

TPDES PERMIT NO. WQ0005228000

APPLICATION BY	§	BEFORE THE
GCGV ASSET HOLDING LLC FOR	§	TEXAS COMMISSION ON
TPDES PERMIT NO. WQ0005228000	§	ENVIRONMENTAL QUALITY

EXECUTIVE DIRECTOR’S RESPONSE TO PUBLIC COMMENT

The Executive Director (ED) of the Texas Commission on Environmental Quality (the commission or TCEQ) files this Response to Public Comment (Response) on the application by GCGV Asset Holding, LLC (Applicant) for new Texas Pollutant Discharge Elimination System (TPDES) proposed permit No. WQ0005228000 and on the ED’s preliminary decision on the application. As required by Title 30 of the Texas Administrative Code (30 TAC) Section (§) 55.156, before a permit is issued, the ED prepares a response to all timely, relevant and material, or significant comments. The Office of the Chief Clerk received timely comment letters from Adair Apple, Truett Cantrell, Anna DeLuca, Foster Edwards (on behalf of the San Patricio County Economic Development Corporation), Norma Garcia, Helen Gignac, Scott Hagarty, Anne Rogers Harrison (on behalf of Texas Parks & Wildlife Department), Annette Hedemann, Uneeda Laitinen, J. Naomi Linzer, Dewey Magee, Michael Manjarris, Carrie Robertson Meyer, Aransas County Judge C. H. “Burt” Mills, Donna Rosson, Yolanda Samayoa, Charles Shamel, Danielle Smith, Errol Summerlin (on behalf of Portland Citizens United), and Susan Wayne. By way of timely written and oral comments at the Public Meeting held on December 11, 2017, the TCEQ received comments from Andy Abendschein, Jenna Adams, Ray Allen (on behalf of Coastal Bend Bays & Estuaries Program), Job Baar, Emil Barondeau, Debra Barrett, Brian Bartram (on behalf of Texas Parks & Wildlife Department), Foster Edwards (on behalf of the Gregory Economic Development Corporation and the San Patricio County Economic Development Corporation), Richard Feldman (on behalf of Global Blue Technologies), Jane Gimler (on behalf of the Ingleside Chamber of Commerce), Daniel Green, Bryan Hazel, Lois Huff, Lenora Keas (on behalf of Del Mar College), Paula Jo Lemonds (on behalf of the City of Portland), Christine Magers (on behalf of the City of Portland), Michael Manjarris, Neil McQueen (on behalf of the Surfrider Foundation), Stevie Mellon, Carolyn Moon (on behalf of the Clean Economy Coalition), Jason Mutschler, Jarl Pedersen (on behalf of the Port of Corpus Christi Authority), Donna Rosson, Mike Sandroussi, Jennifer Shaw, Errol Summerlin (on behalf of Portland Citizens United), Hal Suter (on behalf of the Sierra Club), Iain Vasey (on behalf of the Corpus Christi Regional Economic Development Corporation), John Weber, Troy Williamson, Randy Wright (on behalf of the City of Portland), and Mayor Celestino Zambrano (on behalf of the City of Gregory). This response addresses all timely public comments received, whether or not withdrawn.¹ If you need more information about this permit application or the wastewater permitting process, please call the TCEQ Public Education Program at 1-800-687-4040. General

¹ The TCEQ received several comments after the public comment period ended on December 11, 2017. These comments were added to the permit file in the Office of the Chief Clerk, however, this Response addresses only the comments that were received on or before December 11, 2017.

information about the TCEQ can be found on the TCEQ web site at <http://www.tceq.texas.gov>.

BACKGROUND

The Applicant, who proposes to operate a chemical manufacturing facility that will produce ethylene, monoethylene glycol, and polyethylene, has applied for a new TPDES Permit, No. WQ0005228000, to authorize the discharge of treated process wastewater, cooling tower blowdown, maintenance wastewater, water treatment wastewater, railcar wash water, miscellaneous wastewaters, wastewater from commissioning activities, and stormwater at a daily average flow not to exceed 9.03 million gallons per day (MGD) and daily maximum flow not to exceed 13.24 MGD via Outfall 001 and stormwater and allowable non-stormwater on an intermittent and flow-variable basis via Outfalls 002, 003, 004, and 005.

Description of Facility

Location

The proposed facility will be located on the south side of State Highway 181 and the west side of Farm-to-Market Road 2986, approximately one mile west of the City of Gregory, in San Patricio County, Texas 78359. The link below is to an electronic map of the site or facility's general location and is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<http://www.tceq.texas.gov/assets/public/hb610/index.html?lat=27.930833&lng=-97.322777&zoom=13&type=r>

Discharge Routes

The effluent is proposed to be discharged from the plant site via pipe to Corpus Christi Bay via Outfall 001, in Segment No. 2481 of the Bays and Estuaries; via Outfalls 002 and 003 to drainage ditches, then to mud flats, then to Copano Bay/Port Bay/Mission Bay in Segment No. 2472 of the Bays and Estuaries; and via Outfalls 004 and 005 to drainage ditches, then to Green Lake Ditch, then to Green Lake, then to a tidal channel, then to Corpus Christi Bay in Segment No. 2481 of the Bays and Estuaries. The unclassified receiving water uses are minimal aquatic life use for the drainage ditches, limited aquatic life use for Green Lake Ditch, high aquatic life use for Green Lake, and exceptional aquatic life use for the tidal channel. The designated uses for Segment No. 2472 and Segment No. 2481 are primary contact recreation, oyster waters, and exceptional aquatic life use.

Endangered Species

Watersheds of high priority have been identified in Segment No. 2472 in Aransas County and Segment No. 2481 in San Patricio County. The piping plover, *Charadrius melodus* Ord, a threatened aquatic-dependent species, is found in the watersheds of Segment Nos. 2472 and 2481. The whooping crane, *Grus americana*, an endangered aquatic-dependent species, has been determined to occur in the watershed of Segment No. 2472. To make this determination for TPDES permits, the TCEQ and the United States Environmental Protection Agency (EPA) only considered aquatic or aquatic-dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the United States Fish and Wildlife Service's (USFWS) biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to

the biological opinion. Since the facility is not a petroleum facility, its discharge is not expected to have an effect on the piping plover; however, the presence of the whooping crane requires EPA review and, if appropriate, consultation with the USFWS.

On October 13, 2017, the ED sent the draft permit package to EPA Region 6 for review. On December 15, 2017, the TCEQ received a letter from EPA Region 6 with comments to the proposed permit. EPA Region 6 noted that the proposed discharges are to a designated critical habitat (Segment No. 2472) for the whooping crane (*Grus americana*), a federally listed endangered species. Region 6 further noted that consultation, as appropriate, with the USFWS may be required and that the understanding of EPA Region 6 is that the TCEQ will coordinate with the USFWS during the permitting process to address endangered species in the proposed TPDES permit and to resolve any comments and/or concerns to ensure that the proposed effluent discharge and permit conditions as established, are protective of endangered species and aquatic life in accordance with the Texas Surface Water Quality Standards (30 TAC § 307.4) and the Clean Water Act.

The TCEQ received a letter dated December 26, 2017, from the USFWS with questions and comments about the draft permit. The TCEQ is coordinating with the USFWS and the Applicant to address the questions and comments raised in the letter.

The EPA and USFWS letters have been placed in both public viewing locations, in San Patricio County at the Bell Whittington Public Library located at 2400 Memorial Parkway in Portland, Texas 78374 and in Nueces County at the La Retama Central Library located at 805 Comanche Street in Corpus Christi, Texas 78401.

Antidegradation

In accordance with 30 TAC § 307.5 and TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), an antidegradation review of the receiving waters was performed. The Tier 1 antidegradation review preliminarily determined that existing water quality uses will not be impaired by this permit action, such that numerical and narrative criteria to protect existing uses will be maintained. The Tier 2 review preliminarily determined that no significant degradation of water quality is expected in Green Lake, which has been identified as having high aquatic life use. Additionally, no significant degradation of water quality is expected in the tidal channel or Corpus Christi Bay, which has been identified as having exceptional aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

Impairments

Segment No. 2481, Corpus Christi Bay (Recreational Beaches) (2481CB), is currently listed on the State's inventory of impaired and threatened waters (the 2014 Clean Water Act Section 303(d) list). The listing is specifically for elevated bacteria levels at Cole Park (Assessment Unit (AU) 2481CB_03), Ropes Park (AU 2481CB_04), and Poenisch Park (AU 2481CB_06). There are currently no other 303(d) impairment listings for Segment No. 2481.

Segment No. 2472, Copano Bay/Port Bay/Mission Bay, is currently listed on the 303(d) list for bacteria (Oyster Waters) in Mission Bay (Aransas River Arm), Port Bay, and the eastern shoreline (AU 2472_01).

According to the permit application, domestic wastewater from the facility will be routed to an authorized wastewater treatment plant. Other Requirement No. 5 of the

proposed permit prohibits the discharge of domestic wastewater, and proposed facility's processes are not expected to be a source of bacteria. Therefore, this permit action is not expected to contribute to the Recreational Beaches impairment in Segment No. 2481 or to the Oyster Waters impairment in Segment No. 2472.

Effluent Limitations and Conditions

Effluent limitations and conditions established in the proposed permit comply with state water quality standards. The effluent limits in the proposed permit are expected to maintain and protect the existing instream uses.

Regulations in Title 40 of the Code of Federal Regulations (40 C.F.R.) require that technology-based limitations be placed in wastewater discharge permits based on effluent limitations guidelines (ELGs), where applicable, or on best professional judgment (BPJ) in the absence of ELGs.

The proposed permit authorizes the discharge of wastewater treatment plant initialization wastewater, utility wastewater from commissioning activities, and stormwater on an intermittent and flow-variable basis via Outfall 001 (interim phase); treated process wastewater, cooling tower blowdown, maintenance wastewater, water treatment wastewater, railcar wash water, miscellaneous wastewaters, wastewater from commissioning activities, and stormwater at a daily average flow not to exceed 9.03 MGD and daily maximum flow not to exceed 13.24 MGD via Outfall 001 (final phase); and stormwater and allowable non-stormwater on an intermittent and flow-variable basis via Outfalls 002, 003, 004, and 005.

The discharge of treated process wastewater and treated stormwater via Outfall 001 (final phase) from this facility is subject to federal ELGs at 40 C.F.R. Parts 414 and 415. A new source determination was performed, and the discharge of treated process wastewater and treated stormwater is a new source as defined at 40 C.F.R. §122.2. Therefore, new source performance standards (NSPS) are required for this discharge.

The discharge of wastewater treatment plant initialization wastewater, utility wastewater, and stormwater via Outfall 001 (interim phase); cooling tower blowdown, maintenance wastewater, water treatment wastewater, railcar wash water, miscellaneous wastewaters, and wastewater from commissioning activities via Outfall 001 (final phase); and stormwater and allowable non-stormwater via Outfalls 002, 003, 004, and 005 is not subject to federal ELGs, and any technology-based effluent limitations are based on information used in the development of other industrial wastewater permits.

Outfall 001 - Interim Phase

Wastewater authorized for discharge via Outfall 001 in the interim phase includes wastewater treatment plant (WWTP) initialization wastewater, utility wastewater from commissioning activities generated prior to inventory and manufacture of hydrocarbon products, and stormwater. Flow will be intermittent and variable.

WWTP initialization wastewater will include wastewater generated while setting up the biological treatment system that will eventually be used to treat process wastewater.

Utility wastewater from commissioning activities may contain any combination of the following waste streams:

- hydrostatic test water

- passivation² water from various systems, which may include treatment chemicals
- flush water from various systems
- caustic boilout from boilers and furnaces – these waste streams will be trucked off site for disposal if quality is not acceptable for discharge to the Effluent Pond
- blowdown from boilers and furnaces
- water from startup of condensate receivers and surface condensers
- washup water from catalyst handling (may need to be trucked off site for disposal) and process areas
- industrial water from utility stations
- wash water from foundations and footings
- allowable non-stormwater, which may contain any combination of the following waste streams:
 - discharges from emergency firefighting activities and uncontaminated fire hydrant flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life)
 - potable water sources (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life)
 - lawn watering and similar irrigation drainage, provided that all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling
 - water from the routine external washing of buildings, conducted without the use of detergents or other chemicals
 - water from the routine washing of pavement conducted without the use of detergents or other chemicals and where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed)
 - uncontaminated air conditioner condensate, compressor condensate, and steam condensate, and condensate from the outside storage of refrigerated gases or liquids
 - water from foundation or footing drains where flows are not contaminated with pollutants (*e.g.*, process materials, solvents, or other pollutants)
 - uncontaminated water used for dust suppression
 - springs and other uncontaminated groundwater
 - incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but excluding intentional discharges from the cooling tower (*e.g.*, “piped” cooling tower blowdown or drains).

² Passivation is the treatment or coating of a metal to reduce the chemical reactivity of its surface.

WWTP initialization wastewater, utility wastewater, and stormwater may receive treatment if needed in the Effluent Pond prior to being routed to Outfall 001 for discharge.

Outfall 001 - Final Phase

Wastewater authorized for discharge via Outfall 001 in the final phase includes treated process wastewater, cooling tower blowdown, maintenance wastewater, water treatment wastewater, railcar wash water, miscellaneous wastewaters, wastewater from commissioning activities, and stormwater. The Applicant plans to route some of these waste streams to the WWTP for biological treatment. Waste streams that do not need biological treatment will be routed to the Effluent Pond. The treated wastewater from the WWTP will commingle with the wastewater in the Effluent Pond prior to discharge via Outfall 001.

The WWTP processes will consist of equalization, dissolved gas flotation (DGF), biological treatment, and oil and solids handling. Oil recovered from the equalization tanks and DGF will be sent to a slop oil tank. Sludge from the DGF and biological treatment units will be dewatered and disposed of off site.

Process wastewaters routed to the WWTP will include:

- wastewater from the olefins unit, including olefins Benzene Waste Operations NESHAP³ stripper effluent, olefins dilution steam blowdown, and ammonia vapor control wastewater
- wastewater from the monoethylene glycol (MEG) unit
- stormwater (primarily first-flush runoff from process areas, but may also include runoff from other areas where stormwater could be contaminated and small amounts of runoff from non-process areas)
- spent caustic from olefins production, which may be either shipped off site to a third-party vendor or sent to the WWTP after oxidization and neutralization
- other wastewaters that could be contaminated

In addition, stormwater and cooling tower blowdown will be routed to the WWTP to maintain a desired wastewater influent quality.

The following miscellaneous wastewaters will be routed to the WWTP:

- contaminated cooling water
- contaminated condensate
- furnace decoking condensate
- slop oil tank draws
- pyrolysis gasoline (Pygas) storage tank draws⁴
- flare drum wastewater
- wastewater from upsets or spills

³ National Emission Standards for Hazardous Air Pollutants

⁴ Pygas is a byproduct of ethylene production, and a Pygas storage tank will be located at the proposed dock facilities, which will be located at the Port of Corpus Christi.

- oily or contaminated wastewaters and contaminated first-flush stormwater from the Air Separation Unit (ASU)
- wash pad water, unit wash down water, equipment washdown, washout, and cleaning wastewaters⁵
- firefighting wastewaters.

Initially, some wastewater from commissioning activities that are still being completed may also be routed to the WWTP as necessary:

- WWTP initialization wastewater
- hydrostatic test water;
- passivation water from tanks, which may include treatment chemicals
- flush water from various systems
- blowdown from boilers and furnaces
- washup water from catalyst handling and process areas
- water draws from tanks
- wash water from foundations and footings
- allowable non-stormwater.

Process wastewater from the Polyethylene (PE) Units will include wastewater containing pellets, condensate dump, and potentially contaminated first-flush stormwater. These wastewaters will be routed to Polymer Retention Basins where solids and pellets will be removed.

The following waste streams will be routed to the Effluent Pond:

- wastewater from the WWTP
- wastewater from the Polymer Retention Basins
- cooling tower blowdown
- water treatment wastewater from the demineralizer system
- rail car wash water
- fire water system test and flushing waters
- wastewater from commissioning activities that does not need biological treatment
- other miscellaneous wastewaters.

Cooling tower blowdown will be generated by the main cooling tower system for the production units as well as from the ASU cooling tower. Water from the San Patricio Municipal Water District (SPMWD) will be used directly in the cooling towers. Treatment chemicals will be used in the cooling towers to maintain acceptable water quality to control corrosion and fouling.

⁵ These waste streams will be routed to the WWTP if potentially contaminated; otherwise, they will be routed directly to the Effluent Pond.

To provide water for the boiler system, industrial water will be demineralized to remove dissolved solids. The specific types of water treatment wastewater generated by the demineralizer system will depend on the type of system but may include such wastewaters as reverse osmosis (RO) reject, membrane cleaning wastewaters, and maintenance wastewaters. Treatment chemicals will be used in the boiler system to maintain acceptable water quality. Boiler blowdown will be routed to the main cooling tower system to serve as part of the system makeup water.

A rail yard will be located at the facility. Rail yard operations will include receipt of raw materials as well as loading polyethylene product. Empty rail hopper cars returning from off-site will be washed to remove residual plastic pellets and dried before returning to the product loading facility. Rail car wash water and first-flush stormwater from the rail car wash will be sent to the rail car wash sump where solids will be filtered out. The filtered water will then be routed to the Effluent Pond.

Other miscellaneous wastewaters that will be routed directly to the Effluent Pond may include first-flush stormwater collected from utilities and non-process areas as well as uncontaminated wash pad water, unit wash down, and equipment washout/cleaning wastewaters.

The monitoring point for Outfall 001 will be at the point of discharge from the Effluent Pond.

Applicable federal regulations are found specifically at 40 C.F.R. §§ 414.44, 414.64, 414.91, 414.101, and 415.492. Technology-based effluent limits apply for biochemical oxygen demand (5-day), total suspended solids, oil and grease, and pH, as well as a list of organic chemicals. Detailed discussion and calculations are contained in Appendix A of the Fact Sheet and Executive Director's Preliminary Decision.

Outfalls 002, 003, 004, and 005

Materials that may be exposed to stormwater include process materials and equipment, finished and intermediate products, plastic pellets and fines, oils and greases, wastes, wastewaters, and maintenance materials. The Applicant plans to develop best management practices (BMPs) to minimize the exposure of pollutants to stormwater at the site. BMPs will be based on standard industry and company-specific practices and will address good housekeeping, preventative maintenance, secondary containment, and spill prevention and response. Technology-based limits for total organic carbon, oil and grease, and pH are based on EPA guidance for industrial stormwater discharges.

Procedural Background

The TCEQ received the application April 19, 2017, and declared it administratively complete on May 3, 2017. The Applicant published the Notice of Receipt and Intent to Obtain a Water Quality Permit (NORI) in English in Nueces County, Texas in the *Corpus Christi Caller Times* on May 11, 2017, in San Patricio County, Texas, in the *Portland News* on May 11, 2017, and in Spanish in Nueces County, Texas in *Tejano Y Grupero News* on May 15, 2017. The ED completed the technical review of the application on July 5, 2017, and prepared the proposed permit, which if approved, would establish the conditions under which the facility must operate. The Applicant published the combined Notice of Application and Preliminary Decision (NAPD) and Notice of Public Meeting in English in Nueces County, Texas in the *Corpus Christi Caller Times* on October 26, 2017, and in in San Patricio County, Texas in the *Portland News* on October 26, 2017. The Applicant

published the revised Notice of Public Meeting in English in Nueces County, Texas in the *Corpus Christi Caller Times* on November 10, 2017, and in San Patricio County, Texas in the *Portland News* on November 9, 2017. A public meeting was held on December 11, 2017, at the Stephen F. Austin Elementary School located at 308 N. Gregory, Gregory, Texas 78359. The comment period for this application closed on December 11, 2017, at the close of the public meeting. Because this application was received after September 1, 2015, and because it was declared administratively complete after September 1, 1999, it is subject to both the procedural requirements adopted pursuant to House Bill 801, 76th Legislature, 1999, and the procedural requirements of and rules implementing Senate Bill 709, 84th Legislature, 2015.

Access to Rules, Laws and Records

- All administrative rules: Secretary of State Website: www.sos.state.tx.us
- TCEQ rules: Title 30 of the Texas Administrative Code: www.sos.state.tx.us/tac/ (select TAC Viewer on the right, then Title 30 Environmental Quality)
- Texas statutes: www.statutes.legis.state.tx.us/
- TCEQ website: www.tceq.texas.gov (for downloadable rules in WordPerfect or Adobe PDF formats, select “Rules, Policy, & Legislation,” then “Current TCEQ Rules,” then “Download TCEQ Rules”);
- Federal rules: Title 40 of the Code of Federal Regulations (C.F.R.)
- http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40tab_02.tpl
- Federal environmental laws: www.epa.gov/epahome/laws.htm
- Environmental or citizen complaints may be filed online at: <http://www.tceq.state.tx.us/enforcement/complaints/index.html> or by sending an email to the following address: complaint@TCEQ.state.tx.us.

Commission records for this facility are available for viewing and copying at TCEQ’s main office in Austin, 12100 Park 35 Circle, Building F, 1st Floor (Office of Chief Clerk, for the current application until final action is taken). The permit application has been available for viewing and copying at the Bell Whittington Public Library, 2400 Memorial Parkway, Portland, in San Patricio County, Texas and at La Retama Central Library, 805 Comanche Street, Corpus Christi, in Nueces County, Texas since publication of the NORI. The final permit application, proposed permit, statement of basis/technical summary, and the ED’s preliminary decision have been available for viewing and copying at the same location since the publication of the NAPD.

The ED has determined that the proposed permit, if issued, meets all statutory and regulatory requirements and is protective of the environment, water quality, and human health. However, if you would like to file a complaint about the facility concerning its compliance with the provisions of its permit or with TCEQ rules, you may contact the TCEQ Region 14 Office in Corpus Christi at (361) 825-3100 or the statewide toll-free number at 1-888-777-3186. In addition, complaints may be filed online: <https://www.tceq.texas.gov/compliance/complaints>. If an inspection by the Regional Office finds that the facility is out of compliance, the facility may be subject to enforcement actions.

Acronyms

ALAR – approach and landing accident reduction

ASU – Air Separation Unit

AU – Assessment Unit

BAT – Best Available Technology Economically Achievable

BCT – Best Conventional Pollutant Control Technology

BMPs – Best Management Practices

BOD₅ – biochemical oxygen demand, 5-day

BPJ – best professional judgement

BPT – Best Practicable Control Technology Currently Available

C.F.R. – Code of Federal Regulations

CMP – Coastal Management Plan

DGF – dissolved gas flotation

ED – Executive Director

EIS – Environmental Impact Statement

ELGs – effluent limitations guidelines

EPA – Environmental Protection Agency

ESA – Endangered Species Act

F – degrees Fahrenheit

FM – Farm-to-Market Road

GCGV – Gulf Coast Growth Ventures

lbs/day – pounds per day

LLC – limited liability company

MAL – minimum analytical level

MDL – method detection limit

MEG – monoethylene glycol

MGD – million gallons per day

mg/L – milligrams per liter

MSGP – Multi-Sector General Permit

NAPD – Notice of Application and Preliminary Decision

NEPA – National Environmental Policy Act

NERR – National Estuarine Research Reserve

NESHAP – National Emission Standards for Hazardous Air Pollutants

NORI – Notice of Receipt of Application and Intent to Obtain a Water Quality Permit

NPDES – National Pollutant Discharge Elimination System

NSPS – New Source Performance Standards

OCPSF – Organic Chemicals, Plastics, and Synthetic Fibers

PE – polyethylene

RCRA – Resource Conservation and Recovery Act

RO – reverse osmosis

SABIC – Saudi Basic Industries Corporation

SIC – Standard Industrial Classification

SPCDD – San Patricio County Drainage District

SPMWD – San Patricio Municipal Water District

SWP3 – Stormwater pollution prevention plan

SWQMIS – Surface Water Quality Monitoring Information System

TAC – Texas Administrative Code

TCEQ – Texas Commission on Environmental Quality

TDS – total dissolved solids

TMDL – total maximum daily load

TPDES – Texas Pollutant Discharge Elimination System

TPWD – Texas Parks & Wildlife Department

TRE – toxicity reduction evaluation

TSS – total suspended solids

TxDOT – Texas Department of Transportation

USFWS – United States Fish and Wildlife Service

UT – University of Texas

VOC – volatile organic compound

WET – whole effluent toxicity

WWTP – wastewater treatment plant

ZID – zone of initial dilution

COMMENTS AND RESPONSES

COMMENT 1:

The TCEQ received public meeting requests from the following 14 individuals: Adair Apple, Truett Cantrell, Anna DeLuca, Norma Garcia, Helen Gignac, Scott Hagarty, Annette Hedemann, Beth Hoekje, Uneeda Laitinen, Dewey Magee, Melissa Maxey, Donna Rosson, Danielle Smith, and Errol Summerlin. In addition, the TCEQ received a request after the Notice of Public Meeting was published from Errol Summerlin to reschedule the public meeting to avoid conflicting with a significant community event.

RESPONSE 1:

The public meeting was originally scheduled for December 4, 2017, but was rescheduled and held on December 11, 2017, at the Stephen F. Austin Elementary School in Gregory, Texas, where public comments, both oral and written, were received by the TCEQ.

COMMENT 2:

Adair Apple and Susan Wayne commented they would like to know what will happen with the wastewater from the proposed facility and whether it will be going into the estuary and bay.

RESPONSE 2:

As proposed in the permit application, wastewater and stormwater from all five outfalls will eventually end up in either Corpus Christi Bay (Outfalls 001, 004, and 005) or Copano Bay (Outfalls 002 and 003).

COMMENT 3:

Helen Gignac, Scott Hagarty, and Errol Summerlin commented they are concerned about the manner of discharge from this project. Adair Apple commented that he would like to

know how exactly the wastewater will be discharged.

RESPONSE 3:

Discharge of treated wastewater will be from the Effluent Pond into a closed pipeline that runs to Corpus Christi Bay, where the effluent will be discharged via Outfall 001 through a single-port diffuser to enhance mixing with the receiving water.

