

# Texas Commission on Environmental Quality

## INTEROFFICE MEMORANDUM

**To:** Office of the Chief Clerk **Date:** March 22, 2023

**From:** Abigail Adkins, Environmental Law Division

**Subject:** Transmittal of Documents for Administrative Record  
Exfluor Research Corporation  
Permit No. 165848  
Air Program  
SOAH Docket No. 582-23-11659  
TCEQ Docket No. 2022-1552-AIR

In a contested case hearing, the administrative record includes copies of the public notices relating to the permit application. Also included are affidavits from the applicant verifying publication of the notices. The applicant files these affidavits directly with the Office of the Chief Clerk (OCC). In addition, the record includes the documents listed below that are provided to the OCC by the Executive Director's staff, as required by 30 TEX. ADMIN. CODE § 80.118.

This transmittal memo also serves to request that the OCC transmit the attached items and the public notice documents, including the notice of hearing, to the State Office of Administrative Hearings.

Documents included with this transmittal are as follows:

- The final draft permit, including any special conditions or provisions
- Maximum Allowable Emission Rate Table (MAERT)
- The summary of the technical review of the permit application
- The modeling audit memoranda
- The health effects review
- The compliance summary of the applicant
- The Executive Director's Preliminary Decision and the Executive Director's Decision on the Permit Application, if applicable.
- Any agency document determined by the Executive Director to be necessary to reflect the administrative and technical review of the application. The following documents are included:

The Executive Director's Response to Comments

Amended Air Quality Analysis Audit

Activity List from TCEQ Commissioner's Integrated Database for Exfluor

Research Corporation, Permit No. 165848



## Texas Commission on Environmental Quality Air Quality Permit

*A Permit Is Hereby Issued To*  
**Exfluor Research Corporation**  
*Authorizing the Construction and Operation of*  
**Exfluor Research**  
*Located at Florence, Williamson County, Texas*  
*Latitude 30° 47' 28" Longitude -97° 54' 15"*

State of Texas  
County of Travis  
JAN 04 2023  
I hereby certify this is a true and correct copy of a  
Texas Commission on Environmental Quality (TCEQ)  
document, which is filed in the Records of the Commission,  
given under my hand and the seal of office.  
Sharon H. Hester  
Alternating Custodian of Records  
Texas Commission on Environmental Quality

Permit: 165848

Issuance Date: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code (TAC) Section 116.116 (30 TAC § 116.116)]<sup>1</sup>
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]
6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and

operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]

8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources-- Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)] <sup>1</sup>
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC§ 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to "air pollution" as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit. <sup>1</sup>

<sup>1</sup> Please be advised that the requirements of this provision of the general conditions may not be applicable to greenhouse gas emissions.

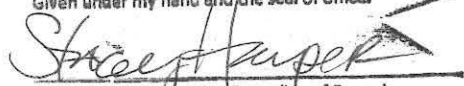
## Common Acronyms in Air Permits

°C = Temperature in degrees Celsius	GLCmax = maximum (predicted) ground-level concentration
°F = Temperature in degrees Fahrenheit	gpm = gallon per minute
°K = Temperature in degrees Kelvin	gr/1000scf = grain per 1000 standard cubic feet
µg = microgram	gr/dscf = grain per dry standard cubic feet
µg/m <sup>3</sup> = microgram per cubic meter	H <sub>2</sub> CO = formaldehyde
acfm = actual cubic feet per minute	H <sub>2</sub> S = hydrogen sulfide
AMOC = alternate means of control	H <sub>2</sub> SO <sub>4</sub> = sulfuric acid
AOS = alternative operating scenario	HAP = hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
AP-42 = Air Pollutant Emission Factors, 5th edition	HC = hydrocarbons
APD = Air Permits Division	HCl = hydrochloric acid, hydrogen chloride
API = American Petroleum Institute	Hg = mercury
APWL = air pollutant watch list	HGB = Houston/Galveston/Brazoria
BPA = Beaumont/ Port Arthur	hp = horsepower
BACT = best available control technology	hr = hour
BAE = baseline actual emissions	IFR = internal floating roof tank
bbl = barrel	in H <sub>2</sub> O = inches of water
bbl/day = barrel per day	in Hg = inches of mercury
bhp = brake horsepower	IR = infrared
BMP = best management practices	ISC3 = Industrial Source Complex, a dispersion model
Btu = British thermal unit	ISCST3 = Industrial Source Complex Short-Term, a dispersion model
Btu/scf = British thermal unit per standard cubic foot or feet	K = Kelvin; extension of the degree Celsius scaled-down to absolute zero
CAA = Clean Air Act	LACT = lease automatic custody transfer
CAM = compliance-assurance monitoring	LAER = lowest achievable emission rate
CEMS = continuous emissions monitoring systems	lb = pound
cfm = cubic feet (per) minute	hp = horsepower
CFR = Code of Federal Regulations	hr = hour lb/day = pound per day
CN = customer ID number	lb/hr = pound per hour
CNG = compressed natural gas	lb/MMBtu = pound per million British thermal units
CO = carbon monoxide	LDAR = Leak Detection and Repair (Requirements)
COMS = continuous opacity monitoring system	LNG = liquefied natural gas
CPMS = continuous parametric monitoring system	LPG = liquefied petroleum gas
DFW = Dallas/ Fort Worth (Metroplex)	LT/D = long ton per day
DE = destruction efficiency	m = meter
DRE = destruction and removal efficiency	m <sup>3</sup> = cubic meter
dscf = dry standard cubic foot or feet	m/sec = meters per second
dscfm = dry standard cubic foot or feet per minute	MACT = maximum achievable control technology
ED = (TCEQ) Executive Director	MAERT = Maximum Allowable Emission Rate Table
EF = emissions factor	MERA = Modeling and Effects Review Applicability
EFR = external floating roof tank	mg = milligram
EGU = electric generating unit	mg/g = milligram per gram
EI = Emissions Inventory	mL = milliliter
ELP = El Paso	MMBtu = million British thermal units
EPA = (United States) Environmental Protection Agency	MMBtu/hr = million British thermal units per hour
EPN = emission point number	MSDS = material safety data sheet
ESL = effects screening level	MSS = maintenance, startup, and shutdown
ESP = electrostatic precipitator	MW = megawatt
FCAA = Federal Clean Air Act	NAAQS = National Ambient Air Quality Standards
FCCU = fluid catalytic cracking unit	NESHAP = National Emission Standards for Hazardous Air Pollutants
FID = flame ionization detector	NGL = natural gas liquids
FIN = facility identification number	NNSR = nonattainment new source review
ft = foot or feet	NO <sub>x</sub> = total oxides of nitrogen
ft/sec = foot or feet per second	
g = gram	
gal/wk = gallon per week	
gal/yr = gallon per year	
GLC = ground level concentration	

NSPS = New Source Performance Standards  
 PAL = plant-wide applicability limit  
 PBR = Permit(s) by Rule  
 PCP = pollution control project  
 PEMS = predictive emission monitoring system  
 PID = photo ionization detector  
 PM = periodic monitoring  
 PM = total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented  
 PM<sub>2.5</sub> = particulate matter equal to or less than 2.5 microns in diameter  
 PM<sub>10</sub> = total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented  
 POC = products of combustion  
 ppb = parts per billion  
 ppm = parts per million  
 ppmv = parts per million (by) volume  
 psia = pounds (per) square inch, absolute  
 psig = pounds (per) square inch, gage  
 PTE = potential to emit  
 RA = relative accuracy  
 RATA = relative accuracy test audit  
 RM = reference method  
 RVP = Reid vapor pressure  
 scf = standard cubic foot or feet  
 scfm = standard cubic foot or feet (per) minute  
 SCR = selective catalytic reduction  
 SIL = significant impact levels  
 SNCR = selective non-catalytic reduction  
 SO<sub>2</sub> = sulfur dioxide  
 SOCM = synthetic organic chemical manufacturing industry  
 SRU = sulfur recovery unit  
 TAC = Texas Administrative Code  
 TCAA = Texas Clean Air Act  
 TCEQ = Texas Commission on Environmental Quality  
 TD = Toxicology Division  
 TLV = threshold limit value  
 TMDL = total maximum daily load  
 tpd = tons per day  
 tpy = tons per year  
 TVP = true vapor pressure  
 VOC = volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
 VRU = vapor recovery unit or system



I hereby certify this is a true and correct copy of a  
Texas Commission on Environmental Quality (TCEQ)  
document, which is filed in the Records of the Commission,  
Given under my hand and the seal of office.

  
Alternative Custodian of Records  
Texas Commission on Environmental Quality

**Special Conditions**

Permit Number 165848

1. This permit covers only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" (MAERT), and those sources are limited to the emission limits and other conditions specified in that table.
2. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing volatile organic compounds (VOC) at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the MAERT. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions.

**Emission Standards and Operational Specifications**

3. The process vents from the Fluorine Generators, Fluorination Reactors, Thermal Cracking Reactors, Distillation Units, Polishing Reactors, Reduction Reactors, Hydrolysis Reactors, Methanolysis Reactors, Bromination Reactors, Extraction Tank, Anhydride Flasks, Acrylate Flasks, and Drying Flask shall be routed to the Exhaust Gas Vent System (EPN EP3-1).
4. Annual production shall not the rates listed in the Table 2 Material Balance submitted with application form PI-1 dated July 9, 2021. Production records shall be updated monthly with the rates of each product produced during the previous month and rolling 12 months to date.
5. The thermal oxidizers shall be fired with hydrogen.

**Thermal Oxidizers**

6. The following requirements shall apply to Thermal Oxidizer 1 (EPN EP3-1).
  - A. Thermal Oxidizer 1 (EPN EP3-1), shall maintain the VOC concentration in the exhaust gas less than 10 ppmv on a dry basis, corrected to 3 percent oxygen, or achieve a VOC destruction efficiency greater than 99.9 percent.
  - B. The thermal oxidizer firebox exit temperature shall be maintained at not less than 2000°C and exhaust oxygen concentration not less than 3 percent on a six-minute average while waste gas is being fed into the oxidizer prior to initial stack testing. After the initial stack test has been completed, the six minute average temperature shall be equal to, or greater than the respective hourly average maintained during the most recent satisfactory stack testing required by Special Condition No. 9.
  - C. The thermal oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurement device shall reduce the temperature readings to an averaging period of 6 minutes or less and record it at that frequency. The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of  $\pm 0.75$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 2.5^\circ\text{C}$ .

Quality assured (or valid) data must be generated when the thermal oxidizer is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the

time (in minutes) that the thermal oxidizer operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

- D. The oxygen analyzer used to satisfy this Special Condition shall continuously monitor and record oxygen concentration when waste gas is directed to the oxidizer. It shall reduce the oxygen readings to an averaging period of 6 minutes or less and record it at that frequency.

The oxygen analyzer shall be zeroed and spanned daily and corrective action taken when the 24-hour span drift exceeds two times the amounts specified Performance Specification No. 3, 40 CFR Part 60, Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.

The analyzer shall be quality-assured at least semiannually using cylinder gas audits (CGAs) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.2, with the following exception: a relative accuracy test audit is not required once every four quarters (i.e., two successive semiannual CGAs may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive semiannual audits shall occur no closer than four months. Necessary corrective action shall be taken for all CGA exceedances of  $\pm 15$  percent accuracy and any continuous emissions monitoring system downtime in excess of 5 percent of the incinerator operating time. These occurrences and corrective actions shall be reported to the appropriate TCEQ Regional Director on a quarterly basis. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.

Quality assured (or valid) data must be generated when the thermal oxidizer is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the thermal oxidizer operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

7. The following requirements shall apply to Thermal Oxidizer 2 (EPN EP3-1).
- A. Thermal Oxidizer 2 (EPN EP3-1), shall maintain the VOC concentration in the exhaust gas less than 10 ppmv on a dry basis, corrected to 3 percent oxygen, or achieve a VOC destruction efficiency greater than 99.9 percent.
  - B. The thermal oxidizer firebox exit temperature shall be maintained at not less than 2000°C and exhaust oxygen concentration not less than 3 percent on a six-minute average while waste gas is being fed into the oxidizer prior to initial stack testing. After the initial stack test has been completed, the six minute average temperature shall be equal to, or greater than the respective hourly average maintained during the most recent satisfactory stack testing required by Special Condition No. 9.
  - C. The thermal oxidizer exhaust temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurement device shall reduce the temperature readings to an averaging period of 6 minutes or less and record it at that frequency. The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device

shall have an accuracy of the greater of  $\pm 0.75$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 2.5^{\circ}\text{C}$ .

Quality assured (or valid) data must be generated when the thermal oxidizer is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the thermal oxidizer operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

- D. The oxygen analyzer used to satisfy this Special Condition shall continuously monitor and record oxygen concentration when waste gas is directed to the oxidizer. It shall reduce the oxygen readings to an averaging period of 6 minutes or less and record it at that frequency.

The oxygen analyzer shall be zeroed and spanned daily and corrective action taken when the 24-hour span drift exceeds two times the amounts specified Performance Specification No. 3, 40 CFR Part 60, Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.

The analyzer shall be quality-assured at least semiannually using cylinder gas audits (CGAs) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.2, with the following exception: a relative accuracy test audit is not required once every four quarters (i.e., two successive semiannual CGAs may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive semiannual audits shall occur no closer than four months. Necessary corrective action shall be taken for all CGA exceedances of  $\pm 15$  percent accuracy and any continuous emissions monitoring system downtime in excess of 5 percent of the incinerator operating time. These occurrences and corrective actions shall be reported to the appropriate TCEQ Regional Director on a quarterly basis. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.

Quality assured (or valid) data must be generated when the thermal oxidizer is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the thermal oxidizer operated over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

## **Fugitives**

### ***Piping, Valves, Pumps, and Compressors in contact with Hydrogen Fluoride - 28AVO***

8. Except as may be provided for in the Special Conditions of this permit, the following requirements apply to the above-referenced equipment:
- A. Audio, olfactory, and visual checks for leaks within the operating area shall be made every four hours.



- B. Immediately, but no later than one hour upon detection of a leak, plant personnel shall take at least one of the following actions:
- (1) Isolate the leak.
  - (2) Commence repair or replacement of the leaking component.
  - (3) Use a leak collection/containment system to prevent the leak until repair or replacement can be made if immediate repair is not possible.

Date and time of each inspection shall be noted in the operator's log or equivalent. Records shall be maintained at the plant site of all repairs and replacements made due to leaks. These records shall be made available to representatives of the Texas Commission on Environmental Quality (TCEQ) upon request.

#### **Initial Determination of Compliance**

9. The permit holder shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the thermal oxidizers to demonstrate compliance with the MAERT and Special Condition Nos. 6.A. and 7.A. The permit holder is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual and the U.S. Environmental Protection Agency (EPA) Reference Methods.

Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for Title 40 Code of Federal Regulation Part 60 (40 CFR Part 60) testing which must have EPA approval shall be submitted to the TCEQ Regional Director.

- A. The appropriate TCEQ Regional Office shall be notified not less than 45 days prior to sampling. The notice shall include:
- (1) Proposed date for pretest meeting.
  - (2) Date sampling will occur.
  - (3) Name of firm conducting sampling.
  - (4) Type of sampling equipment to be used.
  - (5) Method or procedure to be used in sampling.
  - (6) Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA sampling procedures.
  - (7) Procedure/parameters to be used to determine worst case emissions.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for the test reports. The TCEQ Regional Director must approve any deviation from specified sampling procedures.

- B. Air contaminants emitted from the thermal oxidizers to be tested for include (but are not limited to) VOC.

- C. Sampling shall occur within 60 days after achieving the maximum operating rate, but no later than 180 days after initial start-up of the facilities (or increase in production, as appropriate) and at such other times (identify the need for any periodic sampling here) as may be required by the TCEQ Executive Director. Requests for additional time to perform sampling shall be submitted to the appropriate regional office.
- D. The facility being sampled shall operate at maximum production during stack emission testing. These conditions/parameters and any other primary operating parameters that affect the emission rate shall be monitored and recorded during the stack test. Any additional parameters shall be determined at the pretest meeting and shall be stated in the sampling report. Permit conditions and parameter limits may be waived during stack testing performed under this condition if the proposed condition/parameter range is identified in the test notice specified in paragraph A and accepted by the TCEQ Regional Office. Permit allowable emissions and emission control requirements are not waived and still apply during stack testing periods.

During subsequent operations, if the production is greater than that recorded during the test period, stack sampling shall be performed at the new operating conditions within 120 days. This sampling may be waived by the TCEQ Air Section Manager for the region.
- E. Copies of the final sampling report shall be forwarded to the offices below within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions entitled "Chapter 14, Contents of Sampling Reports" of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the appropriate TCEQ Regional Office.  
One copy to each local air pollution control program.
- F. Sampling ports and platform(s) shall be incorporated into the design of (source stack and EPN) according to the specifications set forth in the attachment entitled "Chapter 2, Guidelines for Stack Sampling Facilities" of the Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual. Alternate sampling facility designs must be submitted for approval to the TCEQ Regional Director.

#### **Disaster Review**

- 10. The holder of this permit shall comply with EPA regulations on Chemical Accident Prevention Provisions promulgated in 40 CFR Part 68. The Risk Management Plan (RMP) shall be submitted to the TCEQ Office of Air, Air Permits Division prior to the date this site first exceeds a threshold quantity of hydrogen fluoride.

#### **Chemical Flexibility**

- 11. Except as provided for below, the use of compounds at the Exflor Research Corporation facility is limited to those identified in the permit application, PI-1 dated, July 7, 2021 (including subsequent submittals made during the permit application review process). New compounds may be added through the use of the procedure below, 30 TAC Chapter 106, or 30 TAC Chapter 116.
  - A. Short-term (pounds per hour [lb/hr]) and annual (TPY) emissions and calculations shall be completed for each chemical at each affected source. Emission rates (ER) shall be calculated with the methods documented in the permit application PI-1 dated, July 7, 2021.

The calculated ER shall not exceed the maximum allowable emissions rate at any emission point.

- B. The Effect Screening Level (ESL) for the compound shall be obtained from the current TCEQ ESL list or by written request to the TCEQ Toxicology Section.
- C. The new compounds or chemicals shall serve the same basic function and the emissions shall be from the same location as the emissions from the current materials.
- D. All the compounds within a new mixture are known, i.e. the weight percentages of the ingredients add to 100 percent or more.
- E. Any air contaminant compound in a new mixture is exempt from the requirements of subparagraph F. below if it meets one of the following conditions:
  - (1) It is emitted at a rate and has a short-term Effects Screening Level (ESL) as stated in the following table; or

Emission Rate (lbs/hr)	Short-term ESL ( $\mu\text{g}/\text{m}_3$ )
$\leq 0.04$	$\geq 2$ & $< 500$
$\leq 0.10$	$\geq 500$ & $< 3,500$
$\leq 0.40$	$\geq 3,500$

- (2) It has a true vapor pressure at 68°F of less than 0.01 mm Hg.
- F. For all other new or increased air contaminants the following procedure shall be completed:
  - (1) Determine the emission rate (ER) of each air contaminant ingredient including emissions of the same air contaminant from currently authorized materials that may be emitted at the same time from each emission point.
  - (2) Multiply the emission rate of the air contaminant by the unit impact multiplier for each emission point from the following table to determine the off-property impact (Ground Level Concentration (GLC)) for each emission point.

Emission Point	Unit Impact ( $\mu\text{g}/\text{m}_3$ per lb/hr)
EP3-1	415.37
EP3-2	56.87
EP3-3	57.54
FUG3-1	37.36
FUG3-2	57.59
FUG3-3	55.58
FUG3-4	55.87

- (3) Sum the impacts from each emission point/emission point group to determine a total off- property impact (Total  $\text{GLC}_{\text{MAX}}$ ) for the new or increased air contaminant.
- (4) Compare the total off-property impact to the ESL for the air contaminant as

follows:  $\text{Total GLC}_{\text{MAX}} \leq \text{ESL}_{\text{NEW}}$

Where:

$\text{Total GLC}_{\text{MAX}}$  = the sum of the GLCs from each emission point.

$\text{ESL}_{\text{new}}$  = short-term ESL of new ingredient air contaminant from the most current ESL list published by the TCEQ or as specifically derived by TCEQ Toxicology Section. The ESL shall be obtained in writing prior to the use of the new or increased air contaminant.

- G. Short-term emission rates from new or increased air contaminants shall not cause any increases in air contaminant category annual emission rates as listed on the maximum allowable emission rates table (MAERT).
- H. The permit holder shall maintain records of the information below and the demonstrations in steps A through C above. The following documentation is required for each compound:
- (1) Chemical name(s), composition, and chemical abstract registry number if available.
  - (2) True vapor pressure at maximum hourly and annual average storage temperature.
  - (3) Molecular weight.
  - (4) Storage tanks, loading areas, and fugitive areas where the material is to be handled and the emission control device to be utilized.
  - (5) Date new compound handling commenced.
  - (6) Material Safety Data Sheet.
  - (7) Maximum concentration of the chemical in mole percent (or in weight percent for fugitive areas) in the affected facilities

#### Permit by Rule

12. The following sources and/or activities are authorized under a Permit by Rule (PBR) by Title 30 Texas Administrative Code Chapter 106 (30 TAC Chapter 106). These lists are not intended to be all inclusive and can be altered without modifications to this permit.

Authorization	Source or Activity
30 TAC § 106.263 (effective 11/01/01)	Routine Facility Maintenance

Date: TBD

JAN 04 2023

I hereby certify this is a true and correct copy of a Texas Commission on Environmental Quality (TCEQ) document, which is filed in the Records of the Commission. Given under my hand and the seal of office.

Emission Sources - Maximum Allowable Emission Rates

Permit Number 165848

*Sharon Harper*  
Alternative Custodian of Records  
Texas Commission on Environmental Quality

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
EP3-1	Exhaust Gas Vent System, Thermal Oxidizer 1, and Thermal Oxidizer 2	VOC	0.16	0.14
		NO <sub>x</sub>	0.03	0.13
		CO	0.04	0.18
		PM	<0.01	0.02
		PM <sub>10</sub>	<0.01	0.02
		PM <sub>2.5</sub>	<0.01	0.02
		HF	<0.01	0.03
		HCl	0.02	0.09
		F <sub>2</sub>	<0.01	<0.01
		Br <sub>2</sub>	<0.01	<0.01
		HBr	<0.01	<0.01
		Exempt organic compounds	1.05	4.40
EP3-2	Washing Reactor 1	VOC	0.73	0.20
EP3-3	Washing Reactor 2	VOC	0.98	0.27
EP3-4	Water Reservoir	VOC	< 0.01	0.02
FUG3-1	Building 3 Fugitives (5)	VOC	1.75	7.67
		HF	0.13	0.56
		F <sub>2</sub>	0.10	0.45
		Br <sub>2</sub>	0.14	0.60
		H <sub>2</sub>	0.06	0.26
		Exempt organic compounds	1.65	7.21
FUG3-2	Reduction Reactor 1 Fugitives (5)	VOC	0.03	0.13
		HCl	0.01	0.03



Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
FUG3-3	Reduction Reactor 2 Fugitives (5)	VOC	0.03	0.13
		HCl	0.01	0.02
		Exempt organic compounds	0.06	0.26
FUG3-4	Reduction Reactor 3 Fugitives (5)	VOC	0.06	0.25
		HCl	0.01	0.01
		Exempt organic compounds	0.10	0.42
FUG3-5	Solvent Strip Column 3 Fugitives (5)	VOC	< 0.01	< 0.01
		Exempt organic compounds	0.01	0.04

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

(2) Specific point source name. For fugitive sources, use area name or fugitive source name.

(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

NO<sub>x</sub> - total oxides of nitrogen

CO - carbon monoxide

HF - hydrogen fluoride

HCl - hydrogen chloride

F<sub>2</sub> - Fluorine

Br<sub>2</sub> - Bromine

HBr - hydrogen bromide

H<sub>2</sub> - hydrogen

Exempt organic compounds - Those carbon compounds or mixtures of carbon compounds which have been excluded from the definition of volatile organic compound.

(4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.

(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: TBD

## Construction Permit Source Analysis & Technical Review

Company	Exflur Research Corporation	Permit Number	165848
City	Florence	Project Number	331049
County	Williamson	Regulated Entity Number	RN110969227
Project Type	Initial	Customer Reference Number	CN602696791
Project Reviewer	Cara Hill	Received Date	July 9, 2021
Site Name	Exflur Research		

### Project Overview

Exflur Research Corporation (Exflur) submitted an initial expedited permit application proposing to construct a new specialty manufacturing facility located near Florence, Williamson County. The proposed facility will produce a variety of perfluorocarbons. Maintenance, Startup, and Shutdown (MSS) activities will be authorized by Permit by Rule (PBR) 106.263.

Exflur Research Corporation is proposing to build a new specialty manufacturing facility that will produce a variety of perfluorocarbons.

### Emission Summary

Air Contaminant	Proposed Allowable Emission Rates (tpy)
PM	0.02
PM <sub>10</sub>	0.02
PM <sub>2.5</sub>	0.02
VOC	8.79
NO <sub>x</sub>	0.13
CO	0.18
Fluoride	20.18

I hereby certify this is a true and correct copy of a  
Texas Commission on Environmental Quality (TCEQ)  
document, which is filed in the Records of the Commission.  
Given under my hand and the seal of office.  
*Sharon J. Harper*  
Alternative Custodian of Records  
Texas Commission on Environmental Quality

State of Texas  
County of Travis

JAN 04 2023

### Compliance History Evaluation - 30 TAC Chapter 60 Rules

A compliance history report was reviewed on:	July 14, 2021
Site rating & classification:	N/A
Company rating & classification:	3.31 / Satisfactory
Has the permit changed on the basis of the compliance history or rating?	No
Did the Regional Office have any comments? If so, explain.	No

### Public Notice Information

Requirement	Date
Legislator letters mailed	7/14/2021
Date 1 <sup>st</sup> notice published	07/28/2021
Publication Name: <i>Williamson County Sun</i>	
Pollutants: hydrogen fluorides, carbon monoxide, hazardous air pollutants, nitrogen oxides and organic compounds	
Date 1 <sup>st</sup> notice Alternate Language published	07/29/2021

## Construction Permit Source Analysis & Technical Review

Permit Number: 165848

Regulated Entity No. RN110969227

Page 2

Requirement	Date
Publication Name (Alternate Language): <i>El Mundo</i>	
1 <sup>st</sup> public notice tearsheet(s) received	08/05/2021
1 <sup>st</sup> public notice affidavit(s) received	08/05/2021
1 <sup>st</sup> public notice certification of sign posting/application availability received	09/07/2021
SB709 Notification mailed	7/14/2021 (re-notice 2/17/2022)
Date 2 <sup>nd</sup> notice published	
Publication Name:	
Pollutants:	
Date 2 <sup>nd</sup> notice published (Alternate Language)	
Publication Name (Alternate Language):	
2 <sup>nd</sup> public notice tearsheet(s) received	
2 <sup>nd</sup> public notice affidavit(s) received	
2 <sup>nd</sup> public notice certification of sign posting/application availability received	

### Public Interest

Number of comments received	
Number of meeting requests received	
Number of hearing requests received	
Date meeting held	
Date response to comments filed with OCC	
Date of SOAH hearing	

### Federal Rules Applicability

Requirement	
Subject to NSPS?	<b>No</b>
Subparts <b>N/A</b>	
Subject to NESHAP?	<b>No</b>
Subparts <b>N/A</b>	
Subject to NESHAP (MACT) for source categories?	<b>No</b>
Subparts <b>N/A</b>	

Nonattainment review applicability:

The manufacturing plant is located in Williamson County, which is classified as attainment for all criteria pollutants.

Nonattainment review is not applicable.

# **Construction Permit Source Analysis & Technical Review**

Permit Number: 165848

Regulated Entity No. RN110969227

Page 3

## **Requirement**

PSD review applicability:

The manufacturing plant is located in Williamson County, which is classified as attainment for all criteria pollutants. The plant is a named source and has a potential to emit (PTE) less than 100 tpy for all pollutants. PSD review is not applicability.

## **Title V Applicability - 30 TAC Chapter 122 Rules**

### **Requirement**

Title V applicability:

The site is a minor source and not subject to the Title V program.

Periodic Monitoring (PM) applicability:

This site is a minor source and is not subject to 40 CFR 70 periodic monitoring requirements; however, the following monitoring requirements apply.

- Continuous monitoring of temperature and oxygen for the thermal oxidizer.
- Implementation of the 28AVO monitoring program.

Compliance Assurance Monitoring (CAM) applicability:

CAM is not applicable because the site is not a major source.

## **Process Description**

Exflur facility consists of 1 large warehouse building that includes office space and laboratories situated on over 36 acres. Exflur will produce a variety of specialty fluorocarbons by a fluorination process. Various hydrocarbons are slowly reacted with fluorine (F<sub>2</sub>) gas in a stirred fluorine-inert solvent. The resulting products are typically purified by distillation to give the perfluorinated (completely fluorinated) products. The fluorine gas used in making the products is generated onsite. The detailed process description is considered confidential and is provided in the separate confidential part of the permit application.

## **Project Scope**

Exflur is requesting authorization for a new facility that will produce a variety of perfluorocarbons. A summary of the draft permit requirements, including control, monitoring, recordkeeping and reporting requirements, is given below.

SC No.	Comment
1	Incorporates MAERT and limits scope of authorization to sources listed on MAERT.
2	Generic prohibition on releases from uncontrolled process vents, limits on permit holder's ability to claim affirmative defense under 30 TAC Chap. 101 for releases from pressure relief devices.
3	Required control of process vents.
4	Production limitations.
5	Fuel specification.
6-7	Operational requirements for thermal oxidizers, including continuous parametric monitoring requirements.
8	Required LDAR program.
9	Stack sampling requirements.
10	RMP requirements
11	Chemical flexibility requirements.
12	Permit by rule incorporated by reference

## Construction Permit Source Analysis & Technical Review

Permit Number: 165848  
Page 4

Regulated Entity No. RN110969227

### Best Available Control Technology

EPN	Source Name	Best Available Control Technology Description
EP3-1	Thermal Oxidizer 1	The thermal oxidizer must achieve 99.9% destruction efficiency. This is to be demonstrated through initial stack sampling and by maintaining the firebox temperature at or above the temperature demonstrated during the stack test (6-minute average) during subsequent operations. Prior to the initial stack test, the firebox temperature must be maintained at or above 2000°C. Collateral NO <sub>x</sub> emissions are limited to 0.06 lb/MMBtu, based on the higher heating value of the waste gas.
EP3-1	Thermal Oxidizer 2	The thermal oxidizer must achieve 99.9% destruction efficiency. This is to be demonstrated through initial stack sampling and by maintaining the firebox temperature at or above the temperature demonstrated during the stack test (6-minute average) during subsequent operations. Prior to the initial stack test, the firebox temperature must be maintained at or above 2000°C. Collateral NO <sub>x</sub> emissions are limited to 0.06 lb/MMBtu, based on the higher heating value of the waste gas.
EP3-1	Process Vents	Process vents other than EPN EP3-2 and EPN EP3-3 will be routed to one of the thermal oxidizers.
EP3-2	Washing Reactor 1	Process vent are uncontrolled and are limited in time, duration, and/or concentration of vent stream.
EP3-3	Washing Reactor 2	
EP3-4	Water Reservoir	
FUG3-1	Building 3 Fugitives	Uncontrolled sitewide VOC fugitives are less than 10 tpy. Monitoring of components in HF service are monitored with the 28 AVO program.
FUG3-2	Reduction Reactor 1 Fugitives	
FUG3-3	Reduction Reactor 2 Fugitives	
FUG3-4	Reduction Reactor 3 Fugitives	
FUG3-5	Solvent Strip Column 3 Fugitives	

### Permits Incorporation

Permit by Rule (PBR) / Standard Permit / Permit Nos.	Description (include affected EPNs)	Action (Reference / Consolidate / Void)
N/A	N/A	N/A

### Impacts Evaluation

Was modeling conducted?	Yes	Type of Modeling:	AERMOD
Is the site within 3,000 feet of any school?	No		
Additional site/land use information: N/A			

Air dispersion modeling was performed by the applicant to evaluate total air emissions from the proposed plant. Based on the results of the dispersion model, emissions from the site are not expected to result in a violation of any state or national ambient air quality standard. Emissions of non-criterial air contaminants are not expected to create adverse impacts to public health. The air dispersion modeling demonstration was audited by the TCEQ Air Dispersion Modeling Team and approved. The results are summarized in a memo dated November 18, 2021 (WCC Content ID 5843027).



