3&4	-	-	-	-	-
Traffic*	1018	1018	EGF 1&2	-	-	-	-	-
EGF Project Total Increase/ Decrease (tpy)				*95.89*	*588.74*	*2.23*	*0.07*	-
PSD Major Modification threshold (tpy)				*40*	*100*	*40*	*40*	*10*
*PSD?***				*YES*	*YES*	*No*	*YES*	*YES[1]*
Public Notice Threshold (tpy)				*5*	*50*		*5*	*5*

Notes:
* Plant does not have any MSS emissions that are flared using the elevated flares or enclosed ground flares.
**Note that we are volunteering that this Project is a PSD major modification for NOx, CO, VOC and CO2e so that baseline to PTE calculations for the existing flares does not need to be performed. We understand it could be challenged that the EGF emissions are new and the elevated flares are "modified".
[1] Due to precursor emissions only.

Formosa explains that these low-pressure enclosed ground flares have a higher destruction efficiency for VOC, so they will result in less VOC but more byproducts of VOC destruction, including NO_x and CO. Taken at face value, this explains why, in the above table, Formosa is requesting an additional 95.89 tons per year of NOx and 588.74 tons per year of CO, and only a relatively small amount (0.07 tons per year) of VOC. But it does not explain why Formosa seeks to authorize three times as much flaring pollution as shown in this table. Nor does it explain why Formosa seeks to authorize an additional 522 tons per year of VOC from its existing flares.

We are concerned that the pollution limits that Formosa is asking for in this amendment are far higher than the pollution limits for the ground flares. The total increases Formosa proposes for criteria pollutants in this amendment are:

Volatile organic compounds (VOC) – 522.34 tons per year

Nitrogen Oxides (NO_x) – 291.90 tons per year

Sulfur Dioxide (SO_2) – 4.63 ton per year

Carbon Monoxide (CO) – 1444 tons per year

This is a total of 2,262 tons per year of criteria pollutants. This means Formosa is seeking to increase its flaring limits over three times higher than the 686 tons per year proposed for the ground flares.

In its applications, Formosa states that it is "not requesting any physical changes or changes in the method of operation in any FPC TX [Formosa] process unit that would affect the nature of, or increase quantities of, any flared waste gas stream currently generated within FPC TX's [Formosa's] entire chemical complex."[3] We read this to mean what it says – that Formosa is not requesting any changes that would increase the flaring at its plant.

We find it hard to reconcile this statement – that Formosa is not increasing flaring at its plant – with the fact that Formosa is requesting to increase its flaring limits by an additional 1,575 tons of air pollutants beyond what it proposes for the ground flares. And none of the flaring-related permit conditions limit the volume of gas that Formosa can flare. So, it appears that this amendment will in fact allow Formosa to flare significantly more gas.

We request clarification from Formosa and TCEQ on two questions:

Why does Formosa need to authorize this additional flaring?

And what permit conditions will prevent Formosa from increasing its flaring?

[3] Formosa Plastics, Executive Summary, Application to Amend Permit 19200 AST 358-2202 172608 (2021-09-22) EQ at i (November 2021).

III. Formosa should install a flare gas recovery system to reduce flaring.

Flare gas recovery is the process of capturing and reusing gas that would otherwise be flared.[4] The gas is then used in the plant instead of being burnt off in the flare. Formosa should install such a system to capture and reuse its flare gas instead of flaring it. This will reduce the amount of gas that Formosa flares, and so it will reduce the amount of toxic air pollutants like nitrogen oxides, carbon monoxide, and volatile organic compounds that Formosa releases. Flare gas recovery will also reduce the amount of greenhouse gases that Formosa releases.

Flare gas recovery systems are commercially available and have been installed at a number of refineries and petrochemical plants across the country.[5] Flare gas recovery has reduced flaring at some plants by as much as 95%.[6] And studies have shown that flare gas recovery is both technically possible as well as economical at olefins plants like Formosa's.[7] Because the recovered flare gas can be routed to units at the plant or made into products, a good flare gas recovery system can prevent millions of dollars' worth of gas from being wasted each year. Flare gas recovery is especially applicable to low-pressure streams that might otherwise be routed to Formosa's proposed low-pressure ground flares.

EPA guidance lists flare gas recovery as an option for Best Available Control Technology to control greenhouse gases.[8] Despite this, Formosa did not consider flare gas recovery in its control technology analysis for this amendment. Formosa also failed

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[4] U.S. EPA, *Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from the Petroleum Refining Industry* (October 2010), available at: https://www.epa.gov/sites/default/files/2015-12/documents/refineries.pdf

[5] *Id.* at 28.

[6] *Id.* at 27.

[7] Ghadyanlou, Farhad & Vatani, Ali, *Flare-Gas Recovery Methods for Olefin Plants*, Chemical Engineering 122.66-70 (May 2015), available at https://www.researchgate.net/publication/284901430_Flare-Gas_Recovery_Methods_for_Olefin_Plants

[8] U.S. EPA, *Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from the Petroleum Refining Industry* (October 2010), available at: https://www.epa.gov/sites/default/files/2015-12/documents/refineries.pdf

to consider flare gas recovery as control technology for nitrogen oxides, carbon monoxide, and volatile organic compounds from its elevated and enclosed ground flares.

To remedy this omission, Formosa should consider whether it can use flare gas recovery to reduce the amount of gas it flares and thus reduce its emissions of both toxic air pollutants and greenhouse gases. Formosa should analyze flare gas recovery for technical feasibility and economical reasonableness.

IV. Formosa should install monitors along its fence line to protect the local community.

To protect the community from potential releases of dangerous amounts of air pollution, Formosa should install monitors along its fence line. There are several methods to monitor for pollutants at the fence line, including open path monitors, gas chromatographs, and canister monitors. Currently, the most comprehensive method is open path monitoring capable of detecting and measuring a wide range of pollutants in real time.

This type of open path monitoring at the fence line is a proven and readily available technology. California's South Coast Air Quality Management District recently passed a rule requiring open path monitoring at all refineries in its area. The goals of this rule are to:[9]

- Provide real-time information about air pollutant levels at the refinery fence line and in nearby communities.
- Understand long-term variations and trends of refinery related emissions.
- Help communities understand potential air quality impacts of refinery emissions.
- Provide a notification to the community if emissions exceed pre-determined thresholds.

[9] South Coast Air Quality Management District, *Rule 1180 - Refinery Community and Fenceline Air Monitoring,* available at http://www.aqmd.gov/home/rules-compliance/rules/support-documents/rule-1180-refinery-fenceline-monitoring-plans

- Enable refineries to quickly address significant changes in emissions.

Currently, numerous plants have proposed and implemented open path monitoring plans, including Chevron's El Segundo Refinery, Phillips 66's Carson and Wilmington Refineries, Valero's Wilmington Refinery, Tesoro's Carson and Wilmington Refineries, and Torrance Refining Company's Refinery. More information about open path monitoring is attached to these comments.[10]

For these reasons, Formosa should install open path, fence line monitoring as part of its requirement to adopt Best Available Control Technology for its flares.