Stormwater will be discharged through four different outfalls:

Outfall 002 is proposed to be located on the west side of the property at the north property line along State Highway 181. It will discharge via gravity into a drainage ditch maintained by the San Patricio County Drainage District (SPCDD).

Outfall 003 is proposed to be located east of Outfall 002 at the north property line along State Highway 181. It will discharge via gravity into a drainage swale that is not maintained by the SPCDD.

Outfall 004 is proposed to be located at the northeast corner of the property near Farm-to-Market Road (FM) 2986. It will discharge via gravity from a 30-acre detention pond into a drainage ditch maintained by Texas Department of Transportation (TxDOT).

Outfall 005 is proposed to be located at the southeast corner of the property near the intersection of FM 2986 and County Road 1612. It will discharge via gravity from a 25-acre detention pond into a drainage ditch maintained by TxDOT.

COMMENT 4:

Jason Mutschler commented that he lives approximately 1.2 miles from Outfall 001. Mr. Mutschler commented that the proposed facility has been touted as the largest facility of its kind in the world and because the proposed facility is new, the largest of its kind, and Outfall 001 being located near the Voestalpine facility, which is near the defunct Sherwin Alumina plant (a potentially new Superfund site) and only 1.4 miles from Bayview Park (a popular park with beach access where children frequently play in the water) the TCEQ should require that the Applicant employ the Maximum Available Control Technology to ensure that aquatic plant and animal life, and our children who play in these waters, are safe from harmful pollutants.

Charles Shamel commented that in no case should the permit be granted unless it provides for the best available technology for pollution reduction.

RESPONSE 4:

As explained in the NPDES Permit Writers' Manual⁶, the EPA has established national industrial wastewater controls called effluent limitations guidelines (ELGs) that establish performance standards for all facilities within an industrial category or subcategory. These technology-based limitations reflect pollutant reductions that can be achieved by categories, or subcategories, of industries using specific treatment technologies. EPA's goal in establishing these effluent guidelines was to ensure that industrial facilities with similar characteristics will meet similar effluent limitations representing the best pollution control technologies or pollution prevention practices regardless of their location or the nature of the receiving water into which the discharge is made. Although the regulations do not require the use of any specific treatment technology, they do

⁶ United States Environmental Protection Agency, National Pollutant Discharge Elimination System (NPDES) Permit Writers' Manual, EPA-833-K-10-001, September 2010

require facilities to achieve effluent limitations that reflect the proper operation of *model* technologies selected as the basis for the ELGs and from which performance data were obtained to generate the limitations.

The EPA develops ELGs for both existing and new facilities. The ELGs for existing facilities include some or all of the following types:

- Best Conventional Pollutant Control Technology (BCT) – applies to conventional pollutants (as defined in 40 C.F.R. § 401.16): biochemical oxygen demand, 5-day (BOD₅), total suspended solids (TSS), fecal coliform, pH, and oil and grease.
- Best Available Technology Economically Achievable (BAT) – applies to toxic pollutants (as defined in 40 C.F.R. § 401.15 and listed in 40 C.F.R. Part 423, Appendix A) and nonconventional pollutants (those that are not considered conventional or toxic, such as chlorine, ammonia, nitrogen, phosphorus, and chemical oxygen demand)
- Best Practicable Control Technology Currently Available (BPT) – applies to all types of pollutants: conventional, nonconventional, and toxic

The ELGs for new facilities (new sources) are referred to as New Source Performance Standards. NSPS reflect effluent reductions that are achievable based on the best available demonstrated control technology. New sources have the option to install the best and most efficient production processes and wastewater treatment technologies at the time of construction. As a result, NSPS represent the most stringent controls attainable through the application of the best available demonstrated control technology for all pollutants (*i.e.*, conventional, nonconventional, and toxic pollutants). Not all effluent guidelines include NSPS.

The Applicant is proposing to build a new facility will be subject to the following ELGs:

- 40 C.F.R. Part 414—Organic Chemicals, Plastics, and Synthetic Fibers Point Source Category (OCPSF)
 - Subpart D—Thermoplastic Resins
 - Subpart F—Commodity Organic Chemicals
 - Subpart I—Direct Discharge Point Sources That Use End-of-Pipe Biological Treatment
 - Subpart J—Direct Discharge Point Sources That Do Not Use End-of-Pipe Biological Treatment
- 40 C.F.R. Part 415—Inorganic Chemicals Manufacturing Point Source Category
 - Subpart AW—Oxygen and Nitrogen Production Subcategory

NSPS have been established for 40 C.F.R. Part 414, Subparts D and F (including Subparts I and J), and the proposed facility will begin operating after the ELGs were established for new OCPSF facilities on November 19, 1987. However, for 40 C.F.R. Part 415, Subpart AW, NSPS have not been established thus far, only BPT guidelines.

Therefore, the proposed permit was written using the NSPS in 40 C.F.R. Part 414, Subparts D and F (including Subparts I and J) and BPT in 40 C.F.R. Part 415, Subpart AW. A detailed discussion and the calculations based on the applicable effluent guidelines are provided in Appendix A of the Fact Sheet.

COMMENT 5:

Adair Apple commented that he would like to know how the water will be treated to assure that it is safe.

RESPONSE 5:

According to the permit application, all wastewaters to be discharge via Outfall 001 will receive biological treatment in the WWTP, or retention and settling in the Effluent Pond, or both prior to discharge. Process wastewaters (from the olefins unit and the monoethylene glycol unit), miscellaneous wastewaters, and wastewater from commissioning activities will be sent to the WWTP and then routed to the Effluent Pond. Processes included at the WWTP will consist of equalization, dissolved gas flotation, biological treatment, and oil and solids handling. Process wastewater from the polyethylene units will be routed to Polymer Retention Basins where solids and pellets will be removed prior to routing to the Effluent Pond. Remaining waste streams that do not need biological treatment will be sent directly to the Effluent Pond.

COMMENT 6:

Norma Garcia, Helen Gignac, Scott Hagarty, Naomi Linzer, and Errol Summerlin expressed concern about the quality of the wastewater.

Anna DeLuca expressed concern about the pollution this enterprise will bring to the Portland area.

RESPONSE 6:

The wastewater is required to meet the numeric limits in the proposed permit, which are based on technology requirements from 40 C.F.R. Parts 414 and 415. Other Requirements No. 11 and 12 of the proposed permit require testing of the wastewater and stormwater once discharges begin. These results will be submitted to the ED for review. If additional limits or monitoring and reporting requirements are needed to address water quality concerns, the ED will initiate an amendment to add such requirements. This is standard practice for new permits for facilities that have yet to be built or begun to discharge. Related to pollution concerns, violations of numeric effluent limits or other permit conditions may result in enforcement actions.

COMMENT 7:

Neil McQueen commented that he is relieved to know that the long list of chemicals in the permit application is not representative of what necessarily is going to be discharged. However, Mr. McQueen commented that he does have concerns about a few of the chemicals being discharged.

RESPONSE 7:

The ED evaluated summaries of self-reported data from the most recent fact sheet or statement of basis/technical summary for 57 facilities in Texas whose primary business is chemical manufacturing and who discharge wastewater subject to effluent limits in 40 C.F.R. Part 414. The most commonly detected toxic pollutants were chloroform and bis(2-ethylhexyl) phthalate. Chloroform is expected to be present in wastewater from the proposed facility because chlorine, used as a water treatment chemical to prevent bacterial growth in the cooling towers, will react with any organic material in the water to produce chloroform. This process is not unique to the proposed facility but occurs any time chlorine is used to treat water. It is less likely that bis(2-ethylhexyl) phthalate

will be present in the treated wastewater because the proposed facility will not be producing polyvinyl chloride. While there are no aquatic life criteria listed for these pollutants in Table 1 of 30 TAC § 307.6(c)(1), the proposed permit includes limits on both pollutants that are protective of human health.

Consistent with standard TCEQ practice, the proposed permit requires four effluent sampling events that are at least one week apart once the facility begins commissioning activities that result in discharge and another four rounds of sampling once the facility begins operating and discharging in the final phase. The ED will review the results of both sets of sampling that are required by Other Requirement No. 11 of the proposed permit, and if any additional limits or monitoring and reporting requirements are needed to address water quality concerns, the ED will initiate an amendment to add such requirements. This is standard practice for new permits for facilities that have yet to be built or begun to discharge. In addition, violations of numeric effluent limits or other permit conditions may result in enforcement action.

COMMENT 8:

Yolanda Samayoa commented about wanting to know what pollutants are going to be leaked to the area's water source.

Emil Barondeau commented about wanting to know the names and life spans of every chemical that the Applicant may possibly put into the bays and whether it is illegal to put chemicals into the bays.

RESPONSE 8:

Related to the area's water source, the City of Portland obtains its drinking water from the Nueces River and Lake Texana and none of the wastewater or stormwater from the proposed facility will reach the Nueces River or Lake Texana.

The list of chemicals that the proposed permit authorizes for discharge via Outfall 001 is well-represented by those pollutants with effluent limits on pages 2a-2c of the proposed permit. These pollutants include all the pollutants that the EPA decided to regulate for this type of industry in 40 C.F.R. Part 414, Subparts D, F, I, and J. If a facility has authorization to do so by a permit, rule, or order issued by the TCEQ, it is legal to discharge these chemicals at or below the specified permit limits.⁷ Consistent with standard TCEQ practice, the proposed permit requires four effluent sampling events that are at least one week apart once the facility begins commissioning activities that result in discharge and another four rounds of sampling once the facility begins operating and discharging in the final phase. The ED will review the results of both sets of sampling that are required by Other Requirement No. 11 of the proposed permit, and if any additional limits or monitoring and reporting requirements are needed to address water quality concerns, either for pollutants that are already limited in the permit, or for others that are not, the ED will initiate an amendment to add such requirements. This is standard practice for new permits for facilities that have yet to be built or begun to discharge.

Based on information primarily from EPA resources⁸, the ED has compiled the following

⁷ See Texas Water Code § 26.121.

⁸ AQUIRE (AQUatic toxicity Information Retrieval), ASTER (ASsessment Tools for the Evaluation of Risk), PBT Profiler (Persistent, Bioaccumulative, and Toxic Profiler), and EPA Toxic Chemical Fact Sheets

table of half-lives for the 56 toxic pollutants that are regulated in the proposed permit.

Pollutant	Half-life
Acenaphthene	>100 days
Acenaphthylene	15 days
Acrylonitrile	1.2-6 days
Anthracene	60 days
Benzene	—
Benzo(a)anthracene	—
3,4-Benzofluoranthene	>100 days
Benzo(k)fluoranthene	>20 days
Benzo(a)pyrene	>43 days
Bis(2-ethylhexyl) phthalate	3-17 days
Carbon Tetrachloride	—
Chlorobenzene	—
Chloroethane	—
Chloroform	38 days
2-Chlorophenol	>100 days
Chrysene	—
Di- <i>n</i> -butyl Phthalate	3-17 days
1,2-Dichlorobenzene	38 days
1,3-Dichlorobenzene	38-100 days
1,4-Dichlorobenzene	2-16 days
1,1-Dichloroethane	6-9 days
1,2-Dichloroethane	38 days
1,1-Dichloroethylene	1-6 days
1,2-trans-Dichloroethylene	6.5-24 weeks
2,4-Dichlorophenol	38-100 days
1,2-Dichloropropane	38 days
1,3-Dichloropropylene	38 days
Diethyl Phthalate	3-17 days

Pollutant	Half-life
2,4-Dimethylphenol	3-17 days
Dimethyl Phthalate	2-16 days
4,6-Dinitro-o-cresol	3-17 days
2,4-Dinitrophenol	2-16 days
2,4-Dinitrotoluene	2-16 days
2,6-Dinitrotoluene	—
Ethylbenzene	3-17 days
Fluoranthene	—
Fluorene	>100 days
Hexachlorobenzene	—
Hexachlorobutadiene	—
Hexachloroethane	—
Methyl Chloride	15 days
Methylene Chloride	38 days
Naphthalene	<15 days
Nitrobenzene	—
2-Nitrophenol	2-16 days
4-Nitrophenol	2-16 days
Phenanthrene	>20 days
Phenol	2-16 days
Pyrene	60 days
Tetrachloroethylene	60 days
Toluene	3-17 days
1,2,4-Trichlorobenzene	60 days
1,1,1-Trichloroethane	60 days
1,1,2-Trichloroethane	2-20 days
Trichloroethylene	~28 days
Vinyl Chloride	<12 days

COMMENT 9:

Daniel Green commented that he didn't hear any particularly reassuring numbers or any specific quantities that are realistically expected, nor the nature of the interactions these contaminants and loading will have with both the ecology and the other environmental factors regarding habitats. Mr. Green commented that it would put his and others minds at ease if these things were addressed and were made public.

RESPONSE 9:

The ED evaluated summaries of self-reported data from the most recent fact sheet or statement of basis/technical summary for 57 facilities in Texas whose primary business is chemical manufacturing and who discharge wastewater subject to effluent limits in 40 C.F.R. Part 414. The results of the evaluation are shown in the following table. The

pollutants evaluated are the toxic pollutants listed in 40 C.F.R. Part 414, Subpart I or J, as appropriate. (Subpart I has 56 pollutants; Subpart J has 52 pollutants.)

Number of Pollutants Detected	Number of Facilities	% of Facilities
0	14	25
1	18	32
2-4	11	19
8-12	3	5
43-56	11	19

Over 75% of the facilities detected fewer than five of the toxic pollutants regulated in 40 C.F.R. Part 414. Consistent with standard TCEQ practice, the proposed permit requires four effluent sampling events that are at least one week apart once the facility begins commissioning activities that result in discharge and another four rounds of sampling once the facility begins operating and discharging in the final phase. The ED will review the results of both sets of sampling that are required by Other Requirement No. 11 of the proposed permit, and if any additional limits or monitoring and reporting requirements are needed to address water quality concerns, the ED will initiate an amendment to add such requirements. This is standard practice for new permits for facilities that have yet to be built or begun to discharge.

COMMENT 10:

Lois Huff commented that sampling only once-a-year seems far too little. Likewise, Neil McQueen commented that he would like to see more frequent sampling than just once-a-year for the organic compounds. Similarly, Christine Magers, on behalf of the City of Portland, commented that the Portland is concerned about the frequency of water quality sampling, particularly the once-a-year requirement, and would like to see more frequent monitoring, even if there's just an off-chance that monitoring might show something.

RESPONSE 10:

The ED established the annual sampling frequency for the toxic pollutants whose limits are based on 40 C.F.R. Part 414, Subparts I and J, to be consistent with permits for similar facilities. However, because the facility is new and there is significant public concern, the ED has changed the sampling frequencies to once per quarter (this also applies to hexachlorobenzene). The proposed permit also includes a new provision (Other Requirement No. 14) that allows the permittee to request that the sampling frequency be reduced to once per six months after the first year of testing for any pollutants that were not detected during the first four sampling events. This type of conditional relaxation of sampling frequencies is similar to what is allowed for whole effluent toxicity testing.

COMMENT 11:

Paula Jo Lemonds, on behalf of the City of Portland, commented that Portland is concerned with the frequency of water quality sampling required in the proposed permit. Portland would like to see more frequent monitoring during the interim start-up phase, because, even though the permit application states that these constituents are believed to be absent in the effluent, that absence cannot be proven until actual data has

been analyzed. For example, in the Interim Phase, boilout from boilers and furnaces should be tested and results reported to TCEQ. In addition, in the Interim Phase, Outfall 001 constituents should be reported more often than once-a-year. Typical screening level monitoring requires at least three samples. Portland would like to know how the Applicant will complete the appropriate baseline sampling.

RESPONSE 11:

The interim phase in the proposed permit for Outfall 001 has sampling frequencies that range from once per day to twice per week; these sampling frequencies are standard for conventional and nonconventional pollutants. The final phase for Outfall 001 has sampling frequencies for conventional pollutants of once per week to twice per week and for toxic pollutants from once per year to twice per year. As explained in the response to Comment 10, the ED has changed the annual sampling frequencies to once per quarter (this also applies to hexachlorobenzene). The proposed permit also includes a new provision (Other Requirement No. 14) that allows the permittee to request that the sampling frequency be reduced to once per six months after the first year of testing for any pollutants that were not detected during the first four sampling events. This type of conditional relaxation of sampling frequency is similar to what is allowed for whole effluent toxicity testing.

The effluent testing required by Other Requirement No. 11 in the proposed permit will provide the ED with information on effluent quality once the facility begins operating. Based on a technical review of the test results, the ED may initiate a permit amendment to include additional effluent limitations, monitoring requirements, or both. The type of effluent testing required by Other Requirement No. 11 is standard for new facilities who cannot provide actual effluent data as part of the permit application.

Other Requirement No. 12 in the proposed permit has been modified to require sampling and analysis of the first two stormwater discharges from Outfalls 002, 003, 004, and 005, that are at least one week apart.

COMMENT 12:

Jason Mutschler commented that he lives approximately 1.2 miles from Outfall 001 and requests that the TCEQ require the Applicant to transfer spent caustic off-site and not allow it to be just another item dumped into the area's bays and estuaries.

Errol Summerlin commented that the proposed permit allows for spent caustic to be released in the effluent if the Applicant is unable to have it removed by a third party. Mr. Summerlin commented that the proposed permit should prohibit any spent caustic in the effluent. Mr. Summerlin commented that he would also like to know whether the treatment process on the caustic will be chemical oxidation, neutralization, or some other treatment process.

RESPONSE 12:

The ED has no regulatory basis for requiring that spent caustic be disposed of off-site rather than routing it through biological treatment with other waste streams and discharging it via Outfall 001. The limits in the proposed permit must be met with or without spent caustic. The Applicant, as of yet, has not selected the type of treatment it may use prior to routing the spent caustic through biological treatment.

COMMENT 13:

Christine Magers, on behalf of the City of Portland, commented expressing concern

about the unknown variability, quantity, and concentration of the discharge of constituents from the new facility because the language is vague about when the determination is made to send waste streams off-site and when discharging waste streams to the effluent pond is not acceptable. Paula Jo Lemonds, on behalf of the City of Portland, commented that Portland is concerned about the unknown variability, quantity, and concentration of discharge constituents from this new facility. One example is the language of Section X. Part C. of the Fact Sheet and Executive Director's Preliminary Decision for Outfall 001 that states:

Wastewater authorized for discharge via Outfall 001 includes wastewater treatment plant (WWTP) initialization wastewater, utility wastewater from commissioning activities generated prior to inventory and manufacture of hydrocarbon products, and stormwater. Flow will be intermittent and variable. WWTP initialization wastewater will include wastewater generated while setting up the biological treatment system that will eventually be used to treat process wastewater.

Utility wastewater from commissioning activities may contain any combination of the following waste streams:...

...caustic boilout from boilers and furnaces — these waste streams will be trucked off site for disposal if quality is not acceptable for discharge to the Effluent Pond...

Ms. Lemonds commented that she would like to know how, when, and at what frequency the determination will be made for sending waste streams off-site if quality is not acceptable for discharge to the Effluent Pond as described in the excerpt above.

RESPONSE 13:

Table 3 in Attachment T-1 of the permit application lists the wastewaters that may be generated during commissioning along with the activities that generate them. A number of these wastewater streams are generated by flushing water through new equipment and could contain total suspended solids (TSS), likely rust particles. These streams will be sampled before discharge to confirm achievement of the interim phase permit limits (TSS, pH, oil and grease, and BOD₅).

When chemicals are used for activities in the commissioning process, each activity will generate wastewaters in discrete batches. A combination of process knowledge (chemicals added, concentrations, properties), sampling and, analysis will be used to identify which wastewaters can be treated before discharge (*e.g.*, neutralization) or will be sent off-site for proper disposal. After generation in the unit being commissioned, the wastewater batches will be held in portable containers or in tanks until the evaluation of the appropriate disposal method has been completed. This method is the industry standard for managing commissioning wastewaters for new equipment and operating units.

COMMENT 14:

Errol Summerlin commented that the Applicant must engage in specifically identifiable measures and actions that will prevent all polyethylene pellets from entering the effluent or stormwater runoff, as these pellets have been known to escape other facilities and the Applicant even acknowledges they could be present in the stormwater and effluent. Mr. Summerlin commented that depending upon their density, polyethylene pellets may float on the surface, be suspended just below the surface, or drop to the bottom of mud flats and estuaries. Additionally, these pellets absorb

chemicals, are not biodegradable, and will be consumed by a variety of shore birds and marine life, resulting in their death. Mr. Summerlin commented that it is not enough to simply include a condition in the permit that says there shall be no foam or other substances floating on the surface when it is likely the pellets will be suspended below the surface or at the bottom, nor is it enough to rely on best management practices of the Applicant. As such, the TCEQ should require the Applicant to specify controls over the handling of the pellets; to store pellets indoors; to load the pellets for shipping in a covered facility to prevent their escape; to establish indoor conveyance systems; specify containment practices, including the transport of pellets on clothing; specify how the pellets will not be blown by incessant winds experienced in the area; build durable permanent structures to prevent escape from all types of weather events; specify how the pellets will be removed from the surface waters and those that are suspended or on the bottom of the stormwater and effluent ponds; specify containment systems in internal and external outfalls; specify daily inspections and monitoring of all facility grounds to ensure containment of the pellets and daily reporting of inspections and maintenance conducted to control the release of the pellets. Lastly, Mr. Summerlin commented that no one knows how the applicant will ensure these protections, given that the rail yard will be owned and operated by an unknown third party.

RESPONSE 14:

The Applicant has stated its intention to develop best management practices (BMPs) to minimize the exposure of pollutants to stormwater at the site. BMPs will be based on standard industry and company-specific practices and will address good housekeeping, preventative maintenance, secondary containment, and spill prevention and response.

The ED has formalized this commitment by adding Other Requirement No. 15 to the proposed permit. This new requirement begins by stating that:

The permittee shall develop and implement a stormwater pollution prevention plan (SWP3) that includes a set of best management practices (BMPs) to eliminate or lessen the exposure of stormwater to industrial activities and pollutants, including but not limited to, process materials and equipment, finished and intermediate products, plastic pellets and fines, oils and greases, wastes, wastewaters, and maintenance materials.

The remainder of Other Requirement No. 15 specifies that the SWP3 must include, at a minimum, good housekeeping measures, spill prevention and response measures, and a maintenance program for structural controls. The SWP3 will be a living document that may be reviewed and revised at any time to implement either additional or more effective pollution control measures. Qualified personnel, who are familiar with the industrial activities performed at the facility, pursuant to the SWP3, must conduct monthly inspections to determine the effectiveness of the good housekeeping measures, spill prevention and response measures, and maintenance program for structural controls.

The ED has also added Other Requirement No. 16 to the proposed permit as follows:

Polyethylene (plastic) pellets must not be discharged in amounts prohibited by 30 TAC § 307.4(b)(2) or (3). The permittee shall conduct weekly inspections of each outfall to ensure that no plastic pellets have been or are about to be discharged. If any plastic pellets have been discharged through any outfall in amounts prohibited by 30 TAC § 307.4(b)(2) or (3), the permittee shall notify the TCEQ Region 14 Office and immediately take steps to remove the pellets.

The two paragraphs referenced from the Texas Surface Water Quality Standards read as follows:

- 30 TAC § 307.4(b)(2): “Surface water must be essentially free of floating debris and suspended solids that are conducive to producing adverse responses in aquatic organisms or putrescible sludge deposits or sediment layers that adversely affect benthic biota or any lawful uses.”
- 30 TAC § 307.4(b)(3): “Surface waters must be essentially free of settleable solids conducive to changes in flow characteristics of stream channels or the untimely filling of surface water in the state. This provision does not prohibit dredge and fill activities that are permitted in accordance with the Federal Clean Water Act.”

If the permit is issued, the facility will be subject to routine compliance investigations, as well as other types of investigations depending on the circumstances. The TCEQ, through its Office of Compliance and Enforcement, ensures compliance with state and federal regulations and the terms and conditions of the permit by way of routine compliance investigations and complaint investigations, and review of self-reported monitoring data. The TCEQ Region 14 office in Corpus Christi conducts on-site investigations. The Central Office, through the Monitoring Division, reviews the self-reported data for compliance with the permitted effluent limits and other permit conditions. Additionally, the public may report possible violations of the permit or regulations by contacting the TCEQ Region 14 office in Corpus Christi at 361-825-3100, or the statewide toll-free number at 1-888-777-3186. In addition, complaints may be filed online: <https://www.tceq.texas.gov/compliance/complaints>.

COMMENT 15:

Neil McQueen, on behalf of the local chapter of the Surfrider Foundation, which works to protect the health of beaches and water where people recreate and aquatic animals live, commented that since 2010 he has led the chapter’s Skip the Plastic Program, which tries to raise awareness about the problems that plastic trash causes in the local environment. As evidence of the problems that plastic trash causes in the local environment, Mr. McQueen pointed to the photos he provided, which were all taken locally and show plastic problems in the local environment. Mr. McQueen commented that a lawsuit was filed against Formosa Plastics for their releases of, among other things, plastic pellets into Lavaca Bay, and that during the Adopt-a-Beach Cleanup in September, the volunteers working near Mustang Island State Park noticed a disturbing number of plastic pellets on the beach; some of the volunteers counted 290 pellets in one square meter area on the beach. Mr. McQueen commented that because the pellets are small and round they resemble fish eggs, easily mistaken by shore birds and crabs and other creatures as food. Mr. McQueen commented that human error combined with machineries can cause spills to happen and that there’s enough plastic trash in the local waters, that the area doesn’t need more.

RESPONSE 15:

The Applicant has stated its intention to develop best management practices (BMPs) to minimize the exposure of pollutants to stormwater at the site. BMPs will be based on standard industry and company-specific practices and will address good housekeeping, preventative maintenance, secondary containment, and spill prevention and response.

