SOAH DOCKET NO. 582-22-0201 TCEQ DOCKET NO. 2021-0942-AIR

APPLICATION OF PORT ARTHUR	§	BEFORE THE TEXAS COMMISSION
LNG, LLC FOR NEW STATE AND	§	
PREVENTION OF SIGNIFICANT	§	
DETERIORATION AIR QUALITY	§	ON
PERMIT NO. 158420, GHGPSDTX198,	8	
AND PSDTX1572	8 §	ENVIRONMENTAL QUALITY

APPLICANT PORT ARTHUR LNG, LLC'S RESPONSE TO PORT ARTHUR COMMUNITY ACTION NETWORK'S BRIEF AND EXCEPTIONS TO THE PROPOSAL FOR DECISION AND ORDER

TO THE HONORABLE COMMISSIONERS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY:

Applicant Port Arthur LNG, LLC ("Port Arthur LNG") hereby submits this Response to Port Arthur Community Action Network's Brief and Exceptions ("PA-CAN's Exceptions") to the Proposal for Decision ("PFD") and Proposed Order issued by the State Office of Administrative Hearings ("SOAH"). Port Arthur LNG respectfully urges the Texas Commission on Environmental Quality (the "Commission") to adopt the Proposed Order recommended by Administrative Law Judges ("Judges") Heather Hunziker and Meitra Farhadi, subject to those few changes set forth in Port Arthur LNG's Brief and Exceptions and the Executive Director's ("ED") Brief and Exceptions, or, in the alternative, changes that reflect such alternate emissions limits for the proposed refrigeration compressor turbines that are determined by the Commission to be beyond the level required by best available control technology ("BACT"), but nevertheless appropriate, in accordance with Section III below.

I. THE DRAFT PERMIT SHOULD BE ISSUED

PA-CAN insists that "[b]ecause the ALJs found that the Draft Permit fails to require BACT for multiple sources," it should be denied. *See* PA-CAN's Exceptions at 3-4. But PA-CAN has not cited any law supporting that action or to a single instance where SOAH has denied a New Source Review ("NSR") air quality permit upon finding that certain BACT determinations should be adjusted. *See id.* In fact, the record includes the recent Texas LNG Brownsville ("Texas LNG") proposal for decision, where the ALJs concluded they "do not propose rejection of the application on the grounds that alternative emissions controls...were not adequately considered," despite the ALJ's recommendation that the NOx emissions limit for Texas LNG's hot oil heaters did not meet BACT. Applicant's Ex. 508 at POWERS 6169.

Just this month, the state's highest court recently confirmed that where a permit may be amended to comply with all relevant rules and guidelines, permit denial is not the appropriate course of action. *See Dyer v. Tex. Comm'n on Envtl. Quality,* No. 19-1104, 2022 WL 2082193 (Tex. June 10, 2022). In that case, the Texas Supreme Court upheld a Commission order that overturned SOAH's recommendation that a permit be denied outright; instead, the Commission issued the permit with certain changes. *Id.* at *13. In reaching this decision, the Supreme Court held that "Section 2003.047(m) [of the Texas Government Code] provides TCEQ with a specific grant of broad authority to amend a proposal for decision, including *any* finding of fact, so long as TCEQ bases the amendment solely on the record and explains itself." *Id.* at *9 (emphasis in original). The Supreme Court further explained that "[t]his grant of authority to "amend" the PFD as a whole encompasses the ability to add to the PFD's constituent parts and authorizes TCEQ to make additional findings of fact based on the record." *Id.* at *10.