V. Conclusion

San Antonio Bay Estuarine Waterkeeper appreciates the opportunity to file these comments. We hope the TCEQ and Formosa consider and adopt options that will reduce the need for flaring and protect the community from dangerous air pollution.

/s/Colin Cox
ENVIRONMENTAL INTEGRITY PROJECT
Colin Cox
Staff Attorney
1206 San Antonio St.
Austin, Texas 78701
832-316-0580
colincox@environmentalintegrity.org

Attorney for San Antonio Bay Estuarine Waterkeeper

[10] Envtl. Integrity Project, *Additional Information on the Need for Fenceline Monitoring* (April 2015), Attachment 1.

Marielle Bascon

From: PUBCOMMENT-OCC
Sent: Friday, February 3, 2023 8:45 AM
To: PUBCOMMENT-OCC2; PUBCOMMENT-OPIC; PUBCOMMENT-ELD; PUBCOMMENT-APD
Subject: FW: Public comment on Permit Number 19200
Attachments: Fenceline Monitoring Info.pdf

From: colincox@environmentalintegrity.org
Sent: Thursday, February 2, 2023 5:06 PM
To: PUBCOMMENT-OCC
Subject: Public comment on Permit Number 19200

REGULATED ENTY NAME FORMOSA POINT COMFORT PLANT

RN NUMBER: RN100218973

PERMIT NUMBER: 19200

DOCKET NUMBER:

COUNTY: CALHOUN

PRINCIPAL NAME: FORMOSA PLASTICS CORPORATION TEXAS

CN NUMBER: CN600130017

FROM

NAME: Colin Cox

EMAIL: colincox@environmentalintegrity.org

COMPANY: Environmental Integrity Project

ADDRESS: 1206 SAN ANTONIO ST
AUSTIN TX 78701-1834

PHONE: 8323160580

FAX:

COMMENTS: Please see attachment to comments by San Antonio Estuarine Waterkeeper.

ADDITIONAL INFORMATION ON THE NEED FOR FENCELINE MONITORING

Fenceline monitoring can help reduce the unfair health impacts and risks from refineries' air pollution by providing real-time ambient air quality data to refinery operators, state and federal regulators, and the general public. As part of her effort to strengthen enforcement, in a January 2015 memo, Assistant Administrator, Cynthia Giles directed EPA staff to require "[a]dvanced-ambient monitoring, such as fence-line monitoring" to monitor "pollutants on a real-time or near real-time basis, often without lengthy lag times for laboratory analysis" in EPA enforcement actions whenever possible.[1] As she recognized, such monitoring "ha[s] the potential to promote compliance and provide benefits to the EPA, the public, and [emitting] parties."[2] Facilities themselves can benefit from using up-to-date monitoring to find leaks and fugitive emissions, and stop undetected or unrepaired problems from turning into catastrophes.

Open-Path Fenceline Monitoring Technology Is A Proven And Readily Available Technology

Open-path fenceline monitoring (using various available technologies defined in the Glossary below) has been implemented at several refining facilities across the United States. For example:

- **Shell Deer Park, TX** – A 2014 EPA consent decree requires a fenceline monitoring system (UV-DOAS) to measure benzene in the air once every five minutes with a detection limit of 3 parts per billion (ppb).
- **TPC Group, Houston, TX (formerly Texas Petrochemical)** – A 2006 agreement requires fenceline monitoring (FTIR) along the facility's north and south borders to measure 1,3-butadiene concentrations.
- **BP Whiting, IN** – A 2012 settlement agreement with Global Community Monitor requires a fenceline monitoring system (UV) to measure benzene, toluene, and xylene on an hourly average.
- **Phillips 66 Rodeo, CA** – A 2012 memorandum of understanding with several community groups requires a fenceline monitoring system (UV, FTIR, Tunable Diode Laser) to measure several pollutants, including benzene.
- **Chevron Richmond, CA** – A 2008 Community Benefits Agreement requires a fenceline monitoring system (UV, tunable diode laser) at the Richmond facility to monitor multiple pollutants, including benzene, in 5-minute increments with a detection limit of 10 ppb.

Further, the Bay Area Air Quality Management District (BAAQMD) in San Francisco recently proposed regulations that would require refineries to install open-path monitoring at refineries assuring real-time data is available.[3] BAAQMD's proposal is based on its review of available technologies for monitoring pollutants at refinery fencelines and expert input from scientists, industry, regulators, and community leaders.[4] These new monitoring rules are expected to be finalized this year, but will apply only to Bay area refineries.

Several other facilities, identified in tables A, B, and C below, conduct some ambient air quality monitoring at the fenceline using gas chromatographs (GCs) or other alternate methods. GCs can provide data on the concentration of multiple pollutants at a single point. Strategic placement of several GC units

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[1] Memo, Cynthia Giles, Assistant Administrator, Office of Enforcement Compliance and Assurance, EPA at 3 (Jan. 7, 2015), http://www2.epa.gov/compliance/next-generation-compliance-memorandum-next-gen-civil-enforcement-settlements.

[2] *Id.*

[3] BAAQMD, Refinery Emissions Tracking Mitigation and Reduction Rules (Apr. 7, 2015), http://www.baaqmd.gov/Divisions/Planning-and-Research/Rule-Development/Refinery-Emissions-Tracking.aspx.

[4] BAAQMD, Air Monitoring Technology & Methodology Expert Panel Report & Findings (Jul. 11, 2013), http://www.baaqmd.gov/~/media/Files/Technical%20Services/Air_Monitoring_Technology_and%20Methodology_Expert_Panel%20Report_Final_6_9_2014.ashx?la=en

along a facility's fenceline could provide benefits similar to those of an open-path fenceline monitoring system.

Off-the-Book Emissions at Refineries are a Significant Problem:

Studies consistently show that leaks from tanks, wastewater treatment systems, emissions from poorly operated flares, as well as other sources at refineries are a significant source of toxic pollution. This pollution can cause cancer, reproductive harm, and other chronic and acute health problems that no American should have to face just because they live near a refinery. And right now, communities of color and lower income people are disproportionately facing these extra health threats, according to EPA's demographic analysis in the Refineries rule docket.[5]

- **2014 EPA Refinery Toxics Proposal** – The average industrial flare releases 4-5 times more pollution than reported because many flares are poorly operated. EPA based its finding that this is true on extensive flare data provided by the refining and petrochemical industries.[6]
- **2014 South Coast DIAL Study** – Measured emissions at the Tesoro and Phillips 66 plants in Carson, CA that were 4-8 times higher than reported. Concluded that poor functioning controls on tanks and other process equipment may have contributed to the excess emissions.[7]
- **2011 Shell Deer Park DIAL Study** – Detected emissions that were up to 132 times higher than reported from tanks, and up to 108 times higher than reported from wastewater treatment facility. Concluded that emissions controls on these units were not functioning properly.[8]
- **2010 BP Texas City DIAL Study** - Detected emissions that were 3-7 times higher than reported from several tanks. Also, detected elevated emissions from a poorly operating flare.[9]

Fenceline Monitoring Can Detect Hazardous Air Pollution From Refineries That Is Otherwise Difficult to Identify and Track Using Conventional Tools

Strong fenceline monitoring requirements can help detect, and ultimately reduce, off-the-book emissions that are difficult to measure using conventional monitoring instruments. This problem is illustrated by the infrared camera images below showing a leak from a tank and partially combusted pollution from poorly operated flares.