The ED has formalized this commitment by adding Other Requirement No. 15 to the proposed permit. This new requirement begins by stating that:

The permittee shall develop and implement a stormwater pollution prevention plan (SWP3) that includes a set of best management practices (BMPs) to eliminate or lessen the exposure of stormwater to industrial activities and pollutants, including but not limited to, process materials and equipment, finished and intermediate products, plastic pellets and fines, oils and greases, wastes, wastewaters, and maintenance materials.

The remainder of Other Requirement No. 15 specifies that the SWP3 must include, at a minimum, good housekeeping measures, spill prevention and response measures, and a maintenance program for structural controls. The SWP3 will be a living document that may be reviewed and revised at any time to implement either additional or more effective pollution control measures. Qualified personnel, who are familiar with the industrial activities performed at the facility, pursuant to the SWP3, must conduct monthly inspections to determine the effectiveness of the good housekeeping measures, spill prevention and response measures, and maintenance program for structural controls.

The ED has also added Other Requirement No. 16 to the proposed permit as follows:

Polyethylene (plastic) pellets must not be discharged in amounts prohibited by 30 TAC § 307.4(b)(2) or (3). The permittee shall conduct weekly inspections of each outfall to ensure that no plastic pellets have been or are about to be discharged. If any plastic pellets have been discharged through any outfall in amounts prohibited by 30 TAC § 307.4(b)(2) or (3), the permittee shall notify the TCEQ Region 14 Office and immediately take steps to remove the pellets.

The two paragraphs referenced from the Texas Surface Water Quality Standards read as follows:

- 30 TAC § 307.4(b)(2): “Surface water must be essentially free of floating debris and suspended solids that are conducive to producing adverse responses in aquatic organisms or putrescible sludge deposits or sediment layers that adversely affect benthic biota or any lawful uses.”
- 30 TAC § 307.4(b)(3): “Surface waters must be essentially free of settleable solids conducive to changes in flow characteristics of stream channels or the untimely filling of surface water in the state. This provision does not prohibit dredge and fill activities that are permitted in accordance with the Federal Clean Water Act.”

If the permit is issued, the facility will be subject to routine compliance investigations, as well as other types of investigations depending on the circumstances. The TCEQ, through its Office of Compliance and Enforcement, ensures compliance with state and federal regulations and the terms and conditions of the permit by way of routine compliance investigations and complaint investigations, and review of self-reported monitoring data. The TCEQ Region 14 office in Corpus Christi conducts on-site investigations. The Central Office, through the Monitoring Division, reviews the self-reported data for compliance with the permitted effluent limits and other permit conditions. Additionally, the public may report possible violations of the permit or regulations by contacting the TCEQ Region 14 office in Corpus Christi at 361-825-3100, or the statewide toll-free number at 1-888-777-3186. In addition, complaints may be filed online: <https://www.tceq.texas.gov/compliance/complaints>.

COMMENT 16:

Christine Magers, on behalf of the City of Portland, commented expressing concern

about the potential impacts to water quality specific to the plastic pellets and wanted to affirm that Portland is watching the issue as well. Paula Jo Lemonds, on behalf of the City of Portland, commented that Portland is concerned about plastic pellets, which are known to be irregularly discharged from similar facilities and likely to be discharged from the proposed facility. Ms. Lemonds commented that the proposed permit states: “There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil,” and that Portland does not want any amount of plastic pellets or other deleterious materials discharged from Outfall 001 or other outfalls. Ms. Lemonds commented that she would like to know how the TCEQ will enforce the verbiage of “trace amounts.”

RESPONSE 16:

The ED has added Other Requirement No. 16 to the proposed permit as follows:

Polyethylene (plastic) pellets must not be discharged in amounts prohibited by 30 TAC § 307.4(b)(2) or (3). The permittee shall conduct weekly inspections of each outfall to ensure that no plastic pellets have been or are about to be discharged. If any plastic pellets have been discharged through any outfall in amounts prohibited by 30 TAC § 307.4(b)(2) or (3), the permittee shall notify the TCEQ Region 14 Office and immediately take steps to remove the pellets.

The two paragraphs referenced from the Texas Surface Water Quality Standards read as follows:

- 30 TAC § 307.4(b)(2): “Surface water must be essentially free of floating debris and suspended solids that are conducive to producing adverse responses in aquatic organisms or putrescible sludge deposits or sediment layers that adversely affect benthic biota or any lawful uses.”
- 30 TAC § 307.4(b)(3): “Surface waters must be essentially free of settleable solids conducive to changes in flow characteristics of stream channels or the untimely filling of surface water in the state. This provision does not prohibit dredge and fill activities that are permitted in accordance with the Federal Clean Water Act.”

The presence of trace amounts of floating solids or visible foam will be determined on a case-by-case basis by TCEQ Region 14 investigators.

If the permit is issued, the facility will be subject to routine compliance investigations, as well as other types of investigations depending on the circumstances. The TCEQ, through its Office of Compliance and Enforcement, ensures compliance with state and federal regulations and the terms and conditions of the permit by way of routine compliance investigations and complaint investigations, and review of self-reported monitoring data. The TCEQ Region 14 office in Corpus Christi conducts on-site investigations. The Central Office, through the Monitoring Division, reviews the self-reported data for compliance with the permitted effluent limits and other permit conditions. Additionally, the public may report possible violations of the permit or regulations by contacting the TCEQ Region 14 office in Corpus Christi at 361-825-3100, or the statewide toll-free number at 1-888-777-3186. In addition, complaints may be filed online: <https://www.tceq.texas.gov/compliance/complaints>.

COMMENT 17:

Jason Mutschler commented that he lives approximately 1.2 miles from Outfall 001 and that bioaccumulation of known carcinogen hexachlorobenzene in aquatic life is

extremely alarming. Mr. Mutschler commented that no amount of hexachlorobenzene should be allowed in the wastewater under the proposed permit because hexachlorobenzene works its way up the food chain, so if humans eat fish with hexachlorobenzene in its tissues, that's a problem.

Errol Summerlin commented that the allowance of chemical releases in the effluent discharge should be more restrictive given the discharge into Segment 2481. Mr. Summerlin commented that because these limitations may meet the established parameters does not mean TCEQ cannot be more restrictive, and while the proposed permit is very limiting on the release of hexachlorobenzene, it should not be permitted at all; allowing benzene in any quantity to be released into a recreational and high aquatic life use is unacceptable.

RESPONSE 17:

Neither the EPA nor the TCEQ have any rules or regulations prohibiting the discharge of hexachlorobenzene. Effluent limits for hexachlorobenzene established in 40 C.F.R. Part 414, Subpart I, include a daily average of 0.015 mg/L and a daily maximum of 0.028 mg/L. These concentration limits, when expressed in mass units, would be 1.03 pounds per day (lbs/day) (daily average) and 3.76 lbs/day (daily maximum).

The limits for hexachlorobenzene in the proposed permit, however, are much lower. The daily average limit is 0.010 lbs/day, which is based on a daily average concentration of 0.000134 milligrams per liter (mg/L). The daily maximum limit is 0.021 lbs/day, which is based on a daily maximum concentration of 0.000283 mg/L. The daily average and daily maximum concentrations are the applicable water quality-based effluent limits and are based on the criteria for human health protection for hexachlorobenzene in 30 TAC § 307.6(d)(1), Table 2. The human health criteria in Table 2 are established to prevent contamination of fish and other aquatic life to ensure that they are safe for human consumption. They are derived in accordance with the general procedures and calculations in EPA guidance documents⁹.

In the case of hexachlorobenzene, the daily average and daily maximum limits are so low that they are smaller than the minimum analytical level (MAL) of 0.005 mg/L. As defined in 30 TAC § 307.3(a)(38), the minimum analytical level is defined as “the lowest concentration that a particular substance can be quantitatively measured with a defined accuracy and precision level using approved analytical methods. The minimum analytical level is not the published MDL¹⁰ for an EPA-approved analytical method that is based on laboratory analysis of the substance in reagent (distilled) water. The minimum analytical level is based on analyses of the analyte in the matrix of concern (*e.g.*, wastewater effluents). The TCEQ establishes general minimum analytical levels that are applicable when information on matrix-specific minimum analytical levels is unavailable.”

The proposed permit establishes MALs that must be achieved (see Other Requirement No. 2) when testing the effluent for pollutants. Test methods used must be sensitive enough to demonstrate compliance with the permit effluent limitations; however, if an effluent limit for a pollutant is less than the MAL, then the test method for that

⁹ *Technical Support Document for Water Quality-based Toxics Control* (EPA/505/2-90-001); *Guidance Manual for Assessing Human Health Risks from Chemically Contaminated Fish and Shellfish* (EPA/503/8-89-002); and *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health* (2000) (EPA-822-B-00-004)

¹⁰ Method Detection Limit

pollutant must be sensitive enough to demonstrate compliance at the MAL. In other words, if a hexachlorobenzene test comes back as nondetect at the MAL of 0.005 mg/L, hexachlorobenzene is considered not to be present. Therefore, any detection of hexachlorobenzene in the effluent will be a violation of the permit limits for hexachlorobenzene.

The ED reevaluates the human health criteria in 30 TAC § 307.6(d)(1) every three years, the MALs are reevaluated periodically, and permits are subject to water quality-based screening upon every renewal using water quality criteria in place at that time.

COMMENT 18:

Errol Summerlin commented that he would like to know how the discharge of 365,000 to over 500,000 pounds of oil and grease could not affect the aquatic life and shore birds and further that with the discharge and its attendant chemicals, the oil and grease will cause irreversible damage to marine and aquatic life.

Lois Huff commented that the oil and grease outputs seem very high.

Neil McQueen commented that he is concerned about daily and annual totals for oil and grease, that eleven hundred pounds of oil and grease is a large amount for one day.

RESPONSE 18:

Effluent limitations guidelines (ELGs) established in 40 C.F.R. Part 414 do not include oil and grease. During development of these ELGs¹¹, the EPA considered establishing oil and grease limits. Ultimately, however, the EPA decided that effluent levels of oil and grease observed at existing treatment systems were achieved through incidental removal by treatment systems primarily designed to remove BOD₅ and TSS. EPA also noted that some plants install oil and grease treatment technologies to ensure that subsequent treatment units can operate properly. In the case of the proposed facility, treatment processes include dissolved gas flotation, biological treatment, and oil and solids handling, all of which remove/reduce oil and grease concentrations in the wastewater.

A review of self-reported data from 57 wastewater discharge permits for chemical facilities in Texas found that only about half of them include limits on oil and grease. Of the remaining half, most (three-quarters) discharged one-third or less of the permitted daily average.

The proposed permit was required by 40 C.F.R. Part 415, Subpart AW, to include effluent limits for oil and grease because of the wastewater from the Air Separation Unit (ASU). It would not be reasonable to assume that there would be no oil and grease in any of the other wastewater and to establish mass limits based solely on the ASU wastewater. Therefore, concentrations of oil and grease were estimated for the wastewater subject to 40 C.F.R. Part 414, the non-categorical wastewaters, and stormwater. The estimates of oil and grease concentration were taken from ELGs in 40 C.F.R. § 423.15(b)(3) for low volume waste sources, which can include a wide variety of industrial wastewaters such as boiler blowdown, wastewater from ion exchange water treatment systems, floor drains, etc.¹² Those concentrations are as follows: a daily average of 15 mg/L and daily maximum of 20 mg/L. The ED considers these concentrations to be fair representations

¹¹ See "Development Document for Effluent Limitations and Guidelines and Standards for Organic Chemicals, Plastics, and Synthetic Fibers Point Source Category, Vol. 1, EPA 440/1-87/009, October 1987, pages VI-9 and VI-10.

¹² See 40 C.F.R. § 423.11(b) for the complete definition of low volume waste sources.

of appropriate oil and grease limits for industrial wastewater generally. The mass limits on oil and grease in the proposed permit are 1,083 lbs/day (daily average) and 1,450 lbs/day (daily maximum). At the permitted daily average flow of 9.03 MGD, the equivalent concentrations are 14.4 mg/L (daily average) and 19.2 mg/L (daily maximum), which are slightly less than the concentrations in 40 C.F.R. § 423.15(b)(3) for low volume waste sources.

In addition, each outfall is prohibited from discharging visible amounts of oil. See item 3 on pages 2, 2c, 2d, and 2e of the proposed permit.

COMMENT 19:

Stevie Mellon commented that she finds it hard to believe that the Applicant is not going to leave any kind of footprint on the environment, as accidents happen. Ms. Mellon commented that in spite of claims that the Applicant is “a good neighbor” with a good safety record, two words come to her mind, “Exxon Valdez.”

RESPONSE 19:

All TPDES permits, including the proposed permit, include language that requires the permittee to notify the TCEQ in the event of a noncompliance with its permit. The proposed permit includes a Noncompliance Notification section as item 7 on page 6 in the Monitoring and Reporting Requirements section. It requires the permittee to report, either orally or by fax, any noncompliance that may endanger human health or safety, or the environment to the TCEQ’s Region 14 office within 24 hours of becoming aware of the noncompliance. The permittee is also required to submit the information in writing within five working days of becoming aware of the noncompliance to both the Regional Office and TCEQ’s Enforcement Division. The written submission must contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.

Specific violations that must be reported as explained in the previous paragraph include: unauthorized discharges [any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit]; any unanticipated bypass that exceeds any effluent limitation in the permit; and any violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit (Other Requirement No. 2 of the proposed permit).

In addition to the above, the permittee must report in writing any effluent violation that deviates from the permitted effluent limitation by more than 40% to the Regional Office and the Enforcement Division within five working days of becoming aware of the noncompliance.

The permittee must report any other noncompliance, or any required information not submitted or submitted incorrectly, to the Enforcement Division as promptly as possible. For effluent limitation violations, noncompliance must be reported on the approved self-report form.

The standard conditions section of the proposed permit (pages 3-13), from which all the information in this response was taken, also contains requirements related to proper operation and maintenance of the facility, compliance, inspections, and other issues.

If the permit is issued, the facility will be subject to routine compliance investigations, as well as other types of investigations depending on the circumstances. The TCEQ, through its Office of Compliance and Enforcement, ensures compliance with state and federal regulations and the terms and conditions of the permit by way of routine compliance investigations and complaint investigations, and review of self-reported monitoring data. The TCEQ Region 14 office in Corpus Christi conducts on-site investigations. The Central Office, through the Monitoring Division, reviews the self-reported data for compliance with the permitted effluent limits and other permit conditions. Additionally, the public may report possible violations of the permit or regulations by contacting the TCEQ Region 14 office in Corpus Christi at 361-825-3100, or the statewide toll-free number at 1-888-777-3186. In addition, complaints may be filed online: <https://www.tceq.texas.gov/compliance/complaints>.

COMMENT 20:

Christine Magers and Paula Jo Lemonds, on behalf of the City of Portland, commented that in spite of the Fact Sheet and Executive Director's Preliminary Decision stating that domestic wastewater from the proposed facility will be routed to either the City of Portland WWTP (TPDES Permit No. WQ0010478001) or the City of Gregory WWTP (TPDES Permit No. WQ0010092001) for treatment and disposal, that Portland will not be treating domestic wastewater from the proposed facility. Ms. Magers and Ms. Lemonds commented that Portland request deletion of the reference to the City of Portland WWTP (TPDES Permit No. WQ0010478001) in the Fact Sheet and Executive Director's Preliminary Decision.

RESPONSE 20:

The ED has removed the reference to the City of Portland WWTP from the fact sheet. No changes were needed to the proposed permit because Other Requirement No. 5 specifies only that "This permit does not authorize the discharge of domestic wastewater. All domestic wastewater must be disposed of in an approved manner, such as routing to an approved on-site septic tank and drainfield system or to an authorized third party for treatment and disposal." No specific third parties are mentioned in the proposed permit.

COMMENT 21:

Jane Gimler commented that she would like to know whether any of the water the Applicant will be using through its process will be recycled before being released and if so, how and why.

RESPONSE 21:

The largest use of recycled water is for the closed cycle recirculating cooling water system that circulates 720 MGD for process cooling. The 720 MGD is pumped from cooling towers through heat exchangers in the manufacturing processes and is then returned to the cooling towers to remove the heat transferred to the water from the processes. After the heat is removed in the cooling towers, the cooled water completes the loop to the heat exchangers. The closed cooling system requires only enough intake water to replace evaporation and the blowdown flow required to remove salts concentrated from the intake water supply.

Approximately 4 MGD of steam condensate is captured, condensed, and recycled to the facility's steam generators. This recycled condensate reduces the requirements for steam generator feed water that would otherwise be purchased from the San Patricio County Municipal Water District.

COMMENT 22:

Ray Allen, on behalf of the Coastal Bend Bays and Estuaries Program, commented that he takes issue with the proposed permit's thermal discharge into the La Quinta Channel. Mr. Allen commented that the TCEQ stated that the models indicate the wastewater meeting the background or the 95-degree limit at 28 feet out. Mr. Allen commented that he challenges both the TCEQ and the Applicant, whether through use of engineering capabilities, using available technologies, enlarging the cooling towers or whatever must be done, to reduce the effluent temperature to 95 degrees because it is already so close and that it's probably only a few days or a few weeks of the year when the ambient conditions are so hot and waters are so warm.

RESPONSE 22:

If temperature criteria are met at the edge of the mixing zone, there is no regulatory basis for requiring the Applicant to reduce the effluent temperature from the initial estimate. The proposed permit requires the effluent temperature to be measured once per day, and the average and maximum temperature for each month must be reported to the TCEQ. As stated in Other Requirement No. 13 of the proposed permit: "The permittee is hereby placed on notice that the Executive Director of the TCEQ will be initiating changes to evaluation procedures and/or rulemaking that may affect thermal requirements for this facility."

COMMENT 23:

Donna Rosson commented that as a former Beach Watch program director at the Nueces County Health Department she knows that the Texas General Land Office has many years of historical water temperature data for Corpus Christi Bay. Ms. Rosson commented that she requests that the TCEQ address the modeling by the Applicant related to the increased water temperature, and whether the modeling for the excessive temperature takes the highest bay water temperature, which is normally in the summer, was taken into consideration when the Applicant modeled the mixing of the 110-degree water. Ms. Rosson commented that 200 feet out in the La Quinta Channel is a long way out and questioned what percentage of that receiving body is the high temperature plume, and how long would it be higher than the rest of the bay. Ms. Rosson commented that all modeling needs to take into consideration summertime conditions when the increase in the water's temperature is normally very high, and with the mixing of that 110 degrees, how long will it take to get down to the 95 degrees, which, in her view is still too high. Ms. Rosson urged the TCEQ to prohibit the effluent water temperature higher than the regulation of 95 degrees, as it would be better for the aquatic life if the temperature of the discharge matched the bay water.

RESPONSE 23:

The thermal modeling performed by the Applicant used temperature data collected near the La Quinta Channel. This data was obtained from the TCEQ's Surface Water Quality Monitoring Information System (SWQMIS) database. Summer modeling was performed using the 95th percentile bay temperature of 31.4° C (88.5° F). In all scenarios evaluated, the Applicant's modeling indicates that the maximum temperature criterion for the bay (95° F) was met prior to reaching the boundary of the aquatic life mixing zone, or 200 feet from the discharge point. According to 30 TAC § 307.8(b), for permitted discharges into surface water in the state, a reasonable mixing zone is allowed at the point of discharge. In addition, according to 30 TAC § 307.8(b)(1)(A), site-specific criteria (including maximum temperature) for classified segments in

Appendix A of 30 TAC Chapter 307 do not apply within mixing zones. Based on thermal modeling results, less than 0.2 % of the La Quinta Channel portion of Corpus Christi Bay is predicted to be in that part of the thermal plume above 95° F.

COMMENT 24:

Lois Huff commented that she requests that the Applicant go beyond minimum permitted levels and to use the maximum available control technology to do better than simply reaching the permitted level, and specifically asking what the cost would be of lowering the maximum permitted discharge temperature from 110° to 95°, or lower, near the receiving water, and whether the cost is the problem. Ms. Huff commented that the Applicant should lower the temperature so it does not take 27 feet (estimated) to mix from 110° to 95°, and asked what the ideal temperature for aquatic life should be. Ms. Huff commented that she would like to know whether the temperature will impact future (or current) TMDL sites and whether future impacts on TMDLs could be lowered by merely lowering wastewater discharge temperatures.

RESPONSE 24:

If temperature criteria are met at the edge of the mixing zone, there is no regulatory basis for requiring the Applicant to reduce the effluent temperature from the initial estimate. The maximum temperature criteria in 30 TAC Chapter 307, Appendix A, have been established to be protective of aquatic life. Temperatures measured near the La Quinta Channel range from 50-94.6°F. The ED is unaware of any detrimental impacts that the discharge temperature could have on current or future TMDL sites.

COMMENT 25:

Carolyn Moon, on behalf of the Clean Economy Coalition, commented that she is concerned about the hot water. Ms. Moon commented that she doesn't think the target should be at the maximum where everything is going to die, and suggested trying to aim for 80 degrees by make a cute fountain somewhere and let it all cool down.

John Weber commented that if the Applicant wants to prove itself to be a good neighbor willing to go the extra mile, the Applicant could lower the water temperature of the discharge to within five degrees of the temperature of the receiving water.

RESPONSE 25:

If temperature criteria are met at the edge of the mixing zone, there is no regulatory basis for requiring the Applicant to reduce the effluent temperature from the initial estimate. The thermal modeling performed by the Applicant indicates that the maximum temperature criterion for the bay (95° F) was met prior to reaching the boundary of the aquatic life mixing zone or 200 feet from the discharge point. According to 30 TAC § 307.8(b), for permitted discharges into surface water in the state, a reasonable mixing zone is allowed at the point of discharge. In addition, according to 30 TAC § 307.8(b)(1)(A), site-specific criteria (including maximum temperature) for classified segments in Appendix A of 30 TAC Chapter 307 do not apply within mixing zones.

The proposed permit requires the effluent temperature to be measured once per day, and the average and maximum temperature for each month must be reported to the TCEQ. As stated in Other Requirement No. 13 of the proposed permit: "The permittee is hereby placed on notice that the Executive Director of the TCEQ will be initiating

changes to evaluation procedures and/or rulemaking that may affect thermal requirements for this facility.”

COMMENT 26:

Brian Bartram, on behalf of the Texas Parks & Wildlife Department, commented that he would like to know whether any consideration had been given to the possibility that spawning habitat, specifically for black drum, might be limited if warm water from Outfall 001 increased water temperatures in La Quinta Channel. Mr. Bartram commented that there is a popular black drum fishery in La Quinta Channel during the winter for "bull drum" (a large, sexually mature fish), which is mostly a catch-and-release fishery because the bull drum is usually oversized and cannot be legally harvested. Mr. Bartram commented that depending on the spatial extent of any potential water temperature increase in La Quinta Channel, this fishery, which is used by fishing guides and recreational anglers, may be impacted. Mr. Bartram commented that in Louisiana, ripe black drum were found at water temperatures of 15-25°C (60.8-77.0°F) from January to May (Fontenot and Rugillio 1970, Saucier and Boltz 1993), and that he would like to see additional information regarding the results of modeling analysis for water temperature from Outfall 001.

RESPONSE 26:

The Applicant provided thermal modeling results for both summer and winter conditions.¹³ The modeling used temperature data collected near the La Quinta Channel; the data was obtained from the TCEQ's SWQMIS database, and the largest difference in temperature between ambient water and effluent is expected to occur in the cool season (winter). Cool season modeling was performed with a 5th percentile bay temperature of 10.8° C (51.4° F) and an expected effluent temperature of 20° C (68.0° F). The Applicant's modeling indicates that at 200 feet, the temperature under limiting cool season conditions is expected to be 0.6° C (1.1° F) above the ambient temperature or approximately 11.4° C (52.5° F) in the warmest part of the thermal plume. This small change in temperature is not expected to significantly impact the black drum fishery in the La Quinta Channel.

COMMENT 27:

Richard Feldman, on behalf of Global Blue Technologies on Copano Bay, which operates a one of a kind 100% recirculating aquaculture facility on the bay, commented that it is one of the very few shrimp hatcheries in the entire world and the only one that's bio-secure. Mr. Feldman commented that they currently sell and supply over one half of the post-larvae shrimp to U.S. farms and are now supplying half of the post-larvae shrimp to European shrimp farms. Mr. Feldman commented that Aransas County has the most advanced aquaculture project in the world and that he shares many of the concerns that have been expressed regarding temperature.

Mr. Feldman commented that, regarding temperature, consideration should be made not just to the water temperature in the summer when 95 degrees is going to be somewhat like the water in the bay, but in the winter months. Mr. Feldman commented that a warm discharge in the winter allows for a different environment in the water so that some fish can flourish in the winter months that may provide a benefit in the summer months by

¹³ Effluent Diffuser Design, GCGV Asset Holding LLC, Gregory, Texas prepared by Lial Tischler, Texas P.E. No. 32768, June 2017, submitted as part of the permit application.

keeping certain species going that may not have been considered.

RESPONSE 27:

Effects on water temperature during winter conditions were evaluated. Thermal modeling performed by the Applicant used temperature data collected near the La Quinta Channel. This data was obtained from the TCEQ's SWQMIS database. Cool season modeling was performed with a 5th percentile bay temperature of 10.8° C (51.4° F) and an expected effluent temperature of 20° C (68.0° F). Applicant modeling indicates that at 200 feet, the temperature under limiting cool season conditions is expected to be 0.6° C (1.1° F) above the ambient temperature or approximately 11.4° C (52.5° F) in the warmest part of the thermal plume. This small change in temperature is not expected to significantly impact aquatic species in the La Quinta Channel of Corpus Christi Bay.

COMMENT 28:

Christine Magers, on behalf of the City of Portland, commented expressing concern about the impacts to receiving water temperatures. Paula Jo Lemonds, on behalf of the City of Portland, commented that Portland is concerned about the potential impacts to receiving water temperatures based on the values presented in the application for the elevated temperature of the discharge. Specifically, Portland is concerned about the complexity, accuracy, and assumptions made regarding the mixing zone calculations and subsequent decisions made by TCEQ. The description of the temperature modeling results that were completed as part of the application and how the results correspond to the proposed permit's language is unclear in the Fact Sheet and Executive Director's Preliminary Decision.