Here, the Judges confirmed that the emissions authorized by the Draft Permit are protective of public health and safety and "there is no indication that emissions from the Facility will contravene the intent of the [Texas Clean Air Act ("TCAA")]." Finding of Fact ("FOF") 112; Conclusion of Law ("COL") 27. The Judges found that "[e]missions authorized by the Draft Permit for the PALNG Project will be protective of the health and safety of the requestors," that these emissions "will not cause or contribute to exceedances of the [National Ambient Air Quality Standards ("NAAQS"]," and that "the air quality analysis included in the Application complies with TCEQ rules and guidance." *See* FOF 112, 114, 118. PA-CAN has offered no legal basis for reversing the Judges' decision to issue the Draft Permit in accordance with their recommendations, and indeed, there is none. Port Arthur LNG urges the Commission to uphold the Judges' recommendation that the Draft Permit be issued, subject to the exceptions proffered by Port Arthur LNG and the Executive Director, or other alternative emissions limits under Section III. *See* Port Arthur LNG's and the ED's Exceptions.

II. CERTIFIED ISSUE F: BEST AVAILABLE CONTROL TECHNOLOGY

PA-CAN excepts to the Judges' recommendations that (1) BACT for nitrogen oxides NOx and CO emissions from the refrigeration compressor turbines should be lowered to 5 ppm and 15 ppm, respectively;¹ and (2) NOx and CO emissions from the power generation turbines should remain at 5 ppm and 9 ppm, respectively.² *See* PA-CAN's Exceptions. Port Arthur LNG respectfully requests that the Commission reject PA-CAN's exceptions, as they are not supported by the law or the evidence in the record.

A. Refrigeration Compressor Turbines

1. <u>Control of NOx</u>

PA-CAN excepts to the Judges' recommendation that the Draft Permit be amended to require a NOx emission limitation of 5 ppm because it insists that Port Arthur LNG should be

¹ FOF 74, 79.

² FOF 80, 86.

required to use selective catalytic reduction ("SCR") on its refrigeration compressor turbines to achieve even lower NOx emissions (*i.e.*, 2 ppm to 3.1 ppm). PA-CAN's Exceptions at 5-6. In support of this argument, PA-CAN falsely asserts that "[t]he ALJs determined that SCR to control NOx was economically reasonable and thus BACT for the refrigeration compressor turbines." Id. at 5. The Judges never stated that BACT requires the use of SCR for the refrigeration compressor turbines. See PFD at 37. The PFD states, "the ALJs recommend the Draft Permit be revised to require the Facility to match the limit imposed on both Rio Grande LNG and Golden Pass LNG, both of which are in attainment areas, use GE Frame 7EA turbines, and are permitted to limit NOx emissions to 5 ppmvd at 15% O2 for the refrigeration compression turbines." Id. The record is clear however that neither facility has been constructed, that these limits have not been demonstrated as achievable, that SCR was not required as BACT for either facility,³ and that Rio Grande LNG has not proposed the use of SCR on its refrigeration compression turbines.⁴ As Port Arthur LNG and the ED argued in their respective briefs and exceptions, the Judges' recommendation is not supported by the evidence in the record, which shows instead that (1) a NOx emission limit of 5 ppm using good combustion practices is not demonstrated as achievable in practice; and (2) use of SCR to control NOx is not economically reasonable.

PA-CAN takes liberty with the Judges' statement that "Freeport LNG uses the same GE Frame 7EA turbine in electric generation service as those proposed for PALNG, with a NOx limit of 2 ppm,"⁵ as this is only true for Freeport LNG's *power generation* turbines—*not* its *refrigeration compressor* turbines.⁶ In support of its argument regarding the refrigeration

³ Golden Pass elected to install SCR without performing a cost-effectiveness evaluation. See PAL_000208-209.

⁴ Rio Grande LNG determined that installing SCR would cost more than \$45,000 per ton of NOx removed, which was economically unreasonable. HOTM TR-2 at 552:4-23 (K. Higgins).

⁵ PFD at 18-19.

