

170 FERC ¶ 61,145  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Neil Chatterjee, Chairman;  
Richard Glick and Bernard L. McNamee.

Sabine Pass LNG, L.P.

Docket No. CP19-11-000

ORDER GRANTING AUTHORIZATION UNDER SECTION 3 OF THE NATURAL  
GAS ACT

(Issued February 21, 2020)

1. On October 29, 2018, Sabine Pass LNG, L.P. (Sabine Pass) filed an application, pursuant to section 3 of the Natural Gas Act (NGA)<sup>1</sup> and Part 153 of the Commission's regulations,<sup>2</sup> for authorization to site, construct, and operate its Third Berth Expansion Project at the existing liquefied natural gas (LNG) facility (Sabine Pass LNG Terminal) on the Sabine Pass Channel in Cameron Parish, Louisiana. The project is designed to alleviate existing LNG loading, shipping, and operational constraints for the liquefaction, storage, and export of domestically-produced natural gas. For the reasons discussed in this order, we grant Sabine Pass's requested authorization, subject to conditions.

**I. Background**

2. Sabine Pass, a Delaware limited partnership, is an indirect subsidiary of Cheniere Energy Partners, L.P., which is controlled by indirect subsidiaries of Cheniere Energy, Inc.<sup>3</sup> Cheniere Energy, Inc. is a developer of LNG terminals and natural gas pipelines in the Gulf Coast region of the United States.<sup>4</sup>

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<sup>1</sup> 15 U.S.C. § 717b (2018).

<sup>2</sup> 18 C.F.R. pt. 153 (2019).

<sup>3</sup> Application at 1-2; Application, Exhibit B, at 2.

<sup>4</sup> Application, Exhibit B, at 1.

3. The existing Sabine Pass LNG Terminal includes six LNG liquefaction trains that are each capable of producing approximately 5 million metric tonnes of LNG per annum (MTPA), for a total capacity of 30 MTPA from 4.14 billion cubic feet (Bcf) of natural gas per day.<sup>5</sup> The LNG Terminal also includes five 160,000-cubic-meter (m<sup>3</sup>) LNG storage tanks.<sup>6</sup> The ship-turning basin at the LNG Terminal consists of two marine berths that are capable of loading and unloading up to four-hundred 266,000-m<sup>3</sup> LNG carriers per year.<sup>7</sup> The LNG Terminal is connected to the affiliated Cheniere Creole Trail Pipeline (Creole Trail)<sup>8</sup> and Kinder Morgan Louisiana Pipeline.<sup>9</sup>

4. In 2004, the Commission authorized Sabine Pass to site, construct, and operate the Sabine Pass LNG Terminal for the importation, storage, and vaporization of foreign-source LNG.<sup>10</sup> In 2009, Sabine Pass was authorized to operate the LNG Terminal for the additional purpose of exporting LNG that had been previously imported into the United States and stored at the terminal.<sup>11</sup>

5. In 2012, Sabine Pass and its affiliate Sabine Pass Liquefaction, LLC (Sabine Pass Liquefaction) were authorized to construct four liquefaction trains and make other modifications to the existing LNG Terminal to enable the liquefaction and storage of

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<sup>5</sup> See *Sabine Pass Liquefaction Expansion, LLC*, 151 FERC ¶ 61,253, at PP 2-3 (2015) (describing previously authorized facilities at the Sabine Pass LNG Terminal).

<sup>6</sup> Application, Resource Report 1, at 1-11.

<sup>7</sup> Application at 5; Application, Resource Report 1, at 1-11.

<sup>8</sup> See *Sabine Pass LNG, L.P.*, 109 FERC ¶ 61,324 (authorizing the construction and operation of the 16-mile-long, 42-inch-diameter natural gas pipeline that is connected to the LNG terminal); see also *Cheniere Creole Trail Pipeline, L.P.*, 121 FERC ¶ 61,071 (2007) (granting abandonment by merger of Cheniere Partners' 16-mile-long, 42-inch-diameter pipeline, to be acquired by Creole Trail and integrated into its interstate natural gas pipeline system).

<sup>9</sup> *Sabine Pass Liquefaction, LLC*, 144 FERC ¶ 61,099, at n.6 (2013).

<sup>10</sup> See *Sabine Pass LNG, L.P.*, 109 FERC ¶ 61,324 (2004). In 2006, Sabine Pass was authorized to construct and operate three additional LNG storage tanks, ambient air vaporization trains, and associated facilities at the LNG Terminal, thereby increasing the send-out capacity from 2.6 to 4.0 Bcf per day and storage capacity to 16.9 Bcf. See *Sabine Pass LNG, L.P.*, 115 FERC ¶ 61,330 (2006).

<sup>11</sup> See *Sabine Pass LNG, L.P.*, 127 FERC ¶ 61,200 (2009).

domestic natural gas for export (Liquefaction Project).<sup>12</sup> The LNG Terminal's authorized production capacity was increased to 20 MTPA, or 2.76 Bcf per day in 2014.<sup>13</sup>

6. In 2015, Sabine Pass, Sabine Pass Liquefaction, and their affiliate Sabine Pass Liquefaction Expansion, LLC were authorized to construct and operate a fifth and sixth liquefaction train and other liquefaction and export facilities at the Sabine Pass LNG Terminal, thereby increasing the terminal's authorized production capacity to approximately 30 MTPA, or 4.14 Bcf per day.<sup>14</sup> Trains 1 through 5 are currently in service. The sixth train is expected to be commissioned in 2023.<sup>15</sup>

## II. Proposal

7. Sabine Pass proposes to site, construct, and operate a third marine berth and supporting facilities at the existing Sabine Pass LNG Terminal on the Sabine Pass Channel in Cameron Parish, Louisiana, to minimize LNG loading, shipping, and operational constraints caused by dredging operations at the existing berths, increased number of LNG carrier arrivals, adverse weather conditions, and various waterway restrictions.<sup>16</sup> Specifically, Sabine Pass proposes to construct and operate a new berth pocket to be dredged from land adjacent and southeast of the LNG Terminal's two existing marine berths.<sup>17</sup> The berthing and mooring facilities associated with the new berth include four breasting and six mooring dolphins, a fender system, quick release

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<sup>12</sup> *Sabine Pass Liquefaction, LLC*, 139 FERC ¶ 61,039, at P 4 (2012) (authorizing a maximum production of 16 MTPA (approximately 4 MTPA per train), or the equivalent of 2.2 Bcf per day). Pursuant to a Terminal Use Agreement, Sabine Pass has agreed to provide terminal services to Sabine Pass Liquefaction for its liquefaction and export activities at the LNG Terminal. *Id.* at 7-8. Sabine Pass and Sabine Pass Liquefaction have contracted with their affiliate Cheniere LNG O&M Services, LLC to operate and maintain the LNG terminal facilities. *Id.* at n.12.

<sup>13</sup> *See Sabine Pass Liquefaction, LLC*, 146 FERC ¶ 61,117, *reh'g denied* 148 FERC ¶ 61,200 (2014).

<sup>14</sup> *See Sabine Pass Liquefaction, LLC*, 151 FERC ¶ 61,012, *reh'g denied* 151 FERC ¶ 61,253 (2015).

<sup>15</sup> Sabine Pass's September 20 Comments at 1 (Table 1).

<sup>16</sup> *See* Application at 9; Resource Report 1, at 1-11.

<sup>17</sup> Application at 6.

hooks, and associated monitoring systems.<sup>18</sup> Sabine Pass also proposes to construct and operate a new jetty-approach trestle with associated roadway and pipeway and a new LNG loading system at the new berth, which includes a new platform, LNG loading and cooldown lines, and LNG loading arms.<sup>19</sup>

8. Once operating, Sabine Pass LNG states that the project will have the capability to load LNG at a rate of approximately 12,000 m<sup>3</sup> per hour.<sup>20</sup> The project will increase the maximum number of calls by LNG carriers with a capacity of up to 180,000 m<sup>3</sup> the LNG Terminal is capable of accommodating by 180 per year, from the current 400 per year to 580 per year.<sup>21</sup> Two additional tugs and two additional tug berths will serve the additional LNG carriers.<sup>22</sup> The increase in LNG carrier calls, however, will not increase the LNG Terminal's current total export volume.<sup>23</sup> Because the project will not increase export volumes, new export authorization from the U.S. Department of Energy, Office of Fossil Energy (DOE/FE) is not required.<sup>24</sup>

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<sup>18</sup> Application at 7.

<sup>19</sup> Application at 7.

<sup>20</sup> Application at 6.

<sup>21</sup> Application at 6-7. Pursuant to 33 C.F.R. § 127.009 (2019), the U.S. Coast Guard reviewed the suitability of the Sabine Neches Waterway and issued a Letter of Recommendation on May 21, 2019, stating that the Sabine Neches Waterway which includes the Sabine Pass Channel, 33 C.F.R. § 165.806(a) (2019), should be considered suitable for the type and frequency of the LNG marine traffic associated with the project. *See* Memo from Wimberly Hoogendoorn filed on June 6, 2019 (attaching the Letter of Recommendation).

<sup>22</sup> Application at 6-7, and Application Resource Report 13 at 13-29.

<sup>23</sup> *See* Application at n.15.

<sup>24</sup> *See* Application at 11. Previously, Sabine Pass Liquefaction has received authorizations from DOE/FE to export the equivalent of 1,509.3 billion cubic feet (Bcf) per year of natural gas in the form of LNG to both free trade agreement (FTA) countries and non-FTA countries. *See Sabine Pass Liquefaction, LLC*, FE Docket No. 10-85-LNG, Order No. 2833 (Sept. 7, 2010); *Sabine Pass Liquefaction, LLC*, FE Docket No. 13-30-LNG, Order No. 3306 (July 11, 2013); *Sabine Pass Liquefaction, LLC*, FE Docket No. 13-42-LNG, Order No. 3307 (July 12, 2013); *Sabine Pass Liquefaction, LLC*, FE Docket No. 13-121-LNG, Order No. 3384 (Jan. 22, 2014); *Sabine Pass Liquefaction, LLC*, FE Docket No. 14-92-LNG, Order No. 3595 (Feb. 12, 2015). *See Sabine Pass Liquefaction, LLC*,

### **III. Notice, Interventions, and Comments**

9. Notice of Sabine Pass LNG's application was published in the *Federal Register* on November 15, 2018, with interventions, comments, and protests due on or before November 28, 2018.<sup>25</sup> Port Arthur LNG, LLC and PALNG Common Facilities Company, LLC filed a timely, unopposed motion to intervene. Timely, unopposed motions to intervene are granted by operation of Rule 214(c)(1) of the Commission's Rules of Practice and Procedure.<sup>26</sup>

### **IV. Discussion**

#### **A. Public Interest Standard**

10. The siting, construction, and operation of the proposed LNG terminal facilities require approval by the Commission under section 3 of the NGA.<sup>27</sup> While section 3 provides that an application for the exportation or importation of natural gas shall be approved unless the proposal "will not be consistent with the public interest," section 3 also provides that an application may be approved "in whole or in part, with such modification and upon such terms and conditions as the Commission may find necessary

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FE Docket No. 10-111-LNG, Order No. 2961-A (Aug.7, 2012); *Sabine Pass Liquefaction, LLC*, FE Docket No. 15-63-LNG, Order No. 3792 (March 11, 2016); *Sabine Pass Liquefaction, LLC*, FE Docket Nos. 13-30-LNG, 13-42-LNG, 13-121-LNG, Order Nos. 3669 and 3669-B (June 26, 2015 and Oct. 31, 2017). *See also* Application at n.28 (identifying all associated DOE/FE authorizations).