Section VIII of the Fact Sheet and Executive Director's Preliminary Decision states:

Monitoring and reporting requirement for daily average and daily maximum temperature have been included at Outfall 001 in the Final Phase. According to the application, the maximum effluent temperature is expected to be 110°F, which exceeds the criterion of 95°F for Segment No. 2481. To characterize effluent temperature and to determine whether temperature limitations may be needed in future permits, monitoring and reporting requirements for daily average and daily maximum temperature have been included at Outfall 001. Predictions of effluent temperature at the edge of the aquatic life mixing zone were included in the application as part of the Effluent Diffuser Design report. Although these predictions were reviewed, the TCEQ is still developing procedures to determine whether an effluent discharge has reasonable potential to exceed temperature criteria in 30 TAC § 307.4(f) and in Appendix A of 30 TAC § 307.10. Other Requirement No. 13 has been included in the draft permit to acknowledge receipt of the study and to include a reopener clause.

Other Requirement No. 13 of the draft permit states:

The permittee submitted a thermal plume characterization study to the TCEQ for approval and implementation in accordance with the agreement reached by the TCEQ and the EPA in their letters dated April 29, 2014 and May 12, 2014, respectively. The permittee is hereby placed on notice that the Executive Director of the TCEQ will be initiating changes to evaluation procedures and/or rulemaking that may affect thermal requirements for this facility.

The permit application states:

The predicted maximum effluent temperature is 110°F (43.3°C) (Table 1). Based on the ambient and effluent conditions modeled, the 95°F (35°C) temperature standard for Segment 2481 is achieved 100% of the time at a distance of 61 m from the diffuser port.

Ms. Lemonds commented that she would like to know what the temperature of the process water entering the effluent pond would be before it is discharged to Outfall 001, if the predicted maximum effluent temperature at the diffuser location is 110°F and all process water is routed through the Effluent Pond before discharging to Outfall 001. Ms. Lemonds commented that she would like to know whether the temperature of the process water entering the Effluent Pond has been taken into consideration when evaluating the pond lining system and what the potential effects are to the pond lining system. Ms. Lemonds commented that she would like to know how the TCEQ will confirm and potentially adjust the values used in the mixing zone calculations after commencement of discharge through Outfall 001.

RESPONSE 28:

Mixing of effluents discharged via diffusers with receiving waters involve a number complex processes. These processes are included in the mixing model (CORMIX) algorithms used to evaluate the proposed discharge from the Applicant. Due to this complexity and associated uncertainty, the approach to evaluating mixing using CORMIX modeling involves formulating hypothetical scenarios that cover the range of possibilities (discharge and receiving water conditions) that are likely to encountered. This approach is designed to provide predictions under a range of conditions. The most conservative predictions resulting from these model runs are then chosen for use in developing permit conditions. The Applicant used these mixing results to evaluate temperature conditions in the receiving waters resulting from the proposed discharge. As an added conservative safety factor, the Applicant only estimated temperature using the predicted relative proportions of receiving waters and effluent and did not include additional heat dissipation processes that are likely to be present in the receiving waters.

The level of detail regarding the temperature analysis provided in the Fact Sheet is consistent with other applications that include a thermal analysis. For additional details and information on the thermal analysis, please consult the diffuser modeling report submitted during the permit application process entitled *Effluent Diffuser Design GCGV Asset Holding LLC, Gregory, Texas, June 2017*.

Water temperatures in the Effluent Pond will vary depending on the weather conditions each day (*e.g.*, humidity, ambient temperature, wind). Facility operation waters entering the Effluent Pond will not exceed 110°F; therefore, discharge from the Effluent Pond will not exceed 110°F. The impervious pond lining system will be designed for these temperatures.

By the time the proposed facility is built and begins to discharge, it is likely that temperature screening procedures will be more established. Therefore, when the temperature data is received, the ED will use screening procedures in place at that time to perform an additional evaluation.

COMMENT 29:

Errol Summerlin commented that the temperature of the effluent into Segment No. 2481 of the Bays and Estuaries is known to exceed the allowable 95 degrees by as much as 15 degrees. Mr. Summerlin commented that the designated uses of Segment No. 2481

include contact recreation, oyster waters, and exceptional aquatic life, and that certain sections are impaired due to bacteria. Therefore, the TCEQ should not rely on the Effluent Diffuser Design to satisfy the temperature threshold at the edge of the mixing zone and then “test” the waters after effluent begins to flow at a rate exceeding 9 million gallons per day.

Mr. Summerlin commented that the Diffuser Design is based on certain assumptions including tidal flows, salinity, and effluent content, but that it does not factor in the wake caused by sea going vessels, the inclusion of spent caustic in the effluent, the presence of iron oxide in the seawater at outfall 001, and the inevitable presence of polyethylene pellets in the effluent, all which cause the diffuser to perform at a suboptimal level. Mr. Summerlin further commented that instead of multiple port diffusers, providing more efficient mixing, the Diffuser Design includes an inadequate single port diffuser, and it does not address or guarantee the no-kill zone at the Zone of Initial Dilution (ZID) even though there is a specific requirement that there be a no-kill zone where the water enters the bay. In fact, there’s no mention of it at all in the diffuser study. Mr. Summerlin commented that the detailed engineering design and characteristics of the diffuser are not specified in the study to ensure that there isn’t any potential for clogging, that there is proper dilution, and proper oxygen transfer. Finally, the diffuser study makes no determination of the potential for algal blooms, which Segment No. 2481 is susceptible to.

Mr. Summerlin commented that the Applicant should be required to develop systems to reduce the temperature of the effluent before it enters the effluent pipeline to ensure a temperature of 95 degrees at the ZID, and that a re-opener clause after effluent begins to flow is too late as the facility will be complete. Lastly, Mr. Summerlin commented that the TCEQ should require a multi-port Diffuser Design Study and modeling that includes the concerns raised above.

RESPONSE 29:

The ED has historically relied on diffuser modeling performed using the CORMIX model to predict effluent dilutions at the edge of the ZID, the aquatic life mixing zone, and the human health mixing zone for wastewater discharges made through diffusers. CORMIX is a mixing zone model and decision support system for environmental impact assessment of regulatory mixing zones resulting from continuous point source discharges. The system emphasizes the role of boundary interaction to predict steady-state mixing behavior and plume geometry. The CORMIX model requires detailed inputs for the receiving water, the effluent, and the diffuser design. The model has been in use since 1988 and been continuously and extensively updated since that time.

The effects on mixing resulting from wakes generated by seagoing vessels was not considered in the diffuser mixing analysis because there is no practical way to do so. However, any effects attributable to seagoing vessels are expected to be short-lived and generally result in additional mixing if the vessels pass close enough to affect the discharge plume. These vessels generate significant turbulence in the water column due to the stirring effects of their propeller and water currents caused by the water displaced as the vessel moves.

The CORMIX model is most sensitive to the relative buoyancy of the effluent, diffuser design parameters, effluent flow rate, and waterbody dimensions. None of these parameters are expected to be altered by the inclusion of spent caustic in the wastewater, the presence of iron oxide, or the potential presence of polyethylene pellets.

The potential presence of polyethylene pellets, unless existing in extreme quantities, are not expected to significantly affect mixing or clogging of the proposed diffuser port which is represented to be 10 inches in diameter. The existence of enough polyethylene pellets at the diffuser to cause a problem would result in a permit violation as the proposed permit has been revised to include Other Requirement No. 16, which reads as follows:

Polyethylene (plastic) pellets must not be discharged in amounts prohibited by 30 TAC § 307.4(b)(2) or (3). The permittee shall conduct weekly inspections of each outfall to ensure that no plastic pellets have been or are about to be discharged. If any plastic pellets have been discharged through any outfall in amounts prohibited by 30 TAC § 307.4(b)(2) or (3), the permittee shall notify the TCEQ Region 14 Office and immediately take steps to remove the pellets.

The two paragraphs referenced from the Texas Surface Water Quality Standards read as follows:

- 30 TAC § 307.4(b)(2): “Surface water must be essentially free of floating debris and suspended solids that are conducive to producing adverse responses in aquatic organisms or putrescible sludge deposits or sediment layers that adversely affect benthic biota or any lawful uses.”
- 30 TAC § 307.4(b)(3): “Surface waters must be essentially free of settleable solids conducive to changes in flow characteristics of stream channels or the untimely filling of surface water in the state. This provision does not prohibit dredge and fill activities that are permitted in accordance with the Federal Clean Water Act.”

The final diffuser design will be prepared by the Applicant after approval of the diffuser conceptual design by the TCEQ. The Applicant indicated that the design will be constructed such that it achieves or exceeds the critical dilutions calculated for the conceptual design at the applicable mixing zone boundaries. Other Requirement No. 7 of the proposed permit requires the Applicant to maintain the diffuser to achieve a maximum effluent percentage of 16.9% at the edge of the ZID.

The installation of any diffuser at an outfall is not a requirement of TPDES permitting, rather it is an action that a facility undertakes voluntarily. The ED neither requires the use of a diffuser nor specifies diffuser design.

According to 30 TAC § 307.8(b)(2), acute criteria and acute total toxicity levels may be exceeded in small ZIDs at points of discharge for permitted discharges, but there must be no lethality to aquatic organisms that move through a ZID. To ensure the no lethality provision, the proposed permit includes 24-hour acute whole effluent toxicity (WET) testing at Outfall 001. Appropriate test organisms are exposed to 100% effluent for 24 hours, and if 50% or more of the organisms die, the test is failed (demonstrates significant lethality). Upon failing a test, a permittee must conduct two additional tests for each species that demonstrates significant lethality. If even one retest demonstrates significant lethality, the permittee must initiate the requirements for a toxicity reduction evaluation (TRE) as described on pages 43-45 of the proposed permit.

Oxygen transfer and the potential for algal blooms are not material considerations related to diffuser design and mixing potential.

COMMENT 30:

Andy Abendschein commented that he would like to know what the anticipated effects

would be to bay marine life, such as oysters, shrimp, and fish, from heavy metals described as components of the effluent from Outfall 001, including Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Cyanide, Lead, Mercury, Nickel, Selenium, Thallium, and Zinc.

RESPONSE 30:

At high enough concentrations, heavy metals are toxic to aquatic life. For this reason, the TCEQ has established numerical criteria in 30 TAC § 307.6(c)(1), Table 1, for the protection of aquatic life. Numerical criteria are established for those specific toxic substances where adequate toxicity information is available and that have the potential for exerting adverse impacts on water in the state. These criteria are based on ambient water quality criteria documents published by the EPA.

Applicants renewing wastewater permits for existing facilities submit effluent data as part of the permit application, and those data are screened against water quality-based effluent limits that are calculated using the criteria in Table 1, the effluent dilution with the receiving water, and TSS in the receiving water. Applicants for new permits rarely have actual effluent data because the facility has not been built or started operating. Consistent with standard TCEQ practice, the proposed permit requires four effluent sampling events that are at least one week apart once the facility begins commissioning activities that result in discharge and another four rounds of sampling once the facility begins operating and discharging in the final phase. The parameters that are required to be tested for include antimony, arsenic, beryllium, cadmium, chromium (total, trivalent, and hexavalent), copper, cyanide, lead, mercury, nickel, selenium, thallium, and zinc. Most of these metals have water quality criteria for the protection of aquatic life in saltwater in 30 TAC § 307.6(c)(1), although antimony, beryllium, total chromium, trivalent chromium, and thallium do not. Criteria for the protection of human health via fish consumption have been established in 30 TAC § 307.6(d)(1) for antimony and thallium (along with hexavalent chromium, lead, mercury, and nickel). After the test results are submitted, the averages of the four samples will be compared to the screening levels established in Appendix B of the fact sheet. If the average of four samples for a parameter equals or exceeds the 85% screening value, the ED will initiate a permit amendment to add limits for that parameter. If the average of four samples for a parameter is less than the 85% screening value but equals or exceeds the 70% screening value, the ED will initiate a permit amendment to add monitoring and reporting requirements for that parameter.

COMMENT 31:

Jason Mutschler commented that he lives approximately 1.2 miles from the Applicant's proposed wastewater Outfall 001 and is concerned about a detrimental environmental impact to aquatic plant and animal life that live in the bays and estuaries.

Carrie Robertson Meyer commented that she lives on Corpus Christi Bay, about 10 miles from the proposed site, and is protesting the permit application to discharge heated, treated wastewater into Corpus Christi Bay. Mrs. Meyer commented that she, her husband, and her son often swim, kayak and windsurf in Corpus Christi Bay and are concerned that the water that the Applicant discharges would negatively impact the health and survival of the fish and other marine animals and plants in the bay. Mrs. Meyer commented that she has read that even subtle changes in temperature and salinity can negatively impact the marine environment.

RESPONSE 31:

According to 30 TAC § 307.6(b)(4), water in the state must be maintained to preclude adverse toxic effects on aquatic life, terrestrial life, livestock, or domestic animals resulting from contact, consumption of aquatic organisms, consumption of water, or any combination of the three. To that end, the TCEQ has established numerical criteria for the protection of aquatic life in 30 TAC § 307.6(c)(1), Table 1. Numerical criteria are established for those specific toxic substances where adequate toxicity information is available and that have the potential for exerting adverse impacts on water in the state. These criteria are based on ambient water quality criteria documents published by the EPA.

Applicants renewing wastewater permits for existing facilities submit effluent data as part of the permit application, and those data are screened against water quality-based effluent limits that are calculated using the criteria in Table 1, the effluent dilution with the receiving water, and TSS in the receiving water. Applicants for new permits rarely have actual effluent data because the facility has not been built or started operating. Consistent with standard TCEQ practice, the proposed permit requires four effluent sampling events that are at least one week apart once the facility begins commissioning activities that result in discharge and another four rounds of sampling once the facility begins operating and discharging in the final phase. After the test results are submitted, the averages of the four samples will be compared to the screening levels established in Appendix B of the fact sheet. If the average of four samples for a parameter equals or exceeds the 85% screening value, the ED will initiate a permit amendment to add limits for that parameter. If the average of four samples for a parameter is less than the 85% screening value but equals or exceeds the 70% screening value, the ED will initiate a permit amendment to add monitoring and reporting requirements for that parameter.

The Applicant provided thermal modeling results for both summer and winter conditions¹⁴. The modeling used temperature data collected near the La Quinta Channel; the data was obtained from the TCEQ's SWQMIS database. The largest difference in temperature between ambient water and effluent is expected to occur in the cool season (winter). Cool season modeling was performed with a 5th percentile bay temperature of 10.8° C (51.4° F) and an expected effluent temperature of 20° C (68.0° F). The Applicant's modeling indicates that at 200 feet, the temperature under limiting cool season conditions is expected to be 0.6° C (1.1° F) above the ambient temperature or approximately 11.4° C (52.5° F) in the warmest part of the thermal plume. This small change in temperature is not expected to significantly impact the marine environment in the La Quinta Channel and surrounding waters.

Regarding salinity, the ED does not typically perform screening for salinity (total dissolved solids, or TDS) for discharges to saltwater bodies. According to page 180 of the *Procedures to Implement the Texas Surface Water Quality Standards*, June 2010, "Tidal waters will be protected from the adverse effects of excessively high or excessively low salinities (compared to the normal salinity range of the receiving water)." Corpus Christi Bay near the La Quinta Channel has salinity that ranges from 14.4 to 40.8 parts per thousand. This is equivalent to a TDS range of 16,900 to 45,337 mg/L. According to the permit application, the TDS concentration in the effluent proposed to

¹⁴ Effluent Diffuser Design, GCGV Asset Holding LLC, Gregory, Texas prepared by Lial Tischler, Texas P.E. No. 32768, June 2017, submitted as part of the permit application.

be discharged via Outfall 001 is expected to be less than 7,000 mg/L. This TDS concentration is below the range of TDS measured in the bay, but it is greater than typical freshwater concentrations that enter the bay via rivers and streams such as the Nueces River. The ED does not expect the proposed discharge to negatively impact salinities in Corpus Christi Bay.

COMMENT 32:

Lois Huff commented that due to the size of the proposed facility, this permit is noteworthy and perhaps more consideration needs to be provided because the aquatic life and recreation uses deserve good quality water in the future.

RESPONSE 32:

The ED evaluates the proposed permit and the proposed facility using an EPA worksheet to determine whether the facility classifies as “Major” according to the EPA. The worksheet evaluates numerous factors, including toxic pollutant potential (based on SIC Code), wastewater flow, effluent limits on TSS and oxygen-demanding substances (such as BOD₅), the existence of public drinking water supplies within 50 miles downstream of the discharge, water quality-based effluent limits in the permit, and proximity to coastal waters. Based on this worksheet, the ED determined that the proposed permit classifies as “Major” according to the EPA. Because of this determination, whole effluent toxicity (WET) testing was included in the proposed permit. WET testing provides an extra layer of protection by directly measuring the aggregate toxic effect of the discharge by exposing surrogate sensitive test species to the effluent at the critical dilution of the receiving water. WET test failures may result in increased testing frequency, shorter permit terms, or WET limits in future permits. Permittees also typically perform studies to identify the source(s) of toxicity so that they can remove them.

COMMENT 33:

Michael Manjarris commented that Copano Bay is a future site for the whooping crane due to global warming. He expressed hope that the TCEQ coordinates with the U.S. Fish and Wildlife Service (USFWS) about the whooping crane. Mr. Manjarris commented that north of Highway 188 there are no windmills because the area is a future nesting site, or possible nesting site, of the whooping crane. Mr. Manjarris commented that the discharge site is exactly where the whoopers would nest, or roost, and that it's a very, very fragile ecosystem, and any change in temperature, any change in waste would affect the whooping crane, which he thinks has precedence over any economic development.

RESPONSE 33:

On October 13, 2017, the ED sent the proposed permit package to Region 6 of the EPA for review, in part because of the presence of the whooping crane in the watershed of Segment No. 2472. On December 15, 2017, the ED received a letter from EPA-Region 6 with comments to the proposed permit. Region 6 noted that the proposed discharges are to a designated critical habitat (Segment No. 2472) for the whooping crane (*Grus americana*), a federally listed endangered species. EPA-Region 6 further noted that consultation, as appropriate, with the USFWS may be required and that EPA's understanding is that the TCEQ will coordinate with the USFWS during the permitting process to address endangered species in the proposed TPDES permit and to resolve any comments or concerns to ensure that the proposed effluent discharge and permit conditions as established are protective of endangered species and aquatic life in

accordance with the *Texas Surface Water Quality Standards* (30 TAC § 307.4) and the Clean Water Act.

The TCEQ received a letter dated December 26, 2017, from the USFWS with questions and comments about the proposed permit. The TCEQ is coordinating with the USFWS and the Applicant to address the questions and comments raised in the letter.

The EPA-Region 6 and the USFWS letters have been placed in both public viewing locations (the Bell Whittington Public Library, 2400 Memorial Parkway, Portland, Texas and at La Retama Central Library, 805 Comanche Street, Corpus Christi, Texas).

COMMENT 34:

Lois Huff commented that she would like to know how the food source for the endangered whooping crane will be impacted and what will happen during future droughts.

RESPONSE 34:

Whooping cranes that winter on the Texas Coast primarily eat blue crabs and wolfberry (75% or more of their diet) with other foods consumed in smaller amounts¹⁵. The discharge of stormwater and allowable non-stormwater via Outfalls 002 and 003 is unlikely to affect any food sources for the whooping crane. Furthermore, the USFWS reviewed the proposed permit to ensure protection of federally listed threatened and endangered species and their critical habitat. The USFWS provided comments on the proposed permit. Although the USFWS did not comment on potential impacts to whooping crane food sources, the TCEQ is coordinating with the USFWS and the Applicant to address the questions and comments raised in the letter. However, the effect of future droughts on food sources for the whooping crane is beyond the scope of the wastewater permitting process.

COMMENT 35:

Carolyn Moon, on behalf of the Clean Economy Coalition, commented that she concerned about transporting toxic substances to interact with the whooping cranes, and that it sounds like a really bad idea.

RESPONSE 35:

The discharge of stormwater and allowable non-stormwater via Outfalls 002 and 003 is unlikely to transport toxic pollutants to Copano Bay. The Applicant has stated that it intends to develop best management practices (BMPs) to minimize the exposure of pollutants to stormwater at the site. BMPs will be based on standard industry and company-specific practices and will address good housekeeping, preventative maintenance, secondary containment, and spill prevention and response. The ED has formalized this commitment by adding Other Requirement No. 15 to the proposed permit. This new requirement begins by stating that:

The permittee shall develop and implement a stormwater pollution prevention plan (SWP3) that includes a set of best management practices (BMPs) to eliminate or lessen the exposure of stormwater to industrial activities and pollutants, including but not limited to, process materials and equipment, finished and intermediate products,

¹⁵ Westwood, Craig M. and Chavez-Ramirez, Felipe, "Patterns of Food Use of Wintering Whooping Cranes on the Texas Coast" (2005). *North American Crane Workshop Proceedings*. 9:133-140

plastic pellets and fines, oils and greases, wastes, wastewaters, and maintenance materials.

The remainder of Other Requirement No. 15 specifies that the SWP3 must include, at a minimum, good housekeeping measures, spill prevention and response measures, and a maintenance program for structural controls. The SWP3 will be a living document that may be reviewed and revised at any time to implement either additional or more effective pollution control measures. Qualified personnel, who are familiar with the industrial activities performed at the facility, pursuant to the SWP3, must conduct monthly inspections to determine the effectiveness of the good housekeeping measures, spill prevention and response measures, and maintenance program for structural controls.

The ED has also added Other Requirement No. 16 to the proposed permit as follows:

Polyethylene (plastic) pellets must not be discharged in amounts prohibited by 30 TAC § 307.4(b)(2) or (3). The permittee shall conduct weekly inspections of each outfall to ensure that no plastic pellets have been or are about to be discharged. If any plastic pellets have been discharged through any outfall in amounts prohibited by 30 TAC § 307.4(b)(2) or (3), the permittee shall notify the TCEQ Region 14 Office and immediately take steps to remove the pellets.

The two paragraphs referenced from the Texas Surface Water Quality Standards read as follows:

- 30 TAC § 307.4(b)(2): “Surface water must be essentially free of floating debris and suspended solids that are conducive to producing adverse responses in aquatic organisms or putrescible sludge deposits or sediment layers that adversely affect benthic biota or any lawful uses.”
- 30 TAC § 307.4(b)(3): “Surface waters must be essentially free of settleable solids conducive to changes in flow characteristics of stream channels or the untimely filling of surface water in the state. This provision does not prohibit dredge and fill activities that are permitted in accordance with the Federal Clean Water Act.”

If the permit is issued, the facility will be subject to routine compliance investigations, as well as other types of investigations depending on the circumstances. The TCEQ, through its Office of Compliance and Enforcement, ensures compliance with state and federal regulations and the terms and conditions of the permit by way of routine compliance investigations and complaint investigations, and review of self-reported monitoring data. The TCEQ Region 14 office in Corpus Christi conducts on-site investigations. The Central Office, through the Monitoring Division, reviews the self-reported data for compliance with the permitted effluent limits and other permit conditions. Additionally, the public may report possible violations of the permit or regulations by contacting the TCEQ Region 14 office in Corpus Christi at 361-825-3100, or the statewide toll-free number at 1-888-777-3186. In addition, complaints may be filed online: <https://www.tceq.texas.gov/compliance/complaints>.

COMMENT 36:

Christine Magers, on behalf of the City of Portland, commented expressing concern about the impacts to endangered species and some other state listed species. Ms. Magers commented that Portland would like to read the biological opinion and is interested when the USFWS's consultation is going to be completed because Portland would like to see that information. Paula Jo Lemonds, on behalf of the City of Portland, commented

that Portland is concerned about the protection of endangered species, particularly whooping cranes. The Fact Sheet and Executive Director's Preliminary Decision states:

Endangered Species Review

Watersheds of high priority have been identified in Segment No. 2472 in Aransas County and Segment No. 2481 in San Patricio County. The piping plover, Charadrius melodus Ord, a threatened aquatic-dependent species, is found in the watersheds of Segment Nos. 2472 and 2481. The whooping crane, Grus americana, an endangered aquatic-dependent species, has been determined to occur in the watershed of Segment No. 2472. To make this determination for TPDES permits, TCEQ and EPA only considered aquatic or aquatic-dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the United States Fish and Wildlife Service's (USFWS's) biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. Since the facility is not a petroleum facility, its discharge is not expected to have an effect on the piping plover; however, the presence of the whooping crane requires EPA review and, if appropriate, consultation with USFWS.

Ms. Lemonds commented that she would like to know how and when the proposed permit will be amended if the biological opinion is updated, and what the timeline is for biological opinion-updates to be considered for the final permit.

RESPONSE 36:

The referenced biological opinion is the one that the USFWS issued on September 14, 1998, regarding the application from the State of Texas to administer the National Pollutant Discharge Elimination System (NPDES) program. Any updates to the biological opinion, such as the addition or removal of species, or changes to their critical habitat areas, would be made by the USFWS, not the TCEQ. Any such changes occurring prior to permit issuance are considered during that permit action. Changes occurring after permit issuance are considered during the next permit action.

COMMENT 37:

Anne Rogers Harrison, on behalf of the Texas Parks and Wildlife Department (TPWD) sought clarification on the proposed permit. Ms. Rogers Harrison commented that the application states that piping plover will not be affected by the proposed discharge, and that according to the NAPD, the discharge from outfalls 002 and 003 will traverse mudflats associated with Copano Bay/Port Bay/Mission Bay. Ms. Rogers Harrison commented that mudflats, which provide feeding and roosting habitat to plovers, are also sensitive to hydrological changes that increase the duration or frequency of inundation and/or reduce salinity values. Ms. Rogers Harrison further commented that these conditions can promote the establishment of emergent vegetation in unvegetated mudflats and this conversion can reduce the availability of plover habitat, and based on the information provided, it is not clear how hydrology will be affected by the proposed discharge. Ms. Rogers Harrison commented that she requests the TCEQ provide maps of the proposed project site and associated outfalls in order to determine the areas of mudflats potentially affected by discharges from the various outfalls, specifically 002 and 003.