⁶ HOTM TR-1 at 130:2-19 (W. Powers) ("Q: Okay. And you testified that Freeport LNG uses "the same GE Frame 7EA combustion turbines **in power generation**" with a NOx limit of 2 ppm and a CO limit of 4 ppm? A: Correct.") (emphasis added).

compressor turbines, PA-CAN thus incorrectly asserts that recently permitted facilities had achieved "significantly lower permitted limits from 2 ppmvd to 3.1 ppmvd," citing to the portion of the PFD where the Judges list the following LNG facilities and their associated NOx limits: Cove Point LNG (2.5 ppm); Lake Charles LNG (3.1 ppm); Golden Pass LNG (5 ppm); Driftwood LNG (5 ppm); Rio Grande LNG (5 ppm); and Freeport LNG (2 *ppm for power generation, not refrigeration*). PFD at 18-19. Both PA-CAN and the Judges ignore the fact that Port Arthur LNG offered evidence that many other LNG facilities are permitted at higher NOx emission rates: Port Arthur LNG (Base Project) (15 ppm); Cameron LNG (15 ppm); Corpus Christi LNG (25 ppm); Magnolia LNG (25 ppm); and Sabine Pass LNG (25 ppm). Applicant's Amended Ex. 502 (BACT Chart).

The evidence does not support PA-CAN's claim that these facilities "had achieved significantly lower permitted limits from 2 ppmvd to 3.1 ppmvd." PA-CAN's Exceptions at 5 (emphasis added). As Port Arthur LNG has emphasized time and again, "Cove Point is **the only LNG facility in the United States** that is currently operating under a permit that limits its NOx emissions from refrigeration compressor turbines to less than 9 ppmvd." Port Arthur LNG's Exceptions at 15; Port Arthur LNG's Response in Support of Closing Arguments ("Response Brief") at 5-6 (emphasis in original); *see* Port Arthur LNG's Closing Brief at 29 (citing HOTM TR-1 at 256:9-12 (W. Powers)). The rest of the LNG facilities PA-CAN relies upon have not yet been constructed. *See* Applicant's Amended Ex. 502 (BACT Chart).

As the Judges acknowledged, Cove Point LNG is subject to the more stringent LAER requirements because it is in a nonattainment zone. PFD at 20. While the Judges are correct that, theoretically, a LAER-level emission reduction can also be BACT, PA-CAN's insistence that Port Arthur LNG should comply with LAER-level NOx emission limits still ignores the fundamental

differences between BACT analyses and LAER analyses. As Mr. Hearn explained in his direct expert testimony,

By regulation, BACT is evaluated on a case-by-case basis, where LAER is more uniform for a class or category of source. This case-by-case evaluation of BACT allows for a large scope of concerns to be evaluated, including energy, environmental and economic impacts. The regulatory definition for LAER is very rigid and much narrower than BACT, only allowing in the determination of what is "achieved in practice" and what is the class or category of source. As a result, highly similar sources can have different BACT requirements, but should not, by rule, have different LAER requirements.

Applicant's Ex. 400 (Direct Testimony of D. Hearn) at 30:4-11 (emphasis added). It is therefore not surprising that the permitted NOx emission limits for LNG facilities subject to BACT range from 3.1 ppm to 25 ppm—each of these determinations was made with consideration of source-specific energy, environmental, and economic impacts, as required. *See id.* By contrast, if these LNG facilities were subject to LAER, they would be required to implement any technology necessary to reduce NOx emissions to levels achieved in practice by Cove Point LNG, regardless of cost or any other distinguishing factors. *See id.*

PA-CAN clearly confuses the BACT standard for the LAER standard in arguing that "[t]he limit should be based on limits permitted and achieved at similar sources of 2 ppmvd to 3.1 ppmvd." *See* PA-CAN's Exceptions at 6. Here, Port Arthur LNG demonstrated that use of SCR to control NOx emissions from its refrigeration compressor turbines was not economically reasonable. *See* Port Arthur LNG's Exceptions at 12-24. It was therefore appropriate for Port Arthur LNG to select 9 ppm as BACT, which is **lower than any rate achieved in practice without SCR**. *See* Applicant's Amended Ex. 502 (BACT Chart) (indicating that the operational Cameron LNG achieves a limit of 15 ppm).