***Construction Permit  
Source Analysis & Technical Review***

Permit Number: 165848  
Page 5

Regulated Entity No. RN110969227

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Project Reviewer  
Cara Hill

Date

Team Leader  
Joel Stanford

Date

## TCEQ Interoffice Memorandum

To: Cara Hill  
Mechanical/Coatings Section

Thru: Chad Dumas, Team Leader  
Air Dispersion Modeling Team (ADMT)

From: Ahmed Omar, P.E.  
ADMT

Date: November 18, 2021

Subject: **Air Quality Analysis Audit – Exflur Research Corporation (RN110969227)**

State of Texas  
County of Travis

JAN 20 2023

I hereby certify this is a true and correct copy of a Texas Commission on Environmental Quality (TCEQ) document, which is filed in the Records of the Commission. Given under my hand and the seal of office.

*Stacey Harper*  
Alternative Custodian of Records  
Texas Commission on Environmental Quality

### 1. Project Identification Information

Permit Application Number: 165848  
NSR Project Number: 331049  
ADMT Project Number: 7632  
County: Williamson  
Published Map: [\\tceq4avmgisdata\GISWRK\APD\MODEL PROJECTS\7632\7632.pdf](#)

Air Quality Analysis: Submitted by Waid Environmental, October 2021, on behalf of Exflur Research Corporation. Additional information was provided November 2021.

### 2. Report Summary

The air quality analysis is acceptable for all review types and pollutants. The results are summarized below.

#### A. Minor Source NSR and Air Toxics Analysis

Table 1. Modeling Results for Minor NSR De Minimis

Pollutant	Averaging Time	GLCmax ( $\mu\text{g}/\text{m}^3$ )	De Minimis ( $\mu\text{g}/\text{m}^3$ )
PM <sub>10</sub>	24-hr	0.1	5
PM <sub>2.5</sub>	24-hr	0.1	1.2
PM <sub>2.5</sub>	Annual	0.01	0.2
NO <sub>2</sub>	1-hr	7	7.5
NO <sub>2</sub>	Annual	0.1	1
CO	1-hr	10	2000
CO	8-hr	3	500

The GLCmax are the maximum predicted concentrations associated with one year of meteorological data.

# TCEQ Interoffice Memorandum

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Generic modeling was used for the above analyses; refer to section 3 for more details on the generic modeling.

The justification for selecting the EPA's interim 1-hr NO<sub>2</sub> De Minimis level was based on the assumptions underlying EPA's development of the 1-hr NO<sub>2</sub> De Minimis level. As explained in EPA guidance memoranda<sup>1</sup>, the EPA believes it is reasonable as an interim approach to use a De Minimis level that represents 4% of the 1-hr NO<sub>2</sub> NAAQS.

The PM<sub>2.5</sub> De Minimis levels are the EPA recommended De Minimis levels. The use of the EPA recommended De Minimis levels is sufficient to conclude that a proposed source will not cause or contribute to a violation of a PM<sub>2.5</sub> NAAQS based on the analyses documented in EPA guidance and policy memorandums<sup>2</sup>.

To evaluate secondary PM<sub>2.5</sub> impacts, the applicant provided an analysis based on a Tier 1 demonstration approach consistent with the EPA's Guideline on Air Quality Models. Specifically, the applicant used a Tier 1 demonstration tool developed by the EPA referred to as Modeled Emission Rates for Precursors (MERPs). The basic idea behind the MERPs is to use technically credible air quality modeling to relate precursor emissions and peak secondary pollutants impacts from a source. Using data associated with the worst-case source, the applicant estimated 24-hr and annual secondary PM<sub>2.5</sub> concentrations of 0.0001 µg/m<sup>3</sup> and <0.0001 µg/m<sup>3</sup>, respectively. When these estimates are added to the GLCmax listed in the table above, the results are less than the De Minimis levels.

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<sup>1</sup> [www.tceq.texas.gov/assets/public/permitting/air/memos/guidance\\_1hr\\_no2naaqs.pdf](http://www.tceq.texas.gov/assets/public/permitting/air/memos/guidance_1hr_no2naaqs.pdf)

<sup>2</sup> [www.tceq.texas.gov/permitting/air/modeling/epa-mod-guidance.html](http://www.tceq.texas.gov/permitting/air/modeling/epa-mod-guidance.html)

# TCEQ Interoffice Memorandum

**Table 2. Minor NSR Site-wide Modeling Results for Health Effects**

Pollutant	CAS#	Averaging Time	GLCmax (µg/m³)	GLCmax Location	GLCni (µg/m³)	GLCni Location	ESL (µg/m³)
hydrogen fluoride	7664-39-3	1-hr	6	-	<6	-	18
hydrogen fluoride   For air permit reviews in agricultural areas	7664-39-3	1-hr	3.9	Eastern Property Line	-	-	3
hydrogen fluoride   For air permit reviews in agricultural areas with cattle	7664-39-3	Annual	0.3	-	-	-	0.75
fluorine	7782-41-4	1-hr	3.9	Western Property Line	3.9	Western Property Line	2
perfluoroheptane	335-57-9	1-hr	22	-	<22	-	20000
methanol	67-56-1	1-hr	38	-	<38	-	3900
perfluorooctanoic acid and its inorganic salts	335-67-1	1-hr	<0.01	-	<0.01	-	0.05
bromine	7726-95-6	1-hr	5	-	<5	-	7
hydrogen chloride	7647-01-0	1-hr	4	-	<4	-	190
hydrogen chloride	7647-01-0	Annual	0.1	-	<0.1	-	7.9
carbon tetrafluoride	75-73-0	1-hr	154	-	<154	-	18000
Perfluoro (bis-2-chloroethoxy methane)	Not found	1-hr	7	-	<7	-	200
Perfluorodecalin	306-94-5	1-hr	22	-	<22	-	200
polymers of chlorotrifluoroethylene (PCTFE)	9002-83-9	1-hr	17	-	<17	-	50

## TCEQ Interoffice Memorandum

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Pollutant	CAS#	Averaging Time	GLCmax (µg/m <sup>3</sup> )	GLCmax Location	GLCni (µg/m <sup>3</sup> )	GLCni Location	ESL (µg/m <sup>3</sup> )
carbonyl fluoride   For air permit reviews in agricultural areas with cattle	353-50-4	Annual	0.03	-	<0.03	-	0.71
trifluoroacetic acid   For air permit reviews in agricultural areas with cattle	76-05-1	Annual	0.03	-	<0.03	-	0.71

**Table 3. Minor NSR Hours of Exceedance for Health Effects**

Pollutant	Averaging Time	1 X ESL GLCni
fluorine	1-hr	99

For fluorine, the GLCmax and the GLCni are the same. Pollutant-specific modeling was conducted for fluorine and 1-hr hydrogen fluoride at agricultural areas. For all other pollutants and averaging times, generic modeling was used; refer to section 3 for more details on the generic modeling.



# TCEQ Interoffice Memorandum

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## 3. Model Used and Modeling Techniques

AERMOD (Version 21112) was used in a refined screening mode.

A unitized emission rate of 1 lb/hr was used to predict a generic short-term and long-term impact for each source. The generic impact was multiplied by the proposed pollutant specific emission rates to calculate a maximum predicted concentration for each source. The maximum predicted concentration for each source was summed to get a total predicted concentration for each pollutant. Pollutant-specific modeling was conducted for fluorine and 1-hr hydrogen fluoride at agricultural areas.

### A. Land Use

Medium roughness and elevated terrain were used in the modeling analysis. These selections are consistent with the AERSURFACE analysis, topographic map, DEMs, and aerial photography. The selection of medium roughness is reasonable.

### B. Meteorological Data

Surface Station and ID: Austin, TX (Station #: 13904)  
Upper Air Station and ID: Fort Worth, TX (Station #: 3990)  
Meteorological Dataset: 2016  
Profile Base Elevation: 150.9 meters

### C. Receptor Grid

The grid modeled was sufficient in density and spatial coverage to capture representative maximum ground-level concentrations.

### D. Building Wake Effects (Downwash)

Input data to Building Profile Input Program Prime (Version 04274) are consistent with the aerial photography, plot plan, and modeling report.

## 4. Modeling Emissions Inventory

The modeled emission point and volume source parameters and rates were consistent with the modeling report. The source characterizations used to represent the sources were appropriate.

The applicant assumed full conversion of NO<sub>x</sub> to NO<sub>2</sub>, which is conservative.

Maximum allowable hourly emission rates were used for the short-term averaging time analyses, and annual average emission rates were used for the annual averaging time analyses.



# Compliance History Report

Compliance History Report for CN602696791, RN110969227, Rating Year 2021 which includes Compliance History (CH) components from September 1, 2016, through August 31, 2021.

<b>Customer, Respondent, or Owner/Operator:</b>	CN602696791, Exflur Research Corporation	<b>Classification:</b> UNCLASSIFIED	<b>Rating:</b> -----
<b>Regulated Entity:</b>	RN110969227, EXFLUOR RESEARCH	<b>Classification:</b> UNCLASSIFIED	<b>Rating:</b> -----
<b>Complexity Points:</b>	5	<b>Repeat Violator:</b>	NO
<b>CH Group:</b>	05 - Chemical Manufacturing		
<b>Location:</b>	1100 CR 236 FLORENCE, TX 76527, WILLIAMSON COUNTY		
<b>TCEQ Region:</b>	REGION 11 - AUSTIN		
<b>ID Number(s):</b>			
<b>AIR NEW SOURCE PERMITS</b>	PERMIT 165848	<b>EDWARDS AQUIFER PERMIT</b>	11003164
<b>WASTEWATER PERMIT</b>	WQG100041		
<b>Compliance History Period:</b>	September 01, 2016 to August 31, 2021	<b>Rating Year:</b>	2021
		<b>Rating Date:</b>	09/01/2021
<b>Date Compliance History Report Prepared:</b>	November 17, 2022		
<b>Agency Decision Requiring Compliance History:</b>	Enforcement		
<b>Component Period Selected:</b>	September 09, 2016 to September 09, 2021		
<b>TCEQ Staff Member to Contact for Additional Information Regarding This Compliance History.</b>			
<b>Name:</b>	TCEQ Staff Member		<b>Phone:</b> (512) 239-1000

## Site and Owner/Operator History:

- 1) Has the site been in existence and/or operation for the full five year compliance period? NO
- 2) Has there been a (known) change in ownership/operator of the site during the compliance period? NO

## Components (Multimedia) for the Site Are Listed in Sections A - J

### A. Final Orders, court judgments, and consent decrees:

N/A

### B. Criminal convictions:

N/A

### C. Chronic excessive emissions events:

N/A

### D. The approval dates of investigations (CCEDS Inv. Track. No.):

N/A

### E. Written notices of violations (NOV) (CCEDS Inv. Track. No.):

A notice of violation represents a written allegation of a violation of a specific regulatory requirement from the commission to a regulated entity. A notice of violation is not a final enforcement action, nor proof that a violation has actually occurred.

N/A

### F. Environmental audits:

N/A

### G. Type of environmental management systems (EMSs):

N/A

State of Texas  
County of Travis  
JAN 04 2023  
I hereby certify this is a true and correct copy of a  
Texas Commission on Environmental Quality (TCEQ)  
document, which is filed in the Records of the Commission,  
Given under my hand and the seal of office.  
Sharon L. Anderson  
Alternative Custodian of Records  
Texas Commission on Environmental Quality

**H. Voluntary on-site compliance assessment dates:**

N/A

**I. Participation in a voluntary pollution reduction program:**

N/A

**J. Early compliance:**

N/A

**Sites Outside of Texas:**

N/A

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



## EXAMPLE A

### NOTICE OF APPLICATION AND PRELIMINARY DECISION FOR AN AIR QUALITY PERMIT

**PROPOSED PERMIT NUMBER: 165848**

**APPLICATION AND PRELIMINARY DECISION.** Exflur Research Corporation has applied to the Texas Commission on Environmental Quality (TCEQ) for issuance of Proposed Air Quality Permit Number 165848, which would authorize construction of the Exflur Research facility located at 1100 County Road 236, Florence, Williamson County, Texas 76527. This application was processed in an expedited manner, as allowed by the commission's rules in 30 Texas Administrative Code, Chapter 101, Subchapter J. This application was submitted to the TCEQ on July 9, 2021. The proposed facility will emit the following contaminants: hydrogen fluorides, carbon monoxide, hazardous air pollutants, nitrogen oxides and organic compounds.

The executive director has completed the technical review of the application and prepared a draft permit which, if approved, would establish the conditions under which the facility must operate. The executive director has made a preliminary decision to issue the permit because it meets all rules and regulations. The permit application, executive director's preliminary decision, and draft permit will be available for viewing and copying at the TCEQ central office, the TCEQ Austin regional office, and at the Eula Hunt Beck Florence Public Library, 207 East Main Street, Williamson County, Texas beginning the first day of publication of this notice. The facility's compliance file, if any exists, is available for public review at the TCEQ Austin Regional Office, 12100 Park 35 Circle Building A Room 179, Austin, Texas.

**PUBLIC COMMENT/PUBLIC MEETING.** You may submit public comments or request a public meeting about this application. The purpose of a public meeting is to provide the opportunity to submit comment or to ask questions about the application. The TCEQ will hold a public meeting if the executive director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing. **You may submit additional written public comments within 30 days of the date of newspaper publication of this notice in the manner set forth in the AGENCY CONTACTS AND INFORMATION paragraph below.**

**RESPONSE TO COMMENTS AND EXECUTIVE DIRECTOR ACTION.** After the deadline for public comments, the executive director will consider the comments and prepare a response to all relevant and material or significant public comments. Because no timely hearing requests have been received, after preparing the response to comments, the executive director may then issue final approval of the application. **The response to comments, along with the executive director's decision on the application will be mailed to everyone who submitted public comments or is on a mailing list for this application, and will be posted electronically to the Commissioners' Integrated Database (CID).**

**INFORMATION AVAILABLE ONLINE.** When they become available, the executive director's response to comments and the final decision on this application will be accessible through the Commission's Web site at [www.tceq.texas.gov/goto/cid](http://www.tceq.texas.gov/goto/cid). Once you have access to the CID using the above link, enter the permit number for this application which is provided at the top of this notice. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For exact location, refer to application. <http://www.tceq.texas.gov/assets/public/hb610/index.html?lat=30.791111&lng=-97.904166&zoom=13&type=r>.

**MAILING LIST.** You may ask to be placed on a mailing list to obtain additional information on this application by sending a request to the Office of the Chief Clerk at the address below.

State of Texas  
County of Travis  
I hereby certify this is a true and correct copy of a  
Texas Commission on Environmental Quality (TCEQ)  
document, which is filed in the Records of the Commission.  
Given under my hand and the seal of office.  
JAN 04 2023  
Alternative Custodian of Records  
Texas Commission on Environmental Quality



**AGENCY CONTACTS AND INFORMATION.** Public comments and requests must be submitted either electronically at [www14.tceq.texas.gov/epic/eComment/](http://www14.tceq.texas.gov/epic/eComment/), or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the Public Education Program toll free at 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Exfluor Research Corporation at the address stated above or by calling Dr. Thomas Bierschenk, PhD, Vice President at (512) 310-9044.

Notice Issuance Date: February 23, 2022



Jon Niermann, *Chairman*  
Emily Lindley, *Commissioner*  
Bobby Janecka, *Commissioner*  
Toby Baker, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

September 13, 2022

TO: All interested persons.

RE: Exfluor Research Corporation  
NSR Permit No. 165848

Alternative Custodian of Records  
Texas Commission on Environmental Quality

I hereby certify this is a true and correct copy of a Texas Commission on Environmental Quality (TCEQ) document, which is filed in the Records of the Commission, given under my hand and the seal of office.

State of Texas  
County of Travis

FEB 18 2023

JAN 18 2023

### Decision of the Executive Director.

The executive director has made a decision that the above-referenced permit application meets the requirements of applicable law. **This decision does not authorize construction or operation of any proposed facilities.** This decision will be considered by the commissioners at a regularly scheduled public meeting before any action is taken on this application unless all requests for contested case hearing or reconsideration have been withdrawn before that meeting.

Enclosed with this letter is a copy of the Executive Director's Response to Comments. A copy of the complete application, draft permit and related documents, including public comments, are available for review at the TCEQ Central Office. A copy of the complete application, the draft permit, and executive director's preliminary decision are available for viewing and copying at the Eula Hunt Beck Florence Public Library, 207 East Main Street, Williamson County, Texas.

If you disagree with the executive director's decision, and you believe you are an "affected person" as defined below, you may request a contested case hearing. In addition, anyone may request reconsideration of the executive director's decision. The procedures for the commission's evaluation of hearing requests/requests for reconsideration are located in 30 Texas Administrative Code Chapter 55, Subchapter F. A brief description of the procedures for these two types of requests follows.

### How to Request a Contested Case Hearing.

It is important that your request include all the information that supports your right to a contested case hearing. You must demonstrate that you meet the applicable legal requirements to have your hearing request granted. The commission's consideration of your request will be based on the information you provide.

The request must include the following:

- (1) Your name, address, daytime telephone number, and, if possible, a fax number.
- (2) If the request is made by a group or association, the request must identify:
  - (A) one person by name, address, daytime telephone number, and, if possible, the fax number, of the person who will be responsible for receiving all communications and documents for the group;
  - (B) the comments on the application submitted by the group that are the basis of the hearing request; and
  - (C) by name and physical address one or more members of the group that would otherwise have standing to request a hearing in their own right. The interests the group seeks to protect must relate to the organization's purpose. Neither the claim asserted nor the relief requested must require the participation of the individual members in the case.
- (3) The name of the applicant, the permit number and other numbers listed above so that your request may be processed properly.
- (4) A statement clearly expressing that you are requesting a contested case hearing. For example, the following statement would be sufficient: "I request a contested case hearing."

Your request must demonstrate that you are an **"affected person."** An affected person is one who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. Your request must describe how and why you would be adversely affected by the proposed facility or activity in a manner not common to the general public. For example, to the extent your request is based on these concerns, you should describe the likely impact on your health, safety, or uses of your property which may be adversely affected by the proposed facility or activities. To demonstrate that you have a personal justiciable interest, you must state, as specifically as you are able, your location and the distance between your location and the proposed facility or activities. A person who may be affected by emissions of air contaminants from the facility is entitled to request a contested case hearing.

Your request must raise disputed issues of fact that are relevant and material to the commission's decision on this application that were raised **by you** during the public comment period. The request cannot be based solely on issues raised in comments that you have withdrawn.

To facilitate the commission's determination of the number and scope of issues to be referred to hearing, you should: 1) specify any of the executive director's responses to **your** comments that you dispute; 2) the factual basis of the dispute; and 3) list any disputed issues of law.

### **How to Request Reconsideration of the Executive Director's Decision.**

Unlike a request for a contested case hearing, anyone may request reconsideration of the executive director's decision. A request for reconsideration should contain your name, address, daytime phone number, and, if possible, your fax number. The request must state that you are requesting reconsideration of the executive director's decision, and must explain why you believe the decision should be reconsidered.

### **Deadline for Submitting Requests.**

A request for a contested case hearing or reconsideration of the executive director's decision must be **received by** the Chief Clerk's office no later than **30 calendar days** after the date of this letter. You may submit your request electronically at [www.tceq.texas.gov/agency/decisions/cc/comments.html](http://www.tceq.texas.gov/agency/decisions/cc/comments.html) or by mail to the following address:

Laurie Gharis, Chief Clerk  
TCEQ, MC-105  
P.O. Box 13087  
Austin, Texas 78711-3087

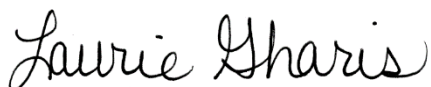
### **Processing of Requests.**

Timely requests for a contested case hearing or for reconsideration of the executive director's decision will be referred to the TCEQ's Alternative Dispute Resolution Program and set on the agenda of one of the commission's regularly scheduled meetings. Additional instructions explaining these procedures will be sent to the attached mailing list when this meeting has been scheduled.

### **How to Obtain Additional Information.**

If you have any questions or need additional information about the procedures described in this letter, please call the Public Participation and Education Program, toll free, at 1-800-687-4040.

Sincerely,



Laurie Gharis  
Chief Clerk

LG/erg

Enclosure

**EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENTS**  
**for**  
**Exfluor Research Corporation**  
**NSR Permit No. 165848**

The Executive Director has made the Response to Public Comment (RTC) for the application by Exfluor Research Corporation for NSR Permit No. 165848 available for viewing on the Internet. You may view and print the document by visiting the TCEQ Commissioners' Integrated Database at the following link:

<https://www.tceq.texas.gov/goto/cid>

In order to view the RTC at the link above, enter the TCEQ ID Number for this application (165848) and click the "Search" button. The search results will display a link to the RTC.

Individuals who would prefer a mailed copy of the RTC or are having trouble accessing the RTC on the website, should contact the Office of the Chief Clerk, by phone at (512) 239-3300 or by email at [chiefclk@tceq.texas.gov](mailto:chiefclk@tceq.texas.gov).

**Additional Information**

For more information on the public participation process, you may contact the Office of the Public Interest Counsel at (512) 239-6363 or call the Public Education Program, toll free, at (800) 687-4040.

You may also view a copy of the RTC, the complete application, the draft permit, and related documents, including comments, at the TCEQ Central Office in Austin, Texas.

Additionally, a copy of the complete application, the draft permit, and executive director's preliminary decision are available for viewing and copying at the Eula Hunt Beck Florence Public Library, 207 East Main Street, Williamson County, Texas.

MAILING LIST  
for  
Exfluor Research Corporation  
NSR Permit No. 165848

FOR THE APPLICANT:

Thomas Bierschenk, Ph.D., Vice President  
Exfluor Research Corporation  
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Luke Bernhard, EHS Manager  
Exfluor Research Corporation  
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Arloe Fontenot, EHS Manager  
Exfluor Research Corporation  
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INTERESTED PERSONS:

See attached list.

FOR THE EXECUTIVE DIRECTOR  
via electronic mail:

Ryan Vise, Deputy Director  
Texas Commission on Environmental  
Quality  
External Relations Division  
Public Education Program MC-108  
P.O. Box 13087  
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Betsy Peticolas, Staff Attorney  
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Cara Hill, Technical Staff  
Texas Commission on Environmental  
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Air Permits Division MC-163  
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Austin, Texas 78711-3087

FOR PUBLIC INTEREST COUNSEL  
via electronic mail:

Garrett T. Arthur, Attorney  
Texas Commission on Environmental  
Quality  
Public Interest Counsel MC-103  
P.O. Box 13087  
Austin, Texas 78711-3087

FOR THE CHIEF CLERK  
via electronic mail:

Laurie Gharis, Chief Clerk  
Texas Commission on Environmental  
Quality  
Office of Chief Clerk MC-105  
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Austin, Texas 78711-3087

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IRVING TX 75063-5932

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BAKER , TAMI  
BLUE LINE REALTY LLC  
901 COUNTY ROAD 209  
LIBERTY HILL TX 78642-3740

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LIBERTY HILL TX 78642-3750

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LEANDER TX 78641-2709

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LIBERTY HILL TX 78642-4634

BEESLEY , DANIAL  
709 OAK CREST LN  
GEORGETOWN TX 78628-2622

BERRY , DR. DON T  
829 CASTLE RIDGE RD  
AUSTIN TX 78746-5105

BEVILLE , ANNE KATHRINE  
443 COUNTY ROAD 278  
LIBERTY HILL TX 78642-4378

BIERSCHENK , ANN  
590 YOUNG RANCH RD  
GEORGETOWN TX 78633-6651

BLAKE , JAMES  
604 PURPLE SALVIA CV  
LIBERTY HILL TX 78642-2382

BLAKE , LANA  
604 PURPLE SALVIA CV  
LIBERTY HILL TX 78642-2382

BLANKENBAKER , NATALIE  
701 DUBINA AVE  
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BORJES , JOY  
216 CAPSTONE RD  
LIBERTY HILL TX 78642-3620

BOWDEN , BARRY L  
PURCELL FARM  
708 COUNTY ROAD 208  
FLORENCE TX 76527-4751

BOWDEN , TWILA  
708 COUNTY ROAD 208  
FLORENCE TX 76527-4751

BOX , GEN RICHARD ARTHUR  
2504 SPRING LN  
AUSTIN TX 78703-1743

BRACE , CONOR  
611 COWBOY TRL  
LIBERTY HILL TX 78642-4019

BRACE , DR. WHITNEY  
611 COWBOY TRL  
LIBERTY HILL TX 78642-4019

BRASSFIELD , LINDSEY  
516 WARLANDER WAY  
GEORGETOWN TX 78626-4353

BREDTHAUER , LARRY  
3360 COUNTY ROAD 282  
LEANDER TX 78641-9076

BROOKS , ASHLEY  
111 CREEKSIDE DR  
LIBERTY HILL TX 78642-3936

BUNCH , CHRISTOPHER  
101 MILESTONE RD  
LIBERTY HILL TX 78642-4409

CADWALADER , JAIME  
105 RETAMA TREE TRCE  
LIBERTY HILL TX 78642-2223

CAMPO , ALEX  
PO BOX 40  
WEIR TX 78674-0040



CARLSON , SUSAN G  
128 N SHOWHORSE DR  
LIBERTY HILL TX 78642-3928

CARLTON , EILEEN  
137 HIGH RIVER RANCH DR  
LIBERTY HILL TX 78642-5785

CARWELL , MR ROBERT  
6600 COUNTY ROAD 200  
LIBERTY HILL TX 78642-3725

CASTRO , MONICA  
1630 COUNTY ROAD 279  
LIBERTY HILL TX 78642-4299

CHAPMAN , RANDA  
1244 COUNTY ROAD 202  
LIBERTY HILL TX 78642-2335

COE , JUDE & MEGAN  
1235 RIVER RIDGE RANCH RD  
KILLEEN TX 76549-3332

COE , JUDE P  
1235 RIVER RIDGE RANCH RD  
KILLEEN TX 76549-3332

CONWAY , VICCI  
668 SPEED HORSE  
LIBERTY HILL TX 78642-4782

COOK , C D  
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COOK , TERRY COMMISSIONER  
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CROSS , GRANT  
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LEANDER TX 78641-1881

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MILLSBORO DE 19966-7299

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LIBERTY HILL TX 78642-3719

DAVIDSON , PAUL  
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LIBERTY HILL TX 78642-3719

DAVOL , PHEBE  
5675 W FM 487  
FLORENCE TX 76527-4123

DEBARBIERI , ERIN  
109 NORTHERN HARRIER CT  
LEANDER TX 78641-4524

DECOSMO , AMY B  
120 RETAMA TREE TRCE  
LIBERTY HILL TX 78642-2223

DERSHEM , CRISTIN L  
141 TAMBRA LEA LN  
LIBERTY HILL TX 78642-2359

DONG , MENGING  
905 UMBRELLA SKY  
LIBERTY HILL TX 78642-2233

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ROUND ROCK TX 78664-3801

EATON , WAYNE  
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BRIGGS TX 78608-0014

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223 CARRIAGE OAKS DR  
LIBERTY HILL TX 78642-3853

ELMORE , RAYMOND & ROBERTA  
4155 COUNTY ROAD 223  
KEMPNER TX 76539-3818

ENDSLEY , MR GUY  
4600 COUNTY ROAD 207  
LIBERTY HILL TX 78642-3799

ENDSLEY , LAUREN  
4600 COUNTY ROAD 207  
LIBERTY HILL TX 78642-3799

ENDSLEY , MORGAN  
4600 COUNTY ROAD 207  
LIBERTY HILL TX 78642-3799

ENDSLEY , TANYA  
4600 COUNTY ROAD 207  
LIBERTY HILL TX 78642-3799

ESTRADA , DR. FRANCESCA C  
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EYRE , JENNIFER  
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GEORGETOWN TX 78628-6899

EYRE , TYLER ANDREW  
305 RIDGE VIEW DR  
GEORGETOWN TX 78628-6899

FARLEY , MS SHERYL MARIE  
6600 COUNTY ROAD 200  
LIBERTY HILL TX 78642-3725

FICKEL , MRS JEANNIE  
2775 COUNTY ROAD 207  
LIBERTY HILL TX 78642-3778

FIGGINS , ANTHONY  
101 QUARRY ROCK LOOP  
LIBERTY HILL TX 78642-4039

FINKEL , JENNIFER  
255 COUNTY ROAD 250  
GEORGETOWN TX 78633-4042

FOLEY , DYLAN MICHAEL  
3750 COUNTY ROAD 201  
LIBERTY HILL TX 78642-3834

FOSTER , AMANDA  
132 LOCKHART DR  
LIBERTY HILL TX 78642-2318

FRATZKE , SUSANNE  
301 LAKEWAY  
KILLEEN TX 76549-3519

FRIOU , ELIZABETH ANN  
5203 RIDGE OAK DR  
AUSTIN TX 78731-4811

FULLER , KATHERINE  
177 EAGLE OWL LOOP  
LEANDER TX 78641-2712

GABRIEL , JILLIAN  
105 LARK ST  
LEANDER TX 78641-1890

GANDY , ANNA  
211 NORMAL SCHOOL WAY  
LIBERTY HILL TX 78642-4892

GANZE , BRITNI  
205 WESTON DR  
LIBERTY HILL TX 78642-5560

GARCIA , BRANDON  
441 FALCON LN  
LEANDER TX 78641-1771

GARRETT , CARLEEN T  
220 BRANDY LOOP  
KILLEEN TX 76549-9049

GARRETT , STEPHANIE  
1056 DEER PARK RD  
KILLEEN TX 76542-5047

GEHRER , KYLE  
1200 COUNTY ROAD 236  
FLORENCE TX 76527-4850

GEHRER , SHANNON  
1200 COUNTY ROAD 236  
FLORENCE TX 76527-4850

GEORGE , MR WILLIAM PATRICK  
2301 COUNTY ROAD 223  
FLORENCE TX 76527-4214

GRABISH , RICHARD  
201 SHADY OAKS TRL  
LIBERTY HILL TX 78642-3944

GREEN , KATLYN  
221 KING ELDER LN  
LEANDER TX 78641-1738

GROSS , CHARLES  
5731 COUNTY ROAD 236  
LIBERTY HILL TX 78642-2300

GUTIERREZ , CHRISTI LACHELLE  
218 QUARRY ROCK LOOP  
LIBERTY HILL TX 78642-4040

HAFNER , HEINRICH  
6750 COUNTY ROAD 200  
LIBERTY HILL TX 78642-3974

HAGER , DENELLE  
5900 COUNTY ROAD 236  
LIBERTY HILL TX 78642-2460

HANSEN , MICHELLE LOREN  
415 LAKEWAY  
KILLEEN TX 76549-5857

HAYES , JOANNA R  
424 DRYSTONE TRL  
LIBERTY HILL TX 78642-4373

HEATH , KELLEY  
205 TALON GRASP TRL  
LEANDER TX 78641-2595

HEIL , CHELSEY  
516 TALON GRASP TRL  
LEANDER TX 78641-3414

HEIMBIGNER , GLENN  
147 RICHLAND VIEW RD  
LIBERTY HILL TX 78642-4041

HEIMBIGNER , JODIE  
147 RICHLAND VIEW RD  
LIBERTY HILL TX 78642-4041

HENDRICKSON , BRENDA  
137 TORDESILLAS DR  
GEORGETOWN TX 78626

HENLEY , JAMES  
304 TANAGER PASS  
LEANDER TX 78641-3841

HESTER , JASON  
200 CHANDLER CROSSING TRL  
ROUND ROCK TX 78665-2837

HILLIS , ED  
1012 COUNTRY CLUB RD  
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HOEFFNER , ALEXANDRA  
500 GLORY LN  
LEANDER TX 78641-8585

HOEFFNER , MS ALEXANDRA E  
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LEANDER TX 78641-8585

HOLLIS , JULIA  
1025 LEEDS CASTLE WALK  
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HOWELLS , LIZ  
1818 BLUFFWOOD PL  
ROUND ROCK TX 78665-5610