RESPONSE 37:

The requested maps were scanned and provided via email on December 21, 2017.

The frequency and duration of discharges from Outfalls 002 and 003 depend on the frequency and duration of rainfall at the proposed facility. Historic rainfall data from the National Weather Service indicates that on average there are 42 days per year with measurable precipitation. This average includes rainfall events that are identified as “trace” in the records. Based on the historical record, the estimated frequency of discharge from the stormwater outfalls at the proposed facility could range from 42 days/year to approximately 126 days/year. The conservative assumption that up to three days are needed to empty the stormwater pond for Outfall 002 after a major rainfall event established the higher estimate. Discharge from Outfall 003 will cease as soon as runoff ceases. The lower estimate factors in that certain days will have insufficient rainfall runoff that will not produce a discharge.

COMMENT 38:

Errol Summerlin commented that the Proposed Permit makes a summary finding that the Piping Plover is not affected because this is not a petroleum facility. Mr. Summerlin commented that, accordingly, no analysis of the chemical plant’s impact on the Piping Plover was conducted, but at the same time, there is nothing that precludes an appropriate analysis of the impact of discharges from chemical plants on endangered and threatened species listed by the State of Texas. Mr. Summerlin commented that this would include a number of threatened species beyond the Piping Plover, such as the Reddish Egret and Black-necked Stilt. Mr. Summerlin commented that Portland has many permanent shore birds and is the winter home of many migratory species that use both the eastern and central flyways, so it is imperative that TCEQ consider the impact of these chemicals on threatened species.

RESPONSE 38:

The ED followed the screening process included on pages 21-23 in the *Procedures to Implement the Texas Surface Water Quality Standards*, June 2010, in conducting its review of the application. The provision that the piping plover only be considered for petroleum facilities comes directly out of the USFWS biological opinion issued September 14, 1998, regarding the application from the State of Texas to administer the NPDES program. Any updates to that biological opinion would be made by the USFWS, not the TCEQ.

COMMENT 39:

Carrie Robertson Meyer commented that she lives on Corpus Christi Bay, about 10 miles from the proposed site, and is protesting the permit application to discharge heated, treated wastewater into Corpus Christi Bay. Mrs. Meyer commented that she, her husband, and her son often swim, kayak and windsurf in Corpus Christi Bay and are concerned that the water that the Applicant discharges would negatively impact her family’s health.

RESPONSE 39:

According to 30 TAC § 307.6(b)(3), water in the state must be maintained to preclude adverse toxic effects on human health resulting from contact recreation, consumption of aquatic organisms, consumption of drinking water or any combination of the three. To that end, the TCEQ has established numerical criteria for the protection of human health in 30 TAC § 307.6(d)(1), Table 2. These criteria were derived in accordance with

general procedures and calculations in EPA guidance documents,¹⁶ and are applied as long-term average exposure criteria designed to protect populations over a lifetime.

Applicants renewing wastewater permits for existing facilities submit effluent data as part of the permit application, and those data are screened against water quality-based effluent limits that are calculated using the criteria in Table 2, the effluent dilution with the receiving water, and TSS in the receiving water. Applicants for new permits rarely have actual effluent data because the facility has not been built or started operating. Consistent with standard TCEQ practice, the proposed permit requires four effluent sampling events that are at least one week apart once the facility begins commissioning activities that result in discharge and another four rounds of sampling once the facility begins operating and discharging in the final phase. After the test results are submitted, the averages of the four samples will be compared to the screening levels established in Appendix B of the fact sheet. If the average of four samples for a parameter equals or exceeds the 85% screening value, the ED will initiate a permit amendment to add limits for that parameter. If the average of four samples for a parameter is less than the 85% screening value but equals or exceeds the 70% screening value, the ED will initiate a permit amendment to add monitoring and reporting requirements for that parameter.

COMMENT 40:

Jason Mutschler commented that he lives approximately 1.2 miles from Outfall 001 and is concerned about the diminished quality of life for those who frequent the waters near the La Quinta Channel for recreational activity and Bayview Park in Portland, which features beach access and sits only 1.4 miles from proposed Outfall 001.

RESPONSE 40:

The opening paragraph of the Texas Surface Water Quality Standards, 30 TAC Chapter 307, explains that it is the policy of State of Texas and the purpose of 30 TAC Chapter 307 to, among other things, maintain the quality of water in the state consistent with public health and enjoyment. Discharges from the proposed facility are not expected to increase bacteria levels in either Corpus Christi Bay or Copano Bay. Discharges from Outfall 001 are expected to meet all water quality-based limits for toxic pollutants, temperature, and dissolved oxygen within the appropriate regulatory mixing zones. The ED does not expect discharges from the proposed facility to negatively affect quality of life for people who use Corpus Christi Bay and the La Quinta Channel for recreational activities.

COMMENT 41:

Andy Abendschein commented that he would like to know what the anticipated effects would be on people who may eat marine life, such as oysters, shrimp, and fish, from heavy metals described as components of the effluent from Outfall 001, including Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Cyanide, Lead, Mercury, Nickel, Selenium, Thallium, and Zinc.

¹⁶ *Technical Support Document for Water Quality-based Toxics Control* (EPA/502-90-001); *Guidance Manual for Assessing Human Health Risks from Chemically Contaminated Fish and Shellfish* (EPA/503/8-89-002); and *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health* (2000) (EPA-822-B-00-004).

RESPONSE 41:

The TCEQ has established numerical criteria for the protection of human health in 30 TAC § 307.6(d)(1), Table 2. These criteria are applied as long-term average exposure criteria designed to protect populations over a life time. Applicants renewing wastewater permits for existing facilities submit effluent data as part of the permit application, and those data are screened against water quality-based effluent limits that are calculated using the criteria in Table 2, the effluent dilution with the receiving water, and TSS in the receiving water. Applicants for new permits rarely have actual effluent data because the facility has not been built or started operating. Consistent with standard TCEQ practice, the proposed permit requires four effluent sampling events that are at least one week apart once the facility begins commissioning activities that result in discharge and another four rounds of sampling once the facility begins operating and discharging in the final phase. The parameters that are required to be tested for include antimony, arsenic, beryllium, cadmium, chromium (total, trivalent, and hexavalent), copper, cyanide, lead, mercury, nickel, selenium, thallium, and zinc. Criteria for the protection of human health via fish consumption have been established in 30 TAC § 307.6(d)(1) for antimony, hexavalent chromium, lead, mercury, nickel, and thallium. After the test results are submitted, the averages of the four samples will be compared to the screening levels established in Appendix B of the fact sheet. If the average of four samples for a parameter equals or exceeds the 85% screening value, the ED will initiate a permit amendment to add limits for that parameter. If the average of four samples for a parameter is less than the 85% screening value but equals or exceeds the 70% screening value, the ED will initiate a permit amendment to add monitoring and reporting requirements for that parameter.

COMMENT 42:

Bryan Hazel commented that as a father of two young children who fish and play in and around Corpus Christi Bay and other area waterways, he is concerned about the pollutants he and his family will be exposed to if this permit is granted.

Yolanda Samayoa, commented that she is concerned about what health risks people in the area will be subjected to, and requests the Commission think about this as if it were their own family's wellbeing at risk.

RESPONSE 42:

According to 30 TAC § 307.6(b)(3), water in the state must be maintained to preclude adverse toxic effects on human health resulting from contact recreation, consumption of aquatic organisms, consumption of drinking water or any combination of the three. To that end, the TCEQ has established numerical criteria for the protection of human health in 30 TAC § 307.6(d)(1), Table 2. These criteria were derived in accordance with general procedures and calculations in EPA guidance documents,¹⁷ and are applied as long-term average exposure criteria designed to protect populations over a lifetime.

Applicants renewing wastewater permits for existing facilities submit effluent data as part of the permit application, and those data are screened against water quality-based effluent limits that are calculated using the criteria in Table 2, the effluent dilution

¹⁷ *Technical Support Document for Water Quality-based Toxics Control* (EPA/502-90-001); *Guidance Manual for Assessing Human Health Risks from Chemically Contaminated Fish and Shellfish* (EPA/503/8-89-002); and *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health* (2000) (EPA-822-B-00-004).

with the receiving water, and TSS in the receiving water. Applicants for new permits rarely have actual effluent data because the facility has not been built or started operating. Consistent with standard TCEQ practice, the proposed permit requires four effluent sampling events that are at least one week apart once the facility begins commissioning activities that result in discharge and another four rounds of sampling once the facility begins operating and discharging in the final phase. After the test results are submitted, the averages of the four samples will be compared to the screening levels established in Appendix B of the fact sheet. If the average of four samples for a parameter equals or exceeds the 85% screening value, the ED will initiate a permit amendment to add limits for that parameter. If the average of four samples for a parameter is less than the 85% screening value but equals or exceeds the 70% screening value, the ED will initiate a permit amendment to add monitoring and reporting requirements for that parameter.

COMMENT 43:

Neil McQueen commented that like many other people he knows, he moved to this area because of the proximity to the beautiful bays in the Gulf of Mexico where he can sail, surf, and fish, and that he'd like to think that the flounder and the trout that he catches are safe to eat. Mr. McQueen commented that the screening for aquatic life criteria in the permit application at Outfall 001 in Corpus Christi Bay used a mixing zone with a radius of 200 feet, the screening for aquatic organism bioaccumulation criteria used a mixing zone with a radius of 400 feet, and that both screenings gave a percentage of dilution using the CORMIX model. Mr. McQueen commented that he wanted to know how the fish know to stay out of the mixing zones and how someone fishing can be certain that the fish they caught didn't spend a lot of time or most of its life at the mixing zone, right near the outfall. Mr. McQueen commented that he also wanted to know whether the Applicant or TCEQ intends to post signs near the outfall warning people not to eat the fish by including the statement "no fishing, this discharge is toxic."

RESPONSE 43:

According to 30 TAC § 307.8(b), for permitted discharges into surface water in the state, a reasonable mixing zone is allowed at the point of discharge. According to 30 TAC § 307.8(b)(1), the following portions of the standards, among others, do not apply within mixing zones: numerical chronic aquatic life criteria for toxic materials established in 30 TAC § 307.6(c); total chronic toxicity restrictions established in 30 TAC § 307.6; and specific human health criteria for concentrations in water to prevent contamination of fish and shellfish to ensure safety for human consumption established in 30 TAC § 307.6(d). Numerical acute aquatic life criteria for toxic materials and preclusion of total acute toxicity do apply within mixing zones.

Fish have varied habitat preferences based on their feeding, spawning, and refuge needs. These needs are the principle factors that govern where the fish spends its time. According to life history information from the Texas Parks & Wildlife Department, species like speckled trout move seasonally within a bay system. During the pre-spawning period of February to early April, speckled trout are scattered throughout the system. By spawning season, May to September, almost all the fish large enough to spawn are concentrated in the higher salinity waters of the lower bays. In October, with the onset of cool fronts, speckled trout retreat inland into lower salinity estuaries, where they typically remain well into January or February

(<https://tpwd.texas.gov/huntwild/wild/species/trout/>). Flounder and red drum exhibit similar movement patterns; however, they migrate offshore to spawn

(<https://tpwd.texas.gov/huntwild/wild/species/reddrum/>; <https://tpwd.texas.gov/huntwild/wild/species/flounder/>). While fish may encounter the mixing zone at times, their needs for food, refuge, and spawning areas make it unlikely they will remain in a mixing zone for extended periods of time.

The ED does not have the authority in the wastewater permitting process to require that applicants post signs related to mixing zones.

COMMENT 44:

Jennifer Shaw commented that she objects to the issuance of the proposed permit based on public health and safety concerns related to the proposed permit allowing any discharge of industrial wastewater or contaminated stormwater to Copano Bay, Port Bay, and Mission Bay. Ms. Shaw commented that she would like to know whether any TCEQ or Applicant personnel would eat fresh fish that had been living in industrial wastewater; eat oysters that had grown in industrial wastewater; or expect to sell fish or oysters, or fishing trips, to consumers, especially out-of-town tourists, if the tourists heard that the fish and oysters had been drenched in industrial wastewater.

RESPONSE 44:

The proposed permit does not authorize the discharge of treated industrial wastewater via Outfall 002 or 003, which are the only two outfalls in the proposed permit that will discharge into waterways that lead to Copano Bay, Port Bay, and Mission Bay. The proposed permit authorizes discharges solely of stormwater and allowable non-stormwater through Outfalls 002 and 003. The proposed permit includes effluent limits on total organic carbon, oil and grease, and pH that are consistent with EPA guidance on discharges of stormwater associated with industrial activity. In addition, the proposed permit (Other Requirement No. 12) requires sampling and analysis of the first two discharges that are at least one week apart from these two outfalls for other pollutants, including metals, and submit the analytical results to the ED for review. The ED will review the analytical results and will initiate an amendment of the permit if any additional limits or monitoring and reporting requirements are needed. The discharge of stormwater and allowable non-stormwater will not constitute a drenching of aquatic life in industrial wastewater.

COMMENT 45:

Norma Garcia, Naomi Linzer, and Errol Summerlin commented expressing general concerns about stormwater runoff from the site.

RESPONSE 45:

The Applicant has stated that it intends to develop best management practices (BMPs) to minimize the exposure of pollutants to stormwater at the site. BMPs will be based on standard industry and company-specific practices and will address good housekeeping, preventative maintenance, secondary containment, and spill prevention and response. The ED has formalized this commitment by adding Other Requirement No. 15, which requires the permittee to develop a stormwater pollution prevention plan (SWP3) that must include, at a minimum, good housekeeping measures, spill prevention and response measures, and a maintenance program for structural controls. The SWP3 will be a living document that is reviewed and revised at any time in order to implement either additional or more effective pollution control measures.

COMMENT 46:

Anne Rogers Harrison commented that TPWD would like clarification on the expected frequency that stormwater and allowable non-stormwater discharges would be flowing from the 002/003 and 004/005 Stormwater Ponds. TPWD understands that flow requirements are not in this permit for outfalls 002-005 and that flows would be post first-flush from storm events, however TPWD would like further clarification as to the nature of the expected frequency and volumes from these outfalls to the receiving waters.

RESPONSE 46:

The stormwater system is designed to collect site runoff that is not sent to the Outfall 001 treatment system. Stormwater will be collected in three stormwater ponds (Outfalls 002, 004, and 005) or discharged directly (Outfall 003). The 002, 004 and 005 ponds allow for settling of suspended soil particles and will also reduce peak flows that could occur off-site during rainfall events. Discharges from these outfalls will typically occur during and for a short time following rainfall events that exceed approximately 0.25 inch. Some amounts of precipitation are captured in the soils and vegetation and do not result in measurable runoff that would require discharge.

The frequency and duration of discharges from Outfalls 002, 003, 004, and 005 depends on the frequency and duration of rainfall at the GCGV site. Historic rainfall data from the National Weather Service indicates that on average there are 42 days per year with measurable precipitation. This average includes rainfall events that are identified as “trace” in the records. The estimated frequency of discharge from the stormwater outfalls at GCGV based on the historical record could range from 42 days/year to approximately 126 days/year. The conservative assumption that up to three days are needed to empty the stormwater pond for Outfall 002 after a major rainfall event established the higher estimate. Discharge from Outfall 003 will cease as soon as runoff ceases. The lower estimate factors in that certain days will have insufficient rainfall runoff that will not produce a discharge.

The volume of the intermittent discharges from Outfalls 002, 003, 004, and 005 is dependent upon the intensity, duration, and total amount of rainfall from individual events and therefore, cannot be reliably estimated. Because site runoff is collected in the stormwater ponds for Outfalls 002, 004, and 005, the peak flows from the facility during intense rainfall events will be lower than those that currently occur from the undeveloped site. Outfall 003 discharges are expected to be similar to the total volumes and flow rates as those that currently occur from the undeveloped site because most of its drainage area will have permeable cover (grass, soil).

COMMENT 47:

Errol Summerlin commented that the Applicant has not provided any information on the amount of impervious surface within the 1,375-acre facility. The amount of impervious surface will have a dramatic effect on the amount of stormwater runoff to each Outfall and the amount and degree of contaminants that will flow unrestricted to the Outfalls. The amount of impervious surface must be disclosed prior to granting the permit.

RESPONSE 47:

According to additional information provided by the Applicant and added to the permit application file in the Office of the Chief Clerk, the area of impervious surface (building roofs, paved roads/pads/parking lots and ponds) at the proposed facility is estimated to

be approximately 880 acres. This area constitutes 64% of the 1,375-acre site. The stormwater ponds at the site are designed to collect, hold, and treat (by sedimentation and flotation) stormwater runoff and will prevent any increase in peak stormwater flow rates off-site. Collected and treated stormwater will be released at controlled flow rates during and following precipitation events.

The native, clay-rich soils of this area have low permeability once the surface soil layers have become saturated, resulting in naturally occurring high runoff rates during major precipitation events. The impervious cover, when mitigated by the collection and controlled release from the stormwater ponds, are not expected to result in peak flow rates greater than those occurring under current land use conditions.

COMMENT 48:

Christine Magers and Paula Jo Lemonds, on behalf of the City of Portland, commented expressing concern about the Applicant's suggestion that TCEQ's Multi-Sector General Permit (MSGP) for any or all stormwater outfalls currently included in the proposed TPDES permit may be an alternative option instead of the individual permit. Ms. Lemonds commented further that in the permit application, the Applicant states, "If the MSGP option is selected for any or all of the storm water outfalls, then GCGV will request that TCEQ remove those particular outfalls from the TPDES individual permit application." The applicant ideally should be required to maintain the coverage of an individual permit throughout the duration of the permit. The City of Portland would like to know on what basis would the Applicant seek coverage under a MSGP, if currently permitted on an individual permit.

Neil McQueen commented that he would like to echo the City of Portland's concern that the applicant should have to get an individual, not a MSGP for the stormwater permit.

RESPONSE 48:

The decision whether to authorize stormwater discharges via an individual TPDES permit or through the MSGP is made by applicants, not the ED. Requests for coverage under the MSGP are evaluated and may be denied if such coverage is not applicable or appropriate. Currently, the Applicant has requested coverage for stormwater Outfalls 002, 003, 004, and 005 in the proposed TPDES permit. If, in the future, the Applicant decides that it wishes to authorize these outfalls under the MSGP, it will have to submit a Notice of Intent to the TCEQ for review. If the facility meets the applicability/eligibility requirements for the MSGP, authorization may be granted, after which the Applicant may amend its TPDES permit to remove the stormwater outfalls.

COMMENT 49:

Errol Summerlin commented that it was announced recently that the Applicant will construct a heavy haul road from the facility to a proposed terminal at La Quinta Channel because the heavy haul road is required by the proposed facility and will be approximately 140 feet wide and 3 to 4 miles in length. Mr. Summerlin commented that the heavy haul road is an integral part of facility operations and will result in stormwater runoff that is not mentioned or included in the application. This stormwater will likely discharge into the receiving waters of Segment 2481, and as such, the application should be amended to include detailed design, drainage, and quality parameters that can be incorporated in the Permit.

RESPONSE 49:

The Applicant plans to obtain coverage under TCEQ general permit TXR150000 for construction stormwater for all construction-related activities from east of its property at FM 2986 through Port of Corpus Christi Authority-owned lands to the La Quinta Channel. Therefore, stormwater associated with this off-site construction is not included nor requested in WQ0005228000. The heavy haul road will be constructed by the Applicant and/or its general contractor on lands which the Port of Corpus Christi Authority owns and over which the Applicant has been granted an easement. Once completed, this roadway will be owned by the Port of Corpus Christi Authority.

COMMENT 50:

Errol Summerlin commented that the Applicant has failed to provide a stormwater flow diagram, and while there exists an Outfall Boundaries map, there is no flow diagram that details the design and path of stormwater runoff to Outfalls 002, 003, 004, and 005 or what role the Internal Outfalls will play in the runoff. Mr. Summerlin commented that he would like to know how the first flush stormwater will be directed to the Wastewater Treatment Plant. Mr. Summerlin commented further that a stormwater flow diagram must be provided with modeling of flows in varying rain events, *i.e.* rainfall rates.

RESPONSE 50:

The Applicant provided, as part of Attachment T-1 of the permit application, a map (labeled Exhibit 17 and titled "GCGV Proposed Site Ditches") that identified the locations of all four stormwater outfalls (002, 003, 004, and 005), the areas of the site from which each outfall will receive stormwater runoff, the locations of ditches and stormwater retention ponds, and each path of stormwater runoff to each outfall via the ditches.

Although the permit application included internal outfalls, the proposed permit was ultimately drafted without any internal outfalls, which was the Applicant's preference.

The first flush system is common industry design practice. Manufacturing process wastewater is completely separated from stormwater in a dedicated collection system. In each manufacturing area, the process equipment is located on curbed, concrete or asphalt pads, and precipitation that falls on these pads is collected in a process area sump(s). The sumps have installed pumps that are designed to collect the initial volume of runoff from the process area pad(s), with the first flush volume being set to assure that small amounts of process pollutants on the pads from minor equipment leaks, if any, will be collected and sent to the treatment system. Typically, first flush systems collect and pump to the site's treatment system the first 0.25 to 0.5 inch of runoff during an event. If runoff continues, it will overflow by gravity to the stormwater system.

The first flush volume for each process area is established during the process design based on the potential pollutants that could be present on curbed process area. Experiences with first flush systems have demonstrated that the stormwater discharged following capture of the first flush is similar in quality to that from other paved, non-process areas.

The volumes of the intermittent discharges from Outfalls 002, 003, 004, and 005 are dependent upon the intensity, duration, and total amount of rainfall from individual events and therefore cannot be reliably estimated. Because site runoff is collected in the stormwater ponds for Outfalls 002, 004, and 005, the peak flows from the facility during intense rainfall events will be lower than those that currently occur from the

undeveloped site. Outfall 003 discharges are expected to be similar to the total volumes and flow rates as those that currently occur from the undeveloped area because most of the drainage area will have permeable cover (grass, soil).

COMMENT 51:

Christine Magers and Paula Jo Lemonds, on behalf of City of Portland, commented expressing concern with the Applicant's ability to comply with current draft permit language related to stormwater discharges, particularly Outfall 003. Ms. Magers and Ms. Lemonds commented that Outfall 003 discharges into a drainage swale, which is not maintained by San Patricio County Drainage District, Portland is concerned about who's going to operate that outfall and make sure that it stays within the Applicant's operation. Ms. Magers and Ms. Lemonds commented that the Fact Sheet and Executive Director's Preliminary Decision states, "Outfall 003 will be located east of Outfall 002 at the north property line along State Highway 181. It will discharge into a drainage swale which is not maintained by the SPCDD [San Patricio County Drainage District]." Ms. Magers and Ms. Lemonds commented that in addition, the Fact Sheet and Executive Director's Preliminary Decision states that the Applicant plans to develop stormwater best management practices (BMPs). Therefore, Portland would like to know what specific plans the Applicant has related to stormwater BMPs, what entity will be maintaining the property at Outfall 003, if the SPCDD does not maintain this outfall, and whether there has been coordination with the existing property owner to access the outfall for maintenance.

RESPONSE 51:

The Applicant will be responsible for maintaining all the outfalls in the proposed permit. Outfall 003 will be on the Applicant's property at the point of discharge to the drainage swale, which extends underneath State Highway 181 to the Applicant's property, so there should be no issues with access to the outfall or any need for coordination with any other property owners.

The Applicant has stated that it intends to develop best management practices (BMPs) to minimize the exposure of pollutants to stormwater at the site. BMPs will be based on standard industry and company-specific practices and will address good housekeeping, preventative maintenance, secondary containment, and spill prevention and response. The ED has formalized this commitment by adding Other Requirement No. 15, which requires the permittee to develop a stormwater pollution prevention plan (SWP3) that must include, at a minimum, good housekeeping measures, spill prevention and response measures, and a maintenance program for structural controls. The SWP3 will be a living document that is reviewed and revised at any time in order to implement either additional or more effective pollution control measures.

COMMENT 52:

Errol Summerlin commented that the proposed flow of stormwater through open drainage ditches is inadequate and poses a public hazard. Mr. Summerlin commented that while the permit does not grant any drainage rights to the Applicant, the adequacy of drainage of stormwater to the receiving waters is an important element to the flow and quality of the water. Mr. Summerlin commented further that the Applicant should be required to demonstrate that it has received affirmative approvals from the San Patricio County Drainage District that their use meets the Drainage Criteria Manual. Further, there should be some measure of required fencing or other protections from public access to the open drainage ditches.

RESPONSE 52:

The ED notes that stormwater flow through open ditches may be a hazard anywhere in the state after a storm event occurs. The ED does not have legal jurisdiction to evaluate whether a given ditch has the capacity to contain a stormwater discharge.

The Applicant provided the following updates on approvals to discharge to various ditches. The discharge of stormwater and allowable non-stormwater via Outfall 002 to a San Patricio County Drainage District ditch (referred to as Copano Ditch or sometimes McKamey Ditch) was recently formally approved by the San Patricio Commissions Court in February of 2018. Outfall 003 will not discharge into an SPCCD ditch but into a drainage swale that flows north onto private land. This drainage continuation is specified in the Sales Agreement. Outfalls 004 and 005 will discharge into ditches under the jurisdiction of the Texas Department of Transportation (TxDOT). The Applicant is currently coordinating with TxDOT.

The ED does not have legal jurisdiction to require fencing or other measure to prevent public access to the drainage ditches.

COMMENT 53:

Errol Summerlin commented that the proposed drainage ditches from Outfall 005 flow along an adjacent sewage sludge disposal site. While the site is no longer used for sewage disposal, there must be adequate, verifiable assurances the addition of the stormwater from the facility will not lift or otherwise contain an inflow of sewage that will impact the quality of the water flowing into Segment 2481.