2. <u>Control of CO</u>

Similarly, PA-CAN also excepts to the Judges' recommendation that the Draft Permit be amended to require a CO emission limit of 15 ppm because it insists that Port Arthur LNG should be required to use an oxidation catalyst on its refrigeration compressor turbines to achieve an even lower CO emission limit of 4 ppm. PA-CAN's Exceptions at 6-8. The Judges held that "PACAN failed to rebut the Prima Facie Demonstration that use of an oxidation catalyst to control CO emissions is not cost effective," noting that instead, "PACAN argued that Applicant should have evaluated the cost of installing a CO oxidation catalyst integrated with SCR." *See* PFD at 38-39 (emphasis added); *see also* PA-CAN Closing Brief at 38-39. Yet, PA-CAN still makes the same argument in its brief and exceptions without offering any further evidence that use of an oxidation catalyst would be cost-effective as integrated with SCR. *See* PA-CAN's Exceptions at 6-8.

PA-CAN offers two citations in support of its assertion that it effectively rebutted Port Arthur LNG's Prima Facie Demonstration that use of an oxidation catalase to control CO is not cost effective. *See* PA-CAN's Exceptions at fn 26. First, it relies on Mr. Powers' statement that because Golden Pass LNG and Lake Charles LNG are permitted to use oxidation catalysts in conjunction with SCR to control CO emissions, "SCR is cost-effective as BACT on the refrigerant compressor turbines at Port Arthur LNG." *Id.* (citing Ex. A (Direct Testimony of W. Powers) at 49:10-18, 50:6). The Judges already took note of this testimony in the PFD. *See* PFD at 24, fn 120. Second, PA-CAN relies on testimony by Port Arthur LNG's expert witness, Mr. Higgins, for the proposition that the cost evaluation for use of an oxidation catalyst could "potentially" change if considered in conjunction with SCR. *See* PA-CAN's Exceptions at fn 26 (citing HOTM TR-2 at 502:7-20 (K. Higgins)). But because Port Arthur LNG will not be required to install SCR, it would not make sense to require that Port Arthur LNG evaluate the cost of an oxidation catalyst in conjunction with SCR. The Judges considered PA-CAN's evidence and appropriately determined that it is insufficient to rebut Port Arthur LNG's Prima Facie Demonstration under TEX. GOV.CODE § 2003.047(i-2), (i-3).

PA-CAN points to three different LNG facilities, only one of which is in operation, to support its argument that "CO oxidation catalyst can simply be installed in conjunction with the SCR on the compressor turbines in the same manner demonstrated at Cove Point LNG and planned for Golden Pass LNG and Lake Charles LNG." *See* PA-CAN's Exceptions at 7. Again, each of these facilities has a different CO emission limit: Cove Point LNG operates at a limit of 4 ppm; Golden Pass LNG is permitted for a CO emission limit of 6 ppm; and Lake Charles LNG is permitted at a limit of 10 ppm. *Id.* And as the Judges noted, Rio Grande LNG is permitted to control CO to 15 ppm. PFD at 38. Given that each of these facilities were issued air quality permits within a few years of each other, PA-CAN's failure to acknowledge the varying levels of proposed CO controls, even with the use of an oxidation catalyst, again undercuts its argument that an oxidation catalyst "can simply be installed" at Port Arthur LNG *at the lowest performance level achieved*, which is in a nonattainment zone subject to more stringent LAER requirements.

As Port Arthur LNG has emphasized, BACT is determined "on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs. PFD at 9 (citing Ex. ED-6 (NSR Workshop Manual) at B.1). Although another facility may propose a certain emission threshold as BACT, that does not make it 'presumptively cost effective' for Port Arthur LNG. Applicant's Ex. 400 at 18:20-27, 19:26-35 (D. Hearn)." Port Arthur LNG's Exceptions at 26. PA-CAN has not presented evidence to support its contention that CO emission limit of 4 ppm is economically reasonable as applied to Port Arthur LNG—and for that matter, PA-CAN has not presented evidence as to the cost-effectiveness of an oxidation catalyst at *any* performance level. Accordingly, PA-CAN's exception to FOF 76, stating that "PA-CAN demonstrated when used with SCR technology, an oxidation catalyst is both technically feasible and cost-effective" is not supported by the evidence and should be rejected. Similarly, PA-CAN's exception to FOF 78, that use an oxidation catalyst with SCR "would control CO emissions to 4 ppmvd at 15% O₂," and its exception to FOF 79, that "the refrigeration compressor turbines should use SCR control technology in combination with an oxidation catalyst to limit CO emissions to 4 ppmvd at 15% O₂" should also be rejected. *See* PA-CAN's Exceptions at 12-13.