HOWLAND , LUANN  
9548 N HIGHWAY 183  
FLORENCE TX 76527-4224

HUQ , RIMA  
4913 STRADA DR  
ROUND ROCK TX 78665-2265

ICE , LAUREN  
PERALES ALLMON & ICE PC  
1206 SAN ANTONIO ST  
AUSTIN TX 78701-1834

JAGODZINSKI , ANDREA  
216 CAPITAL HILL VW  
LIBERTY HILL TX 78642-2241

JAGODZINSKI , SHAWN  
216 CAPITAL HILL VW  
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JAISWAL , BINEETA  
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JALUFKA , BRIAN S  
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JAMES , DANA R  
725 HI RIDGE DR  
KILLEEN TX 76549-5875

JANNISE , SABRINA  
116 CHICKADEE LN  
LEANDER TX 78641-2703

JOHNSON , MATTHEW  
900 COUNTY ROAD 202  
LIBERTY HILL TX 78642-3767

JOHNSON , SUZANNE  
JOHNSON WOODS  
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FLORENCE TX 76527-4918

JOHNSON , TIFFANY  
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LIBERTY HILL TX 78642-4044

JOHNSTON , CATHERINE  
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JONES , MRS CHESLEY  
100 GOLDEN EAGLE LN  
LEANDER TX 78641-2717

JONES , NICOLE  
145 TAMBRA LEA LN  
LIBERTY HILL TX 78642-2359

KALINOWSKI , CHRIS & MOLLY  
5720 COUNTY ROAD 236  
LIBERTY HILL TX 78642-3302

KANETZKY , CONNIE  
9540 N HIGHWAY 183  
FLORENCE TX 76527-4224

KANETZKY , JERRY  
9540 N HIGHWAY 183  
FLORENCE TX 76527-4224

KANETZKY , MARISSA  
9540 N HIGHWAY 183  
FLORENCE TX 76527-4224

KENNEY , ERIN  
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LEANDER TX 78641-4524

KHAMBHAMMETTU , HEMANTH  
401 NORTHCREST DR  
LIBERTY HILL TX 78642-2392

KILDALL , KAREN  
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KING , DOLORES  
157 CASCATA WAY  
LIBERTY HILL TX 78642-2125

KING , TIMOTHY  
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LIBERTY HILL TX 78642-2125

KINGHORN , JULES  
400 COUNTY ROAD 228  
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KUMAR , ARUN  
905 UMBRELLA SKY  
LIBERTY HILL TX 78642-2233

KUSLICH , LARS  
PO BOX 1908  
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LADDEN , MRS ERICA  
104 KINGFISHER LN  
LEANDER TX 78641-3421

LAMANNA , ERICKA  
439 TALON GRASP TRL  
LEANDER TX 78641-3413

LANGSTON , KIMM  
113 ESPERANZA PETAL PASS  
LIBERTY HILL TX 78642-2221

LARSON , LAUREN  
101 POST OAK RANCH RD  
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LEAL , KATRINA D  
400 KINGFISHER LN  
LEANDER TX 78641-1796

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STE 201  
350 DISCOVERY BLVD  
CEDAR PARK TX 78613-2260

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LIBERTY HILL TX 78642-2192

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LIBERTY HILL TX 78642-4890

MARTINEZ , LINDA  
1044 RIVER RNCH  
LIBERTY HILL TX 78642-4890

MASSEY , MARY  
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MAY , EMMA  
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LIBERTY HILL TX 78642-2137

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MCCORMICK , CHARLES  
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FLORENCE TX 76527-4226

MCDANIEL , TIMOTHY  
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FLORENCE TX 76527-4235

MCDONALD , T J  
900 COUNTY ROAD 236  
FLORENCE TX 76527-4835

MCGHIE , KELLEY  
304 REMUDA  
LIBERTY HILL TX 78642-4550

MCLOUD , RONAL DALTON  
4810 COUNTY ROAD 207  
LIBERTY HILL TX 78642-4023

MENDEZ , ANDRES  
330 MISTY WOOD  
BERTRAM TX 78605-4486

MENDEZ , MRS NOOR AGHA  
330 MISTY WOOD  
BERTRAM TX 78605-4486

MERSIOVSKY , JANNAH  
109 TAMBRA LEA LN  
LIBERTY HILL TX 78642-2359

MERTON , DANNY P  
1059 COUNTY ROAD 208  
FLORENCE TX 76527-4226

METCALFE , ALLISON  
1200 ASH DR  
MARBLE FALLS TX 78654-7231

MILONE , KAREN  
208 N HAVEN DR  
LIBERTY HILL TX 78642-2387

MOHR , KENNITH  
PO BOX 1686  
CEDAR PARK TX 78630-1686

MONK , JAMES  
750 ABBEY RD  
LIBERTY HILL TX 78642-3996

MONK , MONICA  
750 ABBEY RD  
LIBERTY HILL TX 78642-3996

MOORE , CONNIE  
112 HOOT OWL LN N  
LEANDER TX 78641-1727

MORRIS , STEPHANIE RYDER  
BIRDS N BEES FARM  
1409 ORCHARD DR  
LEANDER TX 78641-1368

MULVIHILL , HENRY  
8 LUNDYS LN  
RICHARDSON TX 75080-2343

MULVIHILL JR , HENRY N  
PO BOX 831945  
RICHARDSON TX 75083-1945

MULVIHILL , PATRICIA  
NORTH SAN GABRIEL ALLIANCE  
8 LUNDYS LN  
RICHARDSON TX 75080-2343

NARDELLI , SHEILA  
530 ABBEY RD  
LIBERTY HILL TX 78642-3994

NASH , CASEY  
7603 ISLANDER DR  
AUSTIN TX 78749-3028

NASH , CINDY  
205 ENCORE DR  
LIBERTY HILL TX 78642-2147

NORMAN , JAKE  
1500 COUNTY ROAD 225  
FLORENCE TX 76527-3852

NOTTAGE , KIRSTEN  
115 LIMONITE LN  
LIBERTY HILL TX 78642-4690

NOVO , NICK  
116 SHADY OAKS TRL  
LIBERTY HILL TX 78642-3945

NOVO , SARAH  
116 SHADY OAKS TRL  
LIBERTY HILL TX 78642-3945

OGLETREE , ABBY  
425 CANADIAN SPRINGS DR  
LEANDER TX 78641-3528

ORTIZ , MRS BRITTNEY  
120 COUNTY ROAD 279  
LIBERTY HILL TX 78642-4245

OWEN , MR JOE  
OWEN HOLDINGS  
4718 MILL CREEK RD  
DALLAS TX 75244-6916

OWENS , MRS REBECCA R  
20307 MCSHEPHERD RD  
GEORGETOWN TX 78626-9320

PACHECO , MRS HEATHER  
201 COWBOY TRL  
LIBERTY HILL TX 78642-3954

PACHECO , JOE J  
201 COWBOY TRL  
LIBERTY HILL TX 78642-3954

PAIR , LAURIE F  
PO BOX 5908  
AUSTIN TX 78763-5908

PALMER , JEROME  
333 HIDDEN OAKS LN  
LIBERTY HILL TX 78642-3726

PARKJER , MR CARVEY LEE  
105 ROSA DR  
LIBERTY HILL TX 78642-2190

PATEL , TANARA  
128 RAVELLO ST  
LIBERTY HILL TX 78642-2306

PATTERSON , EMILY  
140 PARRYI CV  
LEANDER TX 78641-4720

PAVLICEK , ALOIS  
1105 DEER RUN  
ROUND ROCK TX 78681-6436

PEARSON , BONNIE  
5545 COUNTY ROAD 200  
LIBERTY HILL TX 78642-3721

PEARSON , LOYD  
351 COUNTY ROAD 210  
LIBERTY HILL TX 78642-3741

PEARSON , RON  
5545 COUNTY ROAD 200  
LIBERTY HILL TX 78642-3721

PEYTON , CHRIS  
132 KRUPP AVE  
LIBERTY HILL TX 78642-4476

PEYTON , RENEE  
132 KRUPP AVE  
LIBERTY HILL TX 78642-4476

PICINICH , CARLA  
2101 COUNTY ROAD 226  
FLORENCE TX 76527-4868

POINTER , MRS CORRINA  
162 ELISHA DR  
LIBERTY HILL TX 78642-2257

PORTER , PATTI  
411 BLESSING RANCH RD  
LIBERTY HILL TX 78642-4588

PRIMROSE , BRYAN  
3901 COUNTY ROAD 258  
LIBERTY HILL TX 78642-2106

PRIMROSE , JACKIE  
3901 COUNTY ROAD 258  
LIBERTY HILL TX 78642-2106

RAHBARI , GINA  
232 HOOT OWL LN N  
LEANDER TX 78641-1733

REDDING , TRAVIS  
595 GATLIN RANCH RD  
LIBERTY HILL TX 78642-3312

RESTO , ANA R  
3202 SPOTTED HORSE DR  
KILLEEN TX 76542-8413

RHODES , BESSIE  
14814 KINGSFORD WILLOW LN  
CYPRESS TX 77429-7918

RICHARDSON , JAMES  
131 SADDLE LN  
LIBERTY HILL TX 78642-4065

RIDOLFI , LARRY A  
FTL DRIVES INC  
1051 COUNTY ROAD 204  
LIBERTY HILL TX 78642-3792

RIVERA , DAVID  
105 LARK ST  
LEANDER TX 78641-1890

RIVES , BILLY  
9755 E FM 243  
BERTRAM TX 78605-3848

RIX , ERIKA  
251 COUNTY ROAD 203  
LIBERTY HILL TX 78642-3714

ROBBINS , RANDAL  
249 COWBOY TRL  
LIBERTY HILL TX 78642-3954

ROBBINS , WHITNEY  
441 SIERRA MAR LOOP  
LEANDER TX 78641-3544

ROBERTS , ASHTON  
272 QUARTERHORSE DR  
LIBERTY HILL TX 78642-3926

ROBERTS , JAMES  
272 QUARTERHORSE DR  
LIBERTY HILL TX 78642-3926

ROBION , CHRIS  
104 REINDEER WAY  
GEORGETOWN TX 78626-2547

ROCKE , MARIA YOLANDA  
6433 COUNTY ROAD 200  
LIBERTY HILL TX 78642-4026

ROCKE , MARK  
6433 COUNTY ROAD 200  
LIBERTY HILL TX 78642-4026

ROSS , KATY  
614 SAN GABRIEL RANCH RD  
LIBERTY HILL TX 78642-4555

RUSSELL , CHARLES  
RR 1 BOX 93  
TEXHOMA OK 73949-9634

RUSSELL , LEM  
PO BOX 1294  
STRATFORD TX 79084-1294

RUSSELL , MARGARET  
RR 1 BOX 35  
TEXHOMA OK 73949-9719

RUSSELL , SUSAN  
RR 1 BOX 93  
TEXHOMA OK 73949-9634

SALAZAR , CARI  
301 DANIEL XING  
LIBERTY HILL TX 78642-4499

SCHWERTNER , THE HONORABLE CHARLES STATE  
SENATOR  
THE SENATE OF TEXAS DISTRICT 5  
PO BOX 12068  
AUSTIN TX 78711-2068

SCOTT , BRIAN  
300 ABBEY RD  
LIBERTY HILL TX 78642-3953

SHIER , BILL  
8429 BANGOR BND  
AUSTIN TX 78758-7901

SHIFRIN , MARK  
PO BOX 1059  
LIBERTY HILL TX 78642-1059

SKOVIERA , ELLEN  
1110 OAKLANDS DR  
ROUND ROCK TX 78681-2702

SMART , NINA  
212 KINGFISHER LN  
LEANDER TX 78641-2691

SMITH , ROBERT  
923 CASHEW LN  
CEDAR PARK TX 78613-3241

SMITH , WANDA  
900 COUNTY ROAD 236  
FLORENCE TX 76527-4835

SPIES , JENNIFER  
8907 RUSTIC CV  
AUSTIN TX 78717-4853

STANFIELD , MICHELE  
100 BUTTERCUP TRL  
GEORGETOWN TX 78633-4746

STONEHILL-GARCIA , HEATHER  
441 FALCON LN  
LEANDER TX 78641-1771

STOUT , TIFFANY  
405 LAKE SIDE DR  
GEORGETOWN TX 78628-6902

SUAREZ , MS ELIZABETH  
2273 COUNTY ROAD 223  
FLORENCE TX 76527-4265

SWINT , MR THOMAS L  
2809 FRESH SPRING RD  
PFLUGERVILLE TX 78660-2381

TAIT , CALVIN  
103 RIO ANCHO BLVD  
LIBERTY HILL TX 78642-3570



TAYLOR , JEN  
193 HOUSEFINCH LOOP  
LEANDER TX 78641-1961

THRASH , TIM  
865 COUNTY ROAD 208  
FLORENCE TX 76527-4865

THURMAN , SANDRA LEE  
190 COUNTY ROAD 208  
FLORENCE TX 76527-4472

TINSLEY , MASON  
11 N BENTON WOODS CIR  
THE WOODLANDS TX 77382-1513

TREACY , SUZE  
2710 GLENWOOD TRL  
CEDAR PARK TX 78613-5128

TUCKER , LARRY  
5050 COUNTY ROAD 236  
LIBERTY HILL TX 78642-3730

TUCKER , TERESA  
5050 COUNTY ROAD 236  
LIBERTY HILL TX 78642-3730

TURNER , PAUL KEITH  
377 SUNDANCE TRL  
LIBERTY HILL TX 78642-3851

ULBRICHT , DAWN  
1 HILLWAY DR  
ROUND ROCK TX 78664-9623

VAANDRAGER , TRACEY  
701 BRIZENDINE RD  
LIBERTY HILL TX 78642-3991

VALDEZ , SELENA  
204 MOURNING DOVE LN  
LEANDER TX 78641-1784

VARNER , BRITTANY D  
PO BOX 1532  
LIBERTY HILL TX 78642-1532

VARVIR COE , DR. MEGAN  
1235 RIVER RIDGE RANCH RD  
KILLEEN TX 76549-3332

WALLACE , LAURA S  
3204 AZTEC FALL CV  
AUSTIN TX 78746-1573

WALLER , FRANKIE  
80 COUNTY ROAD 208  
FLORENCE TX 76527-4484

WARDLAW , HAROLD C  
19910 PARK RNCH  
SAN ANTONIO TX 78259-1934

WARDLAW , PEGGY  
19910 PARK RNCH  
SAN ANTONIO TX 78259-1934

WARDLAW , SHAUNA  
ED  
125 RICHLAND VIEW RD  
LIBERTY HILL TX 78642-4041

WARHOL , SUSAN M  
1260 COUNTY ROAD 208  
FLORENCE TX 76527-4628

WATKINS , JASON  
308 BLESSING RANCH RD  
LIBERTY HILL TX 78642-4505

WATKINS , NIKKI  
51 COUNTY ROAD 153  
GEORGETOWN TX 78626-1926

WEAVER , LISA & STEVE  
258 COUNTY ROAD 250  
GEORGETOWN TX 78633-4042

WEISSE , SCOTT  
212 RIETI PKWY  
LIBERTY HILL TX 78642-2309

WEMPE , CHARLES  
6589 COUNTY ROAD 200  
LIBERTY HILL TX 78642-3983

WEMPE , GREG  
6589 COUNTY ROAD 200  
LIBERTY HILL TX 78642-3983

WHELOCK , DAVID  
APT 6D  
1801 LAVACA ST  
AUSTIN TX 78701-1341

WHITE-SHUBERT , SHANNON  
3404 CORTINA LN  
ROUND ROCK TX 78681-2417

WHITNEY , KIMBERLY  
475 COUNTY ROAD 218  
FLORENCE TX 76527-4634

WHITTLESEY , SKYLER  
220 ARREZO LN  
GEORGETOWN TX 78628-0701

WILCOX , MR KEITH  
PO BOX 640  
FLORENCE TX 76527-0640

WILLIAMS , ASHLEY  
APT 136  
1616 W DALLAS ST  
HOUSTON TX 77019-4770

WILLIAMS , CHARLES R  
19926 PARK HOLW  
SAN ANTONIO TX 78259-1924

WILLIAMS , ELIZABETH  
APT D  
616 CASTLE RIDGE RD  
AUSTIN TX 78746-5181

WILLIAMS , HAZIEL  
19926 PARK HOLW  
SAN ANTONIO TX 78259-1924

WILSON , JIM    & MARY  
278 LAMPASAS CT  
KILLEEN TX 76549-4117

WILSON , THE HONORABLE TERRY M STATE  
REPRESENTATIVE  
TEXAS HOUSE OF REPRESENTATIVES DISTRICT 20  
PO BOX 2910  
AUSTIN TX 78768-2910

WOOLF , MR ROBERT  
305 LA DERA DR  
LIBERTY HILL TX 78642-2122

WOOLF , SAMANTHA  
305 LA DERA DR  
LIBERTY HILL TX 78642-2122

**TCEQ AIR QUALITY PERMIT NUMBER 165848**

<b>APPLICATION BY</b>	<b>§</b>	<b>BEFORE THE</b>
<b>EXFLUOR RESEARCH CORPORATION</b>	<b>§</b>	<b>TEXAS COMMISSION ON</b>
<b>EXFLUOR RESEARCH</b>	<b>§</b>	
<b>FLORENCE, WILLIAMSON COUNTY</b>	<b>§</b>	<b>ENVIRONMENTAL QUALITY</b>

**EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT**

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

As required by Title 30 Texas Administrative Code (TAC) § 55.156, before an application is approved, the Executive Director prepares a response to all timely, relevant and material, or significant comments. The Office of Chief Clerk received timely comments from the following persons: Senator Charles Schwertner, Representative Terry M. Wilson, Williamson County Commissioner Cynthia P. Long, Courtney Alcott, Maude McCormick Allen, Sarah Andrews, Nicole Anthony, Federico I. Arce, Mark Baker, Tami Baker, Kristyn Barry, Rebecca Bartels, Robert Lionel Baskind, Stephen David Bauer, Danial Beesley, Don T. Berry, Anne Kathrine Beville, James Blake, Lana Blake, Natalie Blankenbaker, Joy Borjes, Barry L. Bowden, Twila Bowden, Richard Arthur Box, Conor Brace, Whitney Brace, Lindsey Brassfield, Ashley Brooks, Christopher Bunch, Jaime Cadwalader, Alex Campo, Susan G. Carlson, Eileen Carlton, Robert Carwell, Monica Castro, Randa Chapman, Jude P. Coe, Megan Varvir Coe, Vicci Conway, C. D. Cook, Tim Cox, Eric Crop, Grant Cross, Karen Cross, Vasantha Dacha, Corwin E. Davidson, Paul Davidson, Erin Debarbieri, Amy B. Decosmo, Cristin L. Dershem, Mengbing Dong, John G. Dupont, Janet Ellis, Guy Endsley, Lauren Endsley, Morgan Endsley, Tanya Endsley, Franchesca C. Estrada, Jennifer Eyre, Tyler Andrew Eyre, Sheryl Marie Farley, Jeannie Fickel, Anthony Figgins, Jennifer Finkel, Dylan Michael Foley, Amanda Foster, Susanne Fratzke, Elizabeth Ann Friou, Katherine Fuller, Jillian Gabriel, Anna Gandy, Britni Ganze, Brandon Garcia, Kyle Gehrер, Shannon Gehrер, William Patrick George, Richard Grabish, Katlyn Green, Charles Gross, Christi Lachelle Gutierrez, Heinrich Hafner, Denelle Hager, Michelle Loren Hansen, Joanna R. Hayes, Kelley Heath, Chelsey Heil, Glenn Heimbigner, Brenda Hendrickson, James Henley, Jason Hester, Ed Hillis, Alexandra E. Hoeffner, Alexandra Hoeffner, Julia Hollis, Liz Howells, Luann Howland, Rima Huq, Lauren Ice (*on behalf of the North San Gabriel Alliance*), Andrea Jagodzinski, Shawn Jagodzinski, Bineeta Jaiswal, Brian S. Jalufka, Sabrina Jannise, Matthew Johnson, Suzanne Johnson, Tiffany Johnson, Catherine Johnston, Chesley Jones, Nicole Jones, Chris Kalinowski, Molly Kalinowski, Connie Kanetzky, Jerry Kanetzky, Marissa Kanetzky, Erin Kenney, Hemanth Khambhammettu, Karen Kildall, Dolores King, Timothy King, David Kubin, Arun Kumar, Lars Kuslich, Erica Ladden, Ericka Lamanna, Kimm Langston, Lauren Larson, Katrina D. Leal, Gwyneth Lonergan (*on behalf of the North San Gabriel Alliance*), Stephanie Long, Dani Lopez, Jan Love, Babu Madala, Nelson Mak, Alycen Malone, Nichole Manthey, Bryan Martin, John Martin, Sherri Martin, Linda Martinez, Mary Massey, Stacy Mattison, Emma May, Bryce P. McCormick, Charles McCormick, Timothy McDaniel, T. J. McDonald, Kelley McGhie, Ronal Dalton McLoud, Andres Mendez, Noor Agha Mendez, Jannah Mersiovsky, Danny P. Merton, Allison Metcalfe, Karen Milone, Kennith Mohr, James

Monk, Monica Monk, Connie Moore, Stephanie Ryder Morris, Henry N. Mulvihill, Patricia Mulvihill, Sheila Nardelli, Casey Nash, Cindy Nash, Jake Norman, Kirsten Nottage, Nick Novo, Sarah Novo, Abby Ogletree, Brittney Ortiz, Joe Owen, Rebecca R. Owens, Heather Pacheco, Joe J. Pacheco, Laurie F. Pair, Jerome Palmer, Carvey Lee Parkjer, Tanara Patel, Emily Patterson, Bonnie Pearson, Ron Pearson, Chris Peyton, Renee Peyton, Carla Picinich, Corrina Pointer, Patti Porter, Bryan Primrose, Jackie Primrose, Gina Rahbari, Travis Redding, Ana R. Resto, Bessie Rhodes, James Richardson, Larry A. Ridolfi, David Rivera, Erika Rix, Randal Robbins, Whitney Robbins, Ashton Roberts, James Roberts, Chris Robion, Maria Yolanda Rocke, Mark Rocke, Katy Ross, Charles Russell, Lem Russell, Margaret Russell, Susan Russell, Cari Salazar, Brian Scott, Bill Shier, Mark Shifrin, Ellen Skoviera, Nina Smart, Robert Smith, Wanda Smith, Jennifer Spies, Michele Stanfield, Heather Stonehill-Garcia, Tiffany Stout, Elizabeth Suarez, Thomas L. Swint, Calvin Tait, Jen Taylor, Tim Thrash, Sandra Lee Thurman, Mason Tinsley, Suze Treacy, Larry Tucker, Teresa Tucker, Paul Keith Turner, Tracey Vaandrager, Selena Valdez, Brittany D. Varner, Laura S. Wallace, Frankie Waller, Harold C. Wardlaw, Peggy Wardlaw, Shauna Wardlaw, Susan M. Warhol, Jason Watkins, Nikki Watkins, Scott Weisse, Charles Wempe, Greg Wempe, David Wheelock, Shannon White-Shubert, Kimberly Whitney, Skyler Whittlesey, Keith Wilcox, Ashley Williams, Charles R. Williams, Elizabeth Williams, Haziel Williams, Robert Woolf, and Samantha Woolf. The commenters associated with specific comments relating to a topic are listed in parentheses at the end of each comment. In some instances, a large number of commenters had the same or similar comments and have been associated to their particular comments through the use of groups. The persons attributed to each comment group are listed in Appendix A.

This Response addresses all timely public comments received, whether or not withdrawn. If you need more information about this permit application or the permitting process please call the TCEQ Public Education Program at 1-800-687-4040. General information about the TCEQ can be found at our website at [www.tceq.texas.gov](http://www.tceq.texas.gov).

## **BACKGROUND**

### Description of Facility

Exfluor Research Corporation (Applicant) has applied to the TCEQ for a New Source Review Authorization under Texas Clean Air Act (TCAA) § 382.0518. This will authorize the construction of a new facility that may emit air contaminants.

This permit will authorize the Applicant to construct the Exfluor Research facility. The facility will be located at 1100 County Road 236, Florence, Williamson County. Contaminants authorized under this permit include hydrogen fluorides, carbon monoxide, particulate matter, hazardous air pollutants, nitrogen oxides, and organic compounds.

### Procedural Background

Before work is begun on the construction of a new facility that may emit air contaminants, the person planning the construction must obtain a permit from the commission. This permit application is for an initial issuance of Air Quality Permit Number 165848.

The permit application was received on July 9, 2021 and declared administratively complete on July 14, 2021. The Notice of Receipt and Intent to Obtain an Air Quality Permit (first public notice) for this permit application was published in English on July 28, 2021, in the *Williamson County Sun* and in Spanish on July 29, 2021, in *El Mundo*. The Notice of Application and Preliminary Decision for an Air Quality Permit (second public notice) was published on March 6, 2022, in English in the *Williamson County Sun* and in Spanish on March 10, 2022, in *El Mundo*. A public meeting was held on June 16, 2022, in Florence, Texas. The public comment period ended on June 20, 2022. Because this application was received after September 1, 2015, it is subject to the procedural requirements of and rules implementing Senate Bill 709 (84th Legislature, 2015).

### COMMENTS AND RESPONSES

#### **COMMENT 1: Public Notice / Comment Period**

Commenters expressed concern about public notice of the application. Twila Bowden commented that the facility was being proposed without sufficient public awareness of its nature and possible harm. David Wheelock expressed concern about the ability to locate the draft permit on the TCEQ's website and stated that the record was not complete online. North San Gabriel Alliance expressed concern that the Applicant did not consult nearby landowners before submitting its application and there were details about the technical review process and preparation of the draft permit that were not made available prior to the public meeting. Shannon White-Shubert also expressed concern that existing property owners were not notified when the Applicant purchased the land for the facility.

North San Gabriel Alliance expressed concern that many nearby residents did not learn about the proposed facility until the second notice period. North San Gabriel Alliance also commented that the Applicant did not demonstrate compliance with the notice requirements and should therefore be required to provide the initial notice (first notice of NORI) again in order to reopen the initial comment period. North San Gabriel Alliance and David Wheelock requested that the comment period be extended. North San Gabriel Alliance specifically requested that the comment period be extended for two weeks after the close of the public meeting to allow the public to submit comments after hearing from TCEQ staff and the Applicant's representatives.

(North San Gabriel Alliance, Twila Bowden, David Wheelock, Shannon White-Shubert)

**RESPONSE 1:** The TCEQ welcomes public participation in the permitting process. The Executive Director instructs applicants to provide public notice, as required by TCEQ rules in Chapter 39 (Public Notice), in accordance with statutory requirements. TCAA § 382.056 requires that an applicant publish a "notice of intent" to obtain a permit

(first public notice) and, in most circumstances, a "notice of preliminary decision" (second public notice). These notices must be published in a newspaper of general circulation in the municipality in which the plant is proposed to be located. If the proposed plant is not located within a municipality, the newspaper should be of general circulation in the municipality nearest to the location or proposed location. As such, individual notice to nearby residents is not required by the statute or TCEQ rules.

The public notice informs the public of its opportunity to make comments and request a public meeting or contested case hearing. The required newspaper notice also invites citizens to request mailed notice on matters of interest by submitting their contact information to the TCEQ Office of the Chief Clerk (OCC). The Executive Director is required to mail notice to persons on mailing lists maintained by the OCC. As stated above, the Notice of Receipt and Intent to Obtain an Air Quality Permit (first public notice) for this permit application was published in English on July 28, 2021, in the *Williamson County Sun* and in Spanish on July 29, 2021, in *El Mundo*. Thus, the initial comment period began on July 28, 2021. However, the first notice inadvertently omitted language denoting that particulate matter (PM) would be authorized to be emitted from the facility. Therefore, the Executive Director determined that the initial notice should be republished to include language concerning PM. A Consolidated Notice of Receipt and Intent to Obtain an Air Quality Permit and Notice of Application and Preliminary Decision for an Air Quality Permit (second public notice) was published on March 6, 2022, in English in the *Williamson County Sun* and in Spanish on March 10, 2022, in *El Mundo*. Therefore, the initial comment period and time period for requesting contested case hearings was also reopened during this time. While commenters have suggested that the Executive Director extend the comment period for an additional two weeks after the close of the public meeting, the Executive Director may only do so for good cause. See 30 TAC § 55.152(a)(8). The permit application, the Executive Director's preliminary decision, the draft permit, and the air quality analysis were made available to the public for inspection as required by TCEQ's rules. The comment period began on July 28, 2021 and ended at the close of the public meeting on June 16, 2022. Accordingly, the Executive Director believes that members of the public had an adequate opportunity to access information about the permit application and has not found good cause for further extending the comment period.

Applicants are required to make a copy of the administratively complete application available for review at a public place in the county in which the plant is proposed to be located. Specifically, 30 TAC § 39.405(g)(1) requires a copy of the administratively complete application to be available for review and copying beginning on the first day of newspaper publication of the first public notice and to remain available during the public comment period. During the second notice period, 30 TAC § 39.405(g)(2) and (3) require a copy of the complete application (including any subsequent revisions) and the ED's preliminary decision, the draft permit, preliminary determination summary, and air quality analysis to be available for public viewing beginning on the first day of the publication of the second public notice. For major source permits (authorized under the Nonattainment New Source Review or Prevention of Significant Deterioration programs), copies of the Executive Director's draft permit and preliminary decision, preliminary determination summary, and air quality analysis are also made available

electronically on the commission's website at the time of publication of the second notice. However, this requirement is not applicable to minor source New Source Review permits, like this one. As described in the notices, the application and associated documents (including the draft permit) were available for viewing and copying at the TCEQ's central office in Austin and at the Eula Hunt Beck Florence Public Library located at 207 East Main Street, Florence, Texas.

To demonstrate compliance with public notice requirements, applicants are required to provide the Office of the Chief Clerk with copies of the published notice and a publisher's affidavit verifying facts related to the publication, including that the newspaper is a paper of general circulation in the municipality in which the proposed facility is located or proposed to be located. The Applicant provided the required forms to the Office of the Chief Clerk.

**COMMENT 2: Public Meeting**

Conor Brace questioned the chosen location of the public meeting, stating that the Florence High School is a "red-herring location" with little connection to the proposed site. Mr. Brace requested that a "real" public meeting be held in a larger venue to include those populations affected, and specifically requested that residents of Liberty Hill and surrounding areas, Brushy Creek MUD, Georgetown, Round Rock, and the Fort Worth District of the U.S. Army Corps of Engineers be in attendance. Stephanie Ryder Morris commented that both the informal and formal comments should be part of the permit process. Brittany D. Varner expressed concern about the Applicant's answers to certain questions at the public meeting. (North San Gabriel Alliance, Conor Brace, Stephanie Ryder Morris, Brittany D. Varner, Peggy Wardlaw, David Wheelock)

**RESPONSE 2:** The TCEQ rules require that a public meeting be held if a member of the legislature who represents the general area in which the facility is located requests a public meeting or if the TCEQ Executive Director determines that there is a substantial or significant degree of public interest. Public meetings are open to the public and any member of the public or interested person may attend the meeting. At the request of both citizens and Senator Charles Schwertner and Representative Terry Wilson, a public meeting was held on June 16, 2022, at the Florence High School Cafeteria.

The protocol used in public meetings was explained to the assembled audience in the preliminary remarks prior to the public meeting. Specifically, it was explained that the meeting would consist of two parts, the first being an informal discussion to ask and answer questions while the second part was a formal discussion in which the audience could provide comments that would be recorded for the official public record and responded to in writing. This information is also stated in the meeting notification that was mailed to everyone on the OCC's mailing list prior to the public meeting. The informal portion of the meeting is not designed for the taking of public comment; rather, it provides an opportunity to ask questions of both the applicant and the TCEQ staff. However, to the extent that comments are made during the informal part of the meeting, any person wishing for a written response may re-submit those comments during the formal portion of the public meeting (either orally or in writing). This Response is the written response to all formal comments received during the comment



period for the application, including those received at the public meeting, through the TCEQ's online commenting system, or by mail. A copy of this Response will be sent to each person who submitted a formal comment, a public meeting request, or a request for a contested case hearing or who requested to be on the mailing list for this permit application and provided a mailing address. All timely formal comments received are included in this Response and will be considered before a final decision is reached on the permit application.