RESPONSE 53:

The ED has reviewed the USGS topographic 1:24,000 scale map and concluded that the USGS map label "Sewage Disposal" just to the southwest of the City of Gregory is marking the location of the City of Gregory's Roloff Wastewater Treatment Facility, which is located just north of the intersection of Sunset Road and Blackwelder Street. The activated sludge process plant is authorized under TPDES Permit No. WQ0010092001 to discharge into the drainage ditch that runs parallel to Blackwelder Street. The ED is not aware of any current or former land application sites for sewage or sludge coinciding with the "Sewage Disposal" label on the USGS map.

COMMENT 54:

Norma Garcia, Scott Hagarty, and Dewey Magee expressed concern about the overall environmental impact to the area from this project.

Lois Huff expressed concern about the footprint on the environment.

Helen Gignac commented that the project information was delivered without fully disclosing and addressing the environmental impact to the affected communities, farmlands, bays, estuaries, and most importantly the thousands of families who will be directly impacted by the environmental consequences of this project.

Charles Shamel commented that the environmental impact should be thoroughly studied.

RESPONSE 54:

The proposed permit is written to comply with the requirements of the Texas Surface Water Quality Standards, found at 30 TAC Chapter 307, and other state and federal

requirements, such as the Clean Water Act and the Texas Water Code. The opening paragraph of 30 TAC Chapter 307 explains that it is the policy of State of Texas and the purpose of 30 TAC Chapter 307 to maintain the quality of water in the state consistent with public health and enjoyment, propagation and protection of terrestrial and aquatic life, operation of existing industries, and taking into consideration economic development of the state. The proposed permit establishes conditions that are consistent with this policy but cannot address environmental impact outside of the jurisdiction under which it is written, that is, the Clean Water Act and the Texas Water Code.

COMMENT 55:

Norma Garcia, Helen Gignac, Scott Hagarty, and Errol Summerlin expressing concern about the discharge of wastewater into the bays and estuaries from this project.

Lois Huff expressed concern about the risks to the bays and estuaries.

Donna Rosson expressed concern about the quality of water in the bays and estuaries.

Naomi Linzer and Errol Summerlin expressed concern about the amount of water to be discharged.

RESPONSE 55:

According to 30 TAC § 307.6(b)(4), water in the state must be maintained to preclude adverse toxic effects on aquatic life, terrestrial life, livestock, or domestic animals, resulting from contact, consumption of aquatic organisms, consumption of water, or any combination of the three. To this end, the TCEQ has established numerical criteria for the protection of aquatic life in 30 TAC § 307.6(c)(1), Table 1. Numerical criteria are established for those specific toxic substances where adequate toxicity information is available and that have the potential for exerting adverse impacts on water in the state. These criteria are based on ambient water quality criteria documents published by the EPA.

According to 30 TAC § 307.6(b)(3), water in the state must be maintained to preclude adverse toxic effects on human health resulting from contact recreation, consumption of aquatic organisms, consumption of drinking water or any combination of the three. To this end, the TCEQ has established numerical criteria for the protection of human health in 30 TAC § 307.6(d)(1), Table 2. These criteria are applied as long-term average exposure criteria designed to protect populations over a life time. They were derived in accordance with general procedures and calculations in EPA guidance documents¹⁸.

Applicants renewing wastewater permits for existing facilities submit effluent data as part of the permit application, and those data are screened against water quality-based effluent limits that are calculated using the criteria in Tables 1 and 2, the effluent dilution with the receiving water, and TSS in the receiving water. Applicants for new permits rarely have actual effluent data because the facility has not been built or started operating. Consistent with standard TCEQ practice, the proposed permit requires four effluent sampling events that are at least one week apart once the facility begins commissioning activities that result in discharge and another four rounds of

¹⁸ *Technical Support Document for Water Quality-based Toxics Control* (EPA/502-90-001); *Guidance Manual for Assessing Human Health Risks from Chemically Contaminated Fish and Shellfish* (EPA/503/8-89-002); and *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health* (2000) (EPA-822-B-00-004).

sampling once the facility begins operating and discharging in the final phase. After the test results are submitted, the averages of the four samples will be compared to the screening levels established in Appendix B of the fact sheet. If the average of four samples for a parameter equals or exceeds the 85% screening value, the ED will initiate a permit amendment to add limits for that parameter. If the average of four samples for a parameter is less than the 85% screening value but equals or exceeds the 70% screening value, the ED will initiate a permit amendment to add monitoring and reporting requirements for that parameter.

Certain TPDES permits are subject to review by EPA Region 6, which then issues a letter to the TCEQ that may contain comments, objections, both comments and objections, or neither. On October 13, 2017, the ED submitted the proposed permit package to EPA Region 6 for review. On December 15, 2017, the TCEQ received a letter from EPA Region 6 with comments to the draft permit related to continued coordination with the USFWS. EPA Region 6 did not, however, have any objections to the proposed permit as written.

The proposed TPDES permit includes a daily average permitted flow of 9.03 MGD and a daily maximum permitted flow of 13.24 MGD at Outfall 001 in the final phase. These are the flows that the Applicant requested in its permit application, the ED had no regulatory basis for modifying them.

COMMENT 56:

Job Baar commented that he lives on Copano Bay with his family, including two nine-year-old boys who enjoy either playing around on the Egery Flats behind his house or walking to and swimming in Copano Bay with the dolphins that still show up every three or four weeks. He is very concerned about some of the potential environmental impacts on the Egery Flats and on Copano Bay.

RESPONSE 56:

Two of the five outfalls in the proposed permit will discharge into surface waters that eventually flow to Copano Bay: Outfalls 002 and 003, which are authorized to discharge stormwater and allowable non-stormwater. The proposed permit does not authorize the discharge of any other types of wastewater through Outfall 002 or 003. The Applicant has stated that it intends to develop best management practices (BMPs) to minimize the exposure of pollutants to stormwater at the site. BMPs will be based on standard industry and company-specific practices and will address good housekeeping, preventative maintenance, secondary containment, and spill prevention and response. The ED has formalized this commitment by adding Other Requirement No. 15, which requires the permittee to develop a stormwater pollution prevention plan (SWP3) that must include, at a minimum, good housekeeping measures, spill prevention and response measures, and a maintenance program for structural controls. The SWP3 will be a living document that is reviewed and revised at any time to implement either additional or more effective pollution control measures.

COMMENT 57:

Michael Manjarris commented that he is against the proposed permit's request to discharge wastewater into Copano Bay. Mr. Manjarris commented that he is a property owner on Egery Island and has 20 acres of water front on Egery Flats and that this is designated as Site 44 on the Great Texas Birding Trail and is a protected estuary. Mr. Manjarris commented that the mouth of Copano Bay is a protected estuary designated

by the Texas Parks and Wildlife department, and that the proposed facility will ruin the environmental quality of the area. Mr. Manjarris commented that his main concern is hazardous waste going into Copano Bay, and that his understanding is that the TCEQ did not know that Copano Bay was a protected estuary by the State of Texas.

RESPONSE 57:

Two of the five outfalls in the proposed permit will discharge into surface waters that eventually flow to Copano Bay: Outfalls 002 and 003, which are authorized to discharge stormwater and allowable non-stormwater. The proposed permit does not authorize the discharge of any other types of wastewater or hazardous waste through Outfall 002 or 003. The Applicant has stated that it intends to develop best management practices (BMPs) to minimize the exposure of pollutants to stormwater at the site. BMPs will be based on standard industry and company-specific practices and will address good housekeeping, preventative maintenance, secondary containment, and spill prevention and response. The ED has formalized this commitment by adding Other Requirement No. 15, which requires the permittee to develop a stormwater pollution prevention plan (SWP3) that must include, at a minimum, good housekeeping measures, spill prevention and response measures, and a maintenance program for structural controls. The SWP3 will be a living document that is reviewed and revised at any time to implement either additional or more effective pollution control measures.

The ED recognizes that Copano Bay is part of the Mission-Aransas National Estuarine Research Reserve (NERR); however, this designation does not trigger any additional requirements related to the permit application review or proposed permit conditions. The ED reviews all wastewater permit applications for consistency with the Texas Coastal Management Program (CMP) according to the requirements in 30 TAC Chapter 281, Subchapter B. As part of the application review for the proposed permit, the ED determined that the facility will be located within the Coastal Zone as defined in 31 TAC Chapter 503. Because the application is for a new permit, the ED evaluated whether the proposed permit would authorize the discharge of wastewater subject to EPA Categorical Effluent Standards (40 C.F.R. Parts 400-471) into a priority segment as listed in 30 TAC § 281.48(b). Corpus Christi Bay, Segment No. 2481 is not on the list of priority segments; Copano Bay/Port Bay/Mission Bay, Segment No. 2472, is on the list of priority segments. Outfalls 002 and 003 are in the watershed of Segment No. 2472; however, they will not be discharging wastewater subject to EPA Categorical Effluent Standards. The permit action is therefore considered to be below threshold and consistent with the CMP.

COMMENT 58:

Aransas County Judge, the Honorable C. H. Mills commented that Copano Bay has a problem with chemicals from Alcoa Alumina dikes that were built years ago and have been causing problems, and now the Applicant intends to discharge chemicals into the bay. Judge Mills commented that he doesn't think this is a good idea and this could very well kill Copano Bay.

RESPONSE 58:

The only discharges authorized by the proposed permit that may enter Copano Bay are stormwater and allowable non-stormwater via Outfalls 002 and 003. The permit does not authorize the discharge of treated process wastewater or any other waste streams through these outfalls. The proposed permit includes effluent limits at Outfalls 002 and 003 on total organic carbon, oil and grease, and pH, consistent with EPA guidance for

discharges of industrial wastewater. If the proposed permit is issued, the Applicant will have to sample and have analyzed the first two discharges that are at least one week apart from these two outfalls for other pollutants, including metals, and submit the analytical results to the ED for review. If additional effluent limitations or monitoring and reporting requirements are needed, the ED will initiate an amendment of the permit to include such conditions.

COMMENT 59:

Donna Rosson commented that she seconded Job Baar's eloquent comments about Aransas County, Mission Bay, the Redfish Bay. Ms. Rosson commented that this is a pristine estuary and pristine waterway, and anything that gets discharged will not improve it, which is common sense.

RESPONSE 59:

According to TCEQ records, Copano Bay/Port Bay/Mission Bay, Segment No. 2472, already receives discharges from two reverse osmosis (RO) water treatment plants and three domestic wastewater treatment plants. The two RO plants are authorized to discharge a total of 0.181 MGD on a daily average basis, and the three domestic wastewater plants are authorized to discharge a total of 1.2272 MGD on a daily average basis.

In addition, the Aransas River and Mission River, classified segments that are tributaries of Copano Bay/Port Bay/Mission Bay, receive discharges from eleven domestic wastewater plants with a total daily average permitted flow of 7.47238 MGD.

The ED has revised the proposed permit by adding Other Requirement No. 15, which requires the permittee to develop a stormwater pollution prevention plan (SWP3) that must include, at a minimum, good housekeeping measures, spill prevention and response measures, and a maintenance program for structural controls. The SWP3 will be a living document that is reviewed and revised at any time to implement either additional or more effective pollution control measures.

The ED has also added Other Requirement No. 16 to the proposed permit as follows:

Polyethylene (plastic) pellets must not be discharged in amounts prohibited by 30 TAC § 307.4(b)(2) or (3). The permittee shall conduct weekly inspections of each outfall to ensure that no plastic pellets have been or are about to be discharged. If any plastic pellets have been discharged through any outfall in amounts prohibited by 30 TAC § 307.4(b)(2) or (3), the permittee shall notify the TCEQ Region 14 Office and immediately take steps to remove the pellets.

The two paragraphs referenced from the Texas Surface Water Quality Standards read as follows:

- 30 TAC § 307.4(b)(2): "Surface water must be essentially free of floating debris and suspended solids that are conducive to producing adverse responses in aquatic organisms or putrescible sludge deposits or sediment layers that adversely affect benthic biota or any lawful uses."
- 30 TAC § 307.4(b)(3): "Surface waters must be essentially free of settleable solids conducive to changes in flow characteristics of stream channels or the untimely filling of surface water in the state. This provision does not prohibit dredge and fill activities that are permitted in accordance with the Federal Clean Water Act."

If the permit is issued, the facility will be subject to routine compliance investigations, as well as other types of investigations depending on the circumstances. The TCEQ, through its Office of Compliance and Enforcement, ensures compliance with state and federal regulations and the terms and conditions of the permit by way of routine compliance investigations and complaint investigations, and review of self-reported monitoring data. The TCEQ Region 14 office in Corpus Christi conducts on-site investigations. The Central Office, through the Monitoring Division, reviews the self-reported data for compliance with the permitted effluent limits and other permit conditions. Additionally, the public may report possible violations of the permit or regulations by contacting the TCEQ Region 14 office in Corpus Christi at 361-825-3100, or the statewide toll-free number at 1-888-777-3186. In addition, complaints may be filed online: <https://www.tceq.texas.gov/compliance/complaints>.

For these reasons, the ED does not expect that the discharge of stormwater and allowable non-stormwater from Outfalls 002 and 003 of the proposed permit will have a significant impact on the water quality of Copano Bay/Port Bay/Mission Bay.

COMMENT 60:

Hal Suter, on behalf of the Sierra Club, commented that, while not necessarily opposed to the proposed permit, the Sierra Club is still evaluating the proposed permit. Mr. Suter commented that one of his major concerns is related to the environment in Copano Bay. He noted that he would be very interested to know the results of the TCEQ's consultation with the EPA and with the USFWS.

RESPONSE 60:

On October 13, 2017, the ED sent the draft permit package to EPA Region 6 for review, in part because of the presence of the whooping crane in the watershed of Segment No. 2472. On December 15, 2017, the TCEQ received a letter from EPA Region 6 with comments to the draft permit. EPA Region 6 noted that the proposed discharges are to a designated critical habitat (Segment No. 2472) for the whooping crane (*Grus americana*), a federally listed endangered species. EPA Region 6 further noted that consultation, as appropriate, with the USFWS may be required and that EPA's understanding is that the TCEQ will coordinate with the USFWS during the permitting process to address endangered species in the draft TPDES permit and to resolve any comments and/or concerns to ensure that the proposed effluent discharge and permit conditions as established are protective of endangered species and aquatic life in accordance with the Texas Surface Water Quality Standards (30 TAC § 307.4) and the Clean Water Act.

The TCEQ received a letter dated December 26, 2017, from the USFWS with questions and comments about the draft permit. The TCEQ is coordinating with the USFWS and the Applicant to address the questions and comments raised in the letter.

The EPA and USFWS letters have been placed in both public viewing locations (the Bell Whittington Public Library, 2400 Memorial Parkway, Portland, in San Patricio County, Texas and at La Retama Central Library, 805 Comanche Street, Corpus Christi, in Nueces County, Texas).

COMMENT 61:

Jennifer Shaw commented that she wants to give a very broad brush statement of intense concern on the part of people who live in Aransas County, the City of Rockport, and the Town of Fulton, that the water quality of Copano Bay be absolutely protected from degradation, whether by virtue of trenches and ditches for this massive amount of

stormwater runoff that will come from the applicant's project and from any creative pipeline building after the project initially starts, which would route the actual industrial wastewater to Copano Bay as a means of lightening the load on Corpus Christi Bay. Ms. Shaw commented that the people who live in Aransas County share the concerns of the people who live in San Patricio County, but it needs to be said again and again that Aransas County and Copano Bay are not the relief valve as this permit process goes forward. Ms. Shaw commented that Copano Bay and its sub-bays are NOT a toilet or hazardous waste disposal site for San Patricio County and Nueces County industry, as those counties do not physically touch Copano Bay/Port Bay/Mission Bay.

RESPONSE 61:

For Outfall 002, some of the site runoff is collected in a stormwater pond prior to discharge, so the peak flows from the facility during intense rainfall events are expected to be lower than those that currently occur from the undeveloped site. For Outfall 003, the total volumes and flow rates of the discharges are expected to be similar to those that currently occur from the undeveloped site because most of the drainage area will have permeable cover (grass, soil).

The proposed permit does not allow changes in authorized discharge points during the permit term. Any changes to the proposed discharge point for the treated wastewater (Outfall 001) would have to be requested at a future time through a major amendment application. Such applications are subject to the same notification requirements for affected landowners and other interested parties to which new applications are subject.

COMMENT 62:

Jennifer Shaw commented that she believes that most residents of Aransas County like the Bay just the way it is and do not want it to change – in particular those who derive their income from the tourism industry, the fishing guide industry, from fishing itself, which is still done in Aransas County on a commercial basis. And from the oyster industry, Copano Bay is pristine at this point. Ms. Shaw commented that she knows no one in Aransas County wants any industrial discharges in Copano Bay. What Aransas County and Rockport sell to drive their economy are the recreation and, in particular, fishing opportunities in Copano Bay and in Aransas Bay, and Aransas County residents want one thing: zero stormwater runoff, and not any industrial wastewater discharge in Copano Bay, Port Bay, or Mission Bay, which Ms. Shaw points out, are entirely in Aransas County.

RESPONSE 62:

Copano Bay/Port Bay/Mission Bay (Segment No. 2472) already receives discharges from thirteen domestic wastewater treatment plants that are located outside of Aransas County in Bee, Refugio, and San Patricio Counties. Most of these discharges are conveyed via the Aransas and Mission Rivers, which ultimately flow into the bay system. The proposed permit does not authorize the discharge of industrial wastewater to Segment No. 2472. The ED does not expect that the discharge of stormwater and allowable non-stormwater from Outfalls 002 and 003 of the proposed permit will have a significant impact on the water quality of Copano Bay/Port Bay/Mission Bay.

COMMENT 63:

Scott Hagarty commented expressing concerns about the complete lack of environmental monitoring happening in San Patricio County, despite numerous heavy industrial complexes that are already here and those currently being built such as: Gulf

Marine Fab Inc., Chemours Co. Fc. LLC., Southcross Gathering Ltd., Sherwin Alumina Co. LLC., Flint Hills Resources LLC., Occidental Chemical Corp., Gregory Power Partners LP., Cantera Energy LLC., Kiewitt Offshore Services Ltd., EOG Resources Inc., XTO Energy Inc., TPCO America Corp., CC Liquefaction LLC., and Voestalpine.

RESPONSE 63:

The TCEQ's Surface Water Quality Monitoring database shows three active surface water monitoring stations that are located in San Patricio County. These stations are located on Chiltipin Creek (2) and the Nueces River (1). In addition, there are 54 active stations in Corpus Christi Bay and 9 active stations in Nueces Bay. Other stations that are no longer active are sources of historical information on surface water quality.

The TCEQ prepares the *Texas Integrated Report of Surface Water Quality for the Clean Water Act Sections 305(b) and 303(d) (Integrated Report)* once every two years. This report describes the status of the state's waters, as required by Sections 305(b) and 303(d) of the federal Clean Water Act. It summarizes the condition of the state's surface waters, including concerns for public health, fitness for use by aquatic species and other wildlife, and specific pollutants and their possible sources. The Texas 303(d) List, a list of impaired water bodies, is part of the *Integrated Report*. Water bodies that fail to meet screening criteria for a parameter that has a numeric criterion (*e.g.*, dissolved oxygen, pH, temperature, toxic pollutants listed in Table 1 or 2 of 30 TAC Chapter 307) are placed on the Texas 303(d) List and are considered to be impaired, *i.e.*, not meeting water quality standards, for that particular parameter.

According to 40 C.F.R. § 122.4(i), no permit may be issued to a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards. Although each TPDES permit is evaluated individually, the use of the Texas 303(d) List and the prohibition against causing or contributing to an impairment ensures that the cumulative effect of discharges from multiple facilities will not cause violations of water quality standards in surface waters.

The TCEQ conducted a water quality assessment in 2014 on all classified water bodies for which sufficient data were available during the period from December 1, 2005 through November 30, 2012. The only water quality issues identified in Segment Nos. 2481 and 2472 were related to bacteria, which is a common water quality issue throughout the state.

COMMENT 64:

Annette Hedemann commented expressing concern about any project that could potentially change the water quality along the Gulf Coast. The proposed facility in the Portland, Texas area is of especially high concern. Ms. Hedemann commented that the delicate ecosystem along this area of coastline is already heavily stressed and the ultimate effect of yet another source of pollution could be devastating.

Lois Huff commented expressing concern about the cumulative impact of these permitted discharges when added to the other permitted discharges already in place for other facilities and to those discharges for/from facilities to be permitted in the future.

Errol Summerlin commented that, while TCEQ looks at each permit individually, at some point it must consider the cumulative effect of new discharges in conjunction with current permitted industrial activities, especially when this applicant will discharge effluent at a rate that far exceeds the discharges of other permittees releasing industrial

wastewater into Segment No. 2481. He asked whether there is a saturation point that TCEQ would use to consider limiting any future Water Quality Permits.

RESPONSE 64:

The TCEQ exercises oversight of water quality in the State of Texas in multiple ways, including establishing water quality standards, monitoring surface water bodies, assessing how well surface water bodies are meeting applicable standards, developing strategies to improve water quality in impaired water bodies, and issuing TPDES permits that are protective of water quality.¹⁹ The purpose of the TPDES permits issued by the TCEQ is to establish effluent limitations and requirements to ensure that the wastewater permit meets all federal and state rules and regulations, which are designed in part to protect water quality.

The TCEQ prepares the *Texas Integrated Report of Surface Water Quality for the Clean Water Act Sections 305(b) and 303(d) (Integrated Report)* once every two years. This report describes the status of the state's waters, as required by Sections 305(b) and 303(d) of the federal Clean Water Act. It summarizes the condition of the state's surface waters, including concerns for public health, fitness for use by aquatic species and other wildlife, and specific pollutants and their possible sources. The Texas 303(d) List, a list of impaired water bodies, is part of the *Integrated Report*. Water bodies that fail to meet screening criteria for a parameter that has a numeric criterion (*e.g.*, dissolved oxygen, pH, temperature, toxic pollutants listed in Table 1 or 2 of 30 TAC Chapter 307) are placed on the Texas 303(d) List and are considered to be impaired, *i.e.*, not meeting water quality standards, for that particular parameter.

According to 40 C.F.R. § 122.4(i), no permit may be issued to a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards. Although each TPDES permit is evaluated individually, the use of the Texas 303(d) List and the prohibition against causing or contributing to an impairment ensures that the cumulative effect of discharges from multiple facilities will not cause violations of water quality standards in surface waters.

COMMENT 65:

Lois Huff commented that she would like to know whether any studies have looked at the effects of the combined outputs of iron oxide from the Voestalpine facility that is discharged near Outfall 001 (perhaps the opposite synergistic outputs).

RESPONSE 65:

Iron oxide is generally considered to be nontoxic. Iron is not on the list of 126 priority pollutants found in 40 C.F.R. Part 423, Appendix A, nor are there water quality standards for iron established in 30 TAC Chapter 307. In addition, Outfall 001 in the Voestalpine permit (TPDES Permit No. WQ0005097000) is located about 3,600 feet (2/3 mile) away from the proposed location of the Applicant's Outfall 001. Any iron oxide discharged from the Voestalpine outfall would likely settle to the bottom quickly and not near the Applicant's proposed Outfall 001.

COMMENT 66:

Jason Mutschler commented that he lives approximately 1.2 miles from proposed

¹⁹ For a detailed explanation of the TCEQ's activities regarding water quality, see *Preserving & Improving Water Quality: The Programs of the Texas Commission on Environmental Quality for Managing the Quality of Surface Waters*, GI-351, July 2010.

wastewater Outfall 001, and requested that the TCEQ require the Applicant to include a recent event, pollution in the form of iron oxide runoff from nearby Voestalpine, in all models and analysis of wastewater dilution.

RESPONSE 66:

Iron oxide present in the sediment of Corpus Christi Bay would not be expected to have any effect on the results of the mixing (dilution) analysis performed using the CORMIX model. The CORMIX model is most sensitive to the relative buoyancy of the effluent, diffuser design parameters, effluent flow rate and waterbody dimensions. None of these parameters are expected to be altered by a release of iron oxide.

COMMENT 67:

Naomi Linzer and Errol Summerlin commented that their concerns include the overall environmental impact to the bays and estuaries that support a diverse array of species which serve as the raw materials for a variety of economic activities associated with commercial and recreational fishing, birding and other ecological services.

Charles Shamel commented that the wastewater and runoff released into Copano Bay and La Quinta Channel will likely affect fishing.

Uneeda Laitinen commented that the amount of water the proposed facility will discharge with caustic is projected to be 9,000,000 gallons per day. This will flow through a system ultimately ending up as a discharge into Corpus Christi Bay. Ms. Laitinen commented that in her opinion, this will adversely affect the ecosystem of the bays and estuaries, and the wildlife, both avian and aquatic, will be affected. Ms. Laitinen commented that the adverse effects not acceptable for the wildlife and people who love to fish and observe the local avian migrations. Ms. Laitinen commented further that nesting sites could be compromised resulting in a decrease of migratory birds which rely on the area for nesting and feeding their young, which will have an adverse effect on the environment as a whole.

RESPONSE 67:

According to 30 TAC § 307.6(b)(4), water in the state must be maintained to preclude adverse toxic effects on aquatic life, terrestrial life, livestock, or domestic animals, resulting from contact, consumption of aquatic organisms, consumption of water, or any combination of the three. To that end, the TCEQ has established numerical criteria for the protection of aquatic life in 30 TAC § 307.6(c)(1), Table 1. Numerical criteria are established for those specific toxic substances where adequate toxicity information is available and that have the potential for exerting adverse impacts on water in the state. These criteria are based on ambient water quality criteria documents published by the EPA.