For the same reasons, the Judges' ultimate *sua sponte*⁷ recommendation that Port Arthur LNG "match" the CO emission limit proposed in Rio Grande LNG's permit—which was not issued until more than a year after Port Arthur LNG submitted its Application—is insupportable, as it does not represent a "case-by-case" analysis. *See* Ex. ED-6 (NSR Workshop Manual) at B.1). The Judges' disregard for the case-by-case nature of BACT analyses results in a fundamental misapplication of state and federal guidelines. As delineated in Port Arthur LNG's Brief and Exceptions, the Judges' recommendation was formed in reliance on mischaracterized expert testimony, or otherwise overlooks evidence in the record.

B. Power Generation Turbines

The Judges recommended that the Commission make no changes to the ED's conclusion that use of use SCR technology with dry-low-NOx burners to control NOx to 5 ppmv at 15% O_2 and use of catalytic oxidation and good combustion practices to control CO to 9 ppmv at 15% O_2 is BACT for the proposed power generation turbines. *See* FOF 80, 86. To support this recommendation, the Judges found that "[t]he evidence failed to demonstrate that reducing NOx

⁷ It bears repeating that the Judges' determination that "PACAN failed to rebut the Prima Facie Demonstration that use of an oxidation catalyst to control CO emissions is not cost effective" should have ended the analysis with respect to BACT for CO emissions from the refrigeration compressor turbines. *See* Port Arthur LNG's Exceptions at 24-25 (citing Proposal for Decision, *In Re: Application by The City of Dripping Springs for New TPDES Permit No. WQ0014488003* (SOAH Docket No. 582-18-3000) (Nov. 2018) at 30 ("Given the lack of controverting evidence on this issue, the ALJ concludes that the prima facie demonstration from the Administrative Record has not been rebutted. Thus, the Administrative Record demonstrates that the draft permit is protective.")).

to 2-2.5 ppm or CO to 4 ppm is technically feasible." FOF 85. PA-CAN's central argument has been that Freeport LNG has NOx and CO emission limits for its combined-cycle power generation turbines of 2 ppm and 4 ppm, respectively. *See* PFD at 40; PA-CAN's Closing Brief at 40-43. Still, the Judges found Dr. Ben Hansen's testimony decisive—specifically, that he reviewed the Freeport LNG permit and was not persuaded that Freeport LNG's turbines are sufficiently similar to those proposed by Port Arthur LNG to dictate BACT. *See* Ex. ED-1 (Direct Testimony of Dr. Hansen) at 11:17-18; PFD at 44. The Judges agreed that there is no evidence indicating that Freeport LNG's NOx and CO limits are technically feasible as applied to Port Arthur LNG's proposed simple-cycle combustion turbines. PFD at 44.

This logic flows from the fact that Freeport LNG's power generation turbines are heavy Frame 7EA gas-turbines operated in **combined-cycle mode**, whereas Port Arthur LNG proposes to use aeroderivative GE PGT25+G4 turbines in **simple-cycle mode**. Ex. 500 at 31:13-24 (K. Higgins). As Port Arthur LNG explained in its Closing Brief,