<sup>25</sup> 83 Fed. Reg. 57,467 (2018).

<sup>26</sup> 18 C.F.R. § 385.214(c)(1) (2019).

<sup>27</sup> The regulatory functions of section 3 were transferred to the Secretary of Energy in 1977 pursuant to section 301(b) of the Department of Energy Organization Act. 42 U.S.C. § 7151(b) (2018). Pursuant to sections 642 and 402(e) of the Act, 42 U.S.C. §§ 7252 and 7172(e) (2018), the Secretary of Energy subsequently delegated to the Commission the authority to approve or disapprove the construction and operation of natural gas import and export facilities and the site at which such facilities shall be located. The most recent delegation is in DOE Delegation Order No. 00-004.00A, effective May 16, 2006. The Commission does not authorize importation or exportation of the commodity itself. *See EarthReports, Inc. v. FERC*, 828 F.3d 949, 952-53 (D.C. Cir. 2016) (detailing how regulatory oversight for the export of LNG and supporting facilities is divided between the Commission and DOE).

or appropriate.”<sup>28</sup> NGA section 3(a) also provides that for good cause shown, the Commission may make supplemental orders as it may find “necessary or appropriate.”<sup>29</sup>

11. We have reviewed Sabine Pass’s proposal to determine if the siting, construction, and operation of its expansion project as proposed would not be consistent with the public interest.<sup>30</sup> The construction of the proposed Third Berth Expansion Project will impact about 375.20 acres, while operation of the proposed project will continue to impact 171.56 of those acres.<sup>31</sup> The majority of the land impacted by project construction (about 80 percent) and project operations (about 55 percent) is characterized as industrial or commercial.<sup>32</sup> Further, the environmental assessment (EA) for the proposed project finds impacts from the construction and operation of the facilities will not constitute a major federal action significantly affecting the quality of the human environment.<sup>33</sup> As further discussed below, we concur with the EA’s conclusions.

12. In accordance with the Memorandum of Understanding signed on August 31, 2018, by the Commission and the Department of Transportation’s (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA),<sup>34</sup> PHMSA undertook a review of the proposed facility’s ability to comply with the federal safety standards

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<sup>28</sup> 15 U.S.C. §§ 717b(a) and 717b(e)(3) (2018). For a discussion of the Commission’s authority to condition its approvals of LNG facilities under section 3 of the NGA, *see, e.g., Distrigas Corporation v. FPC*, 495 F.2d 1057, 1063-64 (D.C. Cir. 1974), *cert. denied*, 419 U.S. 834 (1974), and *Dynegy LNG Production Terminal, L.P.*, 97 FERC ¶ 61,231 (2001).

<sup>29</sup> 15 U.S.C. § 717b(a).

<sup>30</sup> *See National Steel Corp.*, 45 FERC ¶ 61,100, at 61,332-33 (1998) (observing that the “Commission’s authority [regarding a LNG import facility] is limited to consideration of the place of importation, which necessarily includes the technical and environmental aspects of any related facilities.”).

<sup>31</sup> EA at 18 (Table A.9.0.1).

<sup>32</sup> *See id.* at 80 (Table B.6.1-1).

<sup>33</sup> *Id.* at 225.

<sup>34</sup> *Memorandum of Understanding Between the Department of Transportation and the Federal Energy Regulatory Commission Regarding Liquefied Natural Gas Transportation Facilities* (Aug. 31, 2018), <https://www.ferc.gov/legal/mou/2018/FERC-PHMSA-MOU.pdf>.

under Part 193, Subpart B, of Title 49 of the Code of Federal Regulations.<sup>35</sup> On July 24, 2019, PHMSA issued a Letter of Determination (LOD) indicating that Sabine Pass has demonstrated that the siting of the Third Berth Expansion Project complies with these federal safety standards.<sup>36</sup> If the proposed project is subsequently modified so that it differs from the details provided in the documentation submitted to PHMSA, further review would be conducted by PHMSA.

13. In view of the above, we find that, subject to the conditions imposed in this order, Sabine Pass's proposal is not inconsistent with the public interest. Therefore, we will grant Sabine Pass's application for authorization under section 3 of the NGA to site, construct, and operate its proposed Third Berth Expansion Project.

### **B. Environmental Analysis**

14. On March 8, 2018, the Commission staff began its environmental review of the Third Berth Expansion Project by granting Sabine Pass' request to use the pre-filing process and assigned Docket No. PF18-3-000. On April 20, 2018, the Commission issued a *Notice of Intent to Prepare an Environmental Assessment* (NOI).<sup>37</sup> The NOI was published in the *Federal Register*<sup>38</sup> and mailed to interested parties including federal, state, and local officials; agency representatives; environmental and public interest groups; Native American tribes; affected property owners and other interested parties, and; newspapers and libraries in the project area.

15. We received scoping comments in response to the NOI from the U.S. Fish and Wildlife Service (FWS), Louisiana Department of Wildlife and Fisheries (Louisiana DWF), and the Choctaw Nation. The primary issues raised during the pre-filing and scoping process included impacts on wetlands, threatened and endangered species, and migratory birds.

16. To satisfy the requirements of the National Environmental Policy Act of 1969 (NEPA), our staff prepared an EA for Sabine Pass's proposal. The EA was prepared with

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<sup>35</sup> 49 C.F.R. pt. 193, subpt. B (2018).

<sup>36</sup> PHMSA, 49 CFR Part 193, Subpart B, Siting – Letter of Determination at 2 (filed in a memo dated July 25, 2019).

<sup>37</sup> *Notice of Intent to Prepare an Environmental Assessment for the Planned SPLNG Third Berth Expansion Project, Request for Comments on Environmental Issues*, 83 Fed. Reg. 18,549 (Apr. 27, 2018).

<sup>38</sup> *Id.*

the cooperation of the U.S. Army Corps of Engineers (Army Corps), DOE, DOT, U.S. Coast Guard, U.S. Fish and Wildlife Service (FWS), and the Louisiana DWF.

Cooperating agencies have jurisdiction by law or special expertise with respect to resources potentially affected by the proposal and participate in the NEPA analysis.<sup>39</sup>

The analysis in the EA addresses geology, soils, water resources, wetlands, vegetation, wildlife and aquatic resources, threatened, endangered, and other special status species, land use, recreation, visual resources, cultural resources, air quality and noise, safety and reliability, socioeconomics, cumulative impacts, and an alternatives analysis. The EA addresses all substantive comments received during the pre-filing process and in response to the NOI. The EA was issued for a 30-day comment period and placed into the public record on August 23, 2019. In response to the EA, we received comments from Kenneth Teague, Cultural Heritage Partners, Louisiana DWF, the National Marine Fisheries Service (NMFS), and Sabine Pass. The U.S. Environmental Protection Agency (EPA) states it does not have any comments on the EA.<sup>40</sup> All other comments are addressed below.

## **1. Dredge Material Placement**

17. The construction of a new berth pocket in the Sabine Pass Channel, will require removal of approximately 3.6 million cubic yards of material.<sup>41</sup> Louisiana coastal use regulations require dredge material in excess of 25,000 cubic yards be put to beneficial use.<sup>42</sup> Sabine Pass, in compliance with these regulations, proposes to place all dredge material from the project at the existing Louisiana Point dredge material placement area (DMPA), which is located 3.9 miles south of the Third Berth.<sup>43</sup> Sabine Pass proposes to

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<sup>39</sup> 42 U.S.C. §§ 4321 *et seq.* (2018). *See also* the Commission's NEPA-implementing regulations at 18 C.F.R. pt. 380 (2019).

<sup>40</sup> EPA's September 17 and 23, 2019 Letters.

<sup>41</sup> EA at 9. The majority of the dredging would occur in Louisiana, however a portion of the dredge area is in Texas.

<sup>42</sup> LA. ADMIN. CODE tit. 43 § 723.H (2019).

<sup>43</sup> EA at 10. We note that sections 3.2.1 and 4.2.1 of the EA indicated that Sabine Pass may use the dredge material to develop an alternative mitigation site: the Louisiana Bayou Mitigation Area, but acknowledge that Sabine Pass clarified that it no longer considering the alternative dredge material mitigation site and clarified that all dredge material will be placed at the Louisiana Point DMPA to facilitate coastal restoration efforts. *See* Sabine Pass's July 3, 2019 Response to Environmental Information Request at 9.



transport the dredge material to the placement area via a temporary discharge pipe.<sup>44</sup> Sabine Pass states that placement of the dredge material at the Louisiana Point DMPA will improve eroding shoreline. Louisiana DWF concurs with this placement and notes that prior dredge material placement at the Louisiana Point DMPA has resulted in successful marsh creation.<sup>45</sup>

18. Kenneth Teague expresses concerns regarding the adequacy of the EA's analysis of the potential risk of contamination in dredge materials, the environmental impacts on the proposed placement site, and alternatives to dredge material disposal and alternative disposal sites. NMFS contends that the EA does not adequately describe the impacts on the Louisiana Point DMPA from placement of project dredge materials. NMFS suggests the use of other placement sites and two essential fish habitat conservation recommendations.

**a. Army Corps' CWA Section 404 Permit**

19. As an initial matter, we note that the final decision regarding dredge material placement will be made by the Army Corps in its Clean Water Act (CWA) section 404 permit.<sup>46</sup> As described in the EA, the Army Corps will conduct a section 404(b)(1) analysis subject to NEPA and will consider whether the dredging and dredge material placement will avoid, minimize, and compensate for impacts on aquatic resources, including wetlands, to achieve no overall net loss on values and functions.<sup>47</sup> NMFS and Mr. Teague's concerns largely relate to the data and assessments necessary for the Army Corps to issue a section 404 permit as evidenced, in part, by NMFS's October 9, 2019 letter and Mr. Teague's September 13, 2019 comments emailed to the record for the Army Corps section 404(b)(1) permit proceeding for the project.<sup>48</sup> Sabine Pass submitted

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<sup>44</sup> EA at 16.

<sup>45</sup> Louisiana DWF's September 25, 2019 Comments at 1.

<sup>46</sup> Army Corps's Sept. 10, 2019 Joint Public Notice SWG-2004-00465, <https://www.swg.usace.army.mil/Media/Public-Notices/Article/1956659/swg-2004-00465-sabine-pass-lng-lp-splng-wetlands-and-in-the-sabine-pass-channel/> (Army Corps Public Notice). We also note that the Army Corps was a cooperating agency with respect to the development of the EA. EA at 4.

<sup>47</sup> EA at 4-5.