The images of tank #478 at the Valero Texas City Refinery directly below are a side-by-side comparison of a standard digital photograph and a still frame from an infrared camera. The picture on the left shows no obvious pollution. The dark gray plume in the infrared image depicts VOCs that are being released from the tank. The existing and proposed standards would miss this pollution entirely. EPA's proposed fenceline monitoring requirements are not likely to capture these emissions as they go into the nearby community, because EPA's proposal is not based on the best available current technology, and that is why they must be strengthened.

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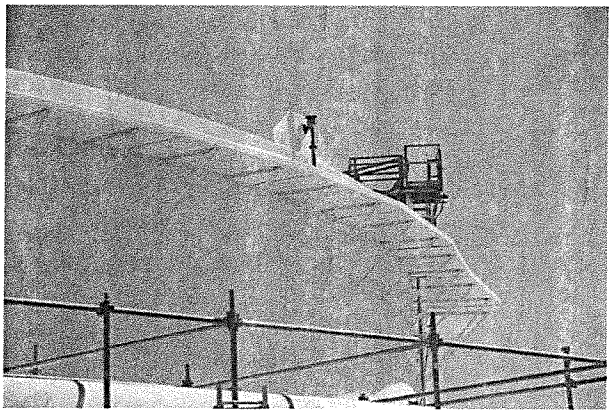
[5] 79 Fed. Reg. at 36,937; Analysis of Socio-Economic Factors for Populations Living Near Petroleum Refineries, EPA-HQ-OAR-2010-0682-0226.

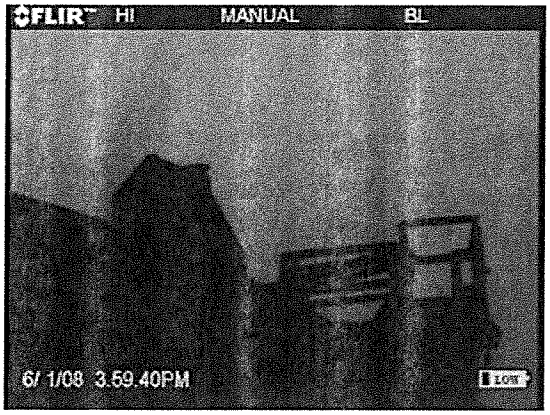
[6] U.S. Environmental Protection Agency, Petroleum Refinery Sector Rule: Flare Impact Estimates, 6-9 (Jan. 16, 2014) (EPA-HQ-OAR-2010-0682-0209).

[7] FluxSense, Pilot Study to Quantify Industrial Emissions of VOCs, NO_2, and SO_2 by SOF and Mobile DOAS in the Carson Area, 4 tbl. E1. (Mar. 27, 2014).

[8] Dan Hoyt et. al., City of Houston Bureau of Pollution Control and Prevention, Measurement and Analysis of Benzene and VOC Emissions in the Houston Ship Channel Area and Select Major Stationary Sources Using DIAL (Differential Absorption Light Detection and Ranging) Technology to Support Ambient HAP Concentrations Reductions in the Community (DIAL Project) 1, 92 (2011).

[9] EPA, Critical Review of DIAL Emission Test Data for BP Petroleum Refinery in Texas City, Texas, ES-2 & tbl. 1. (2010).





The following two images are infrared stills of flares; the image on the left is at BP Texas City Refinery and the image on the right is Flare No. 5 at the Valero Texas City Refinery. The bright spots in each photo depict a flame. The dark plumes extending from each flame, are invisible to the naked eye, but depict uncombusted VOC and toxic air pollution.

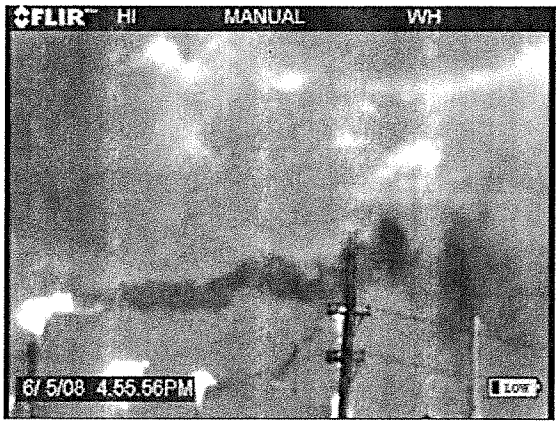


Table A: Facilities With Open-Path Monitoring

	Refinery	Type of Technology	Time Resolution	Details
1	Shell Deer Park, Houston, TX	UV-DOAS	Real-Time	EPA Consent Decree[10]
2	TPC Group, Houston, TX	FTIR	Real-time	Voluntary Emission Reduction Agreement with the Texas Commission on Environmental Quality[11]

[10] Shell Deer Park - EPA Enforcement case results: http://www2.epa.gov/enforcement/shell-deer-park-settlement.
[11] Texas Petrochemical – Emission reduction measures: http://www2.epa.gov/sites/production/files/2015-01/documents/2011_06_tpc.pdf.

3	BP, Whiting, IN	UV/GC	Real-Time	EPA Consent Decree[12] and Settlement Agreement with Global Community Monitor. http://raqis.radian.com/pls/raqis/bpw.whiting;
4	Chevron, Richmond, CA	UV	Real-Time	http://www.fenceline.org/richmond/data.php
5	Phillips 66, Rodeo, CA	UV/FTIR	Real-Time	http://www.fenceline.org/rodeo/data.php

Table B: Petrochemical Facilities With Gas Chromatograph (GC) Monitoring At The Fenceline

	Facility	Type of technology	Time resolution	Details
1	Sunoco Refinery, Philadelphia, PA	GC	Real-time	EPA Consent Decree[13]
2	Flint Hills Chemical Plant, Port Arthur, TX	GC	Real-time	EPA Consent Decree[14]

Table C: Refineries with Alternate Forms of Monitoring

	Facility	Type of Technology	Time Resolution	Details
1	Alon Bakersfield Refinery, CA	Unknown	Real-time	Facility has website showing that the facility monitors ammonia, hydrogen sulfide, and hydrocarbons (which likely include volatile organic hazardous air pollutants). http://bakersfieldrefinery.com/operating-status.
2	Marathon Petroleum Refinery, Garyville, LA	Unknown	Unknown	Marathon indicated in a PowerPoint provided to EPA that it uses "trigger samples" to measure ambient air quality at the fenceline. (See: EPA-HQ-OAR-2010-0682-0698).

[12] BP Whiting – EPA Enforcement case results: http://www2.epa.gov/enforcement/bp-whiting-settlement-flaring.
[13] Sunoco Philadelphia - EPA Enforcement case: Fourth Amendment to Consent Decree: Sunoco Inc., Civil Action No.05-02866 (PDF).
[14] Flint Hills Resources, Port Arthur - EPA Enforcement case results: http://www2.epa.gov/enforcement/flint-hills-resources-port-arthur-clean-air-act-settlement.