The TCEQ's Tier 1 BACT guidelines for combustion sources lists different BACT requirements depending on whether the turbine is combined-cycle or simple-cycle. Ex. ED-11 at 0507 (Tier 1 BACT Guidelines: Combustion Sources). For combined-cycle turbines, NOx emissions must be limited to 2 ppmvd at 15 % O2, while CO emissions limits range from 2 to 4 ppmvd at 15 % O2. *Id.* By contrast, for simple-cycle turbines, NOx emissions range from 5 to 9 ppmvd at 15 % O2 while CO emissions range from 9 to 25 ppmvd at 15 % O2. *Id.* It is obvious from the Tier 1 BACT guidelines why Freeport LNG would have been required to meet 2 ppmvd to control NOx, while Port Arthur LNG would only be required to limit NOx emissions to 5 ppmvd. The disparate treatment between combined-cycle turbines and simple-cycle turbines is attributable in part to the heat recovery steam generators ("HRSGs") typically used with combined-cycle turbines, but not with simple-cycle turbines. Ex. 500 at 31:13-24 (K. Higgins).

Port Arthur LNG's Closing Brief at 36. As such, Port Arthur LNG's proposed limits are at the

lowest ends of the ranges prescribed in TCEQ's Tier 1 BACT guidelines for simple-cycle

combustion sources. See id.; see also Ex. ED-11 at 0507 (Tier 1 BACT Guidelines: Combustion

Sources). The Judges' finding that Port Arthur LNG has demonstrated BACT with respect to the proposed power generation turbines rests on sound logic and is supported by evidence in the record. Because the Judges found that where no emissions reductions options identified in recent permit reviews are found to be technically feasible and economically reasonable, "the BACT proposal should be accepted as satisfying BACT requirements,"⁸ the evidence supports the Judges' conclusion that Port Arthur LNG has demonstrated BACT.

Ignoring this evidence, PA-CAN alleges that Port Arthur LNG "failed to properly differentiate itself from recent permit reviews with lower emission limits as required by the TCEQ's three-tier analysis." PA-CAN's Exceptions at 10. As demonstrated by the above evidence and the Judges' Proposed Order, this is plainly false.

Taking another angle, PA-CAN focuses on the Judges' statement that "[u]nder the top down approach, the Application failed to provide either technical or economic reasons why the lowest identified emission limits for NOx and CO are not BACT for the nine electric power generation turbines." *See id.* at 8; PFD at 44. But the Judges' explanation did not end there; directly following this statement, the Judges explained:

However, Applicant also used TCEQ's three-tiered approach. While TCEQ's approach should lend itself to the same result, if an applicant proposes BACT limits similar to what has been accepted in recent permit reviews for similar facilities, a Tier I review does not require an applicant to evaluate technical feasibility or economic reasonableness unless TCEQ is aware of new information that indicates additional reductions may be technically feasible and economically."

PFD at 44. Because the Judges stated that "TCEQ's approach **should** lend itself to the same result,"⁹ a view which PA-CAN claims "has been rejected by the TCEQ,"¹⁰ PA-CAN insists that

⁸ See PFD at 52-53.

⁹ PFD at 44 (emphasis added).

¹⁰ PA-CAN introduces new evidence that had not previously been admitted to the record to make the case that the Top-Down method and Three-Tier method "must" reach the same result. *See* PA-CAN's Exceptions at 9, fn 39 (TCEQ's Responses to Texas Chemical Council's Comments on Air Permit Reviewer Reference Guide (APDG 6110) Air Pollution Control: How to Conduct a Pollution Control Evaluation, at 4, available at

the Judges' ultimate recommendation must be incorrect. PA-CAN's Exceptions at 10. Yet, PA-CAN's own expert, Mr. Powers, testified multiple times that "the three-tier method **should** reach the same conclusion on BACT [as] the top-down method." Ex. A (Direct Testimony of Mr. Powers) at 16:14-15; 17:14-18.¹¹ Setting aside PA-CAN's own contradictions, this argument is a red herring because regardless of whether "should" or "must," is the correct verbiage, both approaches resulted in the same outcome here.