<sup>48</sup> See NMFS October 9, 2019 Letter to the Army Corps (submitted to the record in a memorandum dated October 11, 2019); Kenneth Teague Sept. 13, 2019 email, regarding Army Corps Permit No. SWG-2004-00465 (permit application proceeding for Clean Water Act 404 permit for Sabine Pass's proposed third berth project). Mr. Teague

its application for a section 404 permit to the Army Corps in October 2018, and the Army Corps is expected to issue the permit in early 2020.<sup>49</sup>

**b. Risk of Contamination and Sediment Testing**

20. Mr. Teague states that the EA's evaluation of the risk of contamination in the dredge material is deficient, which he argues is necessary to make disposal decisions under CWA section 404. We disagree that the analysis is deficient. The EA considered soil contamination and found, based on EPA data, no contaminated sites within or adjacent to the area to be dredged.<sup>50</sup> However, during dredging operations, if either contaminated or suspect soils are found, dredging work would halt until the type and extent of the contamination is determined and the appropriate local, state and/or federal agency determines appropriate mitigation measures for the contaminated dredge material.<sup>51</sup> Nothing further is required.

21. With respect to a study by the National Oceanic and Atmospheric Administration (NOAA) of the water quality of the Sabine Pass waterbody, Mr. Teague asserts that it is insufficient to address the potential risk of contamination because it did not analyze samples for dioxins and furans, and further, the EA erroneously stated the conclusion of the NOAA Study.<sup>52</sup> Both contentions are incorrect. The NOAA Study did analyze samples for dioxins and furans.<sup>53</sup> And, the EA accurately summarized the NOAA Study as concluding "that toxicity of the sediments within this region were not significantly different from controls, and that the quality of sediments in Sabine Lake and vicinity did not appear to be severely degraded."<sup>54</sup>

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submitted this email to Commission's docket on Sept. 18, 2019 (FERC e-library accession no. 20190918-5167). *See also* Army Corps Sept. 10, 2019 Public Notice of Sabine Pass's Permit Application No. SWG-2004-00465 (soliciting public comment).

<sup>49</sup> EA at 22 (Table A.10.0-1).

<sup>50</sup> EA at 28.

<sup>51</sup> *Id.*

<sup>52</sup> *See* E.R. Long, NOAA, *Survey of Sediment Quality in Sabine Lake, Texas and Vicinity*, NOS ORCA 137 (1999) (NOAA Study).

<sup>53</sup> NOAA Study at 12, 28.

<sup>54</sup> EA at 33. *See* NOAA Study at 28 ("The results of the toxicity tests indicated that sediments in this survey area were not highly toxic (i.e., percent survival > 80% of

22. Mr. Teague also contends that the dredge material must be tested according to the *Inland Testing Manual*,<sup>55</sup> and the results must be provided in the EA. The *Inland Testing Manual*, a guidance document used by the Army Corps when issuing a section 404 permit decision, recognizes that testing is not required in all circumstances.<sup>56</sup> As noted above,<sup>57</sup> this is an issue better presented in the 404 permit proceeding and ultimately, the Army Corps will decide what testing is necessary, and whether to request testing prior to issuing its permit or require ongoing testing as a permit condition.<sup>58</sup> For these reasons, we are satisfied that the EA adequately addressed the potential risk of contamination in dredge materials.

**c. Louisiana Point DMPA**

23. NMFS believes, based on a preliminary assessment of aerial photographs, that the previous placement of dredge materials at the Louisiana Point DMPA, the proposed placement site for this project, has demonstrated very little benefit to essential fish habitat. NMFS notes that under a previous Louisiana Coastal Use permit not applicable to the project, the Louisiana Point DMPA was intended to receive approximately 3.3 million cubic yards of dredge material over an eight-year term from 2012 to 2020. NMFS encourages Sabine Pass to beneficially utilize the dredge material, particularly by creating or nourishing marsh, and recommends developing a long-term beneficial use plan. Further, NMFS specifically requests that Sabine Pass provide: an explanation how the Louisiana Point DMPA benefitted from past placement of dredge material at the site and will benefit from placement of an additional 3.6 million cubic yards for this project;

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controls) as measured with the acute amphipod survival tests”); *id.* at 43 (“The results indicated that the sediments in [Sabine Lake and vicinity] were not significantly degraded.”). We further note that Mr. Teague’s own summary of the NOAA Study appears to support the Commission’s interpretation of the survey: “Based upon the compilation of results from chemical analyses and toxicity tests, the quality of sediments in Sabine Lake and vicinity did not appear to be severely degraded.” Teague Comments at 1.

<sup>55</sup> U.S. EPA, *Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. – Testing Manual* at 1-5 (1998) (Inland Testing Manual).

<sup>56</sup> *Id.*

<sup>57</sup> *See supra* at section IV.B.1.a.

<sup>58</sup> Sabine Pass currently performs sediment testing on dredge materials prior to every maintenance event at the existing Sabine Pass Terminal facilities in compliance with its Army Corps’s Maintenance Dredge Permit. Application at 7-13.

information on the currently authorized and future anticipated fill capacities at the Louisiana Point DMPA; a Dredge Materials Management Plan for current and proposed placements; the currently authorized and proposed footprint of the Louisiana Point DMPA, and; the anticipated benefits from the use of the Louisiana Point DMPA for concurrent and future placements of dredge material for various projects at the Sabine Pass terminal.

24. Similarly, Mr. Teague states that the EA does not provide sufficient detail regarding the existing or future characteristics of the proposed dredge material placement area and the potential environmental impacts at the disposal site. He requests the EA provide specific data regarding the dredge material disposal site, including a map of the disposal area, whether dredge material will be confined, elevation of the area before and after dredge material placement, and a detailed assessment of the future of the disposal site that addresses whether the dredge material is likely to remain at the site or will be rapidly eroded.

25. The proposed disposal site, the existing Louisiana Point DMPA,<sup>59</sup> is an existing beneficial use site regulated by the Army Corps where dredge materials are used to build up the eroding shoreline and create marsh habitat.<sup>60</sup> The applicant currently uses the Louisiana Point DMPA for placement of dredge materials from maintenance events at the Sabine Pass terminal, and there are no known long-term or permanent adverse impacts to water quality from this placement.<sup>61</sup> As demonstrated by aerial photography Sabine Pass submitted to the Army Corps, and as confirmed by Louisiana DWF, past placement of dredge material at the site has successfully created marsh habitat.<sup>62</sup>

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<sup>59</sup> In its application, Sabine Pass proposed to place dredge material at either the Louisiana DMPA or an alternative mitigation site. Both options were discussed in the EA. *See* EA at 34. However, Sabine Pass no longer intends to develop an alternative mitigation site and instead proposes to place all dredge material at the Louisiana Point DMPA. Sabine Pass's July 3, 2019 Response to Environmental Information Request at 9.

<sup>60</sup> EA at 10.

<sup>61</sup> Sabine Pass's December 21, 2018 Response to Environmental Information Request at 22.

<sup>62</sup> Sabine Pass's December 6, 2019 Filing at 124 (noting that the placement of dredged material at Louisiana Point has "created approximately 260 acres of wetlands and increased shallow water habitat for fish and marine species for foraging"); Sabine Pass's

26. Sabine Pass is continuing to consult with the Army Corps and Louisiana Department of Natural Resources (DNR) regarding placement of dredge material at the Louisiana Point DMPA.<sup>63</sup> Because the dredge material will be placed in accordance with applicable permits, including a CWA section 404 permit described above, the primary impacts from dredge material placement at the Louisiana Point DMPA are minor, and include temporary increases in turbidity and suspended sediments discussed in EA section B.3.2.1.<sup>64</sup> Regarding future environmental impacts at the Louisiana Point DMPA, the EA discusses the beneficial use of dredge material at the site to create marsh habitat and enhance and protect the existing shoreline<sup>65</sup> and analyzes the impacts to special status, threatened, and endangered species at the DMPA.<sup>66</sup> Regarding cumulative impacts from other projects in the watershed, the EA analyzes the temporary and permanent impacts to wetlands from sixteen other projects, including five at the Sabine Pass terminal.<sup>67</sup> Though several of these projects involve fill or modifications to wetlands that may result in permanent loss or conversion to other habitat types, these impacts will be offset by compensatory mitigation, as required by each project's CWA section 404 permit.<sup>68</sup>

**d. Other Placement Sites**

27. Mr. Teague asserts that the EA fails to consider alternative dredge placement sites. Contrary to Mr. Teague's claim, the EA did discuss other dredge material placement

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May 7, 2019 at 115-129 (aerial photography of Louisiana Point from October 2007 to January 2018); Louisiana DFW September 24, 2019 Comments on the EA.

<sup>63</sup> Sabine Pass's July 3, 2019 Response to Environmental Information Request at 9.

<sup>64</sup> EA at 33-34.

<sup>65</sup> *Id.* at 10, 38.

<sup>66</sup> *Id.* at 57, 62 (noting that suitable habitat for the red knot and piping plover birds is present within the Louisiana Point DMPA, and that the project's dredge material would be used to create and enhance habitat for these two bird species). In the second full paragraph of page 62 of the EA, the second sentence should state: "As the dredge material placed in the Louisiana Point DMPA would be utilized to create and enhance piping plover habitat, we have determined that the project is *not likely to adversely affect* the piping plover."

<sup>67</sup> *Id.* at 203-205.

<sup>68</sup> *Id.* at 204.

options, specifically placement of dredge material at the Louisiana Bayou Mitigation Area.<sup>69</sup> The EA concluded that the impacts at both the Louisiana Point DMPA and the Louisiana Bayou Mitigation Area on water quality would be temporary and minor.<sup>70</sup> Nothing more is required.

28. NMFS recommends Sabine Pass use the project dredge material at the Lighthouse Bayou Mitigation Area<sup>71</sup> or, alternatively, use the dredge material to restore degraded marsh east of the terminal. Use of the Lighthouse Bayou Mitigation Area would require constructing a rock breakwater and a containment dike to protect the site from wave action caused by ships in the Sabine Pass Ship Channel to allow successful marsh creation.<sup>72</sup> The creation of a new dredge material placement site coupled with the construction of a rock breakwater would result in more environmental impacts than using the existing Louisiana Point DMPA.<sup>73</sup> In addition, because of the required construction, the Lighthouse Bayou Mitigation Area would not be available in the timeframe of the Third Berth project and thus would not meet the project's objectives.<sup>74</sup>

29. The area east of Sabine Pass's terminal where NMFS suggests restoring marsh is owned by over 100 landowners, and use of the site would require their consent.<sup>75</sup> Additionally, an initial analysis of this site indicates that it could only accommodate 0.8-1.6 million cubic yards of dredge material, which is significantly less than the

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<sup>69</sup> See EA at 34. As noted *supra* at footnote 59, Sabine Pass no longer intends to develop the alternative mitigation site, the Louisiana Bayou Mitigation Area.

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

<sup>71</sup> NMFS states that this alternative mitigation area was discussed at a February 21, 2019 meeting with Louisiana DNR and that the plan for this area would involve three marsh creation cells with tidal connectivity.

<sup>72</sup> See Sabine Pass's November 2019 Final Compensatory Mitigation Plan at 3-4 (filed in the docket on December 6, 2019 in updated agency correspondence). See also *id.* at 3 (noting that the significant wave action from ships in the channel and the very soft foundation soil conditions increase the likelihood of erosion, creating additional impacts during construction and impacting the long-term success of marsh creation).