3	Marathon Petroleum Refinery, Detroit, MI	Summa canisters	Unknown	Marathon indicated in a PowerPoint to EPA that it uses Summa canister samples to monitor ambient air quality at the fenceline. (See: EPA-HQ-OAR-2010-0682-0698).

FENCELINE MONITORING TECHNOLOGY GLOSSARY:

GC: Gas chromatograph. A pump draws air into an analyzer that can detect the concentration of multiple chemical compounds. Lowest detection level: 0.5-1 ppb depending on pollutant. Real-time data.

FTIR: Open-Path Fourier Transform Infrared Spectroscopy utilizes infrared light in a similar method to UV and UV-DOAS. Lowest detection level: 4.5 ppb – 15.75 ppb depending on pollutant. Real-time data.

Summa canisters: Vacuum sealed canisters are used to collect whole air samples that must be analyzed in a laboratory. The canisters can be equipped with valves to control the amount of air collected over a period of time.

Tunable Diode Laser: A technique for measuring various chemicals using laser absorption spectrometry. Lowest detection limit level of 25 ppb for hydrogen sulfide. Real-time data.

UV: Utilizes ultraviolet light in a similar method to DOAS, but a different kind of instrument for measuring the light/chemical interaction. Lowest detection level: 3-5 ppb. Real-time data.

UV-DOAS: Ultraviolet Differential Optical Adsorption Spectroscopy (UV-DOAS) utilizes UV-light that is aimed at a detector across an "open-path." The detector registers disturbances in the light to measure the concentration of various pollutants. Lowest detection level: 3ppb. Real-time data.

All of the above monitoring technologies can monitor multiple pollutants (not just benzene). In most instances, strategic placement of multiple monitors is necessary to effectively monitor the concentration of the target chemical(s) at the fenceline.

For further information, please see the technical comments filed on EPA's proposed rule, EPA Docket ID Number EPA-HQ-OAR-2010-0682-0568.

Marielle Bascon

From:	PUBCOMMENT-OCC
Sent:	Friday, February 3, 2023 8:45 AM
To:	PUBCOMMENT-OCC2; PUBCOMMENT-OPIC; PUBCOMMENT-ELD; PUBCOMMENT-APD
Subject:	FW: Public comment on Permit Number 19200
Attachments:	Formosa Point Comfort Comments Final 20230202.pdf

From: colincox@environmentalintegrity.org
Sent: Thursday, February 2, 2023 4:45 PM
To: PUBCOMMENT-OCC
Subject: Public comment on Permit Number 19200

REGULATED ENTY NAME FORMOSA POINT COMFORT PLANT

RN NUMBER: RN100218973

PERMIT NUMBER: 19200

DOCKET NUMBER:

COUNTY: CALHOUN

PRINCIPAL NAME: FORMOSA PLASTICS CORPORATION TEXAS

CN NUMBER: CN600130017

FROM

NAME: Colin Cox

EMAIL: colincox@environmentalintegrity.org

COMPANY: Environmental Integrity Project

ADDRESS: 1206 SAN ANTONIO ST
AUSTIN TX 78701-1834

PHONE: 8323160580

FAX:

COMMENTS: Please see the attached comments from San Antonio Bay Estuarine Waterkeeper.

ENVIRONMENTAL INTEGRITY PROJECT

1206 San Antonio St.
Austin, Texas 78701
www.environmentalintegrity.org

February 2, 2023

Via Electronic Filing

Ms. Laurie Gharis
Chief Clerk, MC-105
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Re: Comments on the Application to Amend Air Quality Permit Nos. 140763, PSDTX1500M1, GHGPSDTX46M1, 19871, PSDTX1236M1, GHGPSDTX22, 91780, PSDTX1240M1, GHGPSDTX223, 19200, PSDTX1237M1, GHGPSDTX218, 19168, PSDTX1226M1, GHGPSDTX224, 107518, PSDTX1383M2, GHGPSDTX48M1, 20203, PSDTX1224M1, GHGPSDTX222, 40157, PSDTX1222M1, GHGPSDTX225, 19201, PSDTX1232M1, and GHGPSDTX219 to Increase Emissions at Formosa Plastics Corporation's Point Comfort Plant

Dear Ms. Gharis,

Formosa Plastics Corporation ("Formosa") has applied to the Texas Commission on Environmental Quality ("TCEQ") for an amendment to Air Quality Permit Nos. 140763, PSDTX1500M1, GHGPSDTX46M1, 19871, PSDTX1236M1, GHGPSDTX22, 91780, PSDTX1240M1, GHGPSDTX223, 19200, PSDTX1237M1, GHGPSDTX218, 19168, PSDTX1226M1, GHGPSDTX224, 107518, PSDTX1383M2, GHGPSDTX48M1, 20203, PSDTX1224M1, GHGPSDTX222, 40157, PSDTX1222M1, GHGPSDTX225, 19201, PSDTX1232M1, and GHGPSDTX219 ("Amendment") to authorize additional emissions of carbon monoxide, nitrogen oxides, volatile organic compounds, sulfur dioxide, and greenhouse gases from its Formosa Point Comfort Plant (the "Plant") in Calhoun County, Texas. Formosa is applying to build four new ground flares to comply with new EPA rules, and to increase flaring emission limits at its existing elevated flares. Collectively, these Amendments will authorize 2,262 tons per year of criteria air pollutants and 323,028 tons per year of greenhouse gases.

San Antonio Bay Estuarine Waterkeeper ("Waterkeeper") appreciates this opportunity to provide public comments on Formosa's Amendments.

I. We oppose Formosa's application to increase flaring emissions.

San Antonio Bay Estuarine Waterkeeper opposes Formosa's request for dramatically increased flaring limits. Formosa has not been a good neighbor. Its record of environmental violations is long, and its behavior should not be rewarded with permits that allow more flaring and more air pollution.

Recently, San Antonio Bay Estuarine Waterkeeper and Diane Wilson sued Formosa in federal court for ongoing violations of the Clean Water Act - dumping of plastic pellets and powder in the lakes, rivers, and bays around its Point Comfort plant.[1] In March 2019, Federal Judge Hoyt ruled in favor of Waterkeeper and described Formosa as a "serial offender." Just Hoyt wrote that Formosa's violations of the Clean Water Act were "extensive, historical, and repetitive." That case resulted in a $50 million settlement between Formosa, Waterkeeper, and Diane Wilson that included a number of pollution mitigation projects. Unfortunately, that settlement has not stopped Formosa from discharging plastic pollution into the bay. Since June of 2020, Formosa has acknowledged 397 additional violations of its water pollution limits - including polluting the bay and creek with plastic pellets, plastic powder, and plastic flakes. Formosa has paid more than $9 million in penalties for these violations, though these penalties have not proven severe enough to actually stop Formosa from polluting. The most recent documented violation was on January 24, 2023, just over one week ago.

In addition to its frequent and ongoing water pollution violations, Formosa also has a history of air pollution violations. In the past six years, Formosa has reported 90 unauthorized emissions events collectively releasing over three million pounds of unauthorized air pollution from its Point Comfort Plant. During these events, Formosa has released a variety of pollutants, including carcinogens like benzene, ethylene oxide

[1] *See* No More Nurdles, https://www.nomorenurdles.org/

and 1,3-butadiene, as well as lung irritants like nitrogen oxides and other ozone-forming organic compounds.