Applicants renewing wastewater permits for existing facilities submit effluent data as part of the permit application, and those data are screened against water quality-based effluent limits that are calculated using the criteria in Table 1, the effluent dilution with the receiving water, and TSS in the receiving water. Applicants for new permits rarely have actual effluent data because the facility has not been built or started operating. Consistent with standard TCEQ practice, the proposed permit requires four effluent sampling events that are at least one week apart once the facility begins commissioning activities that result in discharge and another four rounds of sampling once the facility begins operating and discharging in the final phase. After the test results are submitted, the averages of the four samples will be compared to the

screening levels established in Appendix B of the fact sheet. If the average of four samples for a parameter equals or exceeds the 85% screening value, the ED will initiate a permit amendment to add limits for that parameter. If the average of four samples for a parameter is less than the 85% screening value but equals or exceeds the 70% screening value, the ED will initiate a permit amendment to add monitoring and reporting requirements for that parameter.

In addition, the proposed permit includes two types of whole effluent toxicity (WET) testing requirements: chronic and 24-hour acute. Chronic WET testing directly measures a discharge's aggregate toxic effect by exposing surrogate sensitive test species to effluent at the critical dilution of the receiving water. Toxicity in the chronic test is defined as a statistically significant difference between the survival and growth of test organisms at the critical dilution compared to the survival and growth of test organisms in the control (no effluent). The chronic WET testing section of the proposed permit outlines the steps the permittee is required to take if a chronic WET test is failed. The 24-hour acute WET testing exposes appropriate test organisms to 100% effluent for 24 hours, and if 50% or more of the organisms die, the test is failed (demonstrates significant lethality). In the same way, the 24-hour acute WET testing section of the proposed permit outlines the steps the permittee is required to take if a 24-hour acute WET test is failed.

COMMENT 68:

Donna Rosson commented that she is a former Beach Watch program director at the Nueces County Health Department and is concerned about the high bacterial levels in Corpus Christi Bay. Ms. Rosson commented that the Texas General Land Office has many years of historical bacteria data for Corpus Christi Bay that the TCEQ should look at.

RESPONSE 68:

According to the *2014 Texas Integrated Report of Surface Water Quality for the Clean Water Act Sections 305(b) and 303(d)*, the bacteria impairments in Corpus Christi Bay are attributed to nonpoint-source urban runoff and storm sewers.

The proposed permit does not authorize the discharge of domestic wastewater; in fact, such discharge is prohibited by Other Requirement No. 5. The proposed facility's processes are not expected to contribute bacteria to the discharges. The ED has no reason to expect that issuance of the proposed permit will cause any increase in bacteria levels in Corpus Christi Bay.

COMMENT 69:

Richard Feldman, on behalf of Global Blue Technologies on Copano Bay that operates a one of a kind, 100% recirculating aquaculture facility on the bay, commented that it is one of the very few shrimp hatcheries in the entire world and the only one that's biosecure. Mr. Feldman commented that they currently sell and supply over one half of the post-larvae shrimp to U.S. farms and are now supplying half of the post-larvae shrimp to European shrimp farms, and that Aransas County has the most advanced aquaculture projects in the world. While commenting that he shares many of the concerns that were echoed at the public meeting, Mr. Feldman commented that groundwater is just as important as flowing water, and he has learned from experience with wells is that what happens with the tailings of mining or that water sitting on the bottom can flow downwards, and pollute the water from millennia to come, which will render it useless.

RESPONSE 69:

The opening paragraph of the Texas Surface Water Quality Standards, found at 30 TAC Chapter 307, explains that it is the policy of State of Texas and the purpose of 30 TAC Chapter 307 is to maintain the quality of water in the state consistent with public health and enjoyment, propagation and protection of terrestrial and aquatic life, and operation of existing industries. According to Texas Water Code § 26.001(5), water in the state means *groundwater, percolating or otherwise*, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico, inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or non-navigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state. Although 30 TAC Chapter 307 is titled the Texas Surface Water Quality Standards, the ED expects that any permit issued consistent with 30 TAC Chapter 307 is protective of groundwater as well as surface water.

COMMENT 70:

Andy Abendschein commented that it is indicated that effluent from Outfall 001 will include ammonia nitrogen, dissolved oxygen, phosphorus, and nitrate nitrogen. Mr. Abendschein commented that he would like to know what the probability is that the effluent will promote algae blooms or dead zones in Corpus Christi Bay. Donna Rosson commented that she is a former Beachwatch program director at the Nueces County Health Department, and expressed concern about algae blooms that harm human health and aquatic life.

RESPONSE 70:

The ED considers it improbable that the proposed discharge via Outfall 001 will promote algae blooms or dead zones in Corpus Christi Bay. Algae blooms are usually the result of excessive amounts of nutrients such as phosphorus or nitrate-nitrogen. Other Requirement No. 5 of the proposed permit prohibits the discharge of domestic wastewater, which is a known source of nutrients, particularly nitrate-nitrogen, which tends to be the limiting nutrient in tidal water bodies. Consistent with standard TCEQ practice, the proposed permit requires four effluent sampling events that are at least one week apart once the facility begins commissioning activities that result in discharge and another four rounds of sampling once the facility begins operating and discharging in the final phase. After the test results are submitted, the ED will review the results for nutrients (nitrate-nitrogen and total phosphorus). If additional limits or monitoring and reporting requirements are needed to address nutrient concerns, the ED will initiate an amendment to add such requirements.

COMMENT 71:

Donna Rosson commented that she is a former Beachwatch program director at the Nueces County Health Department, and expressed concern about the impact of the releases for salinity levels in the bay affecting marine life.

RESPONSE 71:

The ED does not typically perform screening for salinity (total dissolved solids, or TDS) for discharges to saltwater bodies. According to page 180 of the *Procedures to Implement the Texas Surface Water Quality Standards*, June 2010, “Tidal waters will be protected from the adverse effects of excessively high or excessively low salinities

(compared to the normal salinity range of the receiving water).” Corpus Christi Bay near the La Quinta Channel has salinity that ranges from 14.4 to 40.8 parts per thousand. This is equivalent to a TDS range of 16,900 to 45,337 mg/L. According to the permit application, the TDS concentration in the effluent proposed to be discharged via Outfall 001 is expected to be less than 7,000 mg/L. This TDS concentration is below the range of TDS measured in the bay, but it is greater than typical freshwater concentrations that enter the bay via rivers and streams such as the Nueces River. The ED does not expect the proposed discharge to negatively impact salinities in Corpus Christi Bay.

COMMENT 72:

Daniel Green, commented that he is an environmental scientist who’s been trained in oil spill response, HAZWOPER, and HAZWOPER supervisor, and that there are many concerns, especially when it comes to the water quality regarding the effluent. Mr. Green commented that Corpus Christi Bay and the respective surrounding bodies that the effluent is being proposed to be discharge into, are home to environmentally sensitive habitats, including wetland habitats, coastal nurseries, watersheds, seagrass beds, mud, and tidal flats. Mr. Green commented that these habitats are biologically productive, as well as being economically important and suggested that Oso Bay is an excellent comparative case study that could be used in this situation as it has both point and non-point effluent inputs and sources that would be comparable to the Corpus Christi and Copano Bays. Mr. Green commented that studies have shown that hydrocarbons have been detected within the Oso Bay where water quality is a concern and an example. Mr. Green commented that he is concerned that water quality in Corpus Christi Bay and the surrounding areas could suffer a detrimental decrease if effluent is discharged there.

RESPONSE 72:

The TCEQ exercises oversight of water quality in the State of Texas in multiple ways, including establishing water quality standards, monitoring surface water bodies, assessing how well surface water bodies are meeting applicable standards, developing strategies to improve water quality in impaired water bodies, and issuing TPDES permits that are protective of water quality.²⁰ The purpose of the TPDES permits issued by the TCEQ is to establish effluent limitations and requirements to ensure that the wastewater permit meets all federal and state rules and regulations, which are designed in part to protect water quality.

The TCEQ prepares the *Texas Integrated Report of Surface Water Quality for the Clean Water Act Sections 305(b) and 303(d) (Integrated Report)* once every two years. This report describes the status of the state’s waters, as required by Sections 305(b) and 303(d) of the federal Clean Water Act. It summarizes the condition of the state’s surface waters, including concerns for public health, fitness for use by aquatic species and other wildlife, and specific pollutants and their possible sources. The Texas 303(d) List, a list of impaired water bodies, is part of the *Integrated Report*. Water bodies that fail to meet screening criteria for a parameter that has a numeric criterion (*e.g.*, dissolved oxygen, pH, temperature, toxic pollutants listed in Table 1 or 2 of 30 TAC Chapter 307) are placed on the Texas 303(d) List and are considered to be impaired, *i.e.*, not meeting water quality standards, for that particular parameter. According to 40 C.F.R. § 122.4(i), no permit may be issued to a new source or a new discharger, if the discharge from its

²⁰ For a detailed explanation of the TCEQ’s activities regarding water quality, see *Preserving & Improving Water Quality: The Programs of the Texas Commission on Environmental Quality for Managing the Quality of Surface Waters*, GI-351, July 2010.

construction or operation will cause or contribute to the violation of water quality standards. Although each TPDES permit is evaluated individually, the use of the Texas 303(d) List and the prohibition against causing or contributing to an impairment ensures that the cumulative effect of discharges from multiple facilities will not cause violations of water quality standards in surface waters.

COMMENT 73:

Christine Magers and Paula Jo Lemonds, on behalf of the City of Portland, commented expressing concern about effluent water quality in Green Lake, Nueces Bay, and Corpus Christi Bay. Ms. Magers and Ms. Lemonds commented that monitoring requirements in the proposed permit appear to be at the outfalls prior to the effluent entering the bay, where typically, discharge permits include monitoring of the receiving waters. Ms. Magers and Ms. Lemonds commented that Portland would like to know what the basis will be for monitoring data collected for assessing the long-term water quality of the receiving waters.

RESPONSE 73:

TPDES permits may include receiving water monitoring to address specific issues, however, most do not. Monitoring of ambient surface waters is typically conducted by the TCEQ's Surface Water Quality Monitoring Team and by other entities working with the TCEQ through the agency's Clean River Program. Fifteen regional water authorities (12 river authorities, 1 water district, 1 council of governments, and an international water commission) have contracts with the TCEQ to conduct water quality monitoring, assessment, and stakeholder outreach in the 23-major river and coastal basins of Texas. Both Nueces Bay and Corpus Christi Bay have active monitoring stations; however, Green Lake does not. The ED does not expect that the discharge of stormwater and allowable non-stormwater from Outfalls 004 and 005 of the proposed permit will have a significant impact on the water quality of Green Lake, Nueces Bay, or Corpus Christi Bay.

COMMENT 74:

Neil McQueen commented that the bays are not bottomless dumps and that they are relatively shallow, finite bodies of water with a very limited water exchange. Mr. McQueen commented that he has heard that there's a one-year retention time in Corpus Christi Bay.

RESPONSE 74:

According to the book *Water in Texas*,²¹ it takes just over two years for Corpus Christi Bay to replace its water, primarily due to lack of freshwater inflow. The ED does not specifically take retention time into consideration when evaluating applications for wastewater discharge permits; however, permits are written to be protective of water quality.

The TCEQ exercises oversight of water quality in the State of Texas in multiple ways, including establishing water quality standards, monitoring surface water bodies, assessing how well surface water bodies are meeting applicable standards, developing strategies to improve water quality in impaired water bodies, and issuing TPDES permits that are protective of water quality.²² The purpose of the TPDES permits issued by the

²¹ See page 140 of *Water in Texas* by Andrew Sansom, University of Texas Press, Austin, 2008.

²² For a detailed explanation of the TCEQ's activities regarding water quality, see *Preserving &*

TCEQ is to establish effluent limitations and requirements to ensure that the wastewater permit meets all federal and state rules and regulations, which are designed in part to protect water quality.

The TCEQ prepares the *Texas Integrated Report of Surface Water Quality for the Clean Water Act Sections 305(b) and 303(d) (Integrated Report)* once every two years. This report describes the status of the state's waters, as required by Sections 305(b) and 303(d) of the federal Clean Water Act. It summarizes the condition of the state's surface waters, including concerns for public health, fitness for use by aquatic species and other wildlife, and specific pollutants and their possible sources. The Texas 303(d) List, a list of impaired water bodies, is part of the *Integrated Report*. Water bodies that fail to meet screening criteria for a parameter that has a numeric criterion (*e.g.*, dissolved oxygen, pH, temperature, toxic pollutants listed in Table 1 or 2 of 30 TAC Chapter 307) are placed on the Texas 303(d) List and are considered to be impaired, *i.e.*, not meeting water quality standards, for that particular parameter. According to 40 C.F.R. § 122.4(i), no permit may be issued to a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards. Although each TPDES permit is evaluated individually, the use of the Texas 303(d) List and the prohibition against causing or contributing to an impairment ensures that the cumulative effect of discharges from multiple facilities will not cause violations of water quality standards in surface waters.

COMMENT 75:

Troy Williamson commented that everyone is looking to and depending on the TCEQ to protect their interests.

RESPONSE 75:

The ED has reviewed the permit application in accordance with the applicable law, policy and procedures, and the Agency's mission to protect the State's human and natural resources consistent with sustainable economic development. Based on the Commission's experience regulating these types of facilities, they can be operated without causing a nuisance problem, provided the facilities are operated in compliance with the terms and conditions of their permit. If the facilities are operated as specified in the permit's terms and conditions, the discharges covered by this permit should not adversely impact people or water quality. Individuals are encouraged to report any environmental concerns at the site by contacting the Regional Office in Corpus Christi, Texas at (361) 825-3100, or by calling the twenty-four hour toll-free Environmental Complaints Hotline at 1-888-777-3186. The TCEQ investigates 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 possible enforcement action.

COMMENT 76:

Helen Gignac, Scott Hagarty, Donna Rosson, and Errol Summerlin commented that they are concerned about the amount of water the facility will use. Uneeda Laitinen commented that they are now constantly in Stage 2 water restrictions. Susan Wayne commented that the City of Portland can barely support the town with water without watering restrictions and that she would like to know how Portland can possibly be expected to provide such a large amount of daily water to the Applicant regardless if it

is processed or not. Ms. Wayne commented that unless the Applicant makes use of salt water, the situation won't be feasible.

RESPONSE 76:

TPDES permits establish terms and conditions that are intended to provide water quality pollution control, therefore, the TCEQ's review of an application for a TPDES permit focuses on controlling the discharge of pollutants into water in the state. Applicants are not required to provide information regarding the source of the water for the facility in an application for a TPDES permit.

Additionally, matters involving water quantity and water rights are not under the authority of the TCEQ to consider when evaluating a wastewater discharge permit action. The wastewater discharge permitting process is limited to controlling the discharge of pollutants into water in the state and protecting the water quality of the state's rivers, lakes and coastal waters.

COMMENT 77:

Truett Evan Cantrell, Helen Gignac, Scott Hagarty, Yolanda Samayoa, Danielle Smith, and Errol Summerlin expressed concern about the proposed location of the facility.

RESPONSE 77:

Texas Water Code § 26.027 authorizes the TCEQ to issue permits for discharges into water in the state. The ED evaluates applications for wastewater treatment plants based on the information provided in the application, such as the proposed wastewater treatment technology and the effect(s) of the treated wastewater on the uses of the receiving stream starting at the point of discharge. The ED must provide the appropriate effluent limitations to protect these uses.

The ED can recommend issuance or denial of an application based on whether the application complies with the Texas Water Code and TCEQ regulations. The Applicant is the entity that proposes the location of the facility. The ED does not have the authority to mandate a different wastewater treatment plant location if the applicant's proposed location and discharge route comply with TWC Chapter 26 and the applicable TCEQ rules.

COMMENT 78:

Jenna Adams, on behalf of the Gregory Parks Board, commented that the Board appreciated the help from the Applicant after hurricane Harvey in cleaning up the park. Ms. Adams further commented that she appreciates how quickly her questions were answered and she hopes the close communication continues as time goes on.

RESPONSE 78:

The ED acknowledges Ms. Adams' comments.

COMMENT 79:

Norma Garcia, Naomi Linzer, and Errol Summerlin expressed concern about erosion associated with the project. Christine Magers and Paula Jo Lemonds, on behalf of the City of Portland, commented that they are concerned about flooding that could occur because of the relatively high discharges from the proposed facility through existing drainage canals and into Green Lake.

Ms. Magers and Ms. Lemonds commented that Portland would like to know the impact to

Green lake and its dam has been quantified in the application and the permit provided protection to the City from potential floodwaters.

RESPONSE 79:

The Commission does not have jurisdiction to regulate flooding or erosion in the context of a wastewater discharge permit. The permitting process is limited to controlling the discharge of pollutants into water in the state and protecting the water quality of the state's rivers, lakes, and coastal waters. However, the applicant is required to comply with all the numeric and narrative effluent limitations and other conditions in the proposed permit at all times, including during flooding conditions and if erosion exists. The commenters may wish to contact the Floodplain Administrator in the area where the facility and discharge route is located. If you need help finding the local floodplain administrator, please call the TCEQ Resource Protection Team at (512) 239-4691. San Patricio County's Flood Plain & Development Permits Department can be reached at (361) 587-3560 and 361-587-3563. Additionally, San Patricio County's Coastal Plain Local Emergency Planning Committee can be reached through their website at the link below.

<http://coastalplainlepc.org/index.html>

COMMENT 80:

Christine Magers and Paula Jo Lemonds, on behalf of the City of Portland, commented that Portland's city limits are within one-half mile of the proposed facility and adjacent to the proposed discharge outfalls into Corpus Christi Bay, and that the receiving waters for the proposed discharges serve as an important recreational, tourism, and environmental assets for the City.

Additionally, Ms. Magers and Ms. Lemonds state that Portland is committed to providing a safe home for its citizens, efficient and effective government, a focus on family, and its responsibility to its citizens to balance the use of resources by Coastal Bend industries and businesses and the protection of local natural resources.

RESPONSE 80:

The ED acknowledges Ms. Magers' and Ms. Lemonds' comments.

COMMENT 81:

Helen Gignac, Scott Hagarty, Annette Hedemann, Danielle Smith, and Errol Summerlin expressed concern about emissions associated with the project. Foster Edwards expressed support for the air permit.

RESPONSE 81:

TCEQ is the agency responsible for enforcing the state's air pollution laws. The Texas Clean Air Act provides that certain facilities may be exempt from the requirements of an air quality permit if, upon review, it is found that those facilities will not make a significant contribution of air contaminants to the atmosphere and that human health and the environment will be protected. According to the TCEQ rules in 30 TAC § 106.532, wastewater treatment plants have undergone this review and are permitted by rule, provided the wastewater treatment plant only performs the functions listed in the rule. In its application, the Applicant indicated that the treatment process of the proposed wastewater treatment facility would use the activated sludge process. This treatment process will not make a significant contribution of air contaminants to the

atmosphere pursuant to the Texas Health and Safety Code's (THSC) Texas Clean Air Act § 382.057 and § 382.05196, and is therefore permitted by rule.

The ED acknowledges Mr. Edwards' comments.

COMMENT 82:

Michael Manjarris commented that he is concerned that the discharges into Copano Bay will significantly reduce his property valuation.

RESPONSE 82:

Section 26.027 of the Texas Water Code authorizes the TCEQ to issue permits to control the discharge of wastes or pollutants into state waters and to protect the water quality of the state's rivers, lakes and coastal waters. The water quality permitting process is limited to controlling the discharge of pollutants into water in the state and protecting the water quality of the state's rivers, lakes, and coastal waters. The TCEQ does not have jurisdiction under the Texas Water Code or its regulations to address or consider property values or the marketability of adjacent property in its determination of whether to issue a water quality permit.

COMMENT 83:

John Weber commented that he would like to see the Applicant put together a plan of pervious concrete for all their hard surface, at least parking areas.

RESPONSE 83:

Texas Water Code § 26.027, authorizes the TCEQ to issue permits for discharges into water in the state. The ED evaluates applications for wastewater treatment plants based on the information provided in the application. The ED can recommend issuance or denial of an application based on whether the application complies with the Texas Water Code and TCEQ regulations.

TWC Chapter 26 and applicable wastewater regulations do not authorize the TCEQ to consider issues such as the type of concrete used in parking areas. The ED may only evaluate the proposed wastewater treatment technology and the effect(s) of the treated wastewater on the uses of the receiving stream starting at the point of discharge, and must provide the appropriate effluent limitations to protect those uses.

COMMENT 84:

Stevie Mellon and Danielle Smith, Portland citizens, commented that the proposed facility will not be conducive to continued quality of life in Portland, Texas.

RESPONSE 84:

Section 26.027 of the Texas Water Code authorizes the TCEQ to issue permits to control the discharge of wastes or pollutants into state waters and to protect the water quality of the state's rivers, lakes and coastal waters. The water quality permitting process is limited to controlling the discharge of pollutants into water in the state and protecting the water quality of the state's rivers, lakes, and coastal waters. The TCEQ does not have jurisdiction under the Texas Water Code or its regulations to address or consider quality of life issues in a nearby city in its determination of whether or not to issue a water quality permit.

However, nothing in the draft permit limits the ability of nearby landowners to use common law remedies for trespass, nuisance, or other causes of action in response to

activities that may or do result in injury or adverse effects on human health or welfare, animal life, vegetation, or property, or that may or actually do interfere with the normal use and enjoyment of animal life, vegetation, or property.

Nor does the draft permit limit the ability of a nearby landowner to seek relief from a court in response to activities that may or do interfere with the use and enjoyment of their property. If the Applicant's activities create any nuisance conditions, the TCEQ may be contacted to investigate whether a permit violation has occurred. Potential permit violations may be reported to the TCEQ Region 11 Office in Austin at (512)339-2929, or by calling the statewide toll-free number at 1-888-777-3186. Citizen complaints may also be filed online at the following website:

<http://www.tceq.state.tx.us/enforcement/complaints/index.html>.

COMMENT 85:

John Weber commented that he would like to challenge the Applicant to hire U.S. citizens, specifically, at least have 90% of the people hired, should be U.S. citizens.

RESPONSE 85:

TPDES permits establish terms and conditions that are intended to provide water quality pollution control, therefore, the TCEQ's review of an application for a TPDES permit focuses on controlling the discharge of pollutants into water in the state. Water quality permits evaluated by the agency are reviewed without reference to the socioeconomic and racial status, or nationalities of the surrounding community. The nationality of the employees of an Applicant is not is not part of the review process for wastewater applications.

COMMENT 86:

The county judge of Aransas County, the Honorable C. H. "Burt" Mills, Jr., commented that he received notice of the public meeting held on December 11, 2017, in an email on December 11, 2017. Judge mills commented that he would like to know why he received the notice in an email from a constituent, Ms. Jennifer Shaw, and not a previous notification from the TCEQ.

Ms. Shaw commented that all the local government agencies in Aransas County were not informed of the public meeting and that the TCEQ violated the procedural and due process rights of the duly constituted local government of Aransas County by failing to notify, in an effective and practical way, Aransas County's duly elected judge, the Honorable C. H. "Burt" Mills, Jr., of the public meeting held in San Patricio County on December 11, 2017.

Errol Summerlin commented that it appears that several landowners on Sunset Drive in Gregory, Texas were omitted from the list of adjacent landowners within one mile of outfall 005, specifically those nearest to Black Welder Street. Notice must be given to those landowners.

Jennifer Shaw additionally commented that she generally objects to preserve the litigation and administrative rights of all property owners, voters, and residents of Aransas County, none of whom received effective notice of the public meeting held on December 11, 2017.

RESPONSE 86:

There were three public notices regarding this Application. The first was the Notice of

Receipt of Application and Intent to Obtain a Wastewater Permit (NORI), the second was the combined Notice of Application and Preliminary Decision (NAPD) and Public Meeting, and the third was a Revised Notice of Public Meeting.

The TCEQ's notice rules require applicants to provide public notices for wastewater permits by publishing the NORI in a "newspaper of largest circulation in the county in which the facility is located or proposed to be located ..." ²³ The Applicant did this by publishing the NORI in English in Nueces County, Texas in the *Corpus Christi Caller Times* on May 11, 2017, in San Patricio County, Texas, in the *Portland News* on May 11, 2017, and in Spanish in Nueces County, Texas in *Tejano Y Gruperio News* on May 15, 2017.

After the Office of the Chief Clerk has mailed the preliminary decision and the NAPD to the Applicant, the Applicant is required to publish the NAPD "at least once in a newspaper regularly published or circulated within each county where the proposed facility or discharge is located and in each county affected by the discharge." ²⁴ The Applicant did this by publishing a combined NAPD-Public meeting notice in English in Nueces County, Texas in the *Corpus Christi Caller Times* on October 26, 2017, and in San Patricio County, Texas in the *Portland News* on October 26, 2017.

The third notice, a Revised Public Meeting Notice was published in English in Nueces County, Texas in the *Corpus Christi Caller Times* on November 10, 2017, and in San Patricio County, Texas in the *Portland News* on November 9, 2017.

Under TCEQ rules, when the ED conducts a public meeting, the meeting must be held in the county in which the proposed activity or facility is located, ²⁵ and before the public meeting, the applicant must provide notice, ²⁶ which must contain the date, time, and place of the meeting. ²⁷ Pursuant to these rules, County officials and the residents required to be identified in the permit application in Nueces and San Patricio counties were notified by mail of the NORI, NAPD and Public Meeting. The NORI, NAPD, and Public Meeting notices were published in papers circulated in those same counties.

The TCEQ's notice rules do not require that elected officials in adjacent counties, such as Aransas County, receive mailed notice of a public meeting. Therefore, the Honorable Judge Mills was not required to be notified by mailed notice of the rescheduled public meeting. However, TCEQ rules do stipulate that any persons who submit a comment or contested case hearing request prior to the end of the public comment period are added to the mailing list for that permit action. As a result, everyone who timely commented on this application will receive a copy of the ED's Response to Comments and all future notices relating to this application.

Additionally, the TCEQ's notice rules for a new permit require mailed notice of the NORI and NAPD to landowners named on the application map and persons on the mailing list maintained by the Office of the Chief Clerk. ²⁸ The Applicant is required to submit a landowner map as part of the application materials. The landowner map must include the property boundaries of landowners surrounding the applicant's property and the

²³ 30 TEX. ADMIN. CODE § 39.405(f)(1). See generally 30 Tex. Admin. Code §§ 39.405, 39.418, 39.419, and 39.551

²⁴ 30 TEX. ADMIN. CODE § 39.551(c)(1).