<sup>73</sup> *Id.* at 3-4.

<sup>74</sup> *Id.* at 3-4.

<sup>75</sup> *Id.* at 2.

approximately 3.6 million cubic yards of dredge material generated by this project.<sup>76</sup> Further, there is no current access to this site from the project area. Sabine Pass would need to construct a dredge pipe, approximately a mile long, that would cross an existing functioning marsh or a portion of the marsh and a federally managed DMPA.<sup>77</sup> Either of the crossings would impact the marsh.<sup>78</sup> Accordingly, we find that this proposed site does not provide an environmental advantage over the Louisiana Point DMPA site.

30. For the reasons described above, we find that the proposed disposal site, the Louisiana Point DMPA, is the preferred alternative that can meet the project's stated objectives. Further, we find that the EA appropriately analyzed the dredge material placement impacts. The Louisiana DNR indicated that the use of the Louisiana Point DMPA complies with beneficial use requirements,<sup>79</sup> and there is no evidence that contradicts the EA's determination that the impacts of the dredge material disposal on water resources, wetlands, and wildlife, as mitigated, will be less than significant.

**e. Essential Fish Habitat**

31. Pursuant to the Magnuson-Stevens Fishery Conservation and Management Act, the Commission consulted with NMFS regarding impacts on essential fish habitat. There are six managed essential fish habitat species likely to occur in the project area, and the essential fish habitat for these species consists of tidally influenced waters (estuarine water column) and tidally influenced marsh.<sup>80</sup> The EA assesses the impacts of the project on essential fish habitat, finding that the project will temporarily disturb 49.2 acres of existing essential fish habitat and permanently convert 26.8 acres of essential fish habitat.<sup>81</sup>

32. In its comments on the EA, NMFS disagrees with the scope of the adversely affected EFH. Because NMFS believes that previous placement of dredge material at the Louisiana Point DMPA has demonstrated very little benefit to essential fish habitat, it contends that the placement of the 3.6 million cubic yards of dredge material at the

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<sup>76</sup> *Id.*

<sup>77</sup> *Id.* at 3.

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

<sup>79</sup> Sabin Pass's April 2019 Beneficial Use of Dredged Material Plan at 3 (filed in the docket on December 6, 2019 in updated agency correspondence).

<sup>80</sup> EA at 53.

<sup>81</sup> *Id.*

site as proposed for this project is an impact on 597.8 acres of essential fish habitat marine non-vegetated bottoms and marine water column. Therefore, NMFS states that the Commission must provide NMFS with a “complete” essential fish habitat assessment to address this impact, including a description of the measures taken to avoid, minimize, mitigate, or offset the adverse impacts of the proposed activities on essential fish habitat.

33. We disagree that placement of dredge material at the Louisiana Point DMPA will impact 597.8 acres of essential fish habitat. As explained above, previous use of this site has resulted in successful marsh creation that has benefited fish habitat.<sup>82</sup> Additionally, placement of project dredge material will be used beneficially to protect the shoreline and create marsh habitat.<sup>83</sup> However, we recognize that initial placement of dredge material at the Louisiana Point DMPA, occurring over approximately 389.0 acres,<sup>84</sup> will temporarily affect essential fish habitat.<sup>85</sup> But this placement will ultimately improve essential fish habitat at the DMPA by mitigating the eroding shoreline and creating marsh habitat.<sup>86</sup> Therefore, we find that our assessment complies with the Magnuson-Stevens Fishery and Management Act.

34. Further, NMFS provides two essential fish habitat conservation recommendations in its comments: develop a long-term beneficial use plan for project dredge material that creates and/or nourishes marsh; and, develop a permittee-responsible mitigation and monitoring plan that fully compensates for unavoidable impacts to essential fish habitat. For the reasons discussed herein,<sup>87</sup> Commission staff responded to NMFS’s letter in

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<sup>82</sup> See *supra* section IV.B.1.c.

<sup>83</sup> *Id.*

<sup>84</sup> In its Army Corps application published September 10, 2019, Sabine Pass states that the dimensions of the Louisiana Point DMPA are 1,707 feet by 9,927 feet. Army Corps Public Notice, Dredged Material Management Plan at 2. Converted to acres, this is 389.0 acres.

<sup>85</sup> Temporary impacts at the Louisiana Point DMPA that may affect essential fish habitat are described *supra* at P 26.

<sup>86</sup> EA at 10, 38.

<sup>87</sup> Regarding the beneficial use plan, see *supra* section IV.B.1. Regarding the permittee-responsible mitigation and monitoring plan, see *infra* section IV.B.3.



compliance with the Magnuson-Stevens Fishery Conservation and Management Act and determined that NMFS's recommended conservation measures were not warranted.<sup>88</sup> More specifically, the EA finds that the proposed berth expansion would not result in significant impacts on essential fish habitat, that Sabine Pass's proposed dredge disposal plan would result in the beneficial creation of essential fish habitat to offset construction impacts, and that no additional mitigation and monitoring is required. We concur.

## **2. Alternative Berth Sites**

35. Mr. Teague asserts that the analysis of the berth site alternatives lacks specificity to support rejecting sites 1 and 2 as alternative sites. We disagree. The EA reviewed the two alternative sites to determine whether either site is technically feasible and offers significant environmental advantages.<sup>89</sup> The EA considered the two alternatives sites until, based on environmental comparison and professional judgment, it became clear that the alternatives could not provide a significant environmental advantage over the proposed site.<sup>90</sup>

36. For the proposed site and the two alternative sites, the EA included a map showing the alternative site locations<sup>91</sup> and provided the estimated impacted acres of upland and industrial areas, wetlands, the Sabine Pass Channel, and open water.<sup>92</sup> The EA further explained that the two alternative sites would require dredging of Point Hunt Island, a known bird rookery, but the proposed site would not.<sup>93</sup> The EA acknowledged that Sabine Pass's proposed site would impact more wetlands than the two alternative sites, but concluded that it is the preferred site because it impacts the least amount of land

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<sup>88</sup> Commission staff's December 3, 2019 Letter to NMFS. The Magnuson-Stevens Fishery Conservation and Management Act permits federal agencies to not adopt NMFS' conservation recommendations so long as the federal agency explains its reasons for not adopting the recommendations. 16 U.S.C. § 1855(b)(4)(B) (2018).

<sup>89</sup> EA at 219.

<sup>90</sup> *Id.* at 220.

<sup>91</sup> *Id.* at 223 (Figure C.1.3-1).

<sup>92</sup> *Id.* at 224 (Table C.1.3-1).

<sup>93</sup> *Id.* at 222, 224.

overall and will not require dredging of the Point Hunt Island or otherwise impact any known bird rookeries.<sup>94</sup> This is all that NEPA requires.<sup>95</sup>

37. Finally, Mr. Teague contends the map of Third Berth site alternatives<sup>96</sup> is inadequate as it does not show the actual dredging areas, Point Hunt Island or the bird rookery on Point Hunt Island. As explained above, the EA considered the alternative sites,<sup>97</sup> and because the EA determined that site alternatives 1 and 2 do not offer a significant environmental advantage due to their increased land use and impacts to the bird rookery, a more detailed map illustrating the specifics of each alternative site is not necessary.<sup>98</sup>

### 3. Mitigation of Wetlands Impacts

38. The Third Berth Expansion Project will dredge and permanently impact two wetlands, totaling approximately 27.7 acres.<sup>99</sup> Section 404 of the Clean Water Act requires Sabine Pass to obtain a permit from the Army Corps to discharge dredged or fill material in wetlands. In order to obtain a section 404 permit, applicants must demonstrate that they have taken steps to avoid and minimize impacts to wetlands, and to provide compensatory mitigation for any remaining unavoidable impacts.

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<sup>94</sup> *Id.* at 224.

<sup>95</sup> *See Birckhead v. FERC*, 925 F.3d 510, 516 (D.C. Cir. 2019) (upholding the Commission's determination that an alternative site would not have a significant environmental advantage based on an overall assessment of various factors); *see also City of Grapevine v. U.S. Dep't of Transp.*, 17 F.3d 1502, 1506 (D.C. Cir. 1994) ("where a federal agency is not the sponsor of a project, 'the Federal government's consideration of alternatives may accord substantial weight to the preferences of the applicant and/or sponsor in the siting and design of the project'").

<sup>96</sup> EA at 223 (Figure C.1.3-1).

<sup>97</sup> *Id.* at 220.

<sup>98</sup> We note that EAs typically provide a map similar to the one here, outlining the alternative site locations. *See, e.g.*, Stage 3 Environmental Assessment (Mar. 29, 2019), Docket Nos. CP18-512-000, CP18-513-000, at 242 (Figure C.1.3-1); Freeport LNG Train 4 Project Environmental Assessment (Nov. 2, 2018), Docket No. CP17-470-000 at 231-32 (Figures C 4-1, 4-2).

<sup>99</sup> *Id.* at 38.

39. Sabine Pass proposes to mitigate the loss of these wetlands through the purchase of mitigation credits from Louisiana DNR's In-Lieu Fee Program.<sup>100</sup> The Louisiana DNR In-Lieu Fee Program was established pursuant to an agreement between the Army Corps and Louisiana DNR.<sup>101</sup> Under the program, the Army Corps section 404 permittees may purchase credits to fund the development of wetland mitigation sites to meet the compensatory mitigation requirements of their section 404 permits.<sup>102</sup> The Third Berth Expansion Project is located in the program's Chenier Plain service area.

40. NMFS does not concur with Sabine Pass's proposal to use the In-Lieu Fee Program to mitigate unavoidable impacts to essential fish habitat. NMFS states that the in-lieu fee program does not account for the temporal losses between the Third Berth construction and the success of the in-lieu project or ensure that funds will be used for projects supporting the same habitat type within the same hydrologic basin. NMFS is not aware of any sites listed for program use, nor any credits available for release, at this time. Instead of using the in-lieu fee program to mitigate unavoidable impacts to essential fish habitat, NMFS recommends that Sabine Pass develop a permittee-responsible mitigation plan that ensures impacts are offset in the same hydraulic basin or use a mitigation bank.

41. As required by the Magnuson-Stevens Fishery and Management Act, the EA assesses the project impact on essential fish habitat, finding that the project will temporarily disturb 49.2 acres of existing essential fish habitat and permanently convert 26.8 acres of essential fish habitat.<sup>103</sup> The EA states that Sabine Pass will mitigate impacts on estuarine emergent wetlands that are essential fish habitat through beneficial use of dredge material at the Louisiana Point DMPA to enhance and protect the existing shoreline.<sup>104</sup> In addition, the EA states that because Sabine Pass will purchase mitigation

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<sup>100</sup> *Id.*

<sup>101</sup> Louisiana DNR, Louisiana In-Lieu Fee Instrument at 4 (Jan. 16, 2014), [http://www.dnr.louisiana.gov/assets/OCM/permits/FINAL\\_ILF\\_INSTRUMENT\\_1\\_16\\_14.pdf](http://www.dnr.louisiana.gov/assets/OCM/permits/FINAL_ILF_INSTRUMENT_1_16_14.pdf)

<sup>102</sup> *Id.* at 5.

<sup>103</sup> EA at 53.