Because Formosa has repeatedly violated air and water pollution limits, we oppose any attempt by the company to increase flaring in Point Comfort. TCEQ should protect the people who live, work, and recreate near this plant by denying this permit.

The following comments are provided knowing that TCEQ is likely to grant this permit over our objections.

II. Formosa has not explained why it is seeking to increase flaring limits.

With this amendment, Formosa is requesting to build four new ground flares and increase flaring emission limits at its existing elevated flares. According to Formosa, the sole purpose of this amendment is to comply new EPA rules. While we support and advocate for compliance with environmental regulations, this does not explain Formosa's request to increase flaring limits significantly beyond current levels.

According to Formosa, building the new ground flares will result in the following pollution increases:

Volatile organic compounds (VOC) – 0.07 tons per year

Nitrogen Oxides (NO_x) – 95.89 tons per year

Sulfur Dioxide (SO_2) – 2.23 ton per year

Carbon Monoxide (CO) – 588.74 tons per year

This is a total of 686.93 tons per year of criteria pollutants. You can see these numbers in the following table from Formosa's application: [2]

[2] Formosa Plastics, Air Dispersion Modeling Protocol, Flare Improvement Project – Formosa Plastics Corporation, Texas at 2-3 (November 2021).

TABLE 2-1. ANNUAL POTENTIAL-TO-EMIT (PTE) EMISSIONS FOR THE FLARE IMPROVEMENT PROJECT

Plant	EPN(s)			Draft EGF PTE (tpy): Routine + MSS				
	Existing System	MAERT	New	NOx tpy	CO tpy	SO_2 tpy	VOC tpy	$PM_{2.5}$ tpy
Pilot*	-	-	EGF 1&2	0.59	0.49	0.00	0.03	-
Pilot*	-	-	EGF 3&4	0.59	0.49	0.00	0.03	-
OLI	1018	1018	EGF 1&2	21.36	36.24	1.95E-03	2.24E-03	-
OLII	1067	1067	EGF 3&4	18.73	57.49	4.09E-03	-	-
FRACII	1018	1018	EGF 1&2	-	1.67	0.59	4.86E-04	-
OL3 & PDH	OL3-FLRA/B	OL3-FLRA/B	EGF 3&4	18.59	5.55	1.57	-	-
PEI	1018/1067	1018/1067	EGF 1&2	0.33	21.69	-	-	-
PEII	1018/1067	1018/1067	EGF 3&4	-	54.17	0.01	-	-
PPI	1018/1067	1018/1067	EGF 1&2	6.80	25.08	0.01	1.70E-03	-
PPII	1018/1067	1018/1067	EGF 3&4	5.23	26.38	0.03	-	-
LLDPE	1018/1067	1018/1067	EGF 1&2	2.69	-	-	-	-
UT3*	OL3-FLRA/B	OL3-FLRA/B	EGF 3&4	-	-	-	-	-
Traffic*	1018	1018	EGF 1&2	-	-	-	-	-
EGF Project Total Increase/ Decrease (tpy)				*95.89*	*588.74*	*2.23*	*0.07*	-
PSD Major Modification threshold (tpy)				*40*	*100*	*40*	*40*	*10*
*PSD?***				*YES*	*YES*	*No*	*YES*	*YES[1]*
Public Notice Threshold (tpy)				*5*	*50*		*5*	*5*

Notes:
* Plant does not have any MSS emissions that are flared using the elevated flares or enclosed ground flares.
**Note that we are volunteering that this Project is a PSD major modification for NO_x, CO, VOC and CO_2e so that baseline to PTE calculations for the existing flares does not need to be performed. We understand it could be challenged that the EGF emissions are new and the elevated flares are "modified".
[1] Due to precursor emissions only.

Formosa explains that these low-pressure enclosed ground flares have a higher destruction efficiency for VOC, so they will result in less VOC but more byproducts of VOC destruction, including NO_x and CO. Taken at face value, this explains why, in the above table, Formosa is requesting an additional 95.89 tons per year of NOx and 588.74 tons per year of CO, and only a relatively small amount (0.07 tons per year) of VOC. But it does not explain why Formosa seeks to authorize three times as much flaring pollution as shown in this table. Nor does it explain why Formosa seeks to authorize an additional 522 tons per year of VOC from its existing flares.

We are concerned that the pollution limits that Formosa is asking for in this amendment are far higher than the pollution limits for the ground flares. The total increases Formosa proposes for criteria pollutants in this amendment are:

Volatile organic compounds (VOC) – 522.34 tons per year

Nitrogen Oxides (NO_x) – 291.90 tons per year

Sulfur Dioxide (SO_2) – 4.63 ton per year

Carbon Monoxide (CO) – 1444 tons per year

This is a total of 2,262 tons per year of criteria pollutants. This means Formosa is seeking to increase its flaring limits over three times higher than the 686 tons per year proposed for the ground flares.

In its applications, Formosa states that it is "not requesting any physical changes or changes in the method of operation in any FPC TX [Formosa] process unit that would affect the nature of, or increase quantities of, any flared waste gas stream currently generated within FPC TX's [Formosa's] entire chemical complex."[3] We read this to mean what it says – that Formosa is not requesting any changes that would increase the flaring at its plant.

We find it hard to reconcile this statement – that Formosa is not increasing flaring at its plant – with the fact that Formosa is requesting to increase its flaring limits by an additional 1,575 tons of air pollutants beyond what it proposes for the ground flares. And none of the flaring-related permit conditions limit the volume of gas that Formosa can flare. So, it appears that this amendment will in fact allow Formosa to flare significantly more gas.

We request clarification from Formosa and TCEQ on two questions:

Why does Formosa need to authorize this additional flaring?

And what permit conditions will prevent Formosa from increasing its flaring?

[3] Formosa Plastics, Executive Summary, Application to Amend Permit 19200 AST 358-2202 172608 (2021-09-22) EQ at i (November 2021).

III. Formosa should install a flare gas recovery system to reduce flaring.

Flare gas recovery is the process of capturing and reusing gas that would otherwise be flared.[4] The gas is then used in the plant instead of being burnt off in the flare. Formosa should install such a system to capture and reuse its flare gas instead of flaring it. This will reduce the amount of gas that Formosa flares, and so it will reduce the amount of toxic air pollutants like nitrogen oxides, carbon monoxide, and volatile organic compounds that Formosa releases. Flare gas recovery will also reduce the amount of greenhouse gases that Formosa releases.

Flare gas recovery systems are commercially available and have been installed at a number of refineries and petrochemical plants across the country.[5] Flare gas recovery has reduced flaring at some plants by as much as 95%.[6] And studies have shown that flare gas recovery is both technically possible as well as economical at olefins plants like Formosa's.[7] Because the recovered flare gas can be routed to units at the plant or made into products, a good flare gas recovery system can prevent millions of dollars' worth of gas from being wasted each year. Flare gas recovery is especially applicable to low-pressure streams that might otherwise be routed to Formosa's proposed low-pressure ground flares.