²⁵ 30 TEX. ADMIN. CODE § 55.154(b)

²⁶ 30 TEX. ADMIN. CODE § 55.154(d).

²⁷ 30 TEX. ADMIN. CODE § 39.411(d)(2).

²⁸ See 30 TEX. ADMIN. CODE §§ 39.413, 39.418, 39.419, and 39.551.

property boundaries of all landowners surrounding the discharge point and on both sides of the discharge route for one full stream mile downstream of the discharge point.

The adjacent landowner information is required to be provided by the applicant and must be obtained from the current county property records. The ED relies upon the accuracy of the landowner information contained in an application. An applicant must certify that the document and all attachments were prepared under their direction, and that the information is, to the best of their knowledge, true, accurate, and complete. See 30 TAC §§ 305.44(a) and (b).

COMMENT 87:

Jennifer Shaw commented that the Applicant has intentionally manipulated the Application and Permit process to keep Aransas County and its Residents, including those who earn their living fishing/oystering Copano Bay, in the dark about the plan to discharge industrial wastewater and storm water into Mission Bay, Port Bay and Copano Bay, and that the proposed industrial wastewater and storm water discharged into Copano Bay and its sub-bays will further damage the economy of Aransas County.

Ms. Shaw commented that Copano Bay is a body of water and shoreline “maintained” by the Aransas County Navigation District at Aransas County taxpayer expense. Additionally, that Aransas Bay and Port Bay “belong” to Aransas County and Aransas Residents not San Patricio County or Corpus Christi Economic Development Corporation and that Aransas County, not San Patricio County, has legal jurisdiction over the land around Copano Bay and Port Bay.

Ms. Shaw commented that the Applicant discharging industrial wastewater and storm water into Copano Bay, Port Bay, and Mission Bay is a tortious invasion of the rights of Aransas County and its residents to their use of unpolluted Copano Bay and its sub-bays for fishing, oystering, recreation, and eco-tourism which are the base and heart of Aransas County’s economy.

RESPONSE 87:

As provided by state law, a permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the CWA; TWC §§ 26, 27, and 28; and the Texas Health and Safety Code § 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under the draft permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.²⁹ The ED determined that the Applicant complied with all notice provisions and that the proposed permit meets all applicable requirements.

COMMENT 88:

Jennifer Shaw commented that the ED and his staff are incorrect in saying that “Numerical and narrative criteria to protect existing uses will be maintained.”

²⁹ GCGV Asset Holding, LLC Draft Permit, Monitoring and Reporting Requirements, Item 1, page 4.

RESPONSE 88:

The Texas Surface Water Quality Standards (TSWQS) in 30 TAC Chapter 307 require that discharges may not degrade the receiving waters and may not result in situations that impair existing, attainable or designated uses, and that surface waters not be toxic to aquatic life, terrestrial wildlife, livestock, or domestic animals.³⁰ The TSWQS were promulgated to protect human health, aquatic life, and the environment including the designated uses of the receiving waters. Treated effluent discharged into water in the state from facilities regulated under the TPDES program is required to meet the requirements of the TSWQS.

The ED's staff developed the effluent limitations in the draft permit to maintain and protect the existing in-stream uses. As well, the characteristics and uses of the water bodies in the discharge route were considered in formulating the effluent limitations. The treated effluent is not expected to adversely affect the water quality in Corpus Christi Bay, Copano Bay, Port Bay, and Mission Bay because the effluent limits are designed to be protective of aquatic life, human health, and the environment.

In this case, the designated uses for Segment Nos. 2481 and 2472 are primary contact recreation, oyster waters, and exceptional aquatic life use.³¹ The Executive Director determined that these uses should be protected if the facility is operated and maintained as required by the proposed permit and regulations.

The proposed permit meets the requirements of the TSWQS, and the ED does not anticipate that constituents in the discharge will have an adverse effect on the receiving waters or its designated uses if the facility is operated in accordance with the draft permit and applicable regulations.

COMMENT 89:

Jennifer Shaw commented that she believes that the TPDES permitting program will likely be repealed or substantially pared back by the Federal government within the next few years, and there will be little if any "law" to protect Aransas County, its residents and its economy if the Applicant decides to expand the quantity or chemical intensity of the industrial wastewater and storm water discharged into Copano Bay, Port Bay and Mission Bay. This is because, as Ms. Shaw states, the Applicant will declare bankruptcy and claim sovereign immunity in any administrative law or court proceeding attempting to enforce the terms and conditions of the proposed permit to facilitate use of the proposed facility.

Ms. Shaw commented that the representations, promises, and conditions made by the Applicant and the proposed permit are all unenforceable in federal court. In San Patricio County Sherwin Alumina filed bankruptcy and walked away from a chemical disaster area and from any obligations to do anything a local government requests. Bankruptcy judges can enforce an "Automatic Stay," which prevents a state court from enforcing any restrictions.

RESPONSE 89:

Post-permit bankruptcy issues are not considered in the review process of an application for a wastewater discharge permit. However, the draft permit does require the

³⁰ 30 TEX. ADMIN. CODE § 307.6(b)(4).

³¹ Texas Surface Water Quality Standards, 30 TEX. ADMIN. CODE § 307.10.

permittee to notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 Bankruptcy of the United States Code (11 U.S.C.).³² The ED is not aware of any plan to repeal or pare back the Texas TPDES program.

COMMENT 90:

Jennifer Shaw expressed personal concern for the safety of Aransas and San Patricio County residents, and concern for the purity of the waters of Copano Bay and its sub-bays if the Applicant's industrial facilities are attacked by terrorists.

Ms. Shaw commented that she is genuinely concerned that TCEQ has not, in any way, evaluated the sabotage and terrorism risks from terrorists to the proposed facility in San Patricio County or to the industrial waste water discharge pipeline and ditches that are planned to be built in Aransas County. Ms. Shaw commented that TCEQ has not imposed any conditions on the proposed Permit to help mitigate the effects on the Copano Bay/Aransas County natural environment if acts of sabotage and terrorism occur against the pipeline to Copano Bay, ditches to Copano Bay or chemical plant.

RESPONSE 90:

Section 26.027 of the Texas Water Code authorizes the TCEQ to issue permits to control the discharge of wastes or pollutants into state waters and to protect the water quality of the state's rivers, lakes and coastal waters. The water quality permitting process is limited to controlling the discharge of pollutants into water in the state and protecting the water quality of the state's rivers, lakes, and coastal waters. The TCEQ does not have jurisdiction under the Texas Water Code or its regulations to address or consider the likelihood of unforeseen damage to the proposed facility, whether by common criminals or terrorists, in its determination of whether or not to issue a water quality permit.

COMMENT 91:

Job Baar commented that he has not been able to locate a risk assessment, or an overall risk assessment of the whole project, which in his view is necessary for the Applicant to do to design the appropriate system. Mr. Baar commented that an identification of all the hazards and their associated probability and consequence, translated into risk, would provide a lot of reassurance to the public. Mr. Baar continued that a good way to go about designing the appropriate system is to do an ALAR analysis and demonstrate there's an engineering approach that's well-recognized and known in the industry so that you have engineered a risk down to the lowest reasonably practical, practicable level. Additionally, the parties involved in such an exercise should be representatives of everyone involved, business interests, private, public interests, scientific representatives, and not just the TCEQ.

Donna Rosson, former director of the Beach Watch program at the Nueces County Health Department, commented that the UT Marine Science Center in Port Aransas has many qualified experts in marine life and their ecosystems. Ms. Rosson requests that the TCEQ coordinate with the UT Marine Science Center to perform a risk assessment and environmental study of the area before the permit is approved.

RESPONSE 91:

The ED has reviewed the permit application in accordance with the applicable law, policy

³² GCGV Asset Holding, LLC Draft Permit, Permit Conditions, Item 11, page 10.

and procedures, and the TCEQ's mission to protect the State's human and natural resources consistent with sustainable economic development. If the facilities are operated as specified in the permit terms and conditions, the discharge authorized by the proposed permit should not adversely impact people or water quality. However, individuals are encouraged to report any environmental concerns at the site by contacting the TCEQ Region 14 Office in Corpus Christi, Texas at (361) 825-3100, or by calling the 24-hour toll-free Environmental Complaints Hotline at 1-888-777-3186. The TCEQ investigates all complaints received. If the facility is found to be out of compliance with the terms and conditions of the permit, it will be subject to possible enforcement action. The TCEQ's review process does not include a risk assessment or an ALAR analysis.

COMMENT 92:

Job Baar commented that he hopes that the proposed permit is not going to be granted until an environmental impact statement (EIS) has been produced. Jennifer Shaw commented that if the EPA were to issue the proposed permit, a full and detailed EIS would be required and that the TCEQ has not given Aransas County residents any formal notice of the existence of any such EIS.

RESPONSE 92:

The National Environmental Policy Act (NEPA) requires federal agencies to consider the environmental impacts of their proposed actions and reasonable alternatives to those actions by preparing detailed statements known as "Environmental Impact Statements" (EIS). An EIS is only required for federal agency actions and not for state agency actions, such as the TCEQ issuing water quality permits.

The ED, however, did review the permit application in accordance with the applicable state and federal laws, policies and procedures, consistent with its mission to protect our state's human and natural resources. As part of the permitting process, the ED considered all possible adverse impacts to the extent of his authority. The ED does not expect the proposed discharge from this facility to have an adverse impact on human health and the environment as long as the Applicant operates and maintains the facility according to TCEQ rules and the requirements in the proposed draft permit.

COMMENT 93:

Bryan Hazel commented that San Patricio County has a significantly higher rate of all types of cancer than both the Texas and National averages and that the county ranks first in the state for the number of birth defects. Mr. Hazel commented that there is a public health crisis in the area and that the problem must be addressed as part of the permitting process. Mr. Hazel commented that he believes that it would be irresponsible and immoral to approve this permit without knowing how the pollutants that they plan to emit will exacerbate an ongoing issue. Mr. Hazel requested that this permit be denied until the causes of this public health crisis can be determined.

RESPONSE 93:

Chapter 26 of the Texas Water Code and TCEQ rules relating to water quality are designed to protect public health, aquatic life and the environment. Accordingly, the stated policy of both the Water Code and the TSWQS is:

to maintain the quality of water in the state consistent with the public health and enjoyment, the propagation and protection of terrestrial and aquatic life, and the

operation of existing industries, taking into consideration the economic development of the state; to encourage and promote the development and use of regional and area-wide waste collection, treatment, and disposal systems to serve the waste disposal needs of the citizens of the state; and to require the use of all reasonable methods to implement this policy.³³

The public health concerns of property owners, as well as those of the public are considered in reviewing an application for a wastewater discharge permit. The Commission takes the concerns and comments expressed by property owners and members of the general public relating to water quality and protecting the State's rivers and lakes into consideration in deciding whether to issue a wastewater discharge permit. The Texas Legislature and the Commission encourages the participation of all citizens in the environmental permitting process. However, there are certain concerns that the Commission cannot address in the review of a wastewater discharge permit. The Commission does not have jurisdiction under the Texas Water Code or its regulations to address cancer rates in an area and addressing a public health crisis unrelated to a wastewater discharge is not within the scope of the ED's authority to fashion conditions in a TPDES permit.

COMMENT 94:

Bryan Hazel, Uneeda Laitinen, Naomi Linzer, and Michael Manjarris requested that the TCEQ deny the wastewater permit.

RESPONSE 94:

The ED acknowledges Mr. Hazel's, Ms. Laitinen's, Ms. Linzer's, and Mr. Manjarris' comments.

COMMENT 95:

Debra Barrett, Foster Edwards, Jane Gimler, Lenora Keas, Jarl Pedersen, Mike Sandroussi, Iain Vasey, and Celestino Zambrano expressed support for the GCGV project.

RESPONSE 95:

The ED acknowledges Ms. Barrett's, Mr. Edward's, Ms. Gimler's, Ms. Keas', Mr. Pedersen's, Mr. Sandroussi's, Mr. Vasey's, and Mr. Zambrano's comments.

COMMENT 96:

Errol Summerlin commented that the rail yard at the facility will be owned and operated by an undisclosed third party. The rail yard is an integral part of facility operations and the subject of another air permit sought by the applicant, No. 146959, The rail yard owner will presumably be responsible for storing, loading and shipping the polyethylene pellets that will enter the stormwater runoff. The permit must be amended to include the rail yard owner and operator as a co-applicant on the Water Quality permit.

Mr. Summerlin commented that the Air Separation Unit (ASU) will be owned and operated by an undisclosed third party. The ASU is an integral part of facility operations and the permit must be amended to include the ASU owner and operator as a co-applicant on the Water Quality permit. Additionally, whether the proposed facilities will be required to obtain any additional environmental authorizations is beyond the scope of the wastewater permitting process.

³³ Texas Water Code § 26.003 and 30 TAC § 307.1.

RESPONSE 96:

The ED confirms that, according to Attachment T-1 of the permit application, the ASU and rail yard will be owned and operated by as-yet-unnamed third parties. The application described the wastewaters from the ASU and rail yard as off-site/third party wastewaters. The proposed permit includes Other Requirement No. 9, which states that:

This permit does not provide authorization for the permittee to accept wastewaters from third party sources, nor does it prohibit acceptance of such wastewaters. This permit only provides the authorization to discharge these wastes. Should authorization to accept third party waste be required, it is the obligation of the permittee to obtain such authorization from the appropriate regulatory authority.

This is standard language for industrial permits that intend to treat and discharge waste from third party sources. There is no regulatory requirement for these third parties to be included as co-permittees.

COMMENT 97:

Lois Huff would like to know whether 3rd party contractors are responsible themselves for errors or is the permittee responsible for any errors that may occur.

RESPONSE 97:

The TCEQ issues permits that describe the conditions under which the wastewater facility must operate. All facilities must be designed, operated, and maintained consistent with applicable TCEQ rules. These provisions require that a permittee properly operate and maintain a facility at all times.

COMMENT 98:

John Weber commented that, as far as the regulations go, since they're supposedly a good neighbor and will go the extra mile, he'd like to see the Applicant exceed all the environmental quality regulations.

RESPONSE 98:

The ED can recommend issuance or denial of an application based on whether the application complies with the Texas Water Code and TCEQ regulations. The ED does not have the authority to mandate that an Applicant voluntarily exceed every environmental quality regulation.

COMMENT 99:

John Weber commented that he would like to see the plant be bonded for the period after the useful life of the plant to ensure that there will be money to clean it up and clean up the whole area so it doesn't become another Superfund site and citizen tax dollars must clean it up. He said that he knows this is a separate company besides Exxon, so Exxon's still in business, but if they go bankrupt the tax payers might have to pick up the bill.

RESPONSE 99:

According to TCEQ rules, this Applicant is not required to post a bond to ensure that adequate funds are available to construct and operate the wastewater treatment facility or to perform any subsequent site cleanup.

COMMENT 100:

Lois Huff commented that this is too early to permit the wastewater discharges. Errol Summerlin commented that the granting of the Permit is Premature in that the applicant's Air Permit No. 146425 has not been granted and the overall design of the facility is not complete. This can affect the siting of the waste streams and internal outfall locations. Further, the processes and control technologies used in the chemical plant that determine the number of contaminants in the effluent and storm water has not been determined. The equipment location, contact and process pollutants will have a direct effect on the VOC emissions from the wastewater treatment plant, the degree of chemicals used to treat the water, the contaminant content of sludge, and the pollutants contained in the storm water discharge. If the air permit is still under review, how can the parameters of cooling tower blowdown, wastewater treatment, rail car wash, process and contact storm water be determined? This facility will be the largest of its kind in the world. GCGV has not constructed a new plant in decades, much less one of this magnitude. The design of the facility and parameters of the air permit must be completed before granting the Water Quality Permit. The permit should be deferred until such time as the complete design is determined and any required amendments to the application must undergo the same rigorous scrutiny as in the original application.

RESPONSE 100:

The ED can recommend issuance or denial of an application based on whether the application complies with the Texas Water Code and TCEQ's water quality-related regulations. The ED does not have the authority to delay issuance of a water quality permit based on the permitting of an air permit for the proposed facility.

COMMENT 101:

Errol Summerlin would like to know whether a RCRA permit will be required for the facility.

RESPONSE 101:

The Texas Water Code § 26.027, authorizes the TCEQ to issue permits for discharges into water in the state. The ED evaluates applications for wastewater treatment plants based on the information provided in the application. Whether the proposed facility will be required to obtain any additional environmental authorizations is beyond the scope of the wastewater permitting process. However, a facility is obligated to obtain all required authorizations before operating.

COMMENT 102:

Randy Wright, the city manager of Portland, Texas, Commented that Portland is a community of about 21,000 residents that lies about half a mile south of the proposed site, and although Portland and its city council have a long history of supporting economic development in San Patricio County, the City has engaged two engineering firms and an environmental law firm to provide added layers of oversight to the air and water permitting review to ensure the final permits will result in a facility that employs the very best technology available, to protect the safety and continued viability of our community.

RESPONSE 102:

The ED acknowledges Mr. Wright's comments.

COMMENT 103:

Celestino Zambrano, Mayor of Gregory, Texas, commented that he respects TCEQ's commitments to the citizens to ensure that environmental rules and standards are complied with, and the Applicant for what they're doing, and what they have done from the standpoint of jobs and the big help to the community after hurricane Harvey. Mr. Zambrano commented that this is an ideal opportunity for the City's residents to take advantage of the potential that's coming on construction jobs, on production jobs, and training, and he is very grateful to the Applicant and the TCEQ for making the public meeting possible.

RESPONSE 103:

The ED acknowledges Mayor Zambrano's comments.

COMMENT 104:

Jennifer Shaw commented that she objects to the TCEQ issuing any TPDES Permit pursuant to the GCGV Application for industrial wastewater water and storm water discharges to Copano Bay, Port Bay, and Mission Bay in Segment No. 2472 of the Bays and Estuaries of Texas. Ms. Shaw commented that the TCEQ should direct the Applicant to redesign its industrial wastewater discharge pipeline and ditches and trenches so that there is no discharge into Copano Bay, by way of Port Bay and Mission Bay.

RESPONSE 104:

The Texas Water Code § 26.027, authorizes the TCEQ to issue permits for discharges into water in the state. The ED evaluates applications for wastewater treatment plants based on the information provided in the application. The ED can recommend issuance or denial of an application based on whether the application complies with the Texas Water Code and TCEQ regulations. However, TCEQ's permitting authority does not include the authority to mandate a different discharge route or location.

COMMENT 105:

Errol Summerlin commented that the Endangered Species Act review by USFWS and EPA should have been included in the application for this permit and that a TCEQ analysis of the ESA review should have been conducted prior to the issuance of a Draft Permit. He stated that the general public has a unique interest in ensuring the proposed permit will not have a significant impact on the habitat of endangered species and should be allowed the opportunity to comment on any findings in the ESA review just as they have the opportunity to comment on other aspects of the application and Draft Permit. He commented that the issuance of a permit must be delayed until such time as the USFWS and EPA review of the ESA is complete and the general public is given an opportunity to comment thereon.

RESPONSE 105:

Watersheds of high priority have been identified in Segment No. 2472 in Aransas County and Segment No. 2481 in San Patricio County. The piping plover, *Charadrius melodus* Ord, a threatened aquatic-dependent species, is found in the watersheds of Segment Nos. 2472 and 2481. The whooping crane, *Grus americana*, an endangered aquatic-dependent species, has been determined to occur in the watershed of Segment No. 2472. To make this determination for TPDES permits, the TCEQ and the United States Environmental Protection Agency (EPA) only considered aquatic or aquatic-dependent species occurring in watersheds of critical concern or high priority as listed in Appendix

A of the United States Fish and Wildlife Service's (USFWS) biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. Since the facility is not a petroleum facility, its discharge is not expected to have an effect on the piping plover; however, the presence of the whooping crane requires EPA review and, if appropriate, consultation with the USFWS.

According to Part IV.(Permit Processing, Review and Issuance), Section D (State & Federal Agency Coordination) of the Memorandum of Agreement (MOA) between the TCEQ (then TNRCC) and Region 6 of the EPA, the TCEQ will involve federal and state agencies including the USFWS, National Marine Fisheries Service, and the Texas Parks and Wildlife Department during the permitting process to address endangered species issues in TPDES permits, specifically, the TCEQ will consider endangered species issues identified by USFWS.³⁴ Related to the protection of endangered species, the MOA states that the TCEQ will address effects on endangered species through setting and enforcing water quality standards, which undergo EPA approval with USFWS (and others) consultation.³⁵

Finally, the MOA directs the TCEQ to coordinate with USFWS in an attempt to resolve the relevant issue(s) that USFWS raised in comments submitted during the public comment period in accordance with procedures set out in TCEQ's public comment rules.³⁶

On October 13, 2017, the ED sent the draft permit package to EPA Region 6 for review. On December 15, 2017, the TCEQ received a letter from EPA Region 6 with comments to the proposed permit. EPA Region 6 noted that the proposed discharges are to a designated critical habitat (Segment No. 2472) for the whooping crane (*Grus americana*), a federally listed endangered species. Region 6 further noted that consultation, as appropriate, with the USFWS may be required and that the understanding of EPA Region 6 is that the TCEQ will coordinate with the USFWS during the permitting process to address endangered species in the proposed TPDES permit and to resolve any comments and/or concerns to ensure that the proposed effluent discharge and permit conditions as established, are protective of endangered species and aquatic life in accordance with the Texas Surface Water Quality Standards (30 TAC § 307.4) and the Clean Water Act.

The TCEQ received a letter dated December 26, 2017, from the USFWS with questions and comments about the draft permit. The TCEQ is coordinating with the USFWS and the Applicant to address the questions and comments raised in the letter.

The EPA and USFWS letters have been placed in both public viewing locations, in San Patricio County at the Bell Whittington Public Library located at 2400 Memorial Parkway in Portland, Texas 78374 and in Nueces County at the La Retama Central Library located at 805 Comanche Street in Corpus Christi, Texas 78401.

COMMENT 106:

Errol Summerlin commented that on numerous occasions, members of the public have visited the Bell Whittington Library in Portland, Texas to view the application for the proposed permit. Mr. Summerlin noted that as of 2:25 p.m. on May 18, 2017, the

³⁴ *Memorandum of Agreement Between the Texas Natural Resource Conservation Commission and the U.S. Environmental Protection Agency, Region 6 Concerning the National Pollutant Discharge Elimination System (MOA)*, pg.28 (1998), <https://www.tceq.texas.gov/assets/public/permitting/wastewater/general/c1.pdf> (last visited April 4, 2016).

³⁵ MOA at 28.

³⁶ MOA at 29.

application file was not at the library. Mr. Summerlin requested that the application for the proposed permit be made available and that the time to comment on the permit be extended from the date the application is made available.

RESPONSE 106:

According to 30 TAC § 39.405(g)(1), the Applicant must make a copy of the administratively complete application available for review and copying at a public place in the county in which the facility is located or proposed to be located. Per information from the Applicant's representatives, the permit application and other required materials have been available for viewing and copying at the Bell Whittington Public Library, 2400 Memorial Parkway, Portland, in San Patricio County, Texas and at La Retama Central Library, 805 Comanche Street, Corpus Christi, in Nueces County, Texas since May 10, 2017.

Additionally, during regular business hours, the public may review or copy the public file for this application, which includes the application, its attachments, the comment letters, this Response to Public Comment, the Hearing Requests, the Responses to Hearing Requests, and any other communications made during the review of this application, at TCEQ's Office of the Chief Clerk located in Building F, 12100 Park 35 Circle, Austin, Texas.

CHANGES MADE TO THE PERMIT IN RESPONSE TO COMMENT

- The annual sampling frequencies for the toxic pollutants at Outfall 001 (final phase) have been changed to once per quarter (this also applies to hexachlorobenzene). The permit also includes a new provision (Other Requirement No. 14) that allows the permittee to request that the sampling frequency be reduced to once per six months after the first year of testing for any pollutants that were not detected during the first four sampling events. Other Requirement No. 17 has been added to specify reporting deadlines based on sampling frequency.
- Other Requirement No. 12 has been revised to require sampling and analysis of the first two stormwater discharges that are at least one week apart at Outfalls 002, 003, 004, and 005.
- Other Requirement No. 15 has been added, which requires the permittee to develop a stormwater pollution prevention plan (SWP3) that must include, at a minimum, development of best management practices, good housekeeping measures, spill prevention and response measures, and a maintenance program for structural controls.
- Other Requirement No. 16 has been added to prohibit the discharge of plastic pellets in amounts prohibited by 30 TAC § 307.4(b)(2) or (3), to require the permittee to conduct weekly inspections of each outfall to ensure that no plastic pellets have been or are about to be discharged, and to notify the TCEQ Region 14 Office and immediately take steps to remove the pellets if any are found in amounts prohibited by 30 TAC § 307.4(b)(2) or (3).

ADDITIONAL CHANGE MADE TO THE PERMIT

- The expiration date has been changed from midnight on April 1, 2020 to midnight, five years from the date of permit issuance. This change was necessary

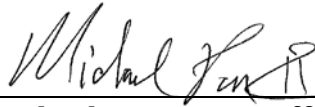
to comply with the repeal of 30 TAC § 305.71, Basin Permitting, and to be consistent with 30 TAC § 305.127(1)(C)(i).

Respectfully submitted,

Texas Commission on Environmental Quality

Stephanie Bergeron Perdue,
Interim Executive Director

Robert Martinez, Director
Environmental Law Division



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REPRESENTING THE EXECUTIVE DIRECTOR
OF THE TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

CERTIFICATE OF SERVICE

I certify that on April 6, 2018 the Executive Director's Response to Public Comment for Permit No. WQ0005228000 was filed with the Texas Commission on Environmental Quality's Office of the Chief Clerk.



Michael T. Parr II, *Staff Attorney*
Environmental Law Division
State Bar No. 24062936