<sup>104</sup> *Id.*

credits through Louisiana DNR's In-Lieu Fee Program, the project would not have significant impacts on wetlands.<sup>105</sup>

42. Because the Army Corps has jurisdiction over the placement of dredged material and any associated mitigation measures and monitoring, the appropriate forum for NMFS' comments regarding the in-lieu fee program is the Army Corps section 404 permit proceeding.<sup>106</sup> Sabine Pass is continuing to consult with the Army Corps and Louisiana DNR to determine the appropriate mechanism to provide compensatory mitigation for the project. There are three mechanisms available: permittee-responsible compensatory mitigation, mitigation banks, and in-lieu fee mitigation.<sup>107</sup> Because in-lieu fee projects typically involve large, more ecologically valuable parcels and more rigorous scientific and technical analysis, the Army Corps generally prefers in-lieu fee mitigation to permittee-responsible mitigation.<sup>108</sup> In the event the in-lieu fee program does not have the appropriate number and type of mitigation credits available in the applicable service area, Army Corps will choose an alternative compensatory mitigation mechanism.<sup>109</sup> Regardless of the mechanism approved by the Army Corps, the compensatory mitigation will be commensurate with the project's amount and type of impact.<sup>110</sup>

#### **4. Tribal Ancestral Land**

43. Cultural Heritage Partners, on behalf of the Tunica-Biloxi Indian Tribe (Tribe), states that the project has the potential to impact a portion of the Tribe's ancestral lands and requests an opportunity for the Tribe to consult and submit comments to FERC if unanticipated historic or cultural resources are discovered during project construction.

44. If cultural resources are discovered, Sabine Pass will implement the notification procedures included in the project's Unanticipated Discoveries Plan.<sup>111</sup> The Unanticipated Discoveries Plan requires the notification of federally recognized tribes,

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<sup>105</sup> *Id.* at 38-39.

<sup>106</sup> Commission staff's December 3, 2019 Letter to NMFS.

<sup>107</sup> 33 C.F.R. § 332.3(b) (2019).

<sup>108</sup> § 332.3(b)(3).

<sup>109</sup> § 332.3(b)(3).

<sup>110</sup> § 332.3(a)(1).

<sup>111</sup> EA at 77.

including the Tunica-Biloxi Indian Tribe, in the event that cultural resources are encountered during project construction.

## **5. Fish and Wildlife**

45. Louisiana DWF recommends Sabine Pass develop a mitigation plan to offset impacts on fish and wildlife resources.<sup>112</sup> In the EA, staff determined that impacts on fish and wildlife resources would be temporary and not significant.<sup>113</sup> Louisiana DWF did not raise any issues with this conclusion or provide any information that would contradict the EA's finding. Further, due to the nature of wildlife habitats impacted by the project (primarily wetlands and open water), compensatory mitigation for impacts on fish and wildlife species may be imposed by the Army Corps in the section 404 permit for the project.<sup>114</sup> Based on the foregoing, we do not find additional mitigation to offset impacts on these resources is necessary.

## **6. Sabine Pass's Corrections and Clarifications**

46. Sabine Pass provides corrections and clarifications on certain sections of the EA. We acknowledge these comments but find that most of these comments are not needed to be discussed further in the order because they do not suggest changes to the premises, recommendations, or conclusions of the EA. To the extent that Sabine Pass requests changes to certain premises and recommendations, they are discussed below.

### **a. LNG Carrier Size**

47. The Sabine Pass application stated that the third berth would accommodate LNG carriers with capacities up to 180,000 m<sup>3</sup> and draft up to 40 feet. The EA was prepared using that ship size/design. Subsequently, Sabine Pass clarified that the third berth will actually accommodate LNG carriers with capacities up to 200,000 m<sup>3</sup> and drafts up to 40 feet,<sup>115</sup> and will primarily accommodate LNG carriers with capacities from 180,000 m<sup>3</sup> to

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<sup>112</sup> Louisiana DWF's September 25, 2019 Comments at 1.

<sup>113</sup> See EA at 40-73. Louisiana DWF also identifies the piping plover, red knot, and West Indian manatee as potentially occurring in the project area. Louisiana DWF previously raised these species-specific comments, which were addressed in sections B.4.2 and B.4.5 of the EA.

<sup>114</sup> Sabine Pass included its Preliminary Mitigation Plan in its application. Application at Appendix 2B.

<sup>115</sup> Sabine Pass's September 20 Comments at Attachment 1.

200,000 m<sup>3</sup>. As a result, Commission staff evaluated the increase in LNG carrier size and has provided additional recommendations that we have adopted as Environmental Conditions to this order, as discussed below.

48. In terms of safety, the EA evaluated LNG ships with a capacity up to 180,000 m<sup>3</sup> because the application states that the dock will be sized to accommodate LNG carriers with a capacity of 125,000 to 180,000 m<sup>3</sup> but could be increased by up to 4 percent.<sup>116</sup> Sabine Pass's later comment that the third berth could accommodate 200,000 m<sup>3</sup> LNG carriers represents an increased capacity of approximately 11 percent.<sup>117</sup> While there are no expected changes for the project's process, mechanical, or hazard mitigation engineering design, documentation is required to demonstrate that the third berth has been structurally designed to handle the increased carrier size. Under Environmental Condition 23, Sabine Pass must file with the Secretary new structural design calculations and drawings stamped and sealed by a professional engineer of record registered in the state of Louisiana that demonstrates that the third berth dock is designed to accommodate the maximum LNG carrier size prior to construction of the final design.

49. In addition, the U.S. Coast Guard's (Coast Guard's) Letter of Recommendation received for the Sabine Third Berth Expansion Project evaluated the waterway for LNG carriers up to 180,000 m<sup>3</sup> in capacity. However, the Coast Guard previously issued an Letter of Recommendation on April 10, 2009, on the Sabine Pass Import Terminal Phase II Project based on LNG carriers up to and including the Q-max class, 266,000 m<sup>3</sup> vessels. Sabine Pass's LNG carrier size change for the Third Berth Expansion Project may be accommodated through a follow-on Waterway Suitability Assessment. Under Environmental Condition 94, Sabine Pass must file consultation with the Coast Guard concurring on the suitability of the waterway for any increase in LNG carrier capacity prior to accepting any LNG carrier with a nominal capacity greater than 180,000m<sup>3</sup>.

50. In terms of air emissions, Sabine Pass states that the newly designed 200,000 m<sup>3</sup> LNG carriers will have engines and generators no larger than those for the 180,000 m<sup>3</sup> LNG carriers and will not require additional transit time or additional tug support. Sabine Pass confirmed that the main engine size utilized in the emissions estimates associated with the 180,000 m<sup>3</sup> would also be appropriate for the 200,000 m<sup>3</sup> LNG carriers.<sup>118</sup> Therefore, no additional emissions would be anticipated and the air emissions modeling assessment conducted in the EA based on an LNG carrier capacity of 180,000 m<sup>3</sup> would remain valid.

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<sup>116</sup> Application at 1-9.

<sup>117</sup> Sabine Pass's September 20 Comments at Attachment 1.

<sup>118</sup> *Id.*

51. We have also evaluated impacts of 200,000 m<sup>3</sup> LNG carriers on ballast water. While the incremental increase in maximum ship size from 180,000 m<sup>3</sup> to 200,000 m<sup>3</sup> would likely result in increased ballast and cooling water intake/discharge from what is presented in the EA, this incremental increase is not anticipated to significantly increase impacts on aquatic species or water quality. Therefore, FERC staff's conclusions in the EA regarding the impacts of ballast and cooling water intake/discharge remain the same.

**b. Environmental Recommendations**

52. Environmental Recommendation 13 required Sabine Pass to provide the results of its underwater sound level measurements after the completion of its initial in-water test pile driving phase. In its comments, Sabine Pass states that it will not be conducting an in-water pile driving testing phase, provides documentation of consultation with NMFS,<sup>119</sup> and requests the requirement to provide the testing results be removed. In support of this request, Sabine Pass states it will implement the following noise mitigation measures: use of soft starts; vibratory pile driving for the majority of in-water piles; cushion blocks; and a bubble curtain. With the implementation of these measures, staff has determined that noise impacts would be sufficiently minimized. We concur and are not including Environmental Recommendation 13 as a condition of this order.

53. In response to Environmental Recommendation 18, which required Sabine Pass to file mitigation measures developed in consultation with NMFS to avoid or further minimize the take of marine mammals during in-water pile driving, Sabine Pass provides correspondence with NMFS outlining the mitigation measures and NMFS's acceptance of those measures.<sup>120</sup> These measures satisfy staff's concerns regarding the taking of marine mammals; therefore, we have not included Environmental Recommendation 18 in the appendix of this order.

54. In response to Environmental Recommendation 21 (now Environmental Condition 19), Sabine Pass requests the language of "the professional engineer of record in the state of Louisiana" be changed to "the professional land surveyor in the state of Louisiana." While Sabine Pass may retain a registered professional land surveyor to install the settlement monitoring systems that measures for uniform and differential settlement, the information reported from the monitoring system should still be analyzed and stamped by a registered professional engineer to ensure any settlement does not result in any potential structural engineering concerns. Therefore, the EA recommendation remains unchanged in Environmental Condition 19 in the appendix to this order.

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<sup>119</sup> Sabine Pass's December 19 Comments at Attachment 18.

<sup>120</sup> Sabine Pass's December 19 Comments at Attachment 18.

55. Sabine Pass requests clarification as to which pipelines Environmental Recommendation 22 (now Environmental Condition 20) is referring. The recommendation speaks to all existing buried pipelines which construction traffic would cross, including the 6-inch Harvest pipeline. As the recommendation speaks to all pipelines construction traffic would cross, the EA recommendation remains unchanged in Environmental Condition 20 in the appendix to this order.

56. With respect to Environmental Recommendation 24, which required Sabine Pass to file certain drawings, specifications, and procedures prior to construction, Sabine Pass notes that it provided seismic design parameters in the Basic Engineering Design Data document submitted in Appendix 13.B.1.1.<sup>121</sup> We have, therefore, revised the Environmental Condition 2 in the appendix to this order to remove "prior to issuing requests for quotations."

57. In response to Environmental Recommendation 31, which required Sabine Pass to file drawings and specifications for crash rated vehicle barriers at the facility entrance adjacent to the berth and access control prior to construction, Sabine Pass states that crash rated vehicle barriers are already located at the secured main entrance to the existing Terminal and it is not proposing to add crash rated vehicle barriers adjacent to the facility. We acknowledge that a combination of the existing and new barriers should provide sufficient protection to the project. Therefore, we have modified Environmental Condition 30 in the appendix to this order accordingly.

58. Sabine Pass notes that Environmental Recommendation 49 in the EA appears to be duplicative of Environmental Recommendation 46. We agree and have not included the duplicative environmental recommendation, Environmental Recommendation 46, in the appendix to this order. Environmental Recommendation 49 (now Environmental Condition 47) remains unchanged in the appendix to this order.