EPA guidance lists flare gas recovery as an option for Best Available Control Technology to control greenhouse gases.[8] Despite this, Formosa did not consider flare gas recovery in its control technology analysis for this amendment. Formosa also failed

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[4] U.S. EPA, *Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from the Petroleum Refining Industry* (October 2010), available at: https://www.epa.gov/sites/default/files/2015-12/documents/refineries.pdf

[5] *Id.* at 28.

[6] *Id.* at 27.

[7] Ghadyanlou, Farhad & Vatani, Ali, *Flare-Gas Recovery Methods for Olefin Plants*, Chemical Engineering 122.66-70 (May 2015), available at https://www.researchgate.net/publication/284901430_Flare-Gas_Recovery_Methods_for_Olefin_Plants

[8] U.S. EPA, *Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from the Petroleum Refining Industry* (October 2010), available at: https://www.epa.gov/sites/default/files/2015-12/documents/refineries.pdf

to consider flare gas recovery as control technology for nitrogen oxides, carbon monoxide, and volatile organic compounds from its elevated and enclosed ground flares.

To remedy this omission, Formosa should consider whether it can use flare gas recovery to reduce the amount of gas it flares and thus reduce its emissions of both toxic air pollutants and greenhouse gases. Formosa should analyze flare gas recovery for technical feasibility and economical reasonableness.

IV. Formosa should install monitors along its fence line to protect the local community.

To protect the community from potential releases of dangerous amounts of air pollution, Formosa should install monitors along its fence line. There are several methods to monitor for pollutants at the fence line, including open path monitors, gas chromatographs, and canister monitors. Currently, the most comprehensive method is open path monitoring capable of detecting and measuring a wide range of pollutants in real time.

This type of open path monitoring at the fence line is a proven and readily available technology. California's South Coast Air Quality Management District recently passed a rule requiring open path monitoring at all refineries in its area. The goals of this rule are to:[9]

- Provide real-time information about air pollutant levels at the refinery fence line and in nearby communities.
- Understand long-term variations and trends of refinery related emissions.
- Help communities understand potential air quality impacts of refinery emissions.
- Provide a notification to the community if emissions exceed pre-determined thresholds.

[9] South Coast Air Quality Management District, *Rule 1180 - Refinery Community and Fenceline Air Monitoring,* available at http://www.aqmd.gov/home/rules-compliance/rules/support-documents/rule-1180-refinery-fenceline-monitoring-plans

- Enable refineries to quickly address significant changes in emissions.

Currently, numerous plants have proposed and implemented open path monitoring plans, including Chevron's El Segundo Refinery, Phillips 66's Carson and Wilmington Refineries, Valero's Wilmington Refinery, Tesoro's Carson and Wilmington Refineries, and Torrance Refining Company's Refinery. More information about open path monitoring is attached to these comments.[10]

For these reasons, Formosa should install open path, fence line monitoring as part of its requirement to adopt Best Available Control Technology for its flares.

V. Conclusion

San Antonio Bay Estuarine Waterkeeper appreciates the opportunity to file these comments. We hope the TCEQ and Formosa consider and adopt options that will reduce the need for flaring and protect the community from dangerous air pollution.

/s/Colin Cox
ENVIRONMENTAL INTEGRITY PROJECT
Colin Cox
Staff Attorney
1206 San Antonio St.
Austin, Texas 78701
832-316-0580
colincox@environmentalintegrity.org

Attorney for San Antonio Bay Estuarine Waterkeeper

[10] Envtl. Integrity Project, *Additional Information on the Need for Fenceline Monitoring* (April 2015), Attachment 1.

Tammy Johnson

From:	PUBCOMMENT-OCC
Sent:	Monday, June 2, 2025 3:00 PM
To:	PUBCOMMENT-OCC2; PUBCOMMENT-OPIC; PUBCOMMENT-ELD; PUBCOMMENT-APD
Subject:	FW: Public comment on Permit Number 140763
Attachments:	CCH Request_5.30.2025.pdf

H

Jesús Bárcena
Office of the Chief Clerk
Texas Commission on Environmental Quality
Office Phone: 512-239-3319

How is our customer service? Fill out our online customer satisfaction survey at:
www.tceq.texas.gov/customersurvey

From: mharrod@environmentalintegrity.org <mharrod@environmentalintegrity.org>
Sent: Friday, May 30, 2025 3:41 PM
To: PUBCOMMENT-OCC <PUBCOMMENT-OCC@tceq.texas.gov>
Subject: Public comment on Permit Number 140763

REGULATED ENTY NAME FORMOSA POINT COMFORT PLANT

RN NUMBER: RN100218973

PERMIT NUMBER: 140763

DOCKET NUMBER:

COUNTY: CALHOUN

PRINCIPAL NAME: FORMOSA PLASTICS CORPORATION TEXAS

CN NUMBER: CN600130017

NAME: Mariah Harrod

EMAIL: mharrod@environmentalintegrity.org

COMPANY: Environmental Integrity Project

ADDRESS: 98 San Jacinto Blvd. 400
Austin, TX 78701

PHONE: 8565038645

FAX:

COMMENTS: Please see attached request for a contested case hearing on behalf of San Antonio Bay Estuarine Waterkeeper.

ENVIRONMENTAL INTEGRITY PROJECT

May 30, 2025

Ms. Laurie Gharis
Chief Clerk, MC-105
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Via Electronic Filing

Re: Contested Case Hearing Request on Formosa Plastics Corporation's Point Comfort Plant's Application to Amend Air Quality Permit Numbers 140763, 19871, 91780, 19200, 19168, 107518, 20203, 40157, and 19201 and Modify Prevention of Significant Deterioration ("PSD") Air Quality Permit Numbers PSDTX1500M1, PSDTX1236M1, PSDTX1240M1, PSDTX1237M1, PSDTX1226M1, PSDTX1383M2, PSDTX1224M1, PSDTX1222M1

Dear Ms. Gharis,

On December 2, 2021, Formosa Plastics Corporation ("Formosa") applied to the Texas Commission on Environmental Quality ("TCEQ") to amend Air Quality Permit Numbers 140763, 19871, 91780, 19200, 19168, 107518, 20203, 40157, and 19201 and to modify Prevention of Significant Deterioration ("PSD") Air Quality Permit Numbers PSDTX1500M1, PSDTX1236M1, PSDTX1240M1, PSDTX1237M1, PSDTX1226M1, PSDTX1383M2, PSDTX1224M1, and PSDTX1222M1 ("Amendments") to authorize additional emissions from its Formosa Point Comfort Plant (the "Plant") in Calhoun County, Texas (the "Application"). These Amendments will authorize Formosa to build four new ground flares and to increase flaring emission limits at its existing elevated flares. Specifically, they would permit Formosa to increase its emissions of carbon monoxide by 1444 tons per year ("tpy"), volatile organic compounds by 522 tpy, and nitrogen oxides by 291 tpy.