**COMMENT 3: Sign Posting**

North San Gabriel Alliance Commenters questioned if the sign posting requirements were met, specifically questioning whether both English and Spanish signs were posted for the entirety of the public comment period. North San Gabriel Alliance commented that there was no evidence that the Applicant complied with the applicable sign posting rules. North San Gabriel Alliance stated that a local resident who regularly drives past the site never observed the signs posted at the proposed site casting serious doubt on whether the signs were in place for the required time period. In addition, North San Gabriel Alliance expressed doubt that the Applicant's signs complied with the requirements in 30 TAC § 101.601 requiring the public notice to indicate that the application is being processed in an expedited manner.

North San Gabriel Alliance stated that TCEQ's sign posting instructions require applicants to notify the TCEQ of any errors or omissions and to request approval for any necessary changes. In this regard, North San Gabriel Alliance stated that 30 TAC § 101.602 requires that the public notice for expedited applications indicate that the application is being processed in an expedited manner and that given this requirement, the Applicant should have requested changes to the text of the signs. North San Gabriel Alliance stated that the potential failure to comply with the sign posting requirements resulted in harm to local residents because not receiving notice of the application resulted in them not submitting timely requests for a contested case hearing.

**RESPONSE 3:** When it is determined that public notice is required for air quality applications, applicants must ensure that signs regarding the requested permit action are posted as required by 30 TAC § 39.604 (Sign-Posting). The sign(s) must declare the filing of an application for a permit and state the manner in which the commission may be contacted for further information. The signs must consist of dark lettering on a white background and must be no smaller than 18 inches by 28 inches and all lettering must be no less than 1½ inches in size and block printed capital lettering. In addition, 30 TAC § 39.604 requires that each sign placed at the site be located within ten feet of every property line paralleling a public highway, street, or road. Signs must also be visible from the street and spaced at not more than 1,500-foot intervals. A minimum of one sign, but no more than three signs, are required along any property line paralleling a public highway, street, or road. In cases where notice is required to be published in an alternative language, applicants must also post signs in the applicable alternative language. Additionally, the applicant must provide written verification to the commission that the sign-posting was conducted in accordance with TCEQ rules.

30 TAC § 101.602 provides that when existing public notice requirements must be met and the applicant pays the expedited permitting surcharge, the applicable public notice must indicate that the application is being processed in an expedited manner. The term "public notice" in this rule refers to the newspaper publications discussed in Response 1. These notices (both first and second notice) contained the language required by section 101.602 indicating that the application was being processed in an expedited manner. However, the signs required to be posted by 30 TAC § 39.604, are not required to contain similar language.

The Applicant provided the required verification to the Office of the Chief Clerk verifying that signs were posted at the proposed site in accordance with the TCEQ rules. In addition, at the request of the Executive Director's staff, the Applicant also provided photos containing EXIF data which demonstrated that the signs were posted on the dates and at the location required by the TCEQ rules.

**COMMENT 4: Air Quality Permit**

Elizabeth Ann Friou questioned why the Applicant needs a permit if the emissions are not toxic or dangerous.

**RESPONSE 4:** The TCAA § 382.0518 provides that before work begins on the construction of a new facility or a modification of an existing facility that may emit air contaminants, the person planning the construction or modification must obtain a permit or permit amendment from the commission. Air contaminant is defined in the TCAA § 382.003(2), to include "particulate matter, radioactive material, dust fumes, gas, mist, smoke, vapor, or odor, including any combination of those items, produced by processes other than natural." Because the proposed facility will emit air contaminants, a permit must be obtained prior to the start of construction.

**COMMENT 5: Air Quality / Health Effects**

Commenters expressed concern about the effect of the emissions from the proposed project on the air quality and health of people, particularly sensitive populations such as the elderly, children, and people with existing medical conditions. North San Gabriel Alliance expressed concern that the application failed to show that the facility would not negatively impact air quality, human health, the environment, or property in the vicinity of the site. Commenters express specific concern regarding emissions of hydrogen fluoride (HF) and fluorine. Commenters expressed concern that the proposed project would cause negative health effects, including cancer. Group C commented that hydrogen fluoride is an extremely dangerous chemical that eats skin and lung tissue and stated that this chemical should never be released into the air. Heather Pacheco stated that the area does not have buildings or structures to block wind and expressed concern that the wind would carry toxic chemicals that would subsequently impact the community.

North San Gabriel Alliance expressed concern that the application failed to show that the facility would not negatively impact air quality, human health, the environment, or property in the vicinity of the site. North San Gabriel Alliance also expressed concern that the application did not consider the potential for cumulative impacts and that it

was not demonstrated that the TCEQ applied ESLs. Specifically, North San Gabriel Alliance stated that the "ESL thresholds" indicate that nearby residences will be impacted. Heather Pacheco expressed concern that winds would carry toxic chemicals to the surrounding area. Stephanie Ryder Morris commented that the TCEQ's standards are not strict enough.

Several commenters expressed concern about polyfluoroalkyl substances (PFAS) and stated these are known as "forever chemicals" because they do not degrade in nature. Bryce P. McCormick commented that perfluorooctanoic acid, which he stated is listed on the product information page of the Applicant's website, was recently identified in an EPA health advisory as a PFAS chemical. Jennifer Spies expressed concern regarding the potential health impacts of PFAS chemicals in the air and asked to what standards the Applicant is being held for these contaminants and how those standards were developed. Ms. Spies expressed concern about the potential for PFAS discharges into nearby water bodies and commented that PFAS could be spread up to 25 miles away and questioned whether the model accounted for impacts more than a few miles from the plant. Ms. Spies also questioned whether the model would be re-evaluated if EPA began regulating PFAS chemicals. In addition, Ms. Spies questioned whether the Applicant would control and monitor for these compounds and what specific method would be used for monitoring.

(County Commissioner Cynthia P. Long, North San Gabriel Alliance, Group A, Group C, Maude Allen, Mark Baker, Kristyn Barry, Stephen Bauer, Stephen David Bauer, Danial Beesley, Don T. Berry, Joy Borjes, Twila Bowden, Richard Arthur Box, Conor Brace, Whitney Brace, Lindsey Brassfield, Ashley Brooks, Alex Campo, Susan G. Carlson, Robert Carwell, Monica Castro, Megan Varvir Coe, C. D. Cook, Erin Debarbieri, Cristin L. Dershem, Jennifer Eyre, Tyler Andrew Eyre, Dylan Michael Foley, Susanne Fratzke, Elizabeth Ann Friou, Jillian Gabriel, Shannon Gehrler, Richard Grabish, Charles Gross, Joanna R. Hayes, Kelley Heath, Brenda Hendrickson, Ed Hillis, Liz Howells, Luann Howland, Andrea Jagodzinski, Shawn Jagodzinski, Matthew Johnson, Suzanne Johnson, Catherine Johnston, Chris Kalinowski, Molly Kalinowski, Lars Kuslich, Katrina D. Leal, Jan Love, Babu Madala, Nelson Mak, Alycen Malone, John Martin, Sherri Martin, Linda Martinez, Mary Massey, Bryce P. McCormick, Charles McCormick, Timothy McDaniel, Andres Mendez, Noor Agha Mendez, Jannah Mersiovsky, Karen Milone, Kenneth Mohr, Stephanie Ryder Morris, Casy Nash, Cindy Nash, Nick Novo, Sarah Novo, Abby Ogletree, Brittney Ortiz, Joe Owen, Heather Pacheco, Emily Patterson, Carla Picinich, Corrina Pointer, Bryan primrose, Jackie Primrose, Bessie Rhodes, James Richardson, Erika Rix, Randal Robbins, Whitney Robbins, Chris Robion, Maria Yolanda Rocke, Mark Rocke, Bill Shier, Mark Shifrin, Robert Smith, Jennifer Spies, Heather Stonehill, Heather Stonehill-Garcia, Calvin Tait, Sandra Lee Thurman, Tim Thrash, Suze Treacy, Larry Tucker, Teresa Tucker, Paul Keith Turner, Brittany D. Varner, Laura S. Wallace, Frankie Waller, Peggy Wardlaw, Susan M. Warhol, Jason Watkins, Nikki Watkins, Scott Weisse, Charles Gregory Wempe, Shannon White-Shubert, Keith Wilcox, Charles William)

**RESPONSE 5:** The Executive Director is required to review permit applications to ensure the emissions proposed to be authorized will be protective of human health and the environment. For this type of air permit application, potential impacts to

human health and welfare or the environment are determined by comparing the predicted concentration of air contaminants to appropriate state and federal standards and guidelines. These standards and guidelines include the National Ambient Air Quality Standards (NAAQS), TCEQ Effects Screening Levels (ESLs), and TCEQ rules. The Applicant proposed to authorize a new specialty manufacturing facility that will produce a variety of perfluorocarbons. The permit will authorize emissions of CO, NO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, organic compounds, hydrogen fluorides, and hazardous air pollutants. As described in detail below, the Executive Director determined that the emissions authorized by this permit will be protective of both human health and welfare and the environment.

#### NAAQS Analysis

The U.S. Environmental Protection Agency (EPA) created and continues to evaluate the NAAQS, which include both primary and secondary standards, for pollutants considered harmful to public health and the environment.<sup>1</sup> Primary standards protect public health, including sensitive members of the population such as children, the elderly, and those individuals with preexisting health conditions. Secondary NAAQS protect public welfare and the environment, including animals, crops, vegetation, visibility, and buildings, from any known or anticipated adverse effects from air contaminants. The EPA has set NAAQS for criteria pollutants, which include carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter less than or equal to 10 microns in aerodynamic diameter (PM<sub>10</sub>), and PM less than or equal to 2.5 microns in aerodynamic diameter (PM<sub>2.5</sub>).

The likelihood of whether adverse health effects caused by emissions from the facility could occur in members of the general public, including sensitive subgroups such as children, the elderly, or people with existing respiratory conditions, was determined by comparing the facility's maximum predicted air dispersion modeling concentrations to the relevant state and federal standards and ESLs. TCEQ staff used modeling results to verify that predicted ground-level concentrations from the proposed facility are not likely to adversely impact public health and welfare. The overall evaluation process provides a conservative prediction that is protective of public health. The modeling predictions were reviewed by the TCEQ Air Dispersion Modeling Team, and the modeling analysis was determined to be acceptable. The Applicant used the AERMOD modeling system to provide a reasonable worst-case representation of potential impacts from the proposed emissions on the area surrounding the facility. See Response 7 for additional information concerning the modeling and Response 13 concerning emissions calculations.

The Applicant conducted a NAAQS analysis for CO, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The first step of the NAAQS analysis is to compare the maximum predicted concentrations against the established de minimis level. Maximum predicted concentrations (GLCmax<sup>2</sup>) below the de minimis level are considered to be so low that they do not require further NAAQS analysis. Table 1 contains the results of the de minimis analysis.

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<sup>1</sup> 40 C.F.R. § 50.2

<sup>2</sup> The GLCmax is the maximum ground level concentration predicted by the modeling.

**Table 1. Modeling Results for De Minimis Review**

<b>Pollutant</b>	<b>Averaging Time</b>	<b>GLCmax (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>De Minimis (<math>\mu\text{g}/\text{m}^3</math>)</b>
NO <sub>2</sub>	1-hr	7	7.5
NO <sub>2</sub>	Annual	0.1	1
CO	1-hr	10	2000
CO	8-hr	3	500
PM <sub>10</sub>	24-hr	0.1	5
PM <sub>2.5</sub>	24-hr	0.1	1.2
PM <sub>2.5</sub>	Annual	0.01	0.2

The NAAQS analysis results demonstrated that each criteria pollutant proposed to be authorized is below the de minimis level for each pollutant, should not cause or contribute to violation of the NAAQS, and will be protective of human health and the environment.

#### Health Effects Analysis

To evaluate potential impacts of non-criteria pollutants, a health effects analysis was performed. ESLs are specific guideline concentrations used in TCEQ's evaluation of certain non-criteria pollutants. These guidelines are derived by the TCEQ's Toxicology Division and are based on a pollutant's potential to cause adverse health effects, odor nuisances, and effects on vegetation. Health-based ESLs are set below levels reported to produce adverse health effects and are set to protect the general public, including sensitive subgroups such as children, the elderly, or people with existing respiratory conditions. The TCEQ's Toxicology Division specifically considers the possibility of cumulative and aggregate exposure when developing the ESL values that are used in air permitting, creating an additional margin of safety that accounts for potential cumulative and aggregate impacts. Adverse health or welfare effects are not expected to occur if the air concentration of a pollutant is below its respective ESL. If an air concentration of a pollutant is above the screening level, it is not necessarily indicative that an adverse effect will occur, but rather that further evaluation is warranted.

The health effects analysis is performed using the TCEQ guidance Air Permit Reviewer Reference Guide - APDG 5874 - Modeling and Effects Review Applicability (MERA)<sup>3</sup> process. The MERA provides a step-by-step process to evaluate the potential impacts of non-criteria pollutants which are evaluated against the ESL for each chemical species. The initial steps are simple and conservative, and as the review progresses through the process, the steps require more detail and result in a more refined analysis. If a contaminant meets the criteria of a step, the review of human health and welfare effects for that chemical species is complete and is said to "fall out" of the MERA process at that step because it is protective of human health and welfare. The results of the health effects analysis are included in Table 2 below.

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<sup>3</sup> See Air Permit Reviewer Reference Guide - APDG 5874 guidance document.

**Table 2. Minor Site-Wide Health Effects Modeling Results**

Pollutant	CAS#	Averaging Time	GLCmax (µg/m³)	ESL (µg/m³)
hydrogen fluoride	7664-39-3	1-hr	6	18
hydrogen fluoride   For air permit reviews in agricultural areas	7664-39-3	1-hr	3.9	3
hydrogen fluoride   For air permit reviews in agricultural areas with cattle	7664-39-3	Annual	0.3	0.75
fluorine	7782-41-4	1-hr	3.9	2
perfluoroheptane	335-57-9	1-hr	22	20000
methanol	67-56-1	1-hr	38	3900
perfluorooctanoic acid and its inorganic salts	335-67-1	1-hr	<0.01	0.05
bromine	7726-95-6	1-hr	5	7
hydrogen chloride	7647-01-0	1-hr	4	190
hydrogen chloride	7647-01-0	Annual	0.1	7.9
carbon tetrafluoride	75-73-0	1-hr	154	18000
Perfluoro (bis-2-chloroethoxy methane)	N/A	1-hr	7	200
Perfluorodecalin	306-94-5	1-hr	22	200
polymers of chlorotrifluoroethylene (PCTFE)	9002-83-9	1-hr	17	50
carbonyl fluoride   For air permit reviews in agricultural areas with cattle	353-50-4	Annual	0.03	0.71
trifluoroacetic acid   For air permit reviews in agricultural areas with cattle	76-05-1	Annual	0.03	0.71

As demonstrated in Table 2, with the exception of hydrogen fluoride and fluorine, all non-criteria pollutants proposed to be authorized were below their respective ESLs. Thus, these pollutants satisfied the MERA criteria and would not be expected to cause adverse health effects. As described above, if an air concentration of a pollutant is above the ESL, it is not indicative of an adverse effect but rather that further evaluation is warranted. The TCEQ's Toxicology Division conducted an analysis of hydrogen fluoride and fluorine, in order to evaluate potential exposures and assess human health risks to the public. The Toxicology Division determined that the potential



impacts are acceptable given the conservative nature of both the ESLs and the emissions estimates.

In summary, the air contaminants proposed to be authorized in this permit application were evaluated in accordance with applicable federal and state rules and regulations. It was determined that, based on the potential predicted concentrations reviewed by the Executive Director's staff, adverse short- or long-term health effects for the general public, including sensitive subgroups such as children, the elderly, or those individuals with preexisting health conditions, animal life, crops, and vegetation are not expected as a result of exposure to the proposed emissions.

**COMMENT 6: Environmental Concerns/ Flora and Fauna/ Endangered Species**

Commenters expressed concern about the effect of the proposed project on flora, fauna and the surrounding environment, including the impacts on soil, trees, farmlands, and animals, including livestock and pets. Shannon White-Shubert commented that the area has unique fertile soil. North San Gabriel Alliance stated that the application failed to show that the proposed facility will not negatively affect plants and animals, including livestock and wildlife, and the local environment in the vicinity of the site. North San Gabriel Alliance also expressed concern that the application did not provide information about nearby livestock or their forage grasses and stated that the application should be returned for evaluation of the correct information. In addition, North San Gabriel Alliance also expressed concern that the area contains limestone features on other properties that could serve as habitat for endangered species and commented that the site should be analyzed for the presence of threatened or endangered species.

(North San Gabriel Alliance, Group A, Group C, Group D, Maude Allen, Federico I. Arce, Mark Baker, Tami Baker, Kristyn Barry, Franchesca C. Estrada Danial Beesley, Joy Borjes, Twila Bowden, Alex Campo, Susan G. Carlson, Robert Carwell, Monica Castro, Karen Cross, Jennifer Eyre, Tyler Andrew Eyre, Sheryl Marie Farley, Anthony Figgins, Amanda Foster, Elizabeth Ann Friou, Jillian Gabriel, Shannon Gehrler, Richard Grabish, Joanna R. Hayes, Liz Howells, Shawn Jagodzinski, Matthew Johnson, Suzanne Johnson, Chris Kalinowski, Molly Kalinowski, Lars Kuslich, Timothy McDaniel Katrina D. Leal, Babu Madala, Nelson Mak, Alycen Malone, Linda Martinez, Bryce P. McCormick, Charles McCormick, Andres Mendez, Noor Agha Mendez, Stephanie Ryder Morris, Nick Novo, Sarah Novo, Brittney Ortiz, Joe Owen, Rebecca R. Owens, Heather Pacheco, Corrina Pointer, Bryan Primrose, Jackie Primrose, Travis Redding, Bessie Rhodes, James Richardson, Erika Rix, Twila Bowden Randal Robbins, Chris Robion, Maria Yolanda Rocke, Mark Rocke, Robert Smith, Calvin Tait, Tim Thrash, Laura S. Wallace, Nikki Watkins, Charles Gregory Wempe, Shannon White-Shubert, Keith Wilcox, Elizabeth Williams, Haziell Williams)

**RESPONSE 6:** As described above, the secondary NAAQS are those the EPA Administrator determines are necessary to protect public welfare and the environment, including animals, crops, vegetation, visibility, and structures, from any known or anticipated adverse effects associated with the presence of a contaminant in the ambient air. The TCEQ's jurisdiction for air quality permitting does not authorize the

commission to consider effects on plants or animals outside of an evaluation of the secondary NAAQS. Accordingly, applicants for air quality permits are not required to submit information concerning nearby livestock or forage grasses. However, because the emissions from this facility should not cause an exceedance of the NAAQS, the emissions are not expected to adversely impact land, livestock, wildlife, crops, or visibility, nor should emissions interfere with the use and enjoyment of surrounding land or water. In addition, the ESLs for hydrogen fluoride, carbonyl fluoride, and trifluoroacetic acid were developed specifically to be protective of cattle in addition to human health. Permit holders must also comply with 30 TAC § 101.4, which prohibits the discharge of contaminants which may be injurious to, or adversely affect, animal life.

Compliance with rules and regulations regarding endangered species is handled at the state level by the Texas Parks and Wildlife Department and at the federal level by the United States Fish and Wildlife Service. It is incumbent upon an applicant to request and acquire any additional authorizations that may be required under state or federal law. However, if operated in accordance with the requirements of this permit, adverse impacts from the proposed facility are not expected.

**COMMENT 7: Air Dispersion Modeling / Evaluation of the Surrounding Area**

Commenters expressed concern that the review of the application did not adequately consider potential impacts on the surrounding area or nearby residences. North San Gabriel Alliance stated that the application did not demonstrate that an adequate site review was conducted for the property. In addition, North San Gabriel Alliance stated it was not clear that the air modeling included and properly evaluated all applicable emissions, such as fugitive emissions or MSS activities. North San Gabriel Alliance expressed concern that several nearby residents were not identified in the application and stated that the ESLs indicated that those residents would be impacted. North San Gabriel Alliance commented that the application should be returned so that correct information can be submitted and potential impacts on residences not identified in the application can be evaluated. David Wheelock commented that in the files he found on TCEQ's website, one appears to be a request for information from TCEQ staff asking the Applicant to provide justification for its use of the non-industrial location associated with the analysis. Mr. Wheelock stated that he was not able to find anything in the online records indicating the Applicant responded to this request for information.

North San Gabriel Alliance commented that the application contained factually incorrect information about the surrounding area. Specifically, North San Gabriel Alliance stated that the application states that the site is surrounded to the West, North, and South by forested land and possible agricultural land to the East. Conor Brace commented the statement in the application indicating that the proposed location was in the Florence Area or northwest Williamson County was dishonest in its suggestion that the site was in the middle of nowhere. Mr. Brace requested that TCEQ put down outdated maps and explore the area for itself.

(North San Gabriel Alliance, Conor Brace, David Wheelock)

**RESPONSE 7:** As described above, appropriate site-specific air dispersion modeling was performed for this application. The Applicant used the EPA-approved AERMOD air dispersion modeling program to provide an estimate of the worst-case potential impacts on the area surrounding the proposed facility. The modeling procedures, methodology, predictions, and results were audited by the TCEQ's Air Dispersion Modeling Team (ADMT) and determined to be acceptable. The ADMT review was conducted following the procedures outlined in TCEQ Publication APDG 6232, Air Quality Modeling Guidelines.<sup>4</sup>

The request to justify the use of the non-industrial location chosen for the site-wide difluorine/fluorine analysis was made prior to the Applicant's submittal of the final modeling analysis. The ADMT conducts a preliminary review of the Electronic Modeling Evaluation Workbook to evaluate general proposals for modeling and to give feedback on items which should be addressed in the final modeling evaluation. The Applicant appropriately addressed this issue in its final modeling submittal and correctly accounted for the non-industrial location of the proposed facility.

The evaluation incorporated all emissions proposed to be authorized as represented in the permit application. The modeling considered the potential effects of buildings (or lack thereof) on the dispersion of emissions. In addition, the model incorporated a full year of meteorological data as a means of predicting dispersion given the different weather patterns expected at the site. While daily weather conditions can vary within a given year, the worst-case meteorological conditions that occur during a given year are typically the same as other years. Thus, the meteorological data included sufficient data to capture the worst-case meteorological conditions, which would include the local prevailing winds.

Applicants are required to provide a current area map and plot plan with their application materials. The area map must include a true north arrow, an accurate graduated scale, show the entire plant property, the location of the property relative to prominent geographical features, and a 3,000-foot radius from the property boundary. The plot plan must clearly show a scale, contain a north arrow, all property lines, emission points, buildings, tanks, process vessels, other process equipment, and include two benchmark locations. The area map and plot plan submitted with the application were sufficiently detailed and representative of the surrounding area for the impact analysis. In addition, the ADMT reviewed aerial photography (Google Earth) to verify the representation of the surrounding area in the area map.

In addition, in its modeling analysis, the Applicant placed receptors around the property line at 25-meter intervals and extending out 150-250 meters in each direction. The receptor grid was then extended out to a distance of 1000-1500 meters in each direction with receptor spacing of 100 meters. The ADMT determined that the grid modeled was sufficient in density and spatial coverage to capture representative maximum ground-level concentrations. As stated in Response 5, based on the Executive Director's staff review, adverse health effects are not expected as a result of proposed emission rates associated with this project.

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<sup>4</sup> See Air Quality Modeling Guidelines - APDG 6232

**COMMENT 8: Environmental Impact Study**

Shannon White-Shubert commented that the Applicant indicated in a town-hall meeting that it had conducted an environmental study. Ms. White-Shubert expressed concern that this study has not been disclosed to the public.

**RESPONSE 8:** Environmental Assessments and Environmental Impact Statements (EIS) are a specific requirement for federal agencies under the National Environmental Policy Act (NEPA). An EIS is not required for state actions such as this permit. Thus, the TCEQ cannot require an applicant to submit an EIS or make it available to the public. However, both the TCAA and the TCEQ rules provide for an extensive review of the application to ensure that emissions from the proposed facility will not violate the NAAQS and will not be expected to adversely affect human health or the environment. This review is discussed in more detail in Response 5.

**COMMENT 9: Odors**

North San Gabriel Alliance expressed concern that its members would be endangered by foul odors from the proposed facility.

**RESPONSE 9:** The potential for odor nuisance is reviewed through the use of ESLs. In this case, the particular ESLs considered in the review were health-based ESLs which are generally more restrictive than odor-based ESLs. As discussed in Response 5, the health effects review compared the emissions proposed to be authorized to the ESLs and determined that the impacts were acceptable.

While nuisance conditions are not expected if the facility is operated in compliance with the terms of the permit, operators must also comply with 30 TAC § 101.4, which prohibits a person from creating or maintaining a condition of nuisance. Specifically, the rules states "[n]o person shall discharge from any source whatsoever one or more air contaminants or combinations thereof, in such concentration and of such duration as are or may tend to be injurious to or to adversely affect human health or welfare, animal life, vegetation, or property, or as to interfere with the normal use and enjoyment of animal life, vegetation, or property."

Individuals are encouraged to report any concerns about suspected noncompliance with the terms of any permit or other environmental regulation by contacting the TCEQ Austin Regional Office at 512-339-2929 or by calling the 24-hour toll-free Environmental Complaints Hotline at 1-888-777-3186. The TCEQ reviews all complaints received. If the facility is found to be out of compliance with the terms and conditions of the permit, it may be subject to investigation and possible enforcement action.

**COMMENT 10: Water Concerns**

Commenters expressed concern that the project would negatively impact water resources in the surrounding area, including the Edwards Aquifer. Commenters expressed concern regarding water contamination due to potential spills, byproducts, and discharges from the facility. In addition, many commenters expressed concern that the Applicant would discharge contaminants or chemical waste into the North

Fork San Gabriel River. North San Gabriel Alliance commented that the Applicant was not able to obtain an Edwards Aquifer contributing zone permit and that the Air Permits Division should consider the lack of the contributing zone permit in its review of the air application. Cynthia P. Long expressed concern that the facility will overtax the water supply. John Martin asked what the projected water usage is for the facility and what limits on water usage will be imposed.

(County Commissioner Cynthia P. Long, North San Gabriel Alliance, Group A, Group C, Federico I. Arce, Mark Baker, Kristyn Barry, Stephen David Bauer, Danial Beesley, Don T. Berry, Anne Kathrine Beville, Joy Borjes, Barry L. Bowden, Arthur Richard Box, Richard Arthur Box, Conor Brace, Lindsey Brassfield, Ashley Brooks, Susan G. Carlson, Robert Carwell, Monica Castro, C. D. Cook, Grant Cross, Karen Cross, Paul Davidson, Cristin L. Dershem, Franchesca C. Estrada, Jennifer Eyre, Tyler Andrew Eyre, Sheryl Marie Farley, Amanda Foster, Elizabeth Ann Friou, Jillian Gabriel, Twila Bowden Richard Grabish, Charles Gross, Christi Lachelle Gutierrez, Ed Hillis, Luann Howland, Shawn Jagodzinski, Matthew Johnson, Catherine Johnston, Ericka Lamanna, Katrina D. Leal, Nelson Mak, Alycen Malone, John Martin, Mary Massey, Bryce P. McCormick, Timothy McDaniel, Ronal Dalton McCloud, Andres Mendez, Noor Agha Mendez, Allison Metcalfe, Stephanie Ryder Morris, Casy Nash, Cindy Nash, Nick Novo, Sarah Novo, Joe Owen, Rebecca R. Owens, Heather Pacheco, Tanara Patel, Emily Patterson, Carla Picinich, Bryan Primrose, Jackie Primrose, James Richardson, Erika Rix, Randal Robbins, Whitney Robbins, Mark Shifrin, Robert Smith, Jennifer Spies, Heather Stonehill, Calvin Tait, Sandra Lee Thurman, Suze Treacy, Teresa Tucker, Paul Keith Turner, Brittany D. Varner, Laura S. Wallace, Frankie Waller, Peggy Wardlaw, Susan M. Warhol, Jason Watkins, Nikki Watkins, Charles Gregory Wempe, Shannon White-Shubert, Skyler Whittlesey, Keith Wilcox, Haziell Williams)

**RESPONSE 10:** Although the TCEQ is responsible for the environmental protection of air and water as well as the safe management of waste, this proposed permit will regulate the control and abatement of air emissions only. Therefore, issues regarding water use, water quality, or potential discharges are not within the scope of this review. This permit does not regulate water use or authorize the discharge of pollution into a body of water.

The issuance of an air quality permit does not negate the responsibility of an applicant to apply for any additionally required authorizations before operating a plant. It is the Applicant's responsibility to secure any authorizations necessary for operation of the proposed facility, and accordingly, the Applicant may be required to apply for separate authorizations regulating water use or water quality at the proposed site.

Individuals are encouraged to report environmental concerns, including water quality issues, or suspected noncompliance with the terms of any permit or other environmental regulation by contacting the TCEQ Austin Regional Office at 512-339-2929 or by calling the 24-hour toll-free Environmental Complaints Hotline at 1-888-777-3186. The TCEQ evaluates all complaints received. If the plant is found to be out of compliance with the terms and conditions of the permit, the Applicant may be subject to enforcement action.

**COMMENT 11: On-Site Chemical Storage**

Peggy Wardlaw questioned how the Applicant would store chemicals on site and questioned whether the Applicant accurately represented the type and location of on-site chemical storage. Specifically, Ms. Wardlaw expressed concern that the Applicant indicated it would move chemicals onsite and that process had not been considered during the review of the application. Jackie Primrose asked if there will be limitations on the quantities of each chemical that is on the property at one time so that if there is an accident or natural disaster there is an attempt to minimize the impact.

(Jackie Primrose, Peggy Wardlaw)

**RESPONSE 11:** The Applicant represented that there will be multiple buildings, including a storage building, that will contain materials stored in sealed drums. The storage of chemicals in sealed containers which do not have the potential to emit pollutants into the air are outside of the jurisdiction of the air permit.

The Applicant submitted a Table 2 Material Balance. The Material Balance representation accounts for all materials entering and leaving the facility at maximum operating conditions. In accordance with 30 TAC § 116.116, an applicant is bound by its representations in the application and those representations become an enforceable part of the permit. *See* Response 22 concerning emissions events, spills, and emergency response.

**COMMENT 12: Best Available Control Technology (BACT)**

North San Gabriel Alliance expressed concern that the application did not include an adequate BACT analysis. North San Gabriel Alliance expressed specific concern that the Applicant had withdrawn its application for an Edward Aquifer Contributing Zone Plan because it could not meet applicable requirements and stated this demonstrates the application did not propose BACT. Susanne Fratzke asked if the Applicant would consider installing controls beyond BACT. (North San Gabriel Alliance, Susanne Fratzke)

**RESPONSE 12:** The TCAA and TCEQ rules require an evaluation of air quality permit applications to determine whether adverse effects to public health, general welfare, or physical property are expected to result from a facility's proposed emissions. As part of the evaluation of applications for new or amended permits, the permit reviewer audits all sources of air contaminants at the proposed facility and assures that the facility will be using the best available control technology (BACT) applicable for the sources and types of contaminants emitted. BACT is based upon control measures that are designed to minimize the level of emissions from specific sources at a facility. Applying BACT results in requiring technology that best controls air emissions with consideration given to the technical practicability and economic reasonableness of reducing or eliminating emissions. *See* TCAA § 382.0518; 30 TAC § 116.111. BACT may be numerical limitations, the use of an add-on control technology, design considerations, the implementation of work practices, or operational limitations. The Applicant represented that BACT will be used for the proposed new sources.

The contaminants authorized by this permitting action include hydrogen fluorides,

carbon monoxide, hazardous air pollutants, particulate matter, nitrogen oxides and organic compounds. The primary control measures applied to this facility are the use of thermal oxidizers, which will be required to achieve a 99.9 percent destruction efficiency. Absorbers will also be used upstream of the thermal oxidizers to reduce the amount of emissions vented to the thermal oxidizers and to recycle material back to the process. The Applicant also proposed the use of the 28AVO program for monitoring of components in hydrogen fluoride (HF) service. The permit reviewer evaluated the proposed BACT and confirmed it to be acceptable.

**COMMENT 13: Emissions Calculations**

North San Gabriel Alliance commented that the application did not demonstrate that the emissions calculations were conducted properly. North San Gabriel Alliance also stated that it was not clear whether the emission factors relied on were proper or if the data was representative of site-specific conditions. North San Gabriel Alliance also stated it was not clear whether the emissions calculations included MSS activities.