59. Environmental Recommendation 61 (now Environmental Condition 59) required Sabine Pass to demonstrate that the impoundment basin will have automatic rainwater pumps with redundant automatic shutdown controls to prevent pumping when LNG is present. In response, Sabine Pass states that the impoundment basin was previously approved and constructed under CP04-47-000. Sabine Pass is not proposing to add a new impoundment nor change its design. We recognize that this is an existing impoundment; however, new spills from the proposed project can enter it. As this impoundment will be used to collect LNG spills associated with the proposed equipment, we accept the recommendation, unchanged, and have included it as Environmental Condition 59 in the appendix to this order.

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<sup>121</sup> Application, Resource Report 13, Appendix 13.B.1.1.



60. Environmental Recommendation 81 required Sabine Pass to demonstrate that the marine buildings housing electrical, instrument, and control systems that activate emergency systems are designed to withstand a 20-minute fire exposure per UL 1709. Sabine Pass indicates that a supplemental Building Siting Study was provided in the project application and recommends that Environmental Recommendation 81 be deleted. However, the building siting study is in reference to the location of the buildings and does not speak to the protection of the electrical equipment that activates emergency systems within the buildings. In addition, we realize electrical equipment that activates the emergency systems are not housed solely in the marine buildings. Therefore, we have modified Environmental Condition 79 in the appendix to the order to reflect that all electrical systems used to activate emergency systems, including those within the marine buildings, must be designed to withstand a 20-minute fire exposure per UL 1709.

61. Sabine Pass recommends several changes to the reporting requirements of Environmental Recommendation 103 (now Environmental Condition 102), which address the reporting of significant non-scheduled events, including safety- and security-related incidents, to FERC staff, to replicate those of PHMSA. While similar, the specific requirements of PHMSA and the Commission for reporting such events have evolved over time to reflect the different responsibilities of each agency. Hence, the reporting requirements set forth in Environmental Condition 102 reflect the specific needs of the Commission. We note that the requirements as set forth in Environmental Condition 102 are standard requirements, consistently included as a condition of Commission orders authorizing the construction and operation of LNG facilities.<sup>122</sup> This consistency is important to the efficient administration of the Commission's LNG oversight program. Therefore, Environmental Recommendation 103 is incorporated, unchanged, as Environmental Condition 102 in the appendix to this order.

## **7. Updated Greenhouse Gas Analysis**

62. The EA estimates that operation of the project, including the addition of 180 LNG carriers annually, may result in direct and indirect greenhouse gas (GHG) emissions of up to 45,949 metric tons per year of carbon dioxide equivalent (CO<sub>2</sub>e).<sup>123</sup> To provide context to the EA's GHG estimate, 5.743 billion metric tons of CO<sub>2</sub>e were emitted at a national level in 2017 (inclusive of CO<sub>2</sub>e sources and sinks).<sup>124</sup> The direct and indirect

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<sup>122</sup> See e.g., *Rio Grande LNG, LLC*, 169 FERC ¶ 61,131, at Environmental Condition 143 (2019); *Texas LNG Brownsville LLC*, 169 FERC ¶ 61,130, at Environmental Condition 129 (2019); *Venture Global Calcasieu Pass, LLC*, 166 FERC ¶ 61,144, at Environmental Condition 111 (2019).

<sup>123</sup> EA at 112 (Table B.8.1-5).

<sup>124</sup> U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas*

operational emissions of the project could potentially increase CO<sub>2</sub>e emissions based on the 2017 levels by 0.0008 percent at the national level. Currently, there are no national targets to use as a benchmark for comparison.<sup>125</sup>

63. The EA also includes a qualitative discussion that discloses various effects of climate change.<sup>126</sup> The EA acknowledges that the GHG emissions, such as those emitted from the construction and operation of the project will contribute incrementally to climate change.<sup>127</sup> The Commission has previously concluded it could not determine a project's incremental physical impacts on the environment caused by GHG emissions.<sup>128</sup> We have also previously concluded it could not determine whether a project's contribution to climate change would be significant.<sup>129</sup> That situation has not changed.

## V. Conclusion

64. Based on the analysis in the EA, as supplemented herein, we conclude that if constructed and operated in accordance with Sabine Pass's application and supplements, and in compliance with the environmental conditions in the appendix to this order, our approval of this proposal would not constitute a major federal action significantly affecting the quality of the human environment

65. Compliance with the environmental conditions appended to our orders is integral to ensuring that the environmental impacts of approved projects are consistent with those anticipated by our environmental analyses. Thus, Commission staff carefully reviews all

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*Emissions and Sinks 1990-2017* at ES6-8 (Table ES-2) (2019), <https://www.epa.gov/sites/production/files/2019-04/documents/us-ghg-inventory-2019-main-text.pdf> (accessed November 2019).

<sup>125</sup> EA at 214. The national emissions reduction targets expressed in the EPA's Clean Power Plan were repealed, Greenhouse Gas Emissions From Existing Electric Utility Generating Units; Revisions to Emissions Guidelines Implementing Regulations, 84 Fed. Reg. 32,520, 32,522-32 (July 8, 2019), and the targets in the Paris Climate Accord are pending withdrawal.

<sup>126</sup> EA at 212-215.

<sup>127</sup> *Id.* at 214.

<sup>128</sup> *Dominion Transmission, Inc.*, 163 FERC ¶ 61,128, at PP 67-70 (2018) (LaFleur, Comm'r, *dissenting in part*; Glick, Comm'r, *dissenting in part*).

<sup>129</sup> *Id.*

information submitted. Commission staff will only issue a construction notice to proceed with an activity when satisfied that the applicant has complied with all applicable conditions. We also note that the Commission has the authority to take whatever steps are necessary to ensure the protection of environmental resources during construction and operation of the projects, including authority to impose any additional measures deemed necessary to ensure continued compliance with the intent of the conditions of the order, as well as the avoidance or mitigation of unforeseen adverse environmental impacts resulting from project construction and operation.

66. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this authorization and Certificate. The Commission encourages cooperation between jurisdictional companies and local authorities. However, this does not mean that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.<sup>130</sup>

67. At a meeting held on February 20, 2020, the Commission on its own motion received and made a part of the record in this proceeding all evidence, including the application, as supplemented, and exhibits thereto, and all comments, and upon consideration of the record,

The Commission orders:

(A) Sabine Pass is authorized under section 3 of the NGA to site, construct, and operate the proposed project located in Cameron Parish, Louisiana, as described and conditioned herein, and as fully described in Sabine Pass's application and supplements, including any commitments made therein, and subject to the environmental conditions contained in the appendix of this order.

(B) Sabine Pass's proposed project shall be constructed and made available for service within five years of the date of this order.

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<sup>130</sup> See 15 U.S.C. § 717r(d) (2018) (state or federal agency's failure to act on a permit considered to be inconsistent with Federal law); see also *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293, 310 (1988) (state regulation that interferes with FERC's regulatory authority over the transportation of natural gas is preempted) and *Dominion Transmission, Inc. v. Summers*, 723 F.3d 238, 245 (D.C. Cir. 2013) (noting that state and local regulation is preempted by the NGA to the extent it conflicts with federal regulation, or would delay the construction and operation of facilities approved by the Commission).

(C) Sabine Pass shall notify the Commission's environmental staff by telephone or e-mail of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies Sabine Pass. Sabine Pass shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

By the Commission. Commissioner Glick is dissenting in part with a separate statement attached.  
Commissioner McNamee is concurring with a separate statement attached.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

## Appendix

### Environmental Conditions

As recommended in the Environmental Assessment (EA) and modified herein, this authorization includes the following conditions:

1. Sabine Pass LNG, L.P. (Sabine Pass) shall follow the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests) and as identified in the EA, unless modified by the Order. Sabine Pass must:
  - a. request any modifications to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);
  - b. justify each modification relative to site-specific conditions;
  - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
  - d. receive approval in writing from the Director of the Office of Energy Projects (OEP) **before using that modification**.
2. The Director of OEP, or the Director's designee, has delegated authority to address any requests for approvals or authorizations necessary to carry out the conditions of the Order, and take whatever steps are necessary to ensure the protection of environmental resources during construction and operation of the Third Berth Expansion Project (Project). This authority shall allow:
  - a. the modification of conditions of the Order;
  - b. stop-work authority and authority to cease operation; and
  - c. the imposition of any additional measures deemed necessary to ensure continued compliance with the intent of the conditions of the Order as well as the avoidance or mitigation of unforeseen adverse environmental impact resulting from the Project construction and operation.
3. **Prior to any construction**, Sabine Pass shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, Environmental Inspector(s) (EI), and contractor personnel will be informed of the EI's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities.

4. The authorized facility locations shall be as shown in the EA, as supplemented by filed maps. **As soon as they are available, and before the start of construction,** Sabine Pass shall file with the Secretary any revised detailed survey maps at a scale not smaller than 1:6,000 with station positions for all facilities approved by the Order. All requests for modifications of environmental conditions of the Order or site-specific clearances must be written and must reference locations designated on these maps.
5. Sabine Pass shall file with the Secretary detailed site plan drawings, maps, and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/aerial photographs. Each area must be approved in writing by the Director of OEP **before construction in or near that area.**

This requirement does not apply to extra workspace allowed by the Commission's *Upland Erosion Control, Revegetation, and Maintenance Plan* and/or minor field realignments per landowner needs and requirements which do not affect other landowners or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all route realignments and facility location changes resulting from:

- a. implementation of cultural resources mitigation measures;
  - b. implementation of endangered, threatened, or special concern species mitigation measures;
  - c. recommendations by state regulatory authorities; and
  - d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.
6. **Within 60 days of the Order and before construction begins,** Sabine Pass shall file an Implementation Plan with the Secretary for review and written approval by the Director of OEP. Sabine Pass must file revisions to the plan as schedules change. The plan shall identify:

- a. how Sabine Pass will implement the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests), identified in the EA, and required by the Order;
  - b. how Sabine Pass will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;
  - c. the number of EIs assigned, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
  - d. company personnel, including EIs and contractors, who will receive copies of the appropriate material;
  - e. the location and dates of the environmental compliance training and instructions Sabine Pass will give to all personnel involved with construction and restoration (initial and refresher training as the Project progresses and personnel change), with the opportunity for OEP staff to participate in the training session(s);
  - f. the company personnel (if known) and specific portion of Sabine Pass's organization having responsibility for compliance;
  - g. the procedures (including use of contract penalties) Sabine Pass will follow if non-compliance occurs; and
  - h. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
    - (1) the completion of all required surveys and reports;
    - (2) the environmental compliance training of onsite personnel;
    - (3) the start of construction; and
    - (4) the start and completion of restoration.
7. Sabine Pass shall employ at least one EI for the Project. The EI shall be:
- a. responsible for monitoring and ensuring compliance with all mitigation measures required by the Order and other grants, permits, certificates, or other authorizing documents;