On May 1, 2025, the Executive Director of TCEQ issued a response to comments from San Antonio Bay Estuarine Waterkeeper and others concerning the Amendments. That response did not resolve the issues identified, instead stating that the Application met applicable legal requirements and that no changes had been made to the draft permit as a result of public comment. The response then invited further requests for a contested case hearing. San Antonio Bay Estuarine Waterkeeper appreciates this additional opportunity to request a contested case hearing to resolve its remaining concerns on Formosa's Amendments.

I. Contested Case Hearing Request

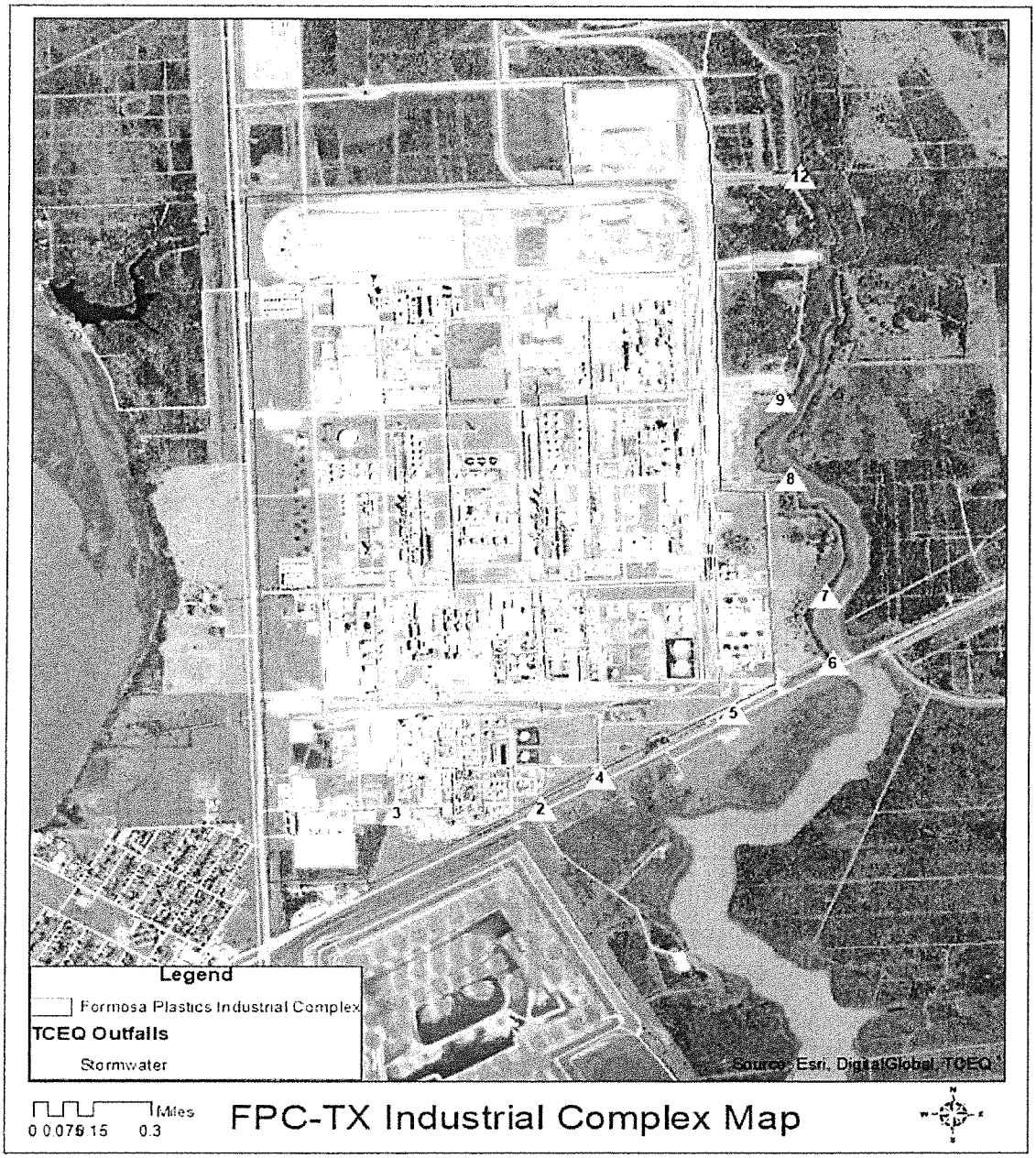
San Antonio Bay Estuarine Waterkeeper requests a contested case hearing on Formosa's Amendments. San Antonio Bay Estuarine Waterkeeper is a volunteer-run, local affiliate of the national Waterkeeper Alliance and is an unincorporated association organized under the laws of Texas. San Antonio Bay Estuarine Waterkeeper began in 2012 as a project of Calhoun County Research Watch, a 501(c)(3) nonprofit organization. San Antonio Bay Estuarine Waterkeeper's mission is to protect Lavaca Bay, Cox Bay, Keller Bay, Chocolate Bay, Matagorda Bay, San Antonio Bay, and Espiritu Santo Bay (the "Bays") and to educate the public about these ecologically important estuarine systems to ensure clean, healthy natural resources for public health and wildlife. San Antonio Bay Estuarine Waterkeeper also promotes the preservation of local wetlands and waterways for recreational uses, such as fishing, swimming, boating, and other watersports, to encourage appreciation and restoration of these areas.

Diane Wilson is a fourth-generation fisherwoman from Seadrift, Texas and the cofounder and Executive Director of San Antonio Bay Estuarine Waterkeeper. She resides at 600 Ramona Road, Seadrift, Texas 77983, about 19.6 miles from Formosa's Plant. Following in the footsteps of her parents and grandparents, Ms. Wilson worked in Lavaca Bay, Matagorda Bay, and San Antonio Bay for forty years as a commercial fisherwoman, shrimper, oysterman, fin fisher, and as a manager at a fish house. As the local fisheries collapsed in part due to the negative impacts of industrial pollution, Ms. Wilson began working to protect and restore the Bays.

In addition to supporting her economically, the Bays are also precious to her as the place where she and many generations of her family have lived and explored. Ms. Wilson frequently recreates in and around the Bay by walking on the beaches, kayaking, and swimming with her family. She swims with her children and grandchildren in Lavaca Bay—to which Formosa discharges wastewater—at Indianola and Magnolia Beaches, about 9 miles from Formosa, and motorboats and kayaks in northern Lavaca Bay and Cox Creek, which abut Formosa. The Lavaca Bay area is home to over 400 bird species, fish, dolphins, and turtles and, despite ever-increasing pollution from ever-expanding industrial facilities like Formosa, remains beautiful to Ms. Wilson. At Cox Creek, which runs along much of Formosa's fenceline, she loves kayaking under the thick trees hung with moss, surrounded by cranes, alligators, and fish, though she mourns Formosa's recent clearing of these trees to haul in heavy machinery for its plastic cleanup. She wishes to keep these areas pristine for her health and enjoyment. Accordingly, Ms. Wilson has spent decades fighting to protect the Bays from pollution—both to air and water.