**RESPONSE 13:** The Applicant represented the appropriate methodologies to control and minimize emissions and utilized corresponding control efficiencies when calculating the emission rates. As provided in 30 TAC § 116.116(a), the Applicant is bound by these representations, including the represented performance characteristics of the control equipment. In addition, the permit holder must operate within the limits of the permit, including the emission limits as listed in the Maximum Allowable Emissions Rate Table (MAERT).

Emissions calculations for the proposed facility were determined utilizing vendor data, TCEQ guidance, and EPA emissions factors. The EPA has documented a list of emission factors that can be used to calculate the estimated emissions from many sources, including sources proposed to be authorized in this permit. These emission factors are provided in EPA's AP-42 Compilation of Air Emission Factors (AP-42) guidance. The TCEQ ensures the conservative nature of these calculations by evaluating each emission point at the maximum production rates. The resulting emission rates are used as one of the inputs to an EPA-approved air dispersion modeling program that determines the predicted emission concentration for each air contaminant at locations surrounding the proposed facility.

The emission rates from the exhaust gas vent systems were estimated based on vendor supplied data for the air contaminant removal efficiency of the thermal oxidizers, AP-42 emission factors, and calculated air contaminant input rates to the thermal oxidizers. The removal efficiency of the process scrubber was conservatively assumed to be zero. Emission rates from units that are not vented to the exhaust gas vent systems were estimated based on the physical properties of the chemicals and facility operating parameters. Fugitive emission rate estimates were calculated using TCEQ's common fugitive calculation workbook, in accordance with the TCEQ's Air Permit Technical Guidance for Chemical Sources: Fugitive Guidance - APDG 6422 (June 2018). The fugitive emission stream weight percentages authorized in the permit represent the maximum expected concentrations of each chemical under any operation condition.

**COMMENT 14: Chemical Flexibility**

North San Gabriel Alliance commented that the draft permit should not allow chemical flexibility.

**RESPONSE 14:** The TCEQ offers regulated entities chemical flexibility by including a set of conditions that contain a procedure for the permit holder to authorize new chemicals. This method is limited to new chemicals that serve the same basic function as the chemicals previously authorized by the permit and that will emit only from currently authorized and previously reviewed emissions points. Unit impact multipliers obtained from the impacts evaluation are identified in the chemical flexibility conditions and the permit holder must use the evaluation procedure outlined in the conditions to determine whether both the short- and long-term impacts are acceptable. The new chemical may be authorized only if it meets the requirements of the chemical flexibility conditions.

**COMMENT 15: Hours of Operation**

North San Gabriel Alliance expressed concern that the application authorizes the site to operate 24 hours per day, 365 days per year, further stating that this schedule is not protective of public health or the environment.

**RESPONSE 15:** TCEQ has not been delegated the authority to regulate the hours of operations of a facility or site if the permit review demonstrates all applicable federal and state regulations are met. Accordingly, TCEQ cannot limit the hours of operation unless an emission rate is dependent on a limit on operational hours or there are issues associated with the air quality analysis that require the limitation. The Applicant represented operations up to 8,760 hours per year. Despite the representation of 8,760 hours per year, which is typically done for conservatism and flexibility in operations, facilities typically do not operate that many hours per year. As described in Response 5, based on the Executive Director's staff review, it is not expected that existing health conditions will worsen, or that there will be adverse health effects on the general public, sensitive subgroups, or the public welfare and the environment as a result of the emissions proposed to be authorized.

**COMMENT 16: Monitoring and Recordkeeping**

Commenters expressed concern about the monitoring requirements contained in the draft permit. Susanne Fratzke questioned how the Applicant would demonstrate compliance with the permit. Janet Ellis questioned what the air quality and groundwater reporting requirements are for this facility. North San Gabriel Alliance expressed concern that the monitoring and recordkeeping requirements in the draft permit will not ensure compliance with all rules and requirements. Charles McCormick commented that the Applicant should be required to install an exhaust monitoring system that measures and records emissions in real time and that the results should be available to the public on the internet. Mr. McCormick stated that the monitoring system should include threshold alarms that trigger sirens and alert emergency services and expressed concern that without this system, local residents will be unable to promptly recognize emergency conditions and know when to evacuate.



(North San Gabriel Alliance, Janet Ellis, Susanne Fratzke, Charles McCormick)

**RESPONSE 16:** Special conditions have been included as part of the draft permit to ensure the Applicant can demonstrate compliance with the emission limitations set forth in the permit. Emissions from the thermal oxidizer and scrubber system, will be required to be monitored through temperature monitoring of the thermal oxidizer firebox exhaust temperature and the oxygen concentration. The fugitive emissions from components in hydrogen fluoride service will be monitored with the 28AVO program. The permit holder is also required to maintain records to demonstrate compliance, including the monitoring listed above. Records must be made available upon request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction. The Regional Office may perform investigations of the facility which may include an inspection of the site including all equipment, control devices, monitors, and a review of all calculations and required recordkeeping.

In addition, the draft permit requires the Applicant to perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the thermal oxidizers to demonstrate compliance with the permit. This sampling must be conducted in accordance with the appropriate procedures contained in the TCEQ Sampling Procedures Manual and the U.S. Environmental Protection Agency (EPA) Reference Methods and must be conducted within 60 days after achieving the maximum operating rate, but no later than 180 days after initial start-up of the facilities.

**COMMENT 17: Future Permitting Actions**

Susanne Fratzke commented that the application is based on a certain business case and questioned what would happen if the Applicant's business expanded in the future. Ms. Fratzke commented that an expanding business would likely mean more pollution and questioned whether a new air permit would be required.

**RESPONSE 17:** A permit holder may not vary from any representation or permit condition without obtaining a permit amendment if the change will cause a change in the method of control of emissions, a change in the character of the emissions, or an increase in the emissions rate of any air contaminant. *See* 30 TAC § 116.116(b). The Executive Director cannot speculate on the need for any future amendments. However, each application received by the agency is reviewed for compliance with applicable rules and regulations and any future applications would need to demonstrate that the proposed facility would utilize the best available control technology (BACT) and that the proposed emissions would not cause or contribute to a violation of the NAAQS or adverse health effects.

**COMMENT 18: Location / Trucks / Traffic / Roads / Quality of Life / Aesthetics / Property Value**

**Location**

Commenters expressed concern regarding the location of the proposed facility and its proximity to residential and public areas, including farms, ranches, agricultural areas,

wildlife conservations areas, and water recreation areas. Some commenters also expressed concern that the proposed facility would be located in the Edwards Aquifer contributing zone and several commenters requested that the proposed facility be located somewhere else. Robert Carwell questioned how a governmental body would see fit to enable the construction of a chemical facility in this area. Brittany D. Varner stated the Applicant cheated the system by purchasing land in a residential area and stated that there is no telling who will be next to build in the area. Charles Gross expressed concern that the proposed facility would negatively impact the future development of the area. Luann Howland and Maude Allen expressed concern that the facility's proposed location is in a 100-year flood plain. North San Gabriel Alliance commented that the Applicant withdrew its application for an Edwards Aquifer Contributing Zone Plan which demonstrates that the area is subject to heightened protections and is not suitable for the proposed facility.

In addition, some commenters expressed concern that the Applicant chose the proposed location specifically to avoid regulatory oversight. Bryce McCormick commented that the Applicant is moving to the community so they can operate freely. Peggy Wardlaw commented that the Applicant chose the location so that people would not be around to know when chemicals are spilled. Joe Owen commented that a facility like this operates outside of a city's jurisdiction to avoid scrutiny and air quality controls. Heather Stonehill-Garcia also expressed concern that the Applicant chose the proposed location to avoid peering eyes and avoid getting caught in the event that their facility leaks.

(County Commissioner Cynthia P. Long, North San Gabriel Alliance, Group A, Group C, Group D, Maude Allen, Federico I. Arce, Mark Baker, Tami Baker, Kristyn Barry, Stephen David Bauer, Danial Beesley, Don T. Berry, Joy Borjes, Richard Arthur Box, Conor Brace, Whitney Brace, Lindsey Brassfield, Ashley Brooks, Robert Carwell, Monica Castro, Megan Varvir Coe, C. D. Cook, Tim Cox, Grant Cross, Karen Cross, Paul Davidson, Erin Debarbieri, Cristin L. Dershem, Franchesca C. Estrada, Jennifer Eyre, Tyler Andrew Eyre, Shery Marie Farley, Sheryl Marie Farley, Anthony Figgins, Jennifer Finkel, Dylan Michael Foley, Amanda Foster, Elizabeth Ann Friou, Kyle Gehrler, William Patrick George, Richard Grabish, Charles Gross, Christi Lachelle Gutierrez, Joanna R. Hayes, Kelley Heath, Glenn Heimbigner, Glenn Heimbinger, James Henley, Ed Hillis, Luann Howland, Andrea Jagodzinski, Shawn Jagodzinski, Matthew Johnson, Suzanne Johnson, Catherine Johnston, Chris Kalinowski, Molly Kalinowski, Ericka Lamanna, Jan Love, Babu Madala, Nelson Mak, Alycen Malone, John Martin, Sherri Martin, Mary Massey, Bryce McCormick, Bryce P. McCormick, Timothy McDaniel, Ronal Dalton Mcloud, Andres Mendez, Noor Agha Mendez, Allison Metcalfe, Karen Milone, Kenneth Mohr, Connie Moore, Stephanie Ryder Morris, Casy Nash, Nick Novo, Sarah Novo, Joe Owen, Rebecca R. Owens, Heather Pacheco, Emily Patterson, Carla Picinich, Corrina Pointer, Bryan Primrose, Jackie Primrose, Travis Redding, Bessie Rhodes, James Richardson, Erika Rix, Whitney Robbins, Mark Rocke, Bill Shier, Mark Shifrin, Ellen Skoviera, Robert Smith, Wanda Smith, Jennifer Spies, Michele Stanfield, Heather Stonehill-Garcia, Calvin Tait, Sandra Lee Thurman, Suze Treacy, Larry Tucker, Teresa Tucker, Brittany D. Varner, Laura S. Wallace, Peggy Wardlaw, Susan M. Warhol, Jason Watkins, Nikki Watkins, Scott Weisse, Charles Gregory Wempe, Charles Wempe, Shannon White-

Shubert, Skyler Whittlesey, Keith Wilcox, Charles William, Elizabeth Williams, Haziel Williams)

Quality of Life / Recreation / Aesthetics / Property Value

Commenters are concerned about the effect of the proposed project on their quality of life, on the aesthetics of the area, and on their property and land values. In addition, several commenters stated they moved to the area for the natural beauty and expressed concern that recreational activities such as swimming, fishing, and hunting would be impacted by the proposed facility.

(North San Gabriel Alliance, Tami Baker, Don T. Berry, Alex Campo, Robert Carwell, Monica Castro, Karen Cross, Sheryl Marie Farley, Elizabeth Ann Friou, Kelley Heath, Brian S. Jalufka, John Martin, Mary Massey, Timothy McDaniel, Karen Milone, Heather Pacheco, Paul Keith Turner, Shannon White-Shubert, Keith Wilcox, Elizabeth Williams, Haziel Williams)

Trucks/Traffic/Roads

Charles Gross commented that road infrastructure is poor in the area. Larry Tucker commented that the existing road is not equipped to handle trucks, further expressing concern regarding the potential for traffic accidents. In addition, Mr. Tucker commented that the TCEQ should consider the potential air quality impacts of a traffic accident. Brittany D. Varner expressed concern about semi-trucks carrying toxic chemicals. (Charles Gross, Larry Tucker, Brittany D. Varner)

**RESPONSE 18:** The TCAA establishes the TCEQ's jurisdiction to regulate air emission in the state of Texas. TCEQ's review of requests for air quality authorizations to emit air contaminants is limited to a review of the best available control technology (BACT) and a health effects review. Accordingly, the TCEQ does not have jurisdiction to consider plant location choices made by an applicant when determining whether to approve or deny a permit application, unless a statute or rule imposes specific distance limitations that are enforceable by the TCEQ. Zoning, land use, aesthetics, and effects on property values are beyond the authority of the TCEQ for consideration when reviewing air quality permit applications. Although TCEQ cannot consider land use issues, the TCEQ does conduct a health effects review to ensure that there will be no adverse impacts to human health and welfare. See Response 5 for additional information about the review of the application.

The TCEQ also does not have jurisdiction to consider traffic or road safety when determining whether to approve or deny a permit application. Trucks are considered mobile sources, which are not regulated by the TCEQ. Moreover, the TCEQ is prohibited from regulating roads per TCAA § 382.003(6), which excludes roads from the definition of "facility." These concerns are typically the responsibility of local, county, or other state agencies, such as the Texas Department of Transportation (TxDot) and the Texas Department of Public Safety (DPS). Concerns regarding roads should be addressed to the appropriate state or local officials. However, emissions from these sources may not constitute a nuisance as defined in 30 TAC § 101.4. Although the TCEQ is prohibited from regulating trucks, TCEQ rules prohibit anyone from causing a traffic hazard. Specifically, 30 TAC § 101.5 states, "No person shall discharge from any source whatsoever such quantities of air contaminants, uncombined water, or other

materials which cause or have a tendency to cause a traffic hazard or an interference with normal road use.”

**COMMENT 19: Public Infrastructure and Utilities**

Cynthia P. Long and Shannon White-Shubert expressed concern that the public infrastructure and utilities in the area would be unable to support the needs of the proposed facility, stating that public utilities in the rural area are unreliable, power outages are common, and that the area does not have sewer, natural gas or adequate water. (County Commissioner Cynthia P. Long, Charles Gross, Brittany D. Varner, Laura S. Wallace, Shannon White-Shubert)

**RESPONSE 19:** This permit, if issued, will regulate the control and abatement of air emissions only. Issues related to the public infrastructure or the availability of utilities are outside the scope of review of an air quality permit. It is the Applicant's responsibility to ensure it has adequate resources to operate its facility.

**COMMENT 20: Attainment Area/State Implementation Plan**

Jennifer Spies commented that the Applicant only chose the proposed location because the area is considered to be in attainment. Ms. Spies stated that if the facility had been proposed in a non-attainment area, EPA would be monitoring it and would require a State Implementation Plan (SIP) to detail steps necessary to achieve the standards.

**RESPONSE 20:** As described in Response 18, the TCEQ does not have jurisdiction to consider plant location choices made by an applicant and therefore cannot deny a permit application on the basis of location unless a statute or rule imposes specific distance limitations that are enforceable by the TCEQ.

The FCAA requires states to develop State Implementation Plans (SIPs) to address attainment and maintenance of the NAAQS. A SIP is a collection of regulations and documents used by a state, territory, or local air district to implement, maintain, and attain the NAAQS and to fulfill other requirements of the FCAA. The Texas SIP, which is federally enforceable, includes Texas' NSR permitting programs for both major and minor sources, and these programs implement both the FCAA and the TCAA. However, SIPs are not required for individual permitting actions. The EPA has approved the Texas SIP, making the TCEQ the permitting authority for regulation of air emissions generated in the state of Texas.

**COMMENT 21: Compliance History / Enforcement / Penalties**

Commenters expressed concern regarding the Applicant's compliance history, and specifically about violations at its other facility locations. John Martin asked what the company history is when it comes to responses to leaks and about the history of imposed penalties. Group D commented that this Applicant has had too many negligent discharges at its other location.

Susanne Fratzke questioned whether the TCEQ would audit the company to ensure compliance. Stephanie Ryder Morris expressed concern about TCEQ's ability to enforce environmental standards given cuts to the agency's budget. Andres Mendez expressed

concern that penalties are too low and stated that the Applicant views fines as a cost of doing business and would rather pay fines than comply with their permits.

(Group D, Maude Allen, Danial Beesley, Twila Bowden, Whitney Brace, Ranchesca C. Estrada, Jennifer Eyre, Tyler Andrew Eyre, Susanne Fratzke, Jillian Gabriel, Chelsey Heil, James Henley, Lars Kuslich, Katrina D. Leal, Nelson Mak, John Martin, Bryce McCormick, Andres Mendez, Noor Agha Mendez, Stephanie Ryder Morris, Nick Novo, Sarah Novo, Joe Owen, Rebecca R. Owens, Heather Pacheco, Travis Redding, Erika Rix, Bill Shier, Robert Smith, Heather Stonehill-Garcia, Calvin Tait, Nikki Watkins, Charles Gregory Wempe, Charles Wempe, Elizabeth Williams, Haziel Williams)

**RESPONSE 21:** There are a number of mechanisms by which the TCEQ monitors compliance with permit conditions and state and federal regulations. To the extent that personnel, time, and resources are available, the TCEQ investigates regulated operations to ensure compliance with applicable rules and regulations. Although specific to each site, investigations generally explore the entire operation of the plant. The investigation schedule may be increased if violations are found, violations are repeated, or if a regulated entity is classified as an unsatisfactory performer.

Individuals are encouraged to report environmental concerns or suspected noncompliance with the terms of any permit or other environmental regulation by contacting the TCEQ Austin Regional Office at 512-339-2929 or by calling the 24-hour toll-free Environmental Complaints Hotline at 1-888-777-3186. The TCEQ evaluates all complaints received. If the facility is found to be out of compliance with the terms and conditions of the permit, the Applicant may be subject to enforcement action. Citizen-collected evidence may be used in such an action. *See* 30 TAC § 70.4, Enforcement Action Using Information Provided by Private Individual, for details on gathering and reporting such evidence. Under the citizen-collected evidence program, individuals can provide information on possible violations of environmental law. The information, if gathered according to agency procedures and guidelines, can be used by the TCEQ to pursue enforcement. In this program, citizens can become involved and may eventually testify at a hearing or trial concerning the violation. For additional information, *see* the TCEQ's website at <https://www.tceq.texas.gov/compliance/complaints/protocols>.

Alleged violations documented during an investigation are initially addressed through a notice of violation (NOV) letter, which generally allows the operator a specified period of time within which to comply. The violation is considered resolved upon timely corrective action. If a violation is not timely corrected, repeated, or causes an impact to the environment or neighboring properties, formal enforcement action will begin according to the TCEQ Enforcement Initiation Criteria. Depending on the situation, the commission has the authority to suspend or revoke a permit pursuant to the limitations in Tex. Water Code, Chapter 7, Subchapter G.

Generally, administrative and civil penalties up to \$10,000 and \$50-25,000 respectively, may be assessed for violations of the TCEQ rules. *See* Tex. Water Code, Chapter 7. However, the specific penalties associated with any violation will be determined on a case-by-case basis according to the TCEQ's Penalty Policy. Any economic benefit or monetary gain derived from a failure to comply with TCEQ rules or regulations will be considered and may increase the penalty. Additional information

about the TCEQ penalty policy may be obtained from the TCEQ website, Penalty Policy of the Texas Commission on Environmental Quality, available at <https://www.tceq.texas.gov/compliance/investigation/rg-253.html>.

In addition, during the technical review of permit applications, a compliance history review of both the company and the site is conducted based on the criteria in 30 TAC Chapter 60. These rules may be found at the following website: <https://www.tceq.texas.gov/rules/index.html>.

The compliance history is reviewed for the five-year period prior to the date the permit application was received and includes multimedia compliance-related components about the site under review. These components include: enforcement orders, consent decrees, court judgments, criminal convictions, chronic excessive emissions events, investigations, notices of violations, audits and violations disclosed under the Audit Act, environmental management systems, voluntary on-site compliance assessments, voluntary pollution reduction programs, and early compliance.

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

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

The proposed site has a rating of 'unclassified' because it is a new site. The company has a rating of 3.31 and a classification of Satisfactory. The company rating reflects the average of the ratings for all sites the company owns in Texas.

#### **COMMENT 22: Emissions Events / Spills/ Safety / Emergency Response**

Commenters expressed concern regarding the safety of the proposed facility, potential chemical exposures, emissions events, explosions, spills, and remediation of hazards. Commenters expressed concern that there is a lack of nearby emergency services that would respond to a chemical plant release or emergency, including medical, fire, and hazmat responders and services. Whitney Brace expressed concern about the safety of the facility and about the potential of exposure to chemical clouds. Kenneth Mohr expressed concern about safety and stated that fluorine is a volatile and explosive chemical. Haziel Williams commented that remediation is the company's responsibility. Peggy Wardlaw expressed concern about the potential for forest fires. Dylan Michael Foley stated that TCEQ would be held accountable when something goes wrong.

Commenters expressed concern that public utilities are not reliable in the area and that water would not be available to firefighters in the case of a fire or explosion. Shannon White-Shubert commented that there is no fire department nearby and that the nearest is a volunteer fire department. Ms. White-Shubert also expressed concern about the distance from the nearest trauma centers to the proposed facility.

North San Gabriel Alliance expressed concern that the application did not include a Risk Management Plan or seek to authorize emergency fire water pumps onsite. North San Gabriel Alliance commented that the Applicant has a poor history of emergency response at its Round Rock facility and that its emergency and disaster response plan is inadequate. Jennifer Spies asked how and when the public would be notified that a release has occurred. Charles McCormick commented that the requirement to self-report releases of toxic gases is doubtful at best and that the Applicant is incentivized to ignore issues to keep the facility out of the spotlight.

(County Commissioner Cynthia P. Long, North San Gabriel Alliance, Group D, Maude Allen, Don T. Berry, Whitney Brace, Paul Davidson, Jennifer Eyre, Tyler Andrew Eyre, Dylan Michael Foley, Elizabeth Ann Friou, Matthew Johnson, Nelson Mak, Mary Massey, Bryce McCormick, Bryce P. McCormick, Charles McCormick, Andres Mendez, Noor Agha Mendez, Karen Milone, Kenneth Mohr, Nick Novo, Sarah Novo, Joe Owen, Bryan Primrose, Jackie Primrose, James Richardson, Bill Shier, Mark Shifrin, Robert Smith, Jennifer Spies, Sandra Lee Thurman, Brittany D. Varner, Peggy Wardlaw, Susan M. Warhol, Charles Gregory Wempe, Shannon White-Shubert, Keith Wilcox, Elizabeth Williams, Haziell Williams)

**RESPONSE 22:** The draft permit's Maximum Allowable Emission Rate Table (MAERT) lists the only emissions authorized to be emitted from the proposed plant. The TCEQ defines an upset event as an unplanned or unanticipated occurrence or excursion of a process or operation that results in unauthorized emissions of air contaminants. An upset event that results in unauthorized emissions from an emission point is an emissions event. If an upset occurs, the permit holder must comply with the requirements in 30 TAC § 101.201 regarding the recording and reporting of emission events. If the permit holder fails to report in accordance with 30 TAC § 101.201, the commission may initiate an enforcement action for failing to report the underlying emissions event itself.

In the event of an emergency, the Local Emergency Planning Committee and the regulated entity have the primary responsibility of notifying potentially impacted parties regarding the situation. In addition, As set forth in 30 TAC § 101.201(a), regulated entities are required to notify the TCEQ regional office within 24 hours of the discovery of releases into the air and in advance of maintenance activities that could or have resulted in excess emissions. The TCEQ does not have jurisdiction over local fire prevention or protection and cannot require an applicant to authorize emergency fire water pumps. However, the receipt of an air permit does not negate the responsibility of an applicant to apply for any additional required authorizations prior to operating a plant or from complying with other applicable regulations.

Proposed projects which involve toxic chemicals that are known or suspected to have potential for life threatening effects upon off-facility property in the event of a disaster and involve manufacturing processes that may contribute to the potential for disastrous events may be subject to a disaster review. Specifically, federal rules require owners and operators of a facility that manufactures, uses, stores, or otherwise handles more than a threshold quantity of a regulated substance listed in 40 C.F.R. § 68.130, to implement a risk management program and submit a single Risk

Management Plan for all covered processes to the EPA. TCEQ has not been delegated the authority to administer this program. However, the draft permit requires the permit holder to comply with EPA regulations on Chemical Accident Prevention Provisions promulgated in 40 CFR Part 68. In addition, as part of the technical review of air quality permit applications, the Executive Director questions whether the proposed facility will handle more than a threshold quantity of a regulated substance listed in 40 C.F.R. § 68.130, as part of its disaster review. If a proposed facility is subject to a disaster review, the Executive Director will request that the applicant submit its Risk Management Plan which is then kept on file with the TCEQ. This application triggered a disaster review for hydrogen fluoride (HF) and the draft permit requires the Applicant to submit its Risk Management Plan (RMP) to the Air Permits Division prior to the date the facility first exceeds a threshold quantity of hydrogen fluoride.

**COMMENT 23: Corporate Profits / Financial Assurance**

Commenters questioned the corporate profits made by this project at a cost to the surrounding community. John Martin asked what financial assurance is in place to reimburse the community if contamination occurs. (Ashley Brooks, John Martin, Bill Shier, Heather Stonehill, Heather Stonehill-Garcia)

**RESPONSE 23:** The TCEQ does not have jurisdiction to prohibit anyone from seeking authorization to emit air contaminants; nor can the TCEQ prohibit owners and operators from receiving authorization to emit air contaminants if they comply with all statutory and regulatory requirements. The applicable state and federal statutes and rules that govern this air quality permit application do not include provisions requiring financial assurance. Further, the TCEQ is not authorized to consider a company's financial status, profit issues, or third-party contractual agreements in determining whether a permit should be issued.

**COMMENT 24: Covenants, Conditions and Restrictions / Deed Restrictions**

Commenters expressed concern about the Applicant's compliance with Covenants, Conditions, and Restrictions and Deed Restrictions. Kyle Gehrer stated that restrictions were implemented on all lots that prohibited business from operating on the properties and questioned how the Applicant is able to obtain a permit to operate if this is the case. Suzanne Johnson stated that the Applicant is in violation of deed restrictions and questioned whether permission from the declarant of the property has been given. Shannon White-Shubert expressed similar concerns, commenting that the proposed facility would violate the community deed restrictions which state 'no noxious, noisy, offensive, undesirable, unlawful, or immoral activity shall be conducted on any tract'. Ms. White-Shubert further commented that documents were not filed with Williamson County which establish the property or community as a planned unit development, that the covenants run with the land, and that the deed restrictions will be upheld in a court of law if needed.

(Kyle Gehrer, Suzanne Johnson, Shannon White-Shubert, Brittany D. Varner, Chris Kalinowski, Molly Kalinowski)



**RESPONSE 24:** The TCEQ does not have jurisdiction to enforce compliance with deed restrictions, including any Covenants, Conditions and Restrictions. However, the issuance of an air quality permit does not negate the obligation of an applicant to ensure it has or will obtain the legal authority necessary to construct its facility in the proposed location.

**COMMENT 25: TCEQ's Responsibility to the Community / Project Opposition and Support**

Commenters asked that the TCEQ consider residents and their wishes and choose not to issue the permit. Commenters stated that the TCEQ should uphold its mission statement and protect the surrounding environment by not issuing the permit. Keith Wilcox commented that the proposed facility was an irresponsible idea and plan and questioned why the government isn't protecting the local public. Stephanie Ryder Morris stated TCEQ has failed to enforce water and air quality standards and expressed concern that applicable standards are not strict enough. Group A called upon TCEQ to rescind its preliminary decision on the application.

Cynthia P. Long requested TCEQ do a full and thorough review of the permit application and consider the concerns of the neighboring property owners. Joe Owen commented that the application deserves the highest scrutiny. Tami Baker requested that landowners have the ability to have a say in their future. Sandra Lee Thurman stated that TCEQ and other regulators must withdraw and deny other permits for this facility. John Martin questioned how close the TCEQ personnel reviewing the application lived in relation to the proposed facility.

Barry L. Bowden stated that after learning no water discharges would be authorized by this permit, he was in support of the project. John G. Dupont also commented in favor of the proposed facility.

(Senator Charles Schwertner, County Commissioner Cynthia P. Long, Group A, Group B, Group D, Maude Allen, Mark Baker, Tami Baker, Kristyn Barry, Stephen Bauer, Stephen David Bauer, Joy Borjes, Barry L. Bowden, Twila Bowden, Whitney Brace, Alex Campo, Robert Carwell, Monica Castro, C. D. Cook, Grant Cross, Cristin L. Dershem, Franchesca C. Estrada, Sheryl Marie Farley, Dylan Michael Foley, Amanda Foster, Elizabeth Ann Friou, Jillian Gabriel, Shannon Gehrler, Richard Grabish, Kelley Heath, Chelsey Heil, Brenda Hendrickson, Liz Howells, Brian S. Jalufka, Matthew Johnson, Suzanne Johnson, Timothy King, Lars Kuslich, Ericka Lamanna, Katrina D. Leal, Babu Madala, Alycen Malone, John Martin, Sherri Martin, Lnda Martinez, Bryce P. McCormick, Timothy McDaniel, Ronal Dalton McCloud, Jannah Mersiovsky, Karen Milone, Stephanie Ryder Morris, Cindy Nash, Abby Ogletree, Brittney Ortiz, Joe Owen, Heather Pacheco, Emily Patterson, Corrina Pointer, Bryan Primrose, Jackie Primrose, Travis Redding, Bessie Rhodes, James Richardson, Erika Rix, Whitney Robbins, Chris Robion, Wanda Smith, Jennifer Spies, Tim Thrash, Sandra Lee Thurman, Teresa Tucker, Laura S. Wallace, Frankie Waller, Jason Watkins, Nikki Watkins, Charles Wempe, Shannon White-Shubert, Keith Wilcox, Haziell Williams)

**RESPONSE 25:** The Executive Director's staff has reviewed the permit application in accordance with the applicable state and federal law, policy and procedures, and the

agency's mission to protect the state's human and natural resources consistent with sustainable economic development. The decision by the Executive Director to issue the permit is based upon the authority and direction of the Texas Clean Air Act. Specifically, TCAA § 382.0518 provides that the TCEQ shall issue the permit if an application demonstrates that the proposed facility will use at least the BACT and there is no indication that the emissions from the facility will contravene the intent of the TCAA. If the plant is operated in compliance with the terms and conditions of the permit, the emissions from the facilities authorized by this permit should not adversely impact public health or the environment.

**CHANGES MADE IN RESPONSE TO COMMENT**

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

Respectfully submitted,

Texas Commission on Environmental Quality

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Erin E. Chancellor, Director  
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REPRESENTING THE  
EXECUTIVE DIRECTOR OF THE  
TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY

**Exfluor Research Corporation  
Permit No. 165848**

**Appendix A**

**COMMENT GROUP A:** Courtney Alcott, Maude McCormick Allen, Nicole Anthony, Rebecca Bartels, Robert Lionel Baskind, James Blake, Lana Blake, Natalie Blankenbaker, Christopher Bunch, Jaime Cadwalder, Randa Chapman, Jude P. Coe, Megan Varvir Coe, Vicci Conway, C. D. Cook, Eric Crop, Vasantha Dacha, Corwin E. Davidson, Amy B. Decosmo, Cristin L. Dershem, Mengbing Dong, Janet Ellis, Guy Endsley, Tanya Endsley, Lauren Endsley, Morgan Endsley, Jennifer Eyre, Jeannie Fickel, Katherine Fuller, Jillian Gabriel, Anna Gandy, Britni Ganze, Brandon Garcia, Kyle Gehrler, Katlyn Green, Heinrich Hafner, Denelle Hager, Michelle Loren Hansen, Jason Hester, Alexandra Hoeffner, Julia Hollis, Rima Huq, Bineeta Jaiswal, Brian S. Jalufka, Sabrina Jannise, Tiffany Johnson, Chesley Jones, Nicole Jones, Erin Kenney, Hemanth Khambhammettu, Karen Kildall, Dolores King, David Kubin, Arun Kumar, Erica Ladden, Kimm Langston, Lauren Larson, Stephanie Long, Dani Lopez, Nichole Manthey, Bryan Martin, Stacy Mattison, Emma May, T. J. McDonald, Kelley McGhie, James Monk, Monica Monk, Henry N. Mulvihill, Patricia Mulvihill, Sheila Nardelli, Cindy Nash, Jake Norman, Kirsten Nottage, Joe J. Pacheco, Laurie F. Pair, Jerome Palmer, Carvey Lee Parkjer, Chris Payton, Bonnie Pearson, Ron Pearson, Renee Peyton, Patti Porter, Gina Rahbari, Ana R. Resto, Larry A. Ridolfi, David Rivera, Katy Ross, Charles Russell, Lem Russell, Margaret Russell, Susan Russell, Cari Salazar, Brian Scott, Nina Smart, Tiffany Stout, Elizabeth Suarez, Thomas L. Swint, Jen Taylor, Mason Tinsley, Tracey Vaandrager, Selena Valdez, Brittany D. Varner, Harold C. Wardlaw, Kimberly Whitney, Ashley Williams, Charles R. Williams, Robert Woolf, and Samantha Woolf

**COMMENT GROUP B:** Stephen David Bauer, Alex Camp, Elizabeth Ann Friou, Shannon Gehrler, Liz Howells, Babu Madala, Linda Martinez, Abby Ogletree, Brittney Ortiz, Bryan Primrose, and Tim Thrash

**COMMENT GROUP C:** Lindsey Brassfield, Catherine Johnston, Bryce P. McCormick, Casey Nash, Carla Picinich, and Suze Treacy

**COMMENT GROUP D:** Fanchesca C. Estrada, Jennifer Eyer, Tyler Andrew Eyre, Nelson Mak, Andres Mendez, Noor Agha Mendez, Nick Novo, Rebecca R. Owens, Robert Smith, Calvin Tait, and Nikki Watkins

JAN 04 2023

I hereby certify this is a true and correct copy of a  
Texas Commission on Environmental Quality (TCEQ)  
document, which is filed in the Records of the Commission.  
Given under my hand and the seal of office.