- b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition 6 above) and any other authorizing document;
  - c. empowered to order correction of acts that violate the environmental conditions of the Order, and any other authorizing document;
  - d. a full-time position, separate from all other activity inspectors;
  - e. responsible for documenting compliance with the environmental conditions of the Order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
  - f. responsible for maintaining status reports.
8. Beginning with the filing of its Implementation Plan, Sabine Pass shall file updated status reports with the Secretary on a **monthly** basis until all construction and restoration activities are complete. Problems of a significant magnitude shall be reported to the FERC **within 24 hours**. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:
- a. an update on Sabine Pass's efforts to obtain the necessary federal authorizations;
  - b. Project schedule, including current construction status of the Project, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally-sensitive areas;
  - c. a listing of all problems encountered, contractor nonconformance/deficiency logs, and each instance of noncompliance observed by the EI during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);
  - d. a description of the corrective and remedial actions implemented in response to all instances of noncompliance, nonconformance, or deficiency;
  - e. the effectiveness of all corrective and remedial actions implemented;
  - f. a description of any landowner/resident complaints which may relate to compliance with the requirements of the Order, and the measures taken to satisfy their concerns; and



- g. copies of any correspondence received by Sabine Pass from other federal, state, or local permitting agencies concerning instances of noncompliance, and Sabine Pass's response.
- 9. Sabine Pass must receive written authorization from the Director of OEP **before commencing construction of any Project facilities**. To obtain such authorization, Sabine Pass must file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).
- 10. Sabine Pass must receive written authorization from the Director of OEP **prior to introducing hazardous fluids into the Project facilities**. Instrumentation and controls, hazard detection, hazard control, and security components/systems necessary for the safe introduction of such fluids shall be installed and functional.
- 11. Sabine Pass must receive written authorization from the Director of OEP **before placing the Project facilities into service**. Such authorization will only be granted following a determination that the facilities have been constructed in accordance with FERC approval, can be expected to operate safely as designed, and the rehabilitation and restoration of the areas affected by the Project are proceeding satisfactorily.
- 12. **Within 30 days of placing the authorized facilities in service**, Sabine Pass shall file an affirmative statement with the Secretary, certified by a senior company official:
  - a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
  - b. identifying which of the conditions in the Order Sabine Pass has complied with or will comply with. This statement shall also identify any areas affected by the Project where compliance measures were not properly implemented, if not previously identified in filed status reports and the reason for noncompliance.
- 13. **Prior to construction**, Sabine Pass shall file with the Secretary, documentation of correspondence with the U.S. Fish and Wildlife Service (FWS) regarding the results of pre-construction rookery surveys and measures that Sabine Pass will implement in the event that rookeries are identified within the Project area, for review and written approval by the Director of OEP.
- 14. **Prior to construction**, Sabine Pass shall file with the Secretary, for review and written approval by the Director of OEP, measures it will implement to minimize

impacts on the black rail. Sabine Pass shall also file documentation of correspondence with the FWS regarding these measures.

15. **During construction of the Project**, Sabine Pass shall also file documentation showing how they will implement the measures outlined in the National Marine Fisheries Service 2006 *Sea Turtle and Smalltooth Sawfish Construction Recommendations*.
16. Sabine Pass shall **not begin** construction activities **until**:
  - a. the FERC staff receives comments from the FWS and the NMFS regarding the proposed action;
  - b. the FERC staff completes Endangered Species Act consultation with the FWS and NMFS; and
  - c. Sabine Pass has received written notification from the Director of OEP that construction or use of mitigation may begin.
17. Sabine Pass shall **not begin** Project construction activities and/or use of staging, storage, or temporary work areas and new or to-be-improved access roads **until**:
  - a. Sabine Pass files with the Secretary:
    - (1) remaining cultural resources survey report(s);
    - (2) site evaluation report(s) and avoidance/treatment plan(s), as required; and/or
    - (3) comments from the Texas State Historic Preservation Office.
  - b. the Advisory Council on Historic Preservation is afforded an opportunity to comment if historic properties would be adversely affected; and
  - c. the FERC staff reviews and the Director of OEP approves the cultural resources reports and plans, and notifies Sabine Pass in writing that treatment plans/mitigation measures (including archaeological data recovery) may be implemented and/or construction may proceed.

All materials filed with the Commission containing **location, character, and ownership** information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: “**CUI//PRIV- DO NOT RELEASE.**”

18. **Prior to construction**, Sabine Pass shall file with the Secretary a copy of the Louisiana Department of Natural Resources and the Texas General Land Office Coastal Zone Management Act consistency determinations for the Project.
19. **Prior to initial site preparation**, Sabine Pass shall file with the Secretary a plan to install a permanent settlement monitoring system to measure uniform and differential settlement for the equipment in the proposed project that is stamped and sealed by the professional engineer of record in the state of Louisiana. The settlement record shall be reported in the semi-annual operational reports.
20. **Prior to initial site preparation**, Sabine Pass shall file with the Secretary a detailed analysis that demonstrates external loads exerted by vehicular traffic and construction equipment will not exceed the maximum live load capability of buried pipelines at or adjacent to the Project. The analysis shall be stamped and sealed by the professional engineer-of-record, registered in Louisiana and shall include the depth of existing buried pipelines and evidence that the maximum load shall be higher than plant construction and operation activities require. In addition, provide construction and operations procedures to demonstrate that the maximum allowable weight will never be exceeded.
21. **Prior to construction of final design**, Sabine Pass shall file with the Secretary documentation of consultation with the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration on whether using normally-closed valves as a storm water removal device on curbed areas would meet the requirements of 49 CFR 193.
22. **Prior to construction of final design**, Sabine Pass shall file with the Secretary the following information, stamped and sealed by the professional engineer-of-record registered in Louisiana. In addition, Sabine Pass shall file, in its Implementation Plan, the schedule for producing this information:
  - a. site preparation drawings and specifications;
  - b. liquefied natural gas (LNG) marine transfer piping and berth structures and foundation design drawings and calculations;
  - c. seismic specifications for procured equipment; and
  - d. quality control procedures to be used for civil/structural design and construction.
23. **Prior to construction of final design**, Sabine Pass shall file with the Secretary structural design calculations that are stamped and sealed by the professional engineer of record in the state of Louisiana that demonstrates the third berth dock will be designed to accommodate the maximum LNG carrier size.

Conditions 24 through 99 shall apply to the Sabine Pass LNG Third Berth facilities at the Sabine Pass LNG Terminal. Information pertaining to these specific conditions shall be filed with the Secretary, for review and written approval by the Director of OEP, or the Director's designee, within the timeframe indicated by each condition. Specific engineering, vulnerability, or detailed design information meeting the criteria specified in Order No. 833 (Docket No. RM16-15-000), including security information, shall be submitted as critical energy infrastructure information pursuant to 18 CFR 388.113. See Critical Electric Infrastructure Security and Amending Critical Energy Infrastructure Information, Order No. 833, 81 Fed. Reg. 93,732 (December 21, 2016), FERC Stats. & Regs. 31,389 (2016). Information pertaining to items such as offsite emergency response, procedures for public notification and evacuation, and construction and operating reporting requirements shall be subject to public disclosure. All information shall be filed **a minimum of 30 days** before approval to proceed is requested.

24. **Prior to initial site preparation**, Sabine Pass shall file an overall Project schedule, which includes the proposed stages of the commissioning plan.
25. **Prior to initial site preparation**, Sabine Pass shall file procedures for controlling access during construction.
26. **Prior to initial site preparation**, Sabine Pass shall file quality assurance and quality control procedures for construction activities.
27. **Prior to initial site preparation**, Sabine Pass shall file a corrosion mitigation plan for buried concrete and steel foundations.
28. **Prior to initial site preparation**, Sabine Pass shall file an updated Emergency Response Plan for the additional facilities of the Project
29. **Prior to initial site preparation**, Sabine Pass shall file an updated Cost-Sharing Plan identifying the mechanisms for funding all Project-specific security/emergency management costs that shall be imposed on state and local agencies. This comprehensive plan shall include funding mechanisms for the capital costs associated with any necessary security/emergency management equipment and personnel base. Sabine Pass shall notify FERC staff of all planning meetings in advance and shall report progress on the development of its Cost Sharing Plan at **3-month intervals**.
30. **Prior to construction of final design**, Sabine Pass shall file drawings of specifications for crash rated vehicle barriers at the facility that will provide access to the Third Berth Project.
31. **Prior to construction of final design**, Sabine Pass shall file lighting drawings. The lighting drawings shall show the location, elevation, type of light fixture, and

lux levels of the lighting systems that would service the Third Berth and shall be in accordance with the proposed specification to meet American Petroleum Institute (API) 540 and provide illumination along the perimeter of the facility and along paths/roads of access and egress to facilitate security monitoring and emergency response operations.

32. **Prior to construction of final design**, Sabine Pass shall file security camera and intrusion detection drawings. The security camera drawings shall show the location, areas covered, and features of the camera (fixed, tilt/pan/zoom, motion detection alerts, low light, mounting height, etc.) to verify camera coverage of the entire perimeter with redundancies, and cameras interior to the terminal that will enable rapid monitoring of the Project areas. The drawings shall show or note the location of the intrusion detection to verify it covers the entire perimeter of the LNG plant.
33. **Prior to construction of final design**, Sabine Pass shall file fencing drawings. The fencing drawings shall provide details of fencing that demonstrates it will restrict and deter access around the entire facility (including Lighthouse Road) and has a setback from exterior features (e.g., power lines, trees, etc.) and from interior features (e.g., piping, equipment, buildings, etc.) that does not allow for the fence to be overcome.
34. **Prior to construction of final design**, Sabine Pass shall file change logs that list and explain any changes made from the front end engineering design provided in Sabine Pass's application and filings. A list of all changes with an explanation for the design alteration shall be provided and all changes shall be clearly indicated on all diagrams and drawings.
35. **Prior to construction of final design**, Sabine Pass shall file a plot plan of the final design showing all major equipment, structures, buildings, and impoundment systems.
36. **Prior to construction of final design**, Sabine Pass shall file three-dimensional plant drawings to confirm plant layout for maintenance, access, egress, and congestion.
37. **Prior to construction of final design**, Sabine Pass shall file up-to-date process flow diagrams process flow diagrams (PFDs) and piping and instrumentation diagrams (P&ID). The process flow diagrams shall include heat and material balances. The P&IDs shall include the following information:
  - a. equipment tag number, name, size, duty, capacity, and design conditions;

- b. equipment insulation type and thickness;
  - c. valve high pressure side and internal and external vent locations;
  - d. piping with line number, piping class specification, size, and insulation type and thickness;
  - e. piping specification breaks and insulation limits;
  - f. all control and manual valves numbered;
  - g. relief valves with size and set points; and
  - h. drawing revision number and date.
38. **Prior to construction of final design**, Sabine Pass shall file P&IDs, specifications, and procedures that clearly show and specify the tie-in details required to safely connect subsequently constructed facilities with the operational facilities.
39. **Prior to construction of final design**, Sabine Pass shall file a car seal philosophy and a list of all car-sealed and locked valves consistent with the P&IDs.
40. **Prior to construction of final design**, Sabine Pass shall file a hazard and operability study prior to issuing the P&IDs for construction. A copy of the review, a list of the recommendations, and actions taken on the recommendations shall be filed.
41. **Prior to construction of final design**, Sabine Pass shall file the safe operating limits (upper and lower), alarm and shutdown set points for all instrumentation (i.e., temperature, pressures, flows, and compositions).
42. **Prior to construction of final design**, Sabine Pass shall file cause-and-effect matrices for the process instrumentation, fire and gas detection system, and emergency shutdown system for review and approval. The cause-and-effect matrices shall include alarms and shutdown functions, details of the voting and shutdown logic, and set points.
43. **Prior to construction of final design**, Sabine Pass shall file an up-to-date equipment list, process and mechanical data sheets, and specifications. The specifications shall include:
- a. building specifications (e.g., control buildings, electrical buildings, ventilated buildings, blast resistant buildings);