As PA-CAN's own expert testified, TCEQ's BACT Guidance requires that "regardless of the BACT analysis utilized, 'The permit reviewer must ensure that the administrative record provided by the applicant for the selected BACT is sound, comprehensive, and adequately supports the conclusions of the BACT review.'" Ex. A (Direct Testimony of W. Powers) at 17:10-12 (quoting Ex. 10 (APDG-6110) at POWERS 389). The Judges echoed this rule in the PFD by reciting the "conditions" that EPA requires the TCEQ to consider when conducting a Three-Tier analysis.¹² The record demonstrates that Freeport LNG's NOx and CO limits are not technically feasible as applied to the simple-cycle combustion turbines proposed by Port Arthur LNG. *See* Applicant's Ex. 500 at 31:13-24 (K. Higgins). Port Arthur LNG therefore urges the Commission to reject PA-CAN's exceptions to the Judges' finding that BACT for NOx and CO emissions from the power generation turbines is 5 ppm and 9 ppm, respectively. *See* FOF 85. 86.

https://www.tceq.texas.gov/assets/public/permitting/air/Guidance/NewSourceReview/rtc-texas-chem.pdf). ¹¹ "Q: SHOULD THE 'THREE-TIER METHOD FOR DETERMINING BACT RESULT IN THE SAME EMISSIONS LIMITATION FOR A SOURCE AS THE TOP-DOWN METHOD? A: Yes. TCEQ states in APDG-6110 that thee result of its "three-tier" method **should** result in the same outcome as using the EPA's top down BACT methodology. APDG-6110 says this explicitly: 'While the TCEQ has followed a different approach (three-tier), the end result form using either method **should** be the same.'") (emphasis added).

¹² PFD at 11 ("In order for EPA to accept the three-tier approach as equivalent to the top down approach, for TCEQ to obtain an approved PSD State Implementation Plan (SIP), TCEQ's predecessor agency entered into an agreement with EPA that required the three-tier review to include (1) recently issued or approved permits within the state of Texas; (2) recently issued or approved permits in other states; and (3) control technologies contained within EPA's RACT/BACT/LAER Clearinghouse (RBLC)." (citing to Ex. ED-1 (Direct Testimony of B. Hansen) at 0020-21, 0026; Ex. ED-5 (APDG 6110) at 0122.).

III. ALTERNATIVELY, PORT ARTHUR LNG DEFERS TO THE COMMISSION AS TO THE APPROPRIATE NO_X AND CO BACT EMISSIONS LIMITS FOR THE REFRIGERATION COMPRESSOR TURBINES

Port Arthur LNG maintains the PFD and Proposed Order misapply state and federal law, disregard the case-by-case nature of BACT determinations, and are not supported by the evidence in the record. But in the alternative, Port Arthur LNG has determined that NOx and CO emission limits of 5 ppm and 15 ppm, respectively—which are beyond BACT and represent emissions limits that are more stringent than required by BACT for either the Base Project or the Expansion Project—may be achievable during normal operation of the refrigeration compressor turbines. The record shows that Port Arthur LNG expects that its proposed refrigeration turbines will perform better than the emissions limits reflected in the Draft Permit in order to maintain continuous compliance with those limits as required for the life of the equipment. Port Arthur LNG will use reasonable efforts to install refrigeration compressor turbines that are expected to be capable of meeting these "beyond BACT" levels and defers to the Commission as to whether the Draft Permit should reflect the BACT emissions levels determined by the ED to be appropriate as BACT in the Draft Permit or the "beyond BACT" limits recommended by the Judges.

IV. CONCLUSION

The Judges correctly determined by their proposed findings and conclusions of law that the Application complies with all applicable statutory and regulatory requirements and the Draft Permit should be issued. Port Arthur LNG urges the Commission to reject PA-CAN's exceptions with respect to the Judges' recommendations and respectfully requests the Commission to make those changes set forth in Attachment A to Port Arthur LNG's Brief and Exceptions as well as the ED's Exceptions, or such other changes determined to be appropriate under Section III.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that I have e-filed and served a true and correct copy of the foregoing *Applicant Port Arthur LNG, LLC's Brief and Exceptions to the Proposal for Decision and Order* by e-mail on this 20th day of June 2022.

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