*Stacey Harper*  
Alternative Custodian of Records  
Texas Commission on Environmental Quality

TCEQ AIR QUALITY PERMIT NUMBER 165848

APPLICATION BY	§	BEFORE THE
EXFLUOR RESEARCH CORPORATION	§	TEXAS COMMISSION ON
EXFLUOR RESEARCH	§	ENVIRONMENTAL QUALITY
FLORENCE, WILLIAMSON COUNTY	§	

### EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT

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

As required by Title 30 Texas Administrative Code (TAC) § 55.156, before an application is approved, the Executive Director prepares a response to all timely, relevant and material, or significant comments. The Office of Chief Clerk received timely comments from the following persons: Senator Charles Schwertner, Representative Terry M. Wilson, Williamson County Commissioner Cynthia P. Long, Courtney Alcott, Maude McCormick Allen, Sarah Andrews, Nicole Anthony, Federico I. Arce, Mark Baker, Tami Baker, Kristyn Barry, Rebecca Bartels, Robert Lionel Baskind, Stephen David Bauer, Danial Beesley, Don T. Berry, Anne Kathrine Beville, James Blake, Lana Blake, Natalie Blankenbaker, Joy Borjes, Barry L. Bowden, Twila Bowden, Richard Arthur Box, Conor Brace, Whitney Brace, Lindsey Brassfield, Ashley Brooks, Christopher Bunch, Jaime Cadwalader, Alex Campo, Susan G. Carlson, Eileen Carlton, Robert Carwell, Monica Castro, Randa Chapman, Jude P. Coe, Megan Varvir Coe, Vicci Conway, C. D. Cook, Tim Cox, Eric Crop, Grant Cross, Karen Cross, Vasantha Dacha, Corwin E. Davidson, Paul Davidson, Erin Debarbieri, Amy B. Decosmo, Cristin L. Dershem, Mengbing Dong, John G. Dupont, Janet Ellis, Guy Endsley, Lauren Endsley, Morgan Endsley, Tanya Endsley, Franchesca C. Estrada, Jennifer Eyre, Tyler Andrew Eyre, Sheryl Marie Farley, Jeannie Fickel, Anthony Figgins, Jennifer Finkel, Dylan Michael Foley, Amanda Foster, Susanne Fratzke, Elizabeth Ann Friou, Katherine Fuller, Jillian Gabriel, Anna Gandy, Britni Ganze, Brandon Garcia, Kyle Gehrер, Shannon Gehrер, William Patrick George, Richard Grabish, Katlyn Green, Charles Gross, Christi Lachelle Gutierrez, Heinrich Hafner, Denelle Hager, Michelle Loren Hansen, Joanna R. Hayes, Kelley Heath, Chelsey Heil, Glenn Heimbigner, Brenda Hendrickson, James Henley, Jason Hester, Ed Hillis, Alexandra E. Hoeffner, Alexandra Hoeffner, Julia Hollis, Liz Howells, Luann Howland, Rima Huq, Lauren Ice (*on behalf of the North San Gabriel Alliance*), Andrea Jagodzinski, Shawn Jagodzinski, Bineeta Jaiswal, Brian S. Jalufka, Sabrina Jannise, Matthew Johnson, Suzanne Johnson, Tiffany Johnson, Catherine Johnston, Chesley Jones, Nicole Jones, Chris Kalinowski, Molly Kalinowski, Connie Kanetzky, Jerry Kanetzky, Marissa Kanetzky, Erin Kenney, Hemanth Khambhammettu, Karen Kildall, Dolores King, Timothy King, David Kubin, Arun Kumar, Lars Kuslich, Erica Ladden, Ericka Lamanna, Kimm Langston, Lauren Larson, Katrina D. Leal, Gwyneth Lonergan (*on behalf of the North San Gabriel Alliance*), Stephanie Long, Dani Lopez, Jan Love, Babu Madala, Nelson Mak, Alycen Malone, Nichole Manthey, Bryan Martin, John Martin, Sherri Martin, Linda Martinez, Mary Massey, Stacy Mattison, Emma May, Bryce P. McCormick, Charles McCormick, Timothy McDaniel, T. J. McDonald, Kelley McGhie, Ronal Dalton McLoud, Andres Mendez, Noor Agha Mendez, Jannah Mersiovsky, Danny P. Merton, Allison Metcalfe, Karen Milone, Kennith Mohr, James



Monk, Monica Monk, Connie Moore, Stephanie Ryder Morris, Henry N. Mulvihill, Patricia Mulvihill, Sheila Nardelli, Casey Nash, Cindy Nash, Jake Norman, Kirsten Nottage, Nick Novo, Sarah Novo, Abby Ogletree, Brittney Ortiz, Joe Owen, Rebecca R. Owens, Heather Pacheco, Joe J. Pacheco, Laurie F. Pair, Jerome Palmer, Carvey Lee Parkjer, Tanara Patel, Emily Patterson, Bonnie Pearson, Ron Pearson, Chris Peyton, Renee Peyton, Carla Picinich, Corrina Pointer, Patti Porter, Bryan Primrose, Jackie Primrose, Gina Rahbari, Travis Redding, Ana R. Resto, Bessie Rhodes, James Richardson, Larry A. Ridolfi, David Rivera, Erika Rix, Randal Robbins, Whitney Robbins, Ashton Roberts, James Roberts, Chris Robion, Maria Yolanda Rocke, Mark Rocke, Katy Ross, Charles Russell, Lem Russell, Margaret Russell, Susan Russell, Cari Salazar, Brian Scott, Bill Shier, Mark Shifrin, Ellen Skoviera, Nina Smart, Robert Smith, Wanda Smith, Jennifer Spies, Michele Stanfield, Heather Stonehill-Garcia, Tiffany Stout, Elizabeth Suarez, Thomas L. Swint, Calvin Tait, Jen Taylor, Tim Thrash, Sandra Lee Thurman, Mason Tinsley, Suze Treacy, Larry Tucker, Teresa Tucker, Paul Keith Turner, Tracey Vaandrager, Selena Valdez, Brittany D. Varner, Laura S. Wallace, Frankie Waller, Harold C. Wardlaw, Peggy Wardlaw, Shauna Wardlaw, Susan M. Warhol, Jason Watkins, Nikki Watkins, Scott Weisse, Charles Wempe, Greg Wempe, David Wheelock, Shannon White-Shubert, Kimberly Whitney, Skyler Whittlesey, Keith Wilcox, Ashley Williams, Charles R. Williams, Elizabeth Williams, Haziel Williams, Robert Woolf, and Samantha Woolf. The commenters associated with specific comments relating to a topic are listed in parentheses at the end of each comment. In some instances, a large number of commenters had the same or similar comments and have been associated to their particular comments through the use of groups. The persons attributed to each comment group are listed in Appendix A.

This Response addresses all timely public comments received, whether or not withdrawn. If you need more information about this permit application or the permitting process please call the TCEQ Public Education Program at 1-800-687-4040. General information about the TCEQ can be found at our website at [www.tceq.texas.gov](http://www.tceq.texas.gov).

## **BACKGROUND**

### Description of Facility

Exfluor Research Corporation (Applicant) has applied to the TCEQ for a New Source Review Authorization under Texas Clean Air Act (TCAA) § 382.0518. This will authorize the construction of a new facility that may emit air contaminants.

This permit will authorize the Applicant to construct the Exfluor Research facility. The facility will be located at 1100 County Road 236, Florence, Williamson County. Contaminants authorized under this permit include hydrogen fluorides, carbon monoxide, particulate matter, hazardous air pollutants, nitrogen oxides, and organic compounds.

### Procedural Background

Before work is begun on the construction of a new facility that may emit air contaminants, the person planning the construction must obtain a permit from the commission. This permit application is for an initial issuance of Air Quality Permit Number 165848.

The permit application was received on July 9, 2021 and declared administratively complete on July 14, 2021. The Notice of Receipt and Intent to Obtain an Air Quality Permit (first public notice) for this permit application was published in English on July 28, 2021, in the *Williamson County Sun* and in Spanish on July 29, 2021, in *El Mundo*. The Notice of Application and Preliminary Decision for an Air Quality Permit (second public notice) was published on March 6, 2022, in English in the *Williamson County Sun* and in Spanish on March 10, 2022, in *El Mundo*. A public meeting was held on June 16, 2022, in Florence, Texas. The public comment period ended on June 20, 2022. Because this application was received after September 1, 2015, it is subject to the procedural requirements of and rules implementing Senate Bill 709 (84th Legislature, 2015).

### COMMENTS AND RESPONSES

#### **COMMENT 1: Public Notice / Comment Period**

Commenters expressed concern about public notice of the application. Twila Bowden commented that the facility was being proposed without sufficient public awareness of its nature and possible harm. David Wheelock expressed concern about the ability to locate the draft permit on the TCEQ's website and stated that the record was not complete online. North San Gabriel Alliance expressed concern that the Applicant did not consult nearby landowners before submitting its application and there were details about the technical review process and preparation of the draft permit that were not made available prior to the public meeting. Shannon White-Shubert also expressed concern that existing property owners were not notified when the Applicant purchased the land for the facility.

North San Gabriel Alliance expressed concern that many nearby residents did not learn about the proposed facility until the second notice period. North San Gabriel Alliance also commented that the Applicant did not demonstrate compliance with the notice requirements and should therefore be required to provide the initial notice (first notice of NORI) again in order to reopen the initial comment period. North San Gabriel Alliance and David Wheelock requested that the comment period be extended. North San Gabriel Alliance specifically requested that the comment period be extended for two weeks after the close of the public meeting to allow the public to submit comments after hearing from TCEQ staff and the Applicant's representatives.

(North San Gabriel Alliance, Twila Bowden, David Wheelock, Shannon White-Shubert)

**RESPONSE 1:** The TCEQ welcomes public participation in the permitting process. The Executive Director instructs applicants to provide public notice, as required by TCEQ rules in Chapter 39 (Public Notice), in accordance with statutory requirements. TCAA § 382.056 requires that an applicant publish a "notice of intent" to obtain a permit

(first public notice) and, in most circumstances, a "notice of preliminary decision" (second public notice). These notices must be published in a newspaper of general circulation in the municipality in which the plant is proposed to be located. If the proposed plant is not located within a municipality, the newspaper should be of general circulation in the municipality nearest to the location or proposed location. As such, individual notice to nearby residents is not required by the statute or TCEQ rules.

The public notice informs the public of its opportunity to make comments and request a public meeting or contested case hearing. The required newspaper notice also invites citizens to request mailed notice on matters of interest by submitting their contact information to the TCEQ Office of the Chief Clerk (OCC). The Executive Director is required to mail notice to persons on mailing lists maintained by the OCC. As stated above, the Notice of Receipt and Intent to Obtain an Air Quality Permit (first public notice) for this permit application was published in English on July 28, 2021, in the *Williamson County Sun* and in Spanish on July 29, 2021, in *El Mundo*. Thus, the initial comment period began on July 28, 2021. However, the first notice inadvertently omitted language denoting that particulate matter (PM) would be authorized to be emitted from the facility. Therefore, the Executive Director determined that the initial notice should be republished to include language concerning PM. A Consolidated Notice of Receipt and Intent to Obtain an Air Quality Permit and Notice of Application and Preliminary Decision for an Air Quality Permit (second public notice) was published on March 6, 2022, in English in the *Williamson County Sun* and in Spanish on March 10, 2022, in *El Mundo*. Therefore, the initial comment period and time period for requesting contested case hearings was also reopened during this time. While commenters have suggested that the Executive Director extend the comment period for an additional two weeks after the close of the public meeting, the Executive Director may only do so for good cause. See 30 TAC § 55.152(a)(8). The permit application, the Executive Director's preliminary decision, the draft permit, and the air quality analysis were made available to the public for inspection as required by TCEQ's rules. The comment period began on July 28, 2021 and ended at the close of the public meeting on June 16, 2022. Accordingly, the Executive Director believes that members of the public had an adequate opportunity to access information about the permit application and has not found good cause for further extending the comment period.

Applicants are required to make a copy of the administratively complete application available for review at a public place in the county in which the plant is proposed to be located. Specifically, 30 TAC § 39.405(g)(1) requires a copy of the administratively complete application to be available for review and copying beginning on the first day of newspaper publication of the first public notice and to remain available during the public comment period. During the second notice period, 30 TAC § 39.405(g)(2) and (3) require a copy of the complete application (including any subsequent revisions) and the ED's preliminary decision, the draft permit, preliminary determination summary, and air quality analysis to be available for public viewing beginning on the first day of the publication of the second public notice. For major source permits (authorized under the Nonattainment New Source Review or Prevention of Significant Deterioration programs), copies of the Executive Director's draft permit and preliminary decision, preliminary determination summary, and air quality analysis are also made available



electronically on the commission's website at the time of publication of the second notice. However, this requirement is not applicable to minor source New Source Review permits, like this one. As described in the notices, the application and associated documents (including the draft permit) were available for viewing and copying at the TCEQ's central office in Austin and at the Eula Hunt Beck Florence Public Library located at 207 East Main Street, Florence, Texas.

To demonstrate compliance with public notice requirements, applicants are required to provide the Office of the Chief Clerk with copies of the published notice and a publisher's affidavit verifying facts related to the publication, including that the newspaper is a paper of general circulation in the municipality in which the proposed facility is located or proposed to be located. The Applicant provided the required forms to the Office of the Chief Clerk.

**COMMENT 2: Public Meeting**

Conor Brace questioned the chosen location of the public meeting, stating that the Florence High School is a "red-herring location" with little connection to the proposed site. Mr. Brace requested that a "real" public meeting be held in a larger venue to include those populations affected, and specifically requested that residents of Liberty Hill and surrounding areas, Brushy Creek MUD, Georgetown, Round Rock, and the Fort Worth District of the U.S. Army Corps of Engineers be in attendance. Stephanie Ryder Morris commented that both the informal and formal comments should be part of the permit process. Brittany D. Varner expressed concern about the Applicant's answers to certain questions at the public meeting. (North San Gabriel Alliance, Conor Brace, Stephanie Ryder Morris, Brittany D. Varner, Peggy Wardlaw, David Wheelock)

**RESPONSE 2:** The TCEQ rules require that a public meeting be held if a member of the legislature who represents the general area in which the facility is located requests a public meeting or if the TCEQ Executive Director determines that there is a substantial or significant degree of public interest. Public meetings are open to the public and any member of the public or interested person may attend the meeting. At the request of both citizens and Senator Charles Schwertner and Representative Terry Wilson, a public meeting was held on June 16, 2022, at the Florence High School Cafeteria.

The protocol used in public meetings was explained to the assembled audience in the preliminary remarks prior to the public meeting. Specifically, it was explained that the meeting would consist of two parts, the first being an informal discussion to ask and answer questions while the second part was a formal discussion in which the audience could provide comments that would be recorded for the official public record and responded to in writing. This information is also stated in the meeting notification that was mailed to everyone on the OCC's mailing list prior to the public meeting. The informal portion of the meeting is not designed for the taking of public comment; rather, it provides an opportunity to ask questions of both the applicant and the TCEQ staff. However, to the extent that comments are made during the informal part of the meeting, any person wishing for a written response may re-submit those comments during the formal portion of the public meeting (either orally or in writing). This Response is the written response to all formal comments received during the comment

period for the application, including those received at the public meeting, through the TCEQ's online commenting system, or by mail. A copy of this Response will be sent to each person who submitted a formal comment, a public meeting request, or a request for a contested case hearing or who requested to be on the mailing list for this permit application and provided a mailing address. All timely formal comments received are included in this Response and will be considered before a final decision is reached on the permit application.

**COMMENT 3: Sign Posting**

North San Gabriel Alliance Commenters questioned if the sign posting requirements were met, specifically questioning whether both English and Spanish signs were posted for the entirety of the public comment period. North San Gabriel Alliance commented that there was no evidence that the Applicant complied with the applicable sign posting rules. North San Gabriel Alliance stated that a local resident who regularly drives past the site never observed the signs posted at the proposed site casting serious doubt on whether the signs were in place for the required time period. In addition, North San Gabriel Alliance expressed doubt that the Applicant's signs complied with the requirements in 30 TAC § 101.601 requiring the public notice to indicate that the application is being processed in an expedited manner.

North San Gabriel Alliance stated that TCEQ's sign posting instructions require applicants to notify the TCEQ of any errors or omissions and to request approval for any necessary changes. In this regard, North San Gabriel Alliance stated that 30 TAC § 101.602 requires that the public notice for expedited applications indicate that the application is being processed in an expedited manner and that given this requirement, the Applicant should have requested changes to the text of the signs. North San Gabriel Alliance stated that the potential failure to comply with the sign posting requirements resulted in harm to local residents because not receiving notice of the application resulted in them not submitting timely requests for a contested case hearing.

**RESPONSE 3:** When it is determined that public notice is required for air quality applications, applicants must ensure that signs regarding the requested permit action are posted as required by 30 TAC § 39.604 (Sign-Posting). The sign(s) must declare the filing of an application for a permit and state the manner in which the commission may be contacted for further information. The signs must consist of dark lettering on a white background and must be no smaller than 18 inches by 28 inches and all lettering must be no less than 1½ inches in size and block printed capital lettering. In addition, 30 TAC § 39.604 requires that each sign placed at the site be located within ten feet of every property line paralleling a public highway, street, or road. Signs must also be visible from the street and spaced at not more than 1,500-foot intervals. A minimum of one sign, but no more than three signs, are required along any property line paralleling a public highway, street, or road. In cases where notice is required to be published in an alternative language, applicants must also post signs in the applicable alternative language. Additionally, the applicant must provide written verification to the commission that the sign-posting was conducted in accordance with TCEQ rules.

30 TAC § 101.602 provides that when existing public notice requirements must be met and the applicant pays the expedited permitting surcharge, the applicable public notice must indicate that the application is being processed in an expedited manner. The term "public notice" in this rule refers to the newspaper publications discussed in Response 1. These notices (both first and second notice) contained the language required by section 101.602 indicating that the application was being processed in an expedited manner. However, the signs required to be posted by 30 TAC § 39.604, are not required to contain similar language.

The Applicant provided the required verification to the Office of the Chief Clerk verifying that signs were posted at the proposed site in accordance with the TCEQ rules. In addition, at the request of the Executive Director's staff, the Applicant also provided photos containing EXIF data which demonstrated that the signs were posted on the dates and at the location required by the TCEQ rules.

**COMMENT 4: Air Quality Permit**

Elizabeth Ann Friou questioned why the Applicant needs a permit if the emissions are not toxic or dangerous.

**RESPONSE 4:** The TCAA § 382.0518 provides that before work begins on the construction of a new facility or a modification of an existing facility that may emit air contaminants, the person planning the construction or modification must obtain a permit or permit amendment from the commission. Air contaminant is defined in the TCAA § 382.003(2), to include "particulate matter, radioactive material, dust fumes, gas, mist, smoke, vapor, or odor, including any combination of those items, produced by processes other than natural." Because the proposed facility will emit air contaminants, a permit must be obtained prior to the start of construction.

**COMMENT 5: Air Quality / Health Effects**

Commenters expressed concern about the effect of the emissions from the proposed project on the air quality and health of people, particularly sensitive populations such as the elderly, children, and people with existing medical conditions. North San Gabriel Alliance expressed concern that the application failed to show that the facility would not negatively impact air quality, human health, the environment, or property in the vicinity of the site. Commenters express specific concern regarding emissions of hydrogen fluoride (HF) and fluorine. Commenters expressed concern that the proposed project would cause negative health effects, including cancer. Group C commented that hydrogen fluoride is an extremely dangerous chemical that eats skin and lung tissue and stated that this chemical should never be released into the air. Heather Pacheco stated that the area does not have buildings or structures to block wind and expressed concern that the wind would carry toxic chemicals that would subsequently impact the community.

North San Gabriel Alliance expressed concern that the application failed to show that the facility would not negatively impact air quality, human health, the environment, or property in the vicinity of the site. North San Gabriel Alliance also expressed concern that the application did not consider the potential for cumulative impacts and that it

was not demonstrated that the TCEQ applied ESLs. Specifically, North San Gabriel Alliance stated that the "ESL thresholds" indicate that nearby residences will be impacted. Heather Pacheco expressed concern that winds would carry toxic chemicals to the surrounding area. Stephanie Ryder Morris commented that the TCEQ's standards are not strict enough.

Several commenters expressed concern about polyfluoroalkyl substances (PFAS) and stated these are known as "forever chemicals" because they do not degrade in nature. Bryce P. McCormick commented that perfluorooctanoic acid, which he stated is listed on the product information page of the Applicant's website, was recently identified in an EPA health advisory as a PFAS chemical. Jennifer Spies expressed concern regarding the potential health impacts of PFAS chemicals in the air and asked to what standards the Applicant is being held for these contaminants and how those standards were developed. Ms. Spies expressed concern about the potential for PFAS discharges into nearby water bodies and commented that PFAS could be spread up to 25 miles away and questioned whether the model accounted for impacts more than a few miles from the plant. Ms. Spies also questioned whether the model would be re-evaluated if EPA began regulating PFAS chemicals. In addition, Ms. Spies questioned whether the Applicant would control and monitor for these compounds and what specific method would be used for monitoring.

(County Commissioner Cynthia P. Long, North San Gabriel Alliance, Group A, Group C, Maude Allen, Mark Baker, Kristyn Barry, Stephen Bauer, Stephen David Bauer, Danial Beesley, Don T. Berry, Joy Borjes, Twila Bowden, Richard Arthur Box, Conor Brace, Whitney Brace, Lindsey Brassfield, Ashley Brooks, Alex Campo, Susan G. Carlson, Robert Carwell, Monica Castro, Megan Varvir Coe, C. D. Cook, Erin Debarbieri, Cristin L. Dershem, Jennifer Eyre, Tyler Andrew Eyre, Dylan Michael Foley, Susanne Fratzke, Elizabeth Ann Friou, Jillian Gabriel, Shannon Gehrler, Richard Grabish, Charles Gross, Joanna R. Hayes, Kelley Heath, Brenda Hendrickson, Ed Hillis, Liz Howells, Luann Howland, Andrea Jagodzinski, Shawn Jagodzinski, Matthew Johnson, Suzanne Johnson, Catherine Johnston, Chris Kalinowski, Molly Kalinowski, Lars Kuslich, Katrina D. Leal, Jan Love, Babu Madala, Nelson Mak, Alycen Malone, John Martin, Sherri Martin, Linda Martinez, Mary Massey, Bryce P. McCormick, Charles McCormick, Timothy McDaniel, Andres Mendez, Noor Agha Mendez, Jannah Mersiovsky, Karen Milone, Kenneth Mohr, Stephanie Ryder Morris, Casy Nash, Cindy Nash, Nick Novo, Sarah Novo, Abby Ogletree, Brittney Ortiz, Joe Owen, Heather Pacheco, Emily Patterson, Carla Picinich, Corrina Pointer, Bryan primrose, Jackie Primrose, Bessie Rhodes, James Richardson, Erika Rix, Randal Robbins, Whitney Robbins, Chris Robion, Maria Yolanda Rocke, Mark Rocke, Bill Shier, Mark Shifrin, Robert Smith, Jennifer Spies, Heather Stonehill, Heather Stonehill-Garcia, Calvin Tait, Sandra Lee Thurman, Tim Thrash, Suze Treacy, Larry Tucker, Teresa Tucker, Paul Keith Turner, Brittany D. Varner, Laura S. Wallace, Frankie Waller, Peggy Wardlaw, Susan M. Warhol, Jason Watkins, Nikki Watkins, Scott Weisse, Charles Gregory Wempe, Shannon White-Shubert, Keith Wilcox, Charles William)

**RESPONSE 5:** The Executive Director is required to review permit applications to ensure the emissions proposed to be authorized will be protective of human health and the environment. For this type of air permit application, potential impacts to

human health and welfare or the environment are determined by comparing the predicted concentration of air contaminants to appropriate state and federal standards and guidelines. These standards and guidelines include the National Ambient Air Quality Standards (NAAQS), TCEQ Effects Screening Levels (ESLs), and TCEQ rules. The Applicant proposed to authorize a new specialty manufacturing facility that will produce a variety of perfluorocarbons. The permit will authorize emissions of CO, NO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, organic compounds, hydrogen fluorides, and hazardous air pollutants. As described in detail below, the Executive Director determined that the emissions authorized by this permit will be protective of both human health and welfare and the environment.

#### NAAQS Analysis

The U.S. Environmental Protection Agency (EPA) created and continues to evaluate the NAAQS, which include both primary and secondary standards, for pollutants considered harmful to public health and the environment.<sup>1</sup> Primary standards protect public health, including sensitive members of the population such as children, the elderly, and those individuals with preexisting health conditions. Secondary NAAQS protect public welfare and the environment, including animals, crops, vegetation, visibility, and buildings, from any known or anticipated adverse effects from air contaminants. The EPA has set NAAQS for criteria pollutants, which include carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter less than or equal to 10 microns in aerodynamic diameter (PM<sub>10</sub>), and PM less than or equal to 2.5 microns in aerodynamic diameter (PM<sub>2.5</sub>).

The likelihood of whether adverse health effects caused by emissions from the facility could occur in members of the general public, including sensitive subgroups such as children, the elderly, or people with existing respiratory conditions, was determined by comparing the facility's maximum predicted air dispersion modeling concentrations to the relevant state and federal standards and ESLs. TCEQ staff used modeling results to verify that predicted ground-level concentrations from the proposed facility are not likely to adversely impact public health and welfare. The overall evaluation process provides a conservative prediction that is protective of public health. The modeling predictions were reviewed by the TCEQ Air Dispersion Modeling Team, and the modeling analysis was determined to be acceptable. The Applicant used the AERMOD modeling system to provide a reasonable worst-case representation of potential impacts from the proposed emissions on the area surrounding the facility. See Response 7 for additional information concerning the modeling and Response 13 concerning emissions calculations.

The Applicant conducted a NAAQS analysis for CO, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The first step of the NAAQS analysis is to compare the maximum predicted concentrations against the established de minimis level. Maximum predicted concentrations (GLCmax<sup>2</sup>) below the de minimis level are considered to be so low that they do not require further NAAQS analysis. Table 1 contains the results of the de minimis analysis.

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<sup>1</sup> 40 C.F.R. § 50.2

<sup>2</sup> The GLCmax is the maximum ground level concentration predicted by the modeling.

**Table 1. Modeling Results for De Minimis Review**

<b>Pollutant</b>	<b>Averaging Time</b>	<b>GLCmax (µg/m<sup>3</sup>)</b>	<b>De Minimis (µg/m<sup>3</sup>)</b>
NO <sub>2</sub>	1-hr	7	7.5
NO <sub>2</sub>	Annual	0.1	1
CO	1-hr	10	2000
CO	8-hr	3	500
PM <sub>10</sub>	24-hr	0.1	5
PM <sub>2.5</sub>	24-hr	0.1	1.2
PM <sub>2.5</sub>	Annual	0.01	0.2

The NAAQS analysis results demonstrated that each criteria pollutant proposed to be authorized is below the de minimis level for each pollutant, should not cause or contribute to violation of the NAAQS, and will be protective of human health and the environment.

#### Health Effects Analysis

To evaluate potential impacts of non-criteria pollutants, a health effects analysis was performed. ESLs are specific guideline concentrations used in TCEQ's evaluation of certain non-criteria pollutants. These guidelines are derived by the TCEQ's Toxicology Division and are based on a pollutant's potential to cause adverse health effects, odor nuisances, and effects on vegetation. Health-based ESLs are set below levels reported to produce adverse health effects and are set to protect the general public, including sensitive subgroups such as children, the elderly, or people with existing respiratory conditions. The TCEQ's Toxicology Division specifically considers the possibility of cumulative and aggregate exposure when developing the ESL values that are used in air permitting, creating an additional margin of safety that accounts for potential cumulative and aggregate impacts. Adverse health or welfare effects are not expected to occur if the air concentration of a pollutant is below its respective ESL. If an air concentration of a pollutant is above the screening level, it is not necessarily indicative that an adverse effect will occur, but rather that further evaluation is warranted.

The health effects analysis is performed using the TCEQ guidance Air Permit Reviewer Reference Guide - APDG 5874 - Modeling and Effects Review Applicability (MERA)<sup>3</sup> process. The MERA provides a step-by-step process to evaluate the potential impacts of non-criteria pollutants which are evaluated against the ESL for each chemical species. The initial steps are simple and conservative, and as the review progresses through the process, the steps require more detail and result in a more refined analysis. If a contaminant meets the criteria of a step, the review of human health and welfare effects for that chemical species is complete and is said to "fall out" of the MERA process at that step because it is protective of human health and welfare. The results of the health effects analysis are included in Table 2 below.

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<sup>3</sup> See Air Permit Reviewer Reference Guide - APDG 5874 guidance document.

**Table 2. Minor Site-Wide Health Effects Modeling Results**

Pollutant	CAS#	Averaging Time	GLCmax (µg/m³)	ESL (µg/m³)
hydrogen fluoride	7664-39-3	1-hr	6	18
hydrogen fluoride   For air permit reviews in agricultural areas	7664-39-3	1-hr	3.9	3
hydrogen fluoride   For air permit reviews in agricultural areas with cattle	7664-39-3	Annual	0.3	0.75
fluorine	7782-41-4	1-hr	3.9	2
perfluoroheptane	335-57-9	1-hr	22	20000
methanol	67-56-1	1-hr	38	3900
perfluorooctanoic acid and its inorganic salts	335-67-1	1-hr	<0.01	0.05
bromine	7726-95-6	1-hr	5	7
hydrogen chloride	7647-01-0	1-hr	4	190
hydrogen chloride	7647-01-0	Annual	0.1	7.9
carbon tetrafluoride	75-73-0	1-hr	154	18000
Perfluoro (bis-2-chloroethoxy methane)	N/A	1-hr	7	200
Perfluorodecalin	306-94-5	1-hr	22	200
polymers of chlorotrifluoroethylene (PCTFE)	9002-83-9	1-hr	17	50
carbonyl fluoride   For air permit reviews in agricultural areas with cattle	353-50-4	Annual	0.03	0.71
trifluoroacetic acid   For air permit reviews in agricultural areas with cattle	76-05-1	Annual	0.03	0.71

As demonstrated in Table 2, with the exception of hydrogen fluoride and fluorine, all non-criteria pollutants proposed to be authorized were below their respective ESLs. Thus, these pollutants satisfied the MERA criteria and would not be expected to cause adverse health effects. As described above, if an air concentration of a pollutant is above the ESL, it is not indicative of an adverse effect but rather that further evaluation is warranted. The TCEQ's Toxicology Division conducted an analysis of hydrogen fluoride and fluorine, in order to evaluate potential exposures and assess human health risks to the public. The Toxicology Division determined that the potential

impacts are acceptable given the conservative nature of both the ESLs and the emissions estimates.

In summary, the air contaminants proposed to be authorized in this permit application were evaluated in accordance with applicable federal and state rules and regulations. It was determined that, based on the potential predicted concentrations reviewed by the Executive Director's staff, adverse short- or long-term health effects for the general public, including sensitive subgroups such as children, the elderly, or those individuals with preexisting health conditions, animal life, crops, and vegetation are not expected as a result of exposure to the proposed emissions.