As part of her work with San Antonio Bay Estuarine Waterkeeper, Ms. Wilson also visits Lavaca Bay and Cox Creek to monitor pollution. Since 2016, Ms. Wilson has visited these waters to look for plastic pellets at Formosa's wastewater and stormwater outfalls—each around 0.15 miles from the Plant's boundaries—by kayak, motorboat, or on foot at least once every few weeks. When on foot, she wades in the knee-deep parts of Cox Creek just outside Formosa's fenceline. She launches her boat from Waterfront Park—less than a mile from Formosa's public

entrance—to check Formosa's wastewater outfall in Lavaca Bay. Ms. Wilson often plans visits around rain events to see if stormwater overflow from Formosa results in plastic pellet discharges. She also times her visits around plastic cleanup events with Formosa's remediation consultant, per the Consent Decree entered in *San Antonio Bay Estuarine Waterkeeper v. Formosa Plastics, Texas*, No. 6:17-cv-00047 (S.D. Tex. Dec. 9, 2019), which remains in effect. She additionally visits to monitor Formosa's compliance with the "zero discharge" requirement of the Consent Decree. For example, on May 3, 2025, Ms. Wilson visited Formosa's outfall 6, depicted below as 0.15 miles from the Plant, to count plastic pellets:



Ms. Wilson plans to continue to visit areas less than 0.15 miles from the Plant for recreational visits, to enforce the Consent Decree (including through cleanups and plastic pellet monitoring), and to generally watchdog Formosa. Her visits have exposed, and will continue to expose, Ms. Wilson to the same flares affected by these Amendments. In December 2023, Ms. Wilson participated in a month-long hunger strike at Formosa's Gate 3 to protest Formosa's inadequate response to its pollution abroad. During that protest, she watched Formosa's flares actively combusting gases for 15 days straight. More recently, during the Cox Creek cleanup events, she estimates that she was within 30 feet from the flares when they were combusting gases. She has been so close to those active flares that the noise drowned out all conversation with her peers and all sounds from local wildlife and the surrounding waters, and the heat "felt like a furnace." Additionally, the smell from the active flares was "sickening," giving her such nausea she has felt close to vomiting.

Ms. Wilson is concerned that the additional flaring and air pollution from the Amendments could damage her health when she is recreating and working around Formosa's Plant. She understands that, following the Amendments, her visits to the outfalls will likely expose her to even higher amounts of air pollution—including carbon monoxide, nitrogen oxides, and volatile organic compounds—than before. After spending years speaking to Formosa's employees who suffered from cancers and neurological damage, Ms. Wilson is reasonably concerned that such exposure will harm her health. This gives her anxiety for her wellbeing as she feels compelled to visit those areas to prevent illegal pollution and does not believe she can prevent exposure. She is most concerned about being exposed to even greater amounts of carcinogenic volatile organic compounds as a result of the Amendments.

The Amendments will also reduce Ms. Wilson's enjoyment of Lavaca Bay's and Cox Creek's natural aesthetic beauty by allowing increased flaring and emissions of carbon monoxide, volatile organic compounds, and nitrogen oxides. These pollutants contribute to smog and algal blooms, impairing the beauty and health of the Bays that San Antonio Bay Estuarine Waterkeeper and Ms. Wilson wish to protect. Her experience of the heat, noise, and smell of Formosa's flares likewise diminishes her enjoyment of the area. Additionally, Ms. Wilson has spoken to the ranchers by Cox Creek, who informed her of a 2009 report by Texas A&M indicating genetic damage to cattle as far as six miles away from Formosa's Plant and believes Formosa's emissions similarly affect local wildlife. She is disheartened knowing that the natural beauty and peace of Cox Creek will be further diminished by the noise and pollutants from additional flaring, especially where that additional flaring harms, and thereby reduces, wildlife she is able to view and her quiet enjoyment of the area.

Ms. Wilson, a member of San Antonio Bay Estuarine Waterkeeper, has standing in her own right to request a contested case hearing because she regularly visits areas near Formosa and will be negatively impacted by increased flaring and air pollution authorized by the Amendments. By participating in this proceeding, San Antonio Bay Estuarine Waterkeeper seeks to protect the health, safety, and natural beauty of Lavaca and Cox Bays. This goal is germane to

the organization's purpose of protecting public health and the environment by combating pollution. Neither the claims asserted nor relief requested in this proceeding will require participation of individual San Antonio Bay Estuarine Waterkeeper members. Ms. Wilson may be contacted through Attorney Mariah Harrod, whose contact information is below.

II. Disputed Issues of Fact

San Antonio Bay Estuarine Waterkeeper provides the following list of relevant and material issues for consideration in a contested case hearing:

- Whether the proposed emissions will threaten the health and safety of nearby residents.
- Whether the proposed emissions will cause or contribute to exceedances of National Ambient Air Quality Standards ("NAAQS"), including (but not limited to) the NAAQS for nitrogen dioxide and ozone.
- Whether the proposed emissions will exceed allowable Prevention of Significant Deterioration Increments, including (but not limited to) nitrogen dioxide, carbon monoxide, and ozone.
- Whether the proposed emissions will cause nuisance conditions violating 30 Tex. Admin. Code § 101.4.
- Whether Draft Permit conditions are adequate to protect the public from cumulative risks in accordance with Tex. Water Code § 5.130.
- Whether the expanded Plant will be protective of welfare, including wildlife and the environment in the surrounding area.
- Whether Formosa's air quality analysis complies with TCEQ's rules and guidance.
- Whether the new and modified sources will use Best Available Control Technology.
- Whether the emissions calculation methodologies used in the Application are flawed or outdated.
- Whether proposed air monitoring and reporting requirements are adequate to ensure compliance with the Clean Air Act and to protect local residents.
- Whether the permits' monitoring, reporting, record keeping, and emission calculation requirements are sufficient to ensure compliance with the relevant emission limits, including limits for the flares.
- Whether Formosa and TCEQ adequately considered the environmental justice impacts of the proposed pollution increases.
- Whether Formosa and TCEQ supplied the public with adequate information to verify the bases for Formosa's claims and for TCEQ's decision to issue the permits.
- Whether the relevant permit provisions are adequate to ensure that Formosa's flares destroy 99% of volatile organic compounds with three or fewer carbon atoms.
- Whether the relevant permit provisions are adequate to ensure that Formosa's flares destroy 98% of volatile organic compounds with four or more carbon atoms.

- Whether Formosa underestimated its flares' potential emission rates for volatile organic compounds.
- Whether the 99% and 98% destruction removal efficiency rates are practically enforceable.
- Whether Formosa has incorporated sufficient monitoring, record keeping, and reporting requirements to ensure compliance with distinct emission caps applicable to the same flares.

III. Conclusion

San Antonio Bay Estuarine Waterkeeper appreciates the opportunity to file this request for a contested case hearing. San Antonio Bay Estuarine Waterkeeper reserves the right to provide additional information on the matters discussed in this document as allowed by the Clean Air Act, the Texas Clean Air Act, and regulations implementing these statutes. Please add the below signatory to your mailing list for this matter.

Sincerely,

/s/ Mariah Harrod

Mariah Harrod, Texas Bar No. 24143847
Environmental Integrity Project
98 San Jacinto Blvd, Suite 400
Austin, TX 78701
mharrod@environmentalintegrity.org
Phone: (856) 503-8645
Fax: (202) 296-8822

Attorney for San Antonio Bay Estuarine Waterkeeper