**COMMENT 6: Environmental Concerns/ Flora and Fauna/ Endangered Species**

Commenters expressed concern about the effect of the proposed project on flora, fauna and the surrounding environment, including the impacts on soil, trees, farmlands, and animals, including livestock and pets. Shannon White-Shubert commented that the area has unique fertile soil. North San Gabriel Alliance stated that the application failed to show that the proposed facility will not negatively affect plants and animals, including livestock and wildlife, and the local environment in the vicinity of the site. North San Gabriel Alliance also expressed concern that the application did not provide information about nearby livestock or their forage grasses and stated that the application should be returned for evaluation of the correct information. In addition, North San Gabriel Alliance also expressed concern that the area contains limestone features on other properties that could serve as habitat for endangered species and commented that the site should be analyzed for the presence of threatened or endangered species.

(North San Gabriel Alliance, Group A, Group C, Group D, Maude Allen, Federico I. Arce, Mark Baker, Tami Baker, Kristyn Barry, Franchesca C. Estrada Danial Beesley, Joy Borjes, Twila Bowden, Alex Campo, Susan G. Carlson, Robert Carwell, Monica Castro, Karen Cross, Jennifer Eyre, Tyler Andrew Eyre, Sheryl Marie Farley, Anthony Figgins, Amanda Foster, Elizabeth Ann Friou, Jillian Gabriel, Shannon Gehrler, Richard Grabish, Joanna R. Hayes, Liz Howells, Shawn Jagodzinski, Matthew Johnson, Suzanne Johnson, Chris Kalinowski, Molly Kalinowski, Lars Kuslich, Timothy McDaniel Katrina D. Leal, Babu Madala, Nelson Mak, Alycen Malone, Linda Martinez, Bryce P. McCormick, Charles McCormick, Andres Mendez, Noor Agha Mendez, Stephanie Ryder Morris, Nick Novo, Sarah Novo, Brittney Ortiz, Joe Owen, Rebecca R. Owens, Heather Pacheco, Corrina Pointer, Bryan Primrose, Jackie Primrose, Travis Redding, Bessie Rhodes, James Richardson, Erika Rix, Twila Bowden Randal Robbins, Chris Robion, Maria Yolanda Rocke, Mark Rocke, Robert Smith, Calvin Tait, Tim Thrash, Laura S. Wallace, Nikki Watkins, Charles Gregory Wempe, Shannon White-Shubert, Keith Wilcox, Elizabeth Williams, Haziell Williams)

**RESPONSE 6:** As described above, the secondary NAAQS are those the EPA Administrator determines are necessary to protect public welfare and the environment, including animals, crops, vegetation, visibility, and structures, from any known or anticipated adverse effects associated with the presence of a contaminant in the ambient air. The TCEQ's jurisdiction for air quality permitting does not authorize the



commission to consider effects on plants or animals outside of an evaluation of the secondary NAAQS. Accordingly, applicants for air quality permits are not required to submit information concerning nearby livestock or forage grasses. However, because the emissions from this facility should not cause an exceedance of the NAAQS, the emissions are not expected to adversely impact land, livestock, wildlife, crops, or visibility, nor should emissions interfere with the use and enjoyment of surrounding land or water. In addition, the ESLs for hydrogen fluoride, carbonyl fluoride, and trifluoroacetic acid were developed specifically to be protective of cattle in addition to human health. Permit holders must also comply with 30 TAC § 101.4, which prohibits the discharge of contaminants which may be injurious to, or adversely affect, animal life.

Compliance with rules and regulations regarding endangered species is handled at the state level by the Texas Parks and Wildlife Department and at the federal level by the United States Fish and Wildlife Service. It is incumbent upon an applicant to request and acquire any additional authorizations that may be required under state or federal law. However, if operated in accordance with the requirements of this permit, adverse impacts from the proposed facility are not expected.

**COMMENT 7: Air Dispersion Modeling / Evaluation of the Surrounding Area**

Commenters expressed concern that the review of the application did not adequately consider potential impacts on the surrounding area or nearby residences. North San Gabriel Alliance stated that the application did not demonstrate that an adequate site review was conducted for the property. In addition, North San Gabriel Alliance stated it was not clear that the air modeling included and properly evaluated all applicable emissions, such as fugitive emissions or MSS activities. North San Gabriel Alliance expressed concern that several nearby residents were not identified in the application and stated that the ESLs indicated that those residents would be impacted. North San Gabriel Alliance commented that the application should be returned so that correct information can be submitted and potential impacts on residences not identified in the application can be evaluated. David Wheelock commented that in the files he found on TCEQ's website, one appears to be a request for information from TCEQ staff asking the Applicant to provide justification for its use of the non-industrial location associated with the analysis. Mr. Wheelock stated that he was not able to find anything in the online records indicating the Applicant responded to this request for information.

North San Gabriel Alliance commented that the application contained factually incorrect information about the surrounding area. Specifically, North San Gabriel Alliance stated that the application states that the site is surrounded to the West, North, and South by forested land and possible agricultural land to the East. Conor Brace commented the statement in the application indicating that the proposed location was in the Florence Area or northwest Williamson County was dishonest in its suggestion that the site was in the middle of nowhere. Mr. Brace requested that TCEQ put down outdated maps and explore the area for itself.

(North San Gabriel Alliance, Conor Brace, David Wheelock)

**RESPONSE 7:** As described above, appropriate site-specific air dispersion modeling was performed for this application. The Applicant used the EPA-approved AERMOD air dispersion modeling program to provide an estimate of the worst-case potential impacts on the area surrounding the proposed facility. The modeling procedures, methodology, predictions, and results were audited by the TCEQ's Air Dispersion Modeling Team (ADMT) and determined to be acceptable. The ADMT review was conducted following the procedures outlined in TCEQ Publication APDG 6232, Air Quality Modeling Guidelines.<sup>4</sup>

The request to justify the use of the non-industrial location chosen for the site-wide difluorine/fluorine analysis was made prior to the Applicant's submittal of the final modeling analysis. The ADMT conducts a preliminary review of the Electronic Modeling Evaluation Workbook to evaluate general proposals for modeling and to give feedback on items which should be addressed in the final modeling evaluation. The Applicant appropriately addressed this issue in its final modeling submittal and correctly accounted for the non-industrial location of the proposed facility.

The evaluation incorporated all emissions proposed to be authorized as represented in the permit application. The modeling considered the potential effects of buildings (or lack thereof) on the dispersion of emissions. In addition, the model incorporated a full year of meteorological data as a means of predicting dispersion given the different weather patterns expected at the site. While daily weather conditions can vary within a given year, the worst-case meteorological conditions that occur during a given year are typically the same as other years. Thus, the meteorological data included sufficient data to capture the worst-case meteorological conditions, which would include the local prevailing winds.

Applicants are required to provide a current area map and plot plan with their application materials. The area map must include a true north arrow, an accurate graduated scale, show the entire plant property, the location of the property relative to prominent geographical features, and a 3,000-foot radius from the property boundary. The plot plan must clearly show a scale, contain a north arrow, all property lines, emission points, buildings, tanks, process vessels, other process equipment, and include two benchmark locations. The area map and plot plan submitted with the application were sufficiently detailed and representative of the surrounding area for the impact analysis. In addition, the ADMT reviewed aerial photography (Google Earth) to verify the representation of the surrounding area in the area map.

In addition, in its modeling analysis, the Applicant placed receptors around the property line at 25-meter intervals and extending out 150-250 meters in each direction. The receptor grid was then extended out to a distance of 1000-1500 meters in each direction with receptor spacing of 100 meters. The ADMT determined that the grid modeled was sufficient in density and spatial coverage to capture representative maximum ground-level concentrations. As stated in Response 5, based on the Executive Director's staff review, adverse health effects are not expected as a result of proposed emission rates associated with this project.

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<sup>4</sup> See Air Quality Modeling Guidelines - APDG 6232

**COMMENT 8: Environmental Impact Study**

Shannon White-Shubert commented that the Applicant indicated in a town-hall meeting that it had conducted an environmental study. Ms. White-Shubert expressed concern that this study has not been disclosed to the public.

**RESPONSE 8:** Environmental Assessments and Environmental Impact Statements (EIS) are a specific requirement for federal agencies under the National Environmental Policy Act (NEPA). An EIS is not required for state actions such as this permit. Thus, the TCEQ cannot require an applicant to submit an EIS or make it available to the public. However, both the TCAA and the TCEQ rules provide for an extensive review of the application to ensure that emissions from the proposed facility will not violate the NAAQS and will not be expected to adversely affect human health or the environment. This review is discussed in more detail in Response 5.

**COMMENT 9: Odors**

North San Gabriel Alliance expressed concern that its members would be endangered by foul odors from the proposed facility.

**RESPONSE 9:** The potential for odor nuisance is reviewed through the use of ESLs. In this case, the particular ESLs considered in the review were health-based ESLs which are generally more restrictive than odor-based ESLs. As discussed in Response 5, the health effects review compared the emissions proposed to be authorized to the ESLs and determined that the impacts were acceptable.

While nuisance conditions are not expected if the facility is operated in compliance with the terms of the permit, operators must also comply with 30 TAC § 101.4, which prohibits a person from creating or maintaining a condition of nuisance. Specifically, the rules states "[n]o person shall discharge from any source whatsoever one or more air contaminants or combinations thereof, in such concentration and of such duration as are or may tend to be injurious to or to adversely affect human health or welfare, animal life, vegetation, or property, or as to interfere with the normal use and enjoyment of animal life, vegetation, or property."

Individuals are encouraged to report any concerns about suspected noncompliance with the terms of any permit or other environmental regulation by contacting the TCEQ Austin Regional Office at 512-339-2929 or by calling the 24-hour toll-free Environmental Complaints Hotline at 1-888-777-3186. The TCEQ reviews all complaints received. If the facility is found to be out of compliance with the terms and conditions of the permit, it may be subject to investigation and possible enforcement action.

**COMMENT 10: Water Concerns**

Commenters expressed concern that the project would negatively impact water resources in the surrounding area, including the Edwards Aquifer. Commenters expressed concern regarding water contamination due to potential spills, byproducts, and discharges from the facility. In addition, many commenters expressed concern that the Applicant would discharge contaminants or chemical waste into the North

Fork San Gabriel River. North San Gabriel Alliance commented that the Applicant was not able to obtain an Edwards Aquifer contributing zone permit and that the Air Permits Division should consider the lack of the contributing zone permit in its review of the air application. Cynthia P. Long expressed concern that the facility will overtax the water supply. John Martin asked what the projected water usage is for the facility and what limits on water usage will be imposed.

(County Commissioner Cynthia P. Long, North San Gabriel Alliance, Group A, Group C, Federico I. Arce, Mark Baker, Kristyn Barry, Stephen David Bauer, Danial Beesley, Don T. Berry, Anne Kathrine Beville, Joy Borjes, Barry L. Bowden, Arthur Richard Box, Richard Arthur Box, Conor Brace, Lindsey Brassfield, Ashley Brooks, Susan G. Carlson, Robert Carwell, Monica Castro, C. D. Cook, Grant Cross, Karen Cross, Paul Davidson, Cristin L. Dershem, Franchesca C. Estrada, Jennifer Eyre, Tyler Andrew Eyre, Sheryl Marie Farley, Amanda Foster, Elizabeth Ann Friou, Jillian Gabriel, Twila Bowden Richard Grabish, Charles Gross, Christi Lachelle Gutierrez, Ed Hillis, Luann Howland, Shawn Jagodzinski, Matthew Johnson, Catherine Johnston, Ericka Lamanna, Katrina D. Leal, Nelson Mak, Alycen Malone, John Martin, Mary Massey, Bryce P. McCormick, Timothy McDaniel, Ronal Dalton McCloud, Andres Mendez, Noor Agha Mendez, Allison Metcalfe, Stephanie Ryder Morris, Casy Nash, Cindy Nash, Nick Novo, Sarah Novo, Joe Owen, Rebecca R. Owens, Heather Pacheco, Tanara Patel, Emily Patterson, Carla Picinich, Bryan Primrose, Jackie Primrose, James Richardson, Erika Rix, Randal Robbins, Whitney Robbins, Mark Shifrin, Robert Smith, Jennifer Spies, Heather Stonehill, Calvin Tait, Sandra Lee Thurman, Suze Treacy, Teresa Tucker, Paul Keith Turner, Brittany D. Varner, Laura S. Wallace, Frankie Waller, Peggy Wardlaw, Susan M. Warhol, Jason Watkins, Nikki Watkins, Charles Gregory Wempe, Shannon White-Shubert, Skyler Whittlesey, Keith Wilcox, Haziell Williams)

**RESPONSE 10:** Although the TCEQ is responsible for the environmental protection of air and water as well as the safe management of waste, this proposed permit will regulate the control and abatement of air emissions only. Therefore, issues regarding water use, water quality, or potential discharges are not within the scope of this review. This permit does not regulate water use or authorize the discharge of pollution into a body of water.

The issuance of an air quality permit does not negate the responsibility of an applicant to apply for any additionally required authorizations before operating a plant. It is the Applicant's responsibility to secure any authorizations necessary for operation of the proposed facility, and accordingly, the Applicant may be required to apply for separate authorizations regulating water use or water quality at the proposed site.

Individuals are encouraged to report environmental concerns, including water quality issues, or suspected noncompliance with the terms of any permit or other environmental regulation by contacting the TCEQ Austin Regional Office at 512-339-2929 or by calling the 24-hour toll-free Environmental Complaints Hotline at 1-888-777-3186. The TCEQ evaluates all complaints received. If the plant is found to be out of compliance with the terms and conditions of the permit, the Applicant may be subject to enforcement action.

**COMMENT 11: On-Site Chemical Storage**

Peggy Wardlaw questioned how the Applicant would store chemicals on site and questioned whether the Applicant accurately represented the type and location of on-site chemical storage. Specifically, Ms. Wardlaw expressed concern that the Applicant indicated it would move chemicals onsite and that process had not been considered during the review of the application. Jackie Primrose asked if there will be limitations on the quantities of each chemical that is on the property at one time so that if there is an accident or natural disaster there is an attempt to minimize the impact.

(Jackie Primrose, Peggy Wardlaw)

**RESPONSE 11:** The Applicant represented that there will be multiple buildings, including a storage building, that will contain materials stored in sealed drums. The storage of chemicals in sealed containers which do not have the potential to emit pollutants into the air are outside of the jurisdiction of the air permit.

The Applicant submitted a Table 2 Material Balance. The Material Balance representation accounts for all materials entering and leaving the facility at maximum operating conditions. In accordance with 30 TAC § 116.116, an applicant is bound by its representations in the application and those representations become an enforceable part of the permit. *See* Response 22 concerning emissions events, spills, and emergency response.

**COMMENT 12: Best Available Control Technology (BACT)**

North San Gabriel Alliance expressed concern that the application did not include an adequate BACT analysis. North San Gabriel Alliance expressed specific concern that the Applicant had withdrawn its application for an Edward Aquifer Contributing Zone Plan because it could not meet applicable requirements and stated this demonstrates the application did not propose BACT. Susanne Fratzke asked if the Applicant would consider installing controls beyond BACT. (North San Gabriel Alliance, Susanne Fratzke)

**RESPONSE 12:** The TCAA and TCEQ rules require an evaluation of air quality permit applications to determine whether adverse effects to public health, general welfare, or physical property are expected to result from a facility's proposed emissions. As part of the evaluation of applications for new or amended permits, the permit reviewer audits all sources of air contaminants at the proposed facility and assures that the facility will be using the best available control technology (BACT) applicable for the sources and types of contaminants emitted. BACT is based upon control measures that are designed to minimize the level of emissions from specific sources at a facility. Applying BACT results in requiring technology that best controls air emissions with consideration given to the technical practicability and economic reasonableness of reducing or eliminating emissions. *See* TCAA § 382.0518; 30 TAC § 116.111. BACT may be numerical limitations, the use of an add-on control technology, design considerations, the implementation of work practices, or operational limitations. The Applicant represented that BACT will be used for the proposed new sources.

The contaminants authorized by this permitting action include hydrogen fluorides,

carbon monoxide, hazardous air pollutants, particulate matter, nitrogen oxides and organic compounds. The primary control measures applied to this facility are the use of thermal oxidizers, which will be required to achieve a 99.9 percent destruction efficiency. Absorbers will also be used upstream of the thermal oxidizers to reduce the amount of emissions vented to the thermal oxidizers and to recycle material back to the process. The Applicant also proposed the use of the 28AVO program for monitoring of components in hydrogen fluoride (HF) service. The permit reviewer evaluated the proposed BACT and confirmed it to be acceptable.

**COMMENT 13: Emissions Calculations**

North San Gabriel Alliance commented that the application did not demonstrate that the emissions calculations were conducted properly. North San Gabriel Alliance also stated that it was not clear whether the emission factors relied on were proper or if the data was representative of site-specific conditions. North San Gabriel Alliance also stated it was not clear whether the emissions calculations included MSS activities.

**RESPONSE 13:** The Applicant represented the appropriate methodologies to control and minimize emissions and utilized corresponding control efficiencies when calculating the emission rates. As provided in 30 TAC § 116.116(a), the Applicant is bound by these representations, including the represented performance characteristics of the control equipment. In addition, the permit holder must operate within the limits of the permit, including the emission limits as listed in the Maximum Allowable Emissions Rate Table (MAERT).

Emissions calculations for the proposed facility were determined utilizing vendor data, TCEQ guidance, and EPA emissions factors. The EPA has documented a list of emission factors that can be used to calculate the estimated emissions from many sources, including sources proposed to be authorized in this permit. These emission factors are provided in EPA's AP-42 Compilation of Air Emission Factors (AP-42) guidance. The TCEQ ensures the conservative nature of these calculations by evaluating each emission point at the maximum production rates. The resulting emission rates are used as one of the inputs to an EPA-approved air dispersion modeling program that determines the predicted emission concentration for each air contaminant at locations surrounding the proposed facility.

The emission rates from the exhaust gas vent systems were estimated based on vendor supplied data for the air contaminant removal efficiency of the thermal oxidizers, AP-42 emission factors, and calculated air contaminant input rates to the thermal oxidizers. The removal efficiency of the process scrubber was conservatively assumed to be zero. Emission rates from units that are not vented to the exhaust gas vent systems were estimated based on the physical properties of the chemicals and facility operating parameters. Fugitive emission rate estimates were calculated using TCEQ's common fugitive calculation workbook, in accordance with the TCEQ's Air Permit Technical Guidance for Chemical Sources: Fugitive Guidance - APDG 6422 (June 2018). The fugitive emission stream weight percentages authorized in the permit represent the maximum expected concentrations of each chemical under any operation condition.

**COMMENT 14: Chemical Flexibility**

North San Gabriel Alliance commented that the draft permit should not allow chemical flexibility.

**RESPONSE 14:** The TCEQ offers regulated entities chemical flexibility by including a set of conditions that contain a procedure for the permit holder to authorize new chemicals. This method is limited to new chemicals that serve the same basic function as the chemicals previously authorized by the permit and that will emit only from currently authorized and previously reviewed emissions points. Unit impact multipliers obtained from the impacts evaluation are identified in the chemical flexibility conditions and the permit holder must use the evaluation procedure outlined in the conditions to determine whether both the short- and long-term impacts are acceptable. The new chemical may be authorized only if it meets the requirements of the chemical flexibility conditions.

**COMMENT 15: Hours of Operation**

North San Gabriel Alliance expressed concern that the application authorizes the site to operate 24 hours per day, 365 days per year, further stating that this schedule is not protective of public health or the environment.

**RESPONSE 15:** TCEQ has not been delegated the authority to regulate the hours of operations of a facility or site if the permit review demonstrates all applicable federal and state regulations are met. Accordingly, TCEQ cannot limit the hours of operation unless an emission rate is dependent on a limit on operational hours or there are issues associated with the air quality analysis that require the limitation. The Applicant represented operations up to 8,760 hours per year. Despite the representation of 8,760 hours per year, which is typically done for conservatism and flexibility in operations, facilities typically do not operate that many hours per year. As described in Response 5, based on the Executive Director's staff review, it is not expected that existing health conditions will worsen, or that there will be adverse health effects on the general public, sensitive subgroups, or the public welfare and the environment as a result of the emissions proposed to be authorized.

**COMMENT 16: Monitoring and Recordkeeping**

Commenters expressed concern about the monitoring requirements contained in the draft permit. Susanne Fratzke questioned how the Applicant would demonstrate compliance with the permit. Janet Ellis questioned what the air quality and groundwater reporting requirements are for this facility. North San Gabriel Alliance expressed concern that the monitoring and recordkeeping requirements in the draft permit will not ensure compliance with all rules and requirements. Charles McCormick commented that the Applicant should be required to install an exhaust monitoring system that measures and records emissions in real time and that the results should be available to the public on the internet. Mr. McCormick stated that the monitoring system should include threshold alarms that trigger sirens and alert emergency services and expressed concern that without this system, local residents will be unable to promptly recognize emergency conditions and know when to evacuate.

(North San Gabriel Alliance, Janet Ellis, Susanne Fratzke, Charles McCormick)

**RESPONSE 16:** Special conditions have been included as part of the draft permit to ensure the Applicant can demonstrate compliance with the emission limitations set forth in the permit. Emissions from the thermal oxidizer and scrubber system, will be required to be monitored through temperature monitoring of the thermal oxidizer firebox exhaust temperature and the oxygen concentration. The fugitive emissions from components in hydrogen fluoride service will be monitored with the 28AVO program. The permit holder is also required to maintain records to demonstrate compliance, including the monitoring listed above. Records must be made available upon request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction. The Regional Office may perform investigations of the facility which may include an inspection of the site including all equipment, control devices, monitors, and a review of all calculations and required recordkeeping.

In addition, the draft permit requires the Applicant to perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the thermal oxidizers to demonstrate compliance with the permit. This sampling must be conducted in accordance with the appropriate procedures contained in the TCEQ Sampling Procedures Manual and the U.S. Environmental Protection Agency (EPA) Reference Methods and must be conducted within 60 days after achieving the maximum operating rate, but no later than 180 days after initial start-up of the facilities.

**COMMENT 17: Future Permitting Actions**

Susanne Fratzke commented that the application is based on a certain business case and questioned what would happen if the Applicant's business expanded in the future. Ms. Fratzke commented that an expanding business would likely mean more pollution and questioned whether a new air permit would be required.

**RESPONSE 17:** A permit holder may not vary from any representation or permit condition without obtaining a permit amendment if the change will cause a change in the method of control of emissions, a change in the character of the emissions, or an increase in the emissions rate of any air contaminant. *See* 30 TAC § 116.116(b). The Executive Director cannot speculate on the need for any future amendments. However, each application received by the agency is reviewed for compliance with applicable rules and regulations and any future applications would need to demonstrate that the proposed facility would utilize the best available control technology (BACT) and that the proposed emissions would not cause or contribute to a violation of the NAAQS or adverse health effects.

**COMMENT 18: Location / Trucks / Traffic / Roads / Quality of Life / Aesthetics / Property Value**

**Location**

Commenters expressed concern regarding the location of the proposed facility and its proximity to residential and public areas, including farms, ranches, agricultural areas,



wildlife conservations areas, and water recreation areas. Some commenters also expressed concern that the proposed facility would be located in the Edwards Aquifer contributing zone and several commenters requested that the proposed facility be located somewhere else. Robert Carwell questioned how a governmental body would see fit to enable the construction of a chemical facility in this area. Brittany D. Varner stated the Applicant cheated the system by purchasing land in a residential area and stated that there is no telling who will be next to build in the area. Charles Gross expressed concern that the proposed facility would negatively impact the future development of the area. Luann Howland and Maude Allen expressed concern that the facility's proposed location is in a 100-year flood plain. North San Gabriel Alliance commented that the Applicant withdrew its application for an Edwards Aquifer Contributing Zone Plan which demonstrates that the area is subject to heightened protections and is not suitable for the proposed facility.

In addition, some commenters expressed concern that the Applicant chose the proposed location specifically to avoid regulatory oversight. Bryce McCormick commented that the Applicant is moving to the community so they can operate freely. Peggy Wardlaw commented that the Applicant chose the location so that people would not be around to know when chemicals are spilled. Joe Owen commented that a facility like this operates outside of a city's jurisdiction to avoid scrutiny and air quality controls. Heather Stonehill-Garcia also expressed concern that the Applicant chose the proposed location to avoid peering eyes and avoid getting caught in the event that their facility leaks.

(County Commissioner Cynthia P. Long, North San Gabriel Alliance, Group A, Group C, Group D, Maude Allen, Federico I. Arce, Mark Baker, Tami Baker, Kristyn Barry, Stephen David Bauer, Danial Beesley, Don T. Berry, Joy Borjes, Richard Arthur Box, Conor Brace, Whitney Brace, Lindsey Brassfield, Ashley Brooks, Robert Carwell, Monica Castro, Megan Varvir Coe, C. D. Cook, Tim Cox, Grant Cross, Karen Cross, Paul Davidson, Erin Debarbieri, Cristin L. Dershem, Franchesca C. Estrada, Jennifer Eyre, Tyler Andrew Eyre, Shery Marie Farley, Sheryl Marie Farley, Anthony Figgins, Jennifer Finkel, Dylan Michael Foley, Amanda Foster, Elizabeth Ann Friou, Kyle Gehrler, William Patrick George, Richard Grabish, Charles Gross, Christi Lachelle Gutierrez, Joanna R. Hayes, Kelley Heath, Glenn Heimbigner, Glenn Heimbinger, James Henley, Ed Hillis, Luann Howland, Andrea Jagodzinski, Shawn Jagodzinski, Matthew Johnson, Suzanne Johnson, Catherine Johnston, Chris Kalinowski, Molly Kalinowski, Ericka Lamanna, Jan Love, Babu Madala, Nelson Mak, Alycen Malone, John Martin, Sherri Martin, Mary Massey, Bryce McCormick, Bryce P. McCormick, Timothy McDaniel, Ronal Dalton Mcloud, Andres Mendez, Noor Agha Mendez, Allison Metcalfe, Karen Milone, Kenneth Mohr, Connie Moore, Stephanie Ryder Morris, Casy Nash, Nick Novo, Sarah Novo, Joe Owen, Rebecca R. Owens, Heather Pacheco, Emily Patterson, Carla Picinich, Corrina Pointer, Bryan Primrose, Jackie Primrose, Travis Redding, Bessie Rhodes, James Richardson, Erika Rix, Whitney Robbins, Mark Rocke, Bill Shier, Mark Shifrin, Ellen Skoviera, Robert Smith, Wanda Smith, Jennifer Spies, Michele Stanfield, Heather Stonehill-Garcia, Calvin Tait, Sandra Lee Thurman, Suze Treacy, Larry Tucker, Teresa Tucker, Brittany D. Varner, Laura S. Wallace, Peggy Wardlaw, Susan M. Warhol, Jason Watkins, Nikki Watkins, Scott Weisse, Charles Gregory Wempe, Charles Wempe, Shannon White-

Shubert, Skyler Whittlesey, Keith Wilcox, Charles William, Elizabeth Williams, Haziel Williams)

Quality of Life / Recreation / Aesthetics / Property Value

Commenters are concerned about the effect of the proposed project on their quality of life, on the aesthetics of the area, and on their property and land values. In addition, several commenters stated they moved to the area for the natural beauty and expressed concern that recreational activities such as swimming, fishing, and hunting would be impacted by the proposed facility.

(North San Gabriel Alliance, Tami Baker, Don T. Berry, Alex Campo, Robert Carwell, Monica Castro, Karen Cross, Sheryl Marie Farley, Elizabeth Ann Friou, Kelley Heath, Brian S. Jalufka, John Martin, Mary Massey, Timothy McDaniel, Karen Milone, Heather Pacheco, Paul Keith Turner, Shannon White-Shubert, Keith Wilcox, Elizabeth Williams, Haziel Williams)

Trucks/Traffic/Roads

Charles Gross commented that road infrastructure is poor in the area. Larry Tucker commented that the existing road is not equipped to handle trucks, further expressing concern regarding the potential for traffic accidents. In addition, Mr. Tucker commented that the TCEQ should consider the potential air quality impacts of a traffic accident. Brittany D. Varner expressed concern about semi-trucks carrying toxic chemicals. (Charles Gross, Larry Tucker, Brittany D. Varner)

**RESPONSE 18:** The TCAA establishes the TCEQ's jurisdiction to regulate air emission in the state of Texas. TCEQ's review of requests for air quality authorizations to emit air contaminants is limited to a review of the best available control technology (BACT) and a health effects review. Accordingly, the TCEQ does not have jurisdiction to consider plant location choices made by an applicant when determining whether to approve or deny a permit application, unless a statute or rule imposes specific distance limitations that are enforceable by the TCEQ. Zoning, land use, aesthetics, and effects on property values are beyond the authority of the TCEQ for consideration when reviewing air quality permit applications. Although TCEQ cannot consider land use issues, the TCEQ does conduct a health effects review to ensure that there will be no adverse impacts to human health and welfare. See Response 5 for additional information about the review of the application.

The TCEQ also does not have jurisdiction to consider traffic or road safety when determining whether to approve or deny a permit application. Trucks are considered mobile sources, which are not regulated by the TCEQ. Moreover, the TCEQ is prohibited from regulating roads per TCAA § 382.003(6), which excludes roads from the definition of "facility." These concerns are typically the responsibility of local, county, or other state agencies, such as the Texas Department of Transportation (TxDot) and the Texas Department of Public Safety (DPS). Concerns regarding roads should be addressed to the appropriate state or local officials. However, emissions from these sources may not constitute a nuisance as defined in 30 TAC § 101.4. Although the TCEQ is prohibited from regulating trucks, TCEQ rules prohibit anyone from causing a traffic hazard. Specifically, 30 TAC § 101.5 states, "No person shall discharge from any source whatsoever such quantities of air contaminants, uncombined water, or other

materials which cause or have a tendency to cause a traffic hazard or an interference with normal road use.”

**COMMENT 19: Public Infrastructure and Utilities**

Cynthia P. Long and Shannon White-Shubert expressed concern that the public infrastructure and utilities in the area would be unable to support the needs of the proposed facility, stating that public utilities in the rural area are unreliable, power outages are common, and that the area does not have sewer, natural gas or adequate water. (County Commissioner Cynthia P. Long, Charles Gross, Brittany D. Varner, Laura S. Wallace, Shannon White-Shubert)

**RESPONSE 19:** This permit, if issued, will regulate the control and abatement of air emissions only. Issues related to the public infrastructure or the availability of utilities are outside the scope of review of an air quality permit. It is the Applicant's responsibility to ensure it has adequate resources to operate its facility.

**COMMENT 20: Attainment Area/State Implementation Plan**

Jennifer Spies commented that the Applicant only chose the proposed location because the area is considered to be in attainment. Ms. Spies stated that if the facility had been proposed in a non-attainment area, EPA would be monitoring it and would require a State Implementation Plan (SIP) to detail steps necessary to achieve the standards.

**RESPONSE 20:** As described in Response 18, the TCEQ does not have jurisdiction to consider plant location choices made by an applicant and therefore cannot deny a permit application on the basis of location unless a statute or rule imposes specific distance limitations that are enforceable by the TCEQ.

The FCAA requires states to develop State Implementation Plans (SIPs) to address attainment and maintenance of the NAAQS. A SIP is a collection of regulations and documents used by a state, territory, or local air district to implement, maintain, and attain the NAAQS and to fulfill other requirements of the FCAA. The Texas SIP, which is federally enforceable, includes Texas' NSR permitting programs for both major and minor sources, and these programs implement both the FCAA and the TCAA. However, SIPs are not required for individual permitting actions. The EPA has approved the Texas SIP, making the TCEQ the permitting authority for regulation of air emissions generated in the state of Texas.

**COMMENT 21: Compliance History / Enforcement / Penalties**

Commenters expressed concern regarding the Applicant's compliance history, and specifically about violations at its other facility locations. John Martin asked what the company history is when it comes to responses to leaks and about the history of imposed penalties. Group D commented that this Applicant has had too many negligent discharges at its other location.

Susanne Fratzke questioned whether the TCEQ would audit the company to ensure compliance. Stephanie Ryder Morris expressed concern about TCEQ's ability to enforce environmental standards given cuts to the agency's budget. Andres Mendez expressed

concern that penalties are too low and stated that the Applicant views fines as a cost of doing business and would rather pay fines than comply with their permits.

(Group D, Maude Allen, Danial Beesley, Twila Bowden, Whitney Brace, Ranchesca C. Estrada, Jennifer Eyre, Tyler Andrew Eyre, Susanne Fratzke, Jillian Gabriel, Chelsey Heil, James Henley, Lars Kuslich, Katrina D. Leal, Nelson Mak, John Martin, Bryce McCormick, Andres Mendez, Noor Agha Mendez, Stephanie Ryder Morris, Nick Novo, Sarah Novo, Joe Owen, Rebecca R. Owens, Heather Pacheco, Travis Redding, Erika Rix, Bill Shier, Robert Smith, Heather Stonehill-Garcia, Calvin Tait, Nikki Watkins, Charles Gregory Wempe, Charles Wempe, Elizabeth Williams, Haziel Williams)

**RESPONSE 21:** There are a number of mechanisms by which the TCEQ monitors compliance with permit conditions and state and federal regulations. To the extent that personnel, time, and resources are available, the TCEQ investigates regulated operations to ensure compliance with applicable rules and regulations. Although specific to each site, investigations generally explore the entire operation of the plant. The investigation schedule may be increased if violations are found, violations are repeated, or if a regulated entity is classified as an unsatisfactory performer.

Individuals are encouraged to report environmental concerns or suspected noncompliance with the terms of any permit or other environmental regulation by contacting the TCEQ Austin Regional Office at 512-339-2929 or by calling the 24-hour toll-free Environmental Complaints Hotline at 1-888-777-3186. The TCEQ evaluates all complaints received. If the facility is found to be out of compliance with the terms and conditions of the permit, the Applicant may be subject to enforcement action. Citizen-collected evidence may be used in such an action. *See* 30 TAC § 70.4, Enforcement Action Using Information Provided by Private Individual, for details on gathering and reporting such evidence. Under the citizen-collected evidence program, individuals can provide information on possible violations of environmental law. The information, if gathered according to agency procedures and guidelines, can be used by the TCEQ to pursue enforcement. In this program, citizens can become involved and may eventually testify at a hearing or trial concerning the violation. For additional information, *see* the TCEQ's website at <https://www.tceq.texas.gov/compliance/complaints/protocols>.

Alleged violations documented during an investigation are initially addressed through a notice of violation (NOV) letter, which generally allows the operator a specified period of time within which to comply. The violation is considered resolved upon timely corrective action. If a violation is not timely corrected, repeated, or causes an impact to the environment or neighboring properties, formal enforcement action will begin according to the TCEQ Enforcement Initiation Criteria. Depending on the situation, the commission has the authority to suspend or revoke a permit pursuant to the limitations in Tex. Water Code, Chapter 7, Subchapter G.

Generally, administrative and civil penalties up to \$10,000 and \$50-25,000 respectively, may be assessed for violations of the TCEQ rules. *See* Tex. Water Code, Chapter 7. However, the specific penalties associated with any violation will be determined on a case-by-case basis according to the TCEQ's Penalty Policy. Any economic benefit or monetary gain derived from a failure to comply with TCEQ rules or regulations will be considered and may increase the penalty. Additional information

about the TCEQ penalty policy may be obtained from the TCEQ website, Penalty Policy of the Texas Commission on Environmental Quality, available at <https://www.tceq.texas.gov/compliance/investigation/rg-253.html>.

In addition, during the technical review of permit applications, a compliance history review of both the company and the site is conducted based on the criteria in 30 TAC Chapter 60. These rules may be found at the following website: <https://www.tceq.texas.gov/rules/index.html>.

The compliance history is reviewed for the five-year period prior to the date the permit application was received and includes multimedia compliance-related components about the site under review. These components include: enforcement orders, consent decrees, court judgments, criminal convictions, chronic excessive emissions events, investigations, notices of violations, audits and violations disclosed under the Audit Act, environmental management systems, voluntary on-site compliance assessments, voluntary pollution reduction programs, and early compliance.

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

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

The proposed site has a rating of 'unclassified' because it is a new site. The company has a rating of 3.31 and a classification of Satisfactory. The company rating reflects the average of the ratings for all sites the company owns in Texas.

#### **COMMENT 22: Emissions Events / Spills/ Safety / Emergency Response**

Commenters expressed concern regarding the safety of the proposed facility, potential chemical exposures, emissions events, explosions, spills, and remediation of hazards. Commenters expressed concern that there is a lack of nearby emergency services that would respond to a chemical plant release or emergency, including medical, fire, and hazmat responders and services. Whitney Brace expressed concern about the safety of the facility and about the potential of exposure to chemical clouds. Kenneth Mohr expressed concern about safety and stated that fluorine is a volatile and explosive chemical. Haziel Williams commented that remediation is the company's responsibility. Peggy Wardlaw expressed concern about the potential for forest fires. Dylan Michael Foley stated that TCEQ would be held accountable when something goes wrong.

Commenters expressed concern that public utilities are not reliable in the area and that water would not be available to firefighters in the case of a fire or explosion. Shannon White-Shubert commented that there is no fire department nearby and that the nearest is a volunteer fire department. Ms. White-Shubert also expressed concern about the distance from the nearest trauma centers to the proposed facility.

North San Gabriel Alliance expressed concern that the application did not include a Risk Management Plan or seek to authorize emergency fire water pumps onsite. North San Gabriel Alliance commented that the Applicant has a poor history of emergency response at its Round Rock facility and that its emergency and disaster response plan is inadequate. Jennifer Spies asked how and when the public would be notified that a release has occurred. Charles McCormick commented that the requirement to self-report releases of toxic gases is doubtful at best and that the Applicant is incentivized to ignore issues to keep the facility out of the spotlight.

(County Commissioner Cynthia P. Long, North San Gabriel Alliance, Group D, Maude Allen, Don T. Berry, Whitney Brace, Paul Davidson, Jennifer Eyre, Tyler Andrew Eyre, Dylan Michael Foley, Elizabeth Ann Friou, Matthew Johnson, Nelson Mak, Mary Massey, Bryce McCormick, Bryce P. McCormick, Charles McCormick, Andres Mendez, Noor Agha Mendez, Karen Milone, Kennith Mohr, Nick Novo, Sarah Novo, Joe Owen, Bryan Primrose, Jackie Primrose, James Richardson, Bill Shier, Mark Shifrin, Robert Smith, Jennifer Spies, Sandra Lee Thurman, Brittany D. Varner, Peggy Wardlaw, Susan M. Warhol, Charles Gregory Wempe, Shannon White-Shubert, Keith Wilcox, Elizabeth Williams, Haziel Williams)

**RESPONSE 22:** The draft permit's Maximum Allowable Emission Rate Table (MAERT) lists the only emissions authorized to be emitted from the proposed plant. The TCEQ defines an upset event as an unplanned or unanticipated occurrence or excursion of a process or operation that results in unauthorized emissions of air contaminants. An upset event that results in unauthorized emissions from an emission point is an emissions event. If an upset occurs, the permit holder must comply with the requirements in 30 TAC § 101.201 regarding the recording and reporting of emission events. If the permit holder fails to report in accordance with 30 TAC § 101.201, the commission may initiate an enforcement action for failing to report the underlying emissions event itself.

In the event of an emergency, the Local Emergency Planning Committee and the regulated entity have the primary responsibility of notifying potentially impacted parties regarding the situation. In addition, As set forth in 30 TAC § 101.201(a), regulated entities are required to notify the TCEQ regional office within 24 hours of the discovery of releases into the air and in advance of maintenance activities that could or have resulted in excess emissions. The TCEQ does not have jurisdiction over local fire prevention or protection and cannot require an applicant to authorize emergency fire water pumps. However, the receipt of an air permit does not negate the responsibility of an applicant to apply for any additional required authorizations prior to operating a plant or from complying with other applicable regulations.

Proposed projects which involve toxic chemicals that are known or suspected to have potential for life threatening effects upon off-facility property in the event of a disaster and involve manufacturing processes that may contribute to the potential for disastrous events may be subject to a disaster review. Specifically, federal rules require owners and operators of a facility that manufactures, uses, stores, or otherwise handles more than a threshold quantity of a regulated substance listed in 40 C.F.R. § 68.130, to implement a risk management program and submit a single Risk

Management Plan for all covered processes to the EPA. TCEQ has not been delegated the authority to administer this program. However, the draft permit requires the permit holder to comply with EPA regulations on Chemical Accident Prevention Provisions promulgated in 40 CFR Part 68. In addition, as part of the technical review of air quality permit applications, the Executive Director questions whether the proposed facility will handle more than a threshold quantity of a regulated substance listed in 40 C.F.R. § 68.130, as part of its disaster review. If a proposed facility is subject to a disaster review, the Executive Director will request that the applicant submit its Risk Management Plan which is then kept on file with the TCEQ. This application triggered a disaster review for hydrogen fluoride (HF) and the draft permit requires the Applicant to submit its Risk Management Plan (RMP) to the Air Permits Division prior to the date the facility first exceeds a threshold quantity of hydrogen fluoride.

**COMMENT 23: Corporate Profits / Financial Assurance**

Commenters questioned the corporate profits made by this project at a cost to the surrounding community. John Martin asked what financial assurance is in place to reimburse the community if contamination occurs. (Ashley Brooks, John Martin, Bill Shier, Heather Stonehill, Heather Stonehill-Garcia)

**RESPONSE 23:** The TCEQ does not have jurisdiction to prohibit anyone from seeking authorization to emit air contaminants; nor can the TCEQ prohibit owners and operators from receiving authorization to emit air contaminants if they comply with all statutory and regulatory requirements. The applicable state and federal statutes and rules that govern this air quality permit application do not include provisions requiring financial assurance. Further, the TCEQ is not authorized to consider a company's financial status, profit issues, or third-party contractual agreements in determining whether a permit should be issued.

**COMMENT 24: Covenants, Conditions and Restrictions / Deed Restrictions**

Commenters expressed concern about the Applicant's compliance with Covenants, Conditions, and Restrictions and Deed Restrictions. Kyle Gehrер stated that restrictions were implemented on all lots that prohibited business from operating on the properties and questioned how the Applicant is able to obtain a permit to operate if this is the case. Suzanne Johnson stated that the Applicant is in violation of deed restrictions and questioned whether permission from the declarant of the property has been given. Shannon White-Shubert expressed similar concerns, commenting that the proposed facility would violate the community deed restrictions which state 'no noxious, noisy, offensive, undesirable, unlawful, or immoral activity shall be conducted on any tract'. Ms. White-Shubert further commented that documents were not filed with Williamson County which establish the property or community as a planned unit development, that the covenants run with the land, and that the deed restrictions will be upheld in a court of law if needed.

(Kyle Gehrер, Suzanne Johnson, Shannon White-Shubert, Brittany D. Varner, Chris Kalinowski, Molly Kalinowski)

**RESPONSE 24:** The TCEQ does not have jurisdiction to enforce compliance with deed restrictions, including any Covenants, Conditions and Restrictions. However, the issuance of an air quality permit does not negate the obligation of an applicant to ensure it has or will obtain the legal authority necessary to construct its facility in the proposed location.

**COMMENT 25: TCEQ's Responsibility to the Community / Project Opposition and Support**

Commenters asked that the TCEQ consider residents and their wishes and choose not to issue the permit. Commenters stated that the TCEQ should uphold its mission statement and protect the surrounding environment by not issuing the permit. Keith Wilcox commented that the proposed facility was an irresponsible idea and plan and questioned why the government isn't protecting the local public. Stephanie Ryder Morris stated TCEQ has failed to enforce water and air quality standards and expressed concern that applicable standards are not strict enough. Group A called upon TCEQ to rescind its preliminary decision on the application.

Cynthia P. Long requested TCEQ do a full and thorough review of the permit application and consider the concerns of the neighboring property owners. Joe Owen commented that the application deserves the highest scrutiny. Tami Baker requested that landowners have the ability to have a say in their future. Sandra Lee Thurman stated that TCEQ and other regulators must withdraw and deny other permits for this facility. John Martin questioned how close the TCEQ personnel reviewing the application lived in relation to the proposed facility.

Barry L. Bowden stated that after learning no water discharges would be authorized by this permit, he was in support of the project. John G. Dupont also commented in favor of the proposed facility.

(Senator Charles Schwertner, County Commissioner Cynthia P. Long, Group A, Group B, Group D, Maude Allen, Mark Baker, Tami Baker, Kristyn Barry, Stephen Bauer, Stephen David Bauer, Joy Borjes, Barry L. Bowden, Twila Bowden, Whitney Brace, Alex Campo, Robert Carwell, Monica Castro, C. D. Cook, Grant Cross, Cristin L. Dershem, Franchesca C. Estrada, Sheryl Marie Farley, Dylan Michael Foley, Amanda Foster, Elizabeth Ann Friou, Jillian Gabriel, Shannon Gehrler, Richard Grabish, Kelley Heath, Chelsey Heil, Brenda Hendrickson, Liz Howells, Brian S. Jalufka, Matthew Johnson, Suzanne Johnson, Timothy King, Lars Kuslich, Ericka Lamanna, Katrina D. Leal, Babu Madala, Alycen Malone, John Martin, Sherri Martin, Linda Martinez, Bryce P. McCormick, Timothy McDaniel, Ronal Dalton McCloud, Jannah Mersiovsky, Karen Milone, Stephanie Ryder Morris, Cindy Nash, Abby Ogletree, Brittney Ortiz, Joe Owen, Heather Pacheco, Emily Patterson, Corrina Pointer, Bryan Primrose, Jackie Primrose, Travis Redding, Bessie Rhodes, James Richardson, Erika Rix, Whitney Robbins, Chris Robion, Wanda Smith, Jennifer Spies, Tim Thrash, Sandra Lee Thurman, Teresa Tucker, Laura S. Wallace, Frankie Waller, Jason Watkins, Nikki Watkins, Charles Wempe, Shannon White-Shubert, Keith Wilcox, Haziell Williams)

**RESPONSE 25:** The Executive Director's staff has reviewed the permit application in accordance with the applicable state and federal law, policy and procedures, and the



agency's mission to protect the state's human and natural resources consistent with sustainable economic development. The decision by the Executive Director to issue the permit is based upon the authority and direction of the Texas Clean Air Act. Specifically, TCAA § 382.0518 provides that the TCEQ shall issue the permit if an application demonstrates that the proposed facility will use at least the BACT and there is no indication that the emissions from the facility will contravene the intent of the TCAA. If the plant is operated in compliance with the terms and conditions of the permit, the emissions from the facilities authorized by this permit should not adversely impact public health or the environment.

**CHANGES MADE IN RESPONSE TO COMMENT**

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

Respectfully submitted,

Texas Commission on Environmental Quality

Toby Baker, Executive Director

Erin E. Chancellor, Director  
Office of Legal Services

Charmaine Backens, Deputy Director  
Environmental Law Division



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Amanda Kraynok, Staff Attorney  
Environmental Law Division  
State Bar Number 24107838  
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Austin, Texas 78711-3087

REPRESENTING THE  
EXECUTIVE DIRECTOR OF THE  
TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY

**Exfluor Research Corporation  
Permit No. 165848**

**Appendix A**

**COMMENT GROUP A:** Courtney Alcott, Maude McCormick Allen, Nicole Anthony, Rebecca Bartels, Robert Lionel Baskind, James Blake, Lana Blake, Natalie Blankenbaker, Christopher Bunch, Jaime Cadwalder, Randa Chapman, Jude P. Coe, Megan Varvir Coe, Vicci Conway, C. D. Cook, Eric Crop, Vasantha Dacha, Corwin E. Davidson, Amy B. Decosmo, Cristin L. Dershem, Mengbing Dong, Janet Ellis, Guy Endsley, Tanya Endsley, Lauren Endsley, Morgan Endsley, Jennifer Eyre, Jeannie Fickel, Katherine Fuller, Jillian Gabriel, Anna Gandy, Britni Ganze, Brandon Garcia, Kyle Gehrler, Katlyn Green, Heinrich Hafner, Denelle Hager, Michelle Loren Hansen, Jason Hester, Alexandra Hoeffner, Julia Hollis, Rima Huq, Bineeta Jaiswal, Brian S. Jalufka, Sabrina Jannise, Tiffany Johnson, Chesley Jones, Nicole Jones, Erin Kenney, Hemanth Khambhammettu, Karen Kildall, Dolores King, David Kubin, Arun Kumar, Erica Ladden, Kimm Langston, Lauren Larson, Stephanie Long, Dani Lopez, Nichole Manthey, Bryan Martin, Stacy Mattison, Emma May, T. J. McDonald, Kelley McGhie, James Monk, Monica Monk, Henry N. Mulvihill, Patricia Mulvihill, Sheila Nardelli, Cindy Nash, Jake Norman, Kirsten Nottage, Joe J. Pacheco, Laurie F. Pair, Jerome Palmer, Carvey Lee Parkjer, Chris Payton, Bonnie Pearson, Ron Pearson, Renee Peyton, Patti Porter, Gina Rahbari, Ana R. Resto, Larry A. Ridolfi, David Rivera, Katy Ross, Charles Russell, Lem Russell, Margaret Russell, Susan Russell, Cari Salazar, Brian Scott, Nina Smart, Tiffany Stout, Elizabeth Suarez, Thomas L. Swint, Jen Taylor, Mason Tinsley, Tracey Vaandrager, Selena Valdez, Brittany D. Varner, Harold C. Wardlaw, Kimberly Whitney, Ashley Williams, Charles R. Williams, Robert Woolf, and Samantha Woolf

**COMMENT GROUP B:** Stephen David Bauer, Alex Camp, Elizabeth Ann Friou, Shannon Gehrler, Liz Howells, Babu Madala, Linda Martinez, Abby Ogletree, Brittney Ortiz, Bryan Primrose, and Tim Thrash

**COMMENT GROUP C:** Lindsey Brassfield, Catherine Johnston, Bryce P. McCormick, Casey Nash, Carla Picinich, and Suze Treacy

**COMMENT GROUP D:** Fanchesca C. Estrada, Jennifer Eyer, Tyler Andrew Eyre, Nelson Mak, Andres Mendez, Noor Agha Mendez, Nick Novo, Rebecca R. Owens, Robert Smith, Calvin Tait, and Nikki Watkins

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



State of Texas  
County of Travis

JAN 04 2023

December 5, 2022

I hereby certify this is a true and correct copy of a  
Texas Commission on Environmental Quality (TCEQ)  
document, which is filed in the Records of the Commission,  
Given under my hand and the seal of office.

*Spencer Hunter*

Alternative Custodian of Records  
Texas Commission on Environmental Quality

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

Re: Supplemental Backup Material for Commission's Consideration of Hearing  
Requests and Requests for Reconsideration  
Exfluor Research Corporation  
Permit No. 165848  
TCEQ DOCKET NUMBER 2022-1552-AIR

Dear Ms. Gharis:

Enclosed please find a copy of the updated Air Quality Analysis Audit memorandum for inclusion in the background material for the above referenced permit application.

If you have any questions, please do not hesitate to call me at extension 6033 or Abigail Adkins at extension 2496.

Sincerely,

*Betsy Peticolas*

Betsy Peticolas  
Staff Attorney  
Environmental Law Division

Enclosures

# TCEQ Interoffice Memorandum

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To: Cara Hill  
Mechanical/Coatings Section

Thru: Chad Dumas, Team Leader  
Air Dispersion Modeling Team (ADMT)

From: Ahmed Omar, P.E.  
ADMT

Date: December 5, 2022

**Subject: Amended Air Quality Analysis Audit – Exflur Research Corporation (RN110969227)**

## 1. Project Identification Information

Permit Application Number: 165848

NSR Project Number: 331049

ADMT Project Number: 8329

County: Williamson

Published Map: [\\tceq4avmgisdata\GISWRK\APD\MODEL PROJECTS\8329\8329.pdf](#)

Air Quality Analysis: Submitted by Waid Environmental, October 2021, on behalf of Exflur Research Corporation. Additional information was provided November 2021 and November 2022.

## 2. Report Summary

The air quality analysis is acceptable, as supplemented by the ADMT, for all review types and pollutants. The results are summarized below.

This modeling audit was updated for this NSR project number based on information provided by the applicant correcting its hydrogen fluoride analysis over agricultural areas using the 24-hr averaging time instead of the 1-hr averaging time. Additionally, while reviewing the updated information, the ADMT identified a discrepancy in the averaging time used for the long-term analysis for pollutants hydrogen fluoride, carbonyl fluoride, and trifluoroacetic acid over agricultural areas with cattle. The ADMT has evaluated the discrepancy and reported the results below. The update did not change the ADMT's conclusion that the air quality analysis is acceptable. This amended modeling audit memo represents a complete summary and supersedes the first modeling audit memo dated November 18, 2021 (WCC Content ID 5843027).

### A. Minor Source NSR and Air Toxics Analysis

**Table 1. Modeling Results for Minor NSR De Minimis**

Pollutant	Averaging Time	GLCmax ( $\mu\text{g}/\text{m}^3$ )	De Minimis ( $\mu\text{g}/\text{m}^3$ )
PM <sub>10</sub>	24-hr	0.1	5
PM <sub>2.5</sub>	24-hr	0.1	1.2

## TCEQ Interoffice Memorandum

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Pollutant	Averaging Time	GLCmax ( $\mu\text{g}/\text{m}^3$ )	De Minimis ( $\mu\text{g}/\text{m}^3$ )
PM <sub>2.5</sub>	Annual	0.01	0.2
NO <sub>2</sub>	1-hr	7	7.5
NO <sub>2</sub>	Annual	0.1	1
CO	1-hr	10	2000
CO	8-hr	3	500

The GLCmax are the maximum predicted concentrations associated with one year of meteorological data.

Generic modeling was used for the above analyses; refer to section 3 for more details on the generic modeling.

The justification for selecting the EPA's interim 1-hr NO<sub>2</sub> De Minimis level was based on the assumptions underlying EPA's development of the 1-hr NO<sub>2</sub> De Minimis level. As explained in EPA guidance memoranda<sup>1</sup>, the EPA believes it is reasonable as an interim approach to use a De Minimis level that represents 4% of the 1-hr NO<sub>2</sub> NAAQS.

The PM<sub>2.5</sub> De Minimis levels are the EPA recommended De Minimis levels. The use of the EPA recommended De Minimis levels is sufficient to conclude that a proposed source will not cause or contribute to a violation of a PM<sub>2.5</sub> NAAQS based on the analyses documented in EPA guidance and policy memorandums<sup>2</sup>.

To evaluate secondary PM<sub>2.5</sub> impacts, the applicant provided an analysis based on a Tier 1 demonstration approach consistent with the EPA's Guideline on Air Quality Models. Specifically, the applicant used a Tier 1 demonstration tool developed by the EPA referred to as Modeled Emission Rates for Precursors (MERPs). The basic idea behind the MERPs is to use technically credible air quality modeling to relate precursor emissions and peak secondary pollutants impacts from a source. Using data associated with the worst-case source, the applicant estimated 24-hr and annual secondary PM<sub>2.5</sub> concentrations of 0.0001  $\mu\text{g}/\text{m}^3$  and <0.0001  $\mu\text{g}/\text{m}^3$ , respectively. When these estimates are added to the GLCmax listed in the table above, the results are less than the De Minimis levels.

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<sup>1</sup> [www.tceq.texas.gov/assets/public/permitting/air/memos/guidance\\_1hr\\_no2naaqs.pdf](http://www.tceq.texas.gov/assets/public/permitting/air/memos/guidance_1hr_no2naaqs.pdf)

<sup>2</sup> [www.tceq.texas.gov/permitting/air/modeling/epa-mod-guidance.html](http://www.tceq.texas.gov/permitting/air/modeling/epa-mod-guidance.html)

# TCEQ Interoffice Memorandum

**Table 2. Minor NSR Site-wide Modeling Results for Health Effects**

Pollutant	CAS#	Averaging Time	GLCmax (µg/m³)	GLCmax Location	GLCni (µg/m³)	GLCni Location	ESL (µg/m³)
hydrogen fluoride	7664-39-3	1-hr	6	-	<6	-	18
hydrogen fluoride   For air permit reviews in agricultural areas	7664-39-3	24-hr	1.1	-	-	-	3
hydrogen fluoride   For air permit reviews in agricultural areas with cattle	7664-39-3	30-days	0.46	-	-	-	0.75
fluorine	7782-41-4	1-hr	3.9	Western Property Line	3.9	Western Property Line	2
perfluoroheptane	335-57-9	1-hr	22	-	<22	-	20000
methanol	67-56-1	1-hr	38	-	<38	-	3900
perfluorooctanoic acid and its inorganic salts	335-67-1	1-hr	<0.01	-	<0.01	-	0.05
bromine	7726-95-6	1-hr	5	-	<5	-	7
hydrogen chloride	7647-01-0	1-hr	4	-	<4	-	190
hydrogen chloride	7647-01-0	Annual	0.1	-	<0.1	-	7.9
carbon tetrafluoride	75-73-0	1-hr	154	-	<154	-	18000
Perfluoro (bis-2-chloroethoxy methane)	Not found	1-hr	7	-	<7	-	200
Perfluorodecalin	306-94-5	1-hr	22	-	<22	-	200
polymers of chlorotrifluoroethylene (PCTFE)	9002-83-9	1-hr	17	-	<17	-	50

## TCEQ Interoffice Memorandum

Pollutant	CAS#	Averaging Time	GLCmax (µg/m³)	GLCmax Location	GLCni (µg/m³)	GLCni Location	ESL (µg/m³)
carbonyl fluoride   For air permit reviews in agricultural areas with cattle	353-50-4	30-days	0.24	-	<0.03	-	0.71
trifluoroacetic acid   For air permit reviews in agricultural areas with cattle	76-05-1	30-days	0.27	-	<0.03	-	0.71

**Table 3. Minor NSR Hours of Exceedance for Health Effects**

Pollutant	Averaging Time	1 X ESL GLCni
fluorine	1-hr	99

For fluorine, the GLCmax and the GLCni are the same. Pollutant-specific modeling was conducted for fluorine. For all other pollutants and averaging times, generic modeling was used; refer to section 3 for more details on the generic modeling.

The applicant evaluated the long-term hydrogen fluoride, carbonyl fluoride, and trifluoroacetic acid analyses over agricultural areas with cattle based on the annual averaging time instead of the 30-day averaging time. For carbonyl fluoride and trifluoroacetic acid analyses over agricultural areas with cattle, the ADMT used 24-hr unit impact multipliers (UIMs) to evaluate the 30-day averaging times, which is conservative. The 24-hr results are less than the 30-day ESLs and will not affect overall conclusions. For the hydrogen fluoride analysis over agricultural areas with cattle, the ADMT conducted modeling using the 30-day averaging time. The 30-day results are less than the ESL and will not affect overall conclusions. The ADMT supplemented the long-term results for these three analyses in Table 2 above.



# TCEQ Interoffice Memorandum

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## 3. Model Used and Modeling Techniques

AERMOD (Version 21112) was used in a refined screening mode.

A unitized emission rate of 1 lb/hr was used to predict a generic short-term and long-term impact for each source. The generic impact was multiplied by the proposed pollutant specific emission rates to calculate a maximum predicted concentration for each source. The maximum predicted concentration for each source was summed to get a total predicted concentration for each pollutant. Pollutant-specific modeling was conducted for fluorine.

### A. Land Use

Medium roughness and elevated terrain were used in the modeling analysis. These selections are consistent with the AERSURFACE analysis, topographic map, DEMs, and aerial photography. The selection of medium roughness is reasonable.

### B. Meteorological Data

Surface Station and ID: Austin, TX (Station #: 13904)  
Upper Air Station and ID: Fort Worth, TX (Station #: 3990)  
Meteorological Dataset: 2016  
Profile Base Elevation: 150.9 meters

### C. Receptor Grid

The grid modeled was sufficient in density and spatial coverage to capture representative maximum ground-level concentrations.

### D. Building Wake Effects (Downwash)

Input data to Building Profile Input Program Prime (Version 04274) are consistent with the aerial photography, plot plan, and modeling report.

## 4. Modeling Emissions Inventory

The modeled emission point and volume source parameters and rates were consistent with the modeling report. The source characterizations used to represent the sources were appropriate.

The applicant assumed full conversion of NO<sub>x</sub> to NO<sub>2</sub>, which is conservative.

Maximum allowable hourly emission rates were used for the short-term averaging time analyses, and annual average emission rates were used for the annual averaging time analyses.

## TCEQ Commissioners' Integrated Database - All Activity Actions

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### Activity Action List:

Date	Document Type	Action
12/22/2022	INTERIM ORDER	MAILED
12/20/2022	INTERIM ORDER	SIGNED
12/14/2022	COMMISSION AGENDA	SCHEDULED
12/05/2022	LETTER	SENT TO
11/09/2022	AGENDA SETTING LTR	MAILED
11/08/2022	TCEQ DOCKET NUMBER	ISSUED
11/08/2022	TCEQ DOCKET NUMBER	REQUESTED
10/13/2022	RFR/HR PERIOD	END
09/13/2022	FINAL DECISION LETTER	MAILED
09/12/2022	AVAILABILITY VERIFICATIO	RECEIVED
09/12/2022	ALTERNATIVE LANGUAGE VERIFICATION FORM	RECEIVED
09/01/2022	RESPONSE TO COMMENTS	RECEIVED
06/20/2022	COMMENT PERIOD	END
06/17/2022	AFFIDAVIT	RECEIVED
06/16/2022	PUBLIC MEETING	SCHEDULED
06/16/2022	PUBLIC MEETING	HELD
06/15/2022	NEWSPAPER TEARSHEET	RECEIVED
06/15/2022	ALTERNATIVE LANGUAGE TEARSHEET	RECEIVED
05/23/2022	NOTICE OF PUBLIC MEETING	MAILED
05/23/2022	NOTICE OF PUBLIC MEETING	RECEIVED
05/19/2022	ALTERNATIVE LANGUAGE NOTICE	PUBLISHED
05/17/2022	NOTICE OF PUBLIC MEETING	MAILED
05/13/2022	NOTICE OF PUBLIC MEETING	RECEIVED
05/12/2022	CONFIRMATION	RECEIVED
05/04/2022	NOTICE OF APPLICATION	PUBLISHED
04/29/2022	NOTICE OF APPLICATION	MAILED
04/27/2022	NOTICE OF APPLICATION	RECEIVED
04/11/2022	PUBLIC MEETING	ED APPROVE
03/18/2022	BILINGUAL TEARSHEET	RECEIVED
03/17/2022	BILINGUAL AFFIDAVIT	RECEIVED
03/17/2022	AFFIDAVIT - NAPD	RECEIVED
03/17/2022	NEWSPAPER TEARSHEET	RECEIVED
03/10/2022	BILINGUAL NOTICE	PUBLISHED
03/06/2022	NOTICE - PRELIM DECISION	PUBLISHED
02/24/2022	NOTICE - PRELIM DECISION	MAILED
02/23/2022	NOTICE - PRELIM DECISION	RECEIVED
02/17/2022	LETTER	SENT TO
09/07/2021	BILINGUAL VERIFICATION	RECEIVED

State of Texas  
County of Travis

I hereby certify this is a true and correct copy of a Texas Commission on Environmental Quality (TCEQ) document, which is filed in the records of the Commission, given under my hand and official seal of office.

State of Texas  
County of Travis

JAN 18 2023

*Sharon H. Hargrett*  
Alternative Commission of Rep.  
Texas Commission on Environmental Quality

09/07/2021	AVAILABILITY VERIFICATIO	RECEIVED
08/30/2021	COMMENT PERIOD	END
08/05/2021	BILINGUAL TEARSHEET	RECEIVED
08/05/2021	BILINGUAL AFFIDAVIT	RECEIVED
08/05/2021	NEWSPAPER TEARSHEET	RECEIVED
08/05/2021	AFFIDAVIT - NORI	RECEIVED
07/29/2021	BILINGUAL NOTICE	PUBLISHED
07/28/2021	NOTICE OF RECEIPT/INTENT	PUBLISHED
07/15/2021	NOTICE OF RECEIPT/INTENT	MAILED
07/14/2021	NOTICE OF RECEIPT/INTENT	RECEIVED
07/14/2021	ADMIN REVIEW	COMPLETE
07/14/2021	LETTER	SENT TO
07/09/2021	APPLICATION	RECEIVED

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