- b. mechanical specifications (e.g., piping, valve, insulation, other specialized equipment);
  - c. electrical and instrumentation specifications (e.g., power system, control system, safety instrumented systems, cable, other electrical and instrumentation); and
  - d. security and fire safety specifications (e.g., security, passive protection, hazard detection, hazard control, firewater).
44. **Prior to construction of final design**, Sabine Pass shall file a list of all codes and standards and the final specification document number where they are referenced.
45. **Prior to construction of final design**, Sabine Pass shall demonstrate that, for hazardous fluids, piping and piping nipples 2 inches or less in diameter are designed to withstand external loads, including vibrational loads in the vicinity of rotating equipment and operator live loads in areas accessible by operators.
46. **Prior to construction of final design**, Sabine Pass shall specify that all emergency shutdown valves will be equipped with open and closed position switches connected to the Distributed Control System/Safety Instrumented System.
47. **Prior to construction of final design**, Sabine Pass shall file an evaluation of emergency shutdown valve closure times. The evaluation shall account for the time to detect an upset or hazardous condition, notify plant personnel, and close the emergency shutdown valve(s).
48. **Prior to construction of final design**, Sabine Pass shall file an updated transient analysis on the dynamic pressure surge effects that the transfer line could experience during loading operations from valve opening and closure times and pump startup and shutdown operations that demonstrates that the transfer line can withstand or mitigate the surge pressures.
49. **Prior to construction of final design**, Sabine Pass shall file documentation which demonstrates that the marine transfer area will have an emergency shutdown system that can be activated manually and is activated automatically when the fixed sensors measure LNG concentrations exceeding 40% of the lower flammable limit.
50. **Prior to construction of final design**, Sabine Pass shall file the sizing basis and capacity for the final design of the pressure relief valves.
51. **Prior to construction of final design**, Sabine Pass shall file an updated fire protection evaluation of the proposed facilities. A copy of the evaluation, a list of

recommendations and supporting justifications, and actions taken on the recommendations shall be filed. The evaluation shall justify the type, quantity, and location of hazard detection and hazard control, passive fire protection, emergency shutdown and depressurizing systems, firewater, and emergency response equipment, training, and qualifications in accordance with National Fire Protection Association (NFPA) 59A. The justification for the flammable and combustible gas detection and flame and heat detection shall take into account the set points, voting logic, and different wind speeds and directions. The justification for firewater shall provide calculations for all firewater demands based on design densities, surface area, and throw distance and specifications for the corresponding hydrant and monitors needed to reach and cool equipment.

52. **Prior to construction of final design**, Sabine Pass shall file spill containment system drawings with dimensions and slopes of curbing, trenches, impoundments, and capacity calculations considering the useable LNG impoundment volume. The spill containment drawings shall show containment for all hazardous fluids, including all liquids handled above their flash point, from the largest flow from a single line for 10 minutes, including de-inventory, or the maximum liquid from the largest vessel (or total of impounded vessels) or otherwise demonstrate that providing spill containment is not required to reduce the flammable vapor dispersion or radiant heat consequences of a spill.
53. **Prior to construction of final design**, Sabine Pass shall file detailed calculations to confirm that the final fire water volumes will be accounted for when evaluating the capacity of the impoundment system during a spill and fire scenario.
54. **Prior to construction of final design**, Sabine Pass shall demonstrate the maximum flowrate used in the basis of design of its impoundment system is the maximum flowrate hydraulically achievable unless the flowrate is limited by Safety Integrity Level 2 or 3 rated systems or equivalent.
55. **Prior to construction of final design**, Sabine Pass shall provide a plot plan with scale depicting all tie-in locations (including main LNG loading line, cooldown line, etc.) and identify the length of each piping segment to determine the de-inventory volumes for spill sizing calculations.
56. **Prior to construction of final design**, Sabine Pass shall demonstrate how releases from the marine areas will be prevented from entering the water and indicate which size of releases will not be captured by the marine area spill containment system.
57. **Prior to construction of final design**, Sabine Pass shall provide drawings and dimensions of the jetty spill containment system (i.e., spill curbing) on the jetty that will prevent spills from entering the water.



58. **Prior to construction of final design**, Sabine Pass shall provide the minimum and maximum trench height as well as the length of each section of the trench system evaluated in its Impoundment Swale Hydraulics analysis and demonstrate that the maximum sizing spill could be contained without overtopping each trench segment.
59. **Prior to construction of final design**, Sabine Pass shall provide documentation demonstrating that the impoundment basin will have automatic rainwater pumps with redundant automatic shutdown controls to prevent pumping when LNG is present.
60. **Prior to construction of final design**, Sabine Pass shall file finalized electrical area classification drawings. The drawings shall demonstrate that the elevation of buildings located at the marine transfer area will result in the building being unclassified.
61. **Prior to construction of final design**, Sabine Pass shall provide documentation justifying the use of API Recommended Practices (RP) 500's Figure 96 as a representation of Detail 13 of the Electrical Area Classification drawing E3-00-00003 using hazard modeling of various release rates from equivalent hole sizes (see NFPA 497 release rate of 1lb/min) or modify the electrical area classification drawings in the marine transfer area to be consistent with the most applicable Figure of API RP 500.
62. **Prior to construction of final design**, Sabine Pass shall file drawings and details of how process seals or isolations installed at the interface between a flammable fluid system and an electrical conduit or wiring system meet the requirements of NFPA 59A.
63. **Prior to construction of final design**, Sabine Pass shall file details of an air gap or vent installed downstream of process seals or isolations installed at the interface between a flammable fluid system and an electrical conduit or wiring system. Each air gap shall vent to a safe location and be equipped with a leak detection device that shall continuously monitor for the presence of a flammable fluid, alarm the hazardous condition, and shut down the appropriate systems.
64. **Prior to construction of final design**, Sabine Pass shall file complete drawings and a list of the hazard detection equipment. The drawings shall clearly show the location and elevation of all detection equipment. The list shall include the instrument tag number, type and location, alarm indication locations, and shutdown functions of the hazard detection equipment.
65. **Prior to construction of final design**, Sabine Pass shall file a technical review of facility design that:

- a. identifies all combustion/ventilation air intake equipment and the distances to any possible flammable gas release; and
  - b. demonstrates that these areas are adequately covered by hazard detection devices and indicates how these devices will isolate or shutdown any combustion or heating ventilation and air conditioning equipment whose continued operation could add to or sustain an emergency.
66. **Prior to the construction of final design**, Sabine Pass shall provide documentation demonstrating that the placement of heating, ventilation, and air conditioning intakes are in a location such that they not ingest gas from design spills
67. **Prior to construction of final design**, Sabine Pass shall file a list of alarm and shutdown set points for all hazard detectors that account for the calibration gas of the hazard detectors when determining the lower flammable limit set points for methane, propane, ethane/ethylene, pentane, and condensate.
68. **Prior to construction of final design**, Sabine Pass shall file an evaluation of the voting logic and voting degradation for hazard detectors.
69. **Prior to construction of final design**, Sabine Pass shall file a design that includes hazard detection suitable to detect high temperatures and smoldering combustion products in electrical buildings and control room buildings.
70. **Prior to construction of final design**, Sabine Pass shall file an analysis of the off gassing of hydrogen in battery rooms and ventilation calculations that limit concentrations below the lower flammability limits (e.g., 25 percent lower flammability limits [LFL]) and shall also provide hydrogen detectors that alarm (e.g., 20 to 25 percent LFL) and initiate mitigative actions (e.g., 40 to 50 percent LFL).
71. **Prior to construction of final design**, Sabine Pass shall file a drawing showing the location of the emergency shutdown buttons. Emergency shutdown buttons shall be easily accessible, conspicuously labeled, and located in an area which will be accessible during an emergency.
72. **Prior to construction of final design**, Sabine Pass shall file facility plan drawings and a list of the fixed and wheeled dry-chemical, hand-held fire extinguishers, and other hazard control equipment. Plan drawings shall clearly show the location and elevation by tag number of all fixed dry chemical systems in accordance with NFPA 17, and wheeled and hand-held extinguishers location travel distances are along normal paths of access and egress and in compliance with NFPA 10. The

list shall include the equipment tag number, manufacturer and model, elevations, agent type, agent capacity, discharge rate, automatic and manual remote signals initiating discharge of the units, and equipment covered.

73. **Prior to construction of final design**, Sabine Pass shall specify the use of potassium bicarbonate extinguishers in areas where LNG is handled and the use of ABC extinguishers in areas where ordinary combustibles are stored and handled.
74. **Prior to construction of final design**, Sabine Pass shall file a design that includes clean agent systems in the instrumentation and electrical buildings.
75. **Prior to construction of final design**, Sabine Pass shall file drawings and specifications for the structural passive protection systems to protect equipment and supports from cryogenic releases.
76. **Prior to construction of final design**, Sabine Pass shall file calculations or test results for the structural passive protection systems to protect equipment and supports from cryogenic releases.
77. **Prior to construction of final design**, Sabine Pass shall file drawings and specifications for the structural passive protection systems to protect equipment and supports from pool and jet fires. The information shall demonstrate that the passive fire protection design for the marine areas is consistent with the requirements of NFPA 307 and federal regulations.
78. **Prior to construction of final design**, Sabine Pass shall file a detailed quantitative analysis to demonstrate that adequate mitigation will be provided for each significant component within the 4,000 British thermal units per square foot per hour zone from pool or jet fires that could cause failure of the component. A combination of passive and active protection for pool fires and passive and/or active for jet fires shall be provided and demonstrate the effectiveness and reliability. Effectiveness of passive mitigation shall be supported by calculations or test results for the thickness limiting temperature rise and effectiveness of active mitigation shall be justified with calculations or test results demonstrating flow rates and durations of any cooling water will mitigate the heat absorbed by the component.
79. **Prior to construction of final design**, Sabine Pass shall demonstrate that all electrical, instrument, and control systems at the project, including those within the marine buildings, which activate emergency systems will be designed to withstand a 20-minute fire exposure per UL 1709.
80. **Prior to construction of final design**, Sabine Pass shall file facility plan drawings showing the proposed location of the firewater system. Plan drawings shall

clearly show the location of firewater piping, post indicator valves, and the location and area covered by, each monitor, hydrant, hose, water curtain, deluge system, water-mist system, and sprinkler. The drawings shall demonstrate that each process area, fire zone, or other sections of firewater piping can be isolated with post indicator valves such that no more than several users (e.g., NFPA 24 indicates max of six users) will be affected by a single isolation. The drawings shall also provide hydrants or monitors covering all areas that contain flammable or combustible fluids, including along the entire length of the marine transfer piping. The coverage circles shall take into account obstructions to the firewater coverage and shall reflect the number of firewater needed to reach and cool exposed surfaces potentially subjected to damaging radiant heats from a fire. Drawings shall also include piping and instrumentation diagrams of the firewater systems.

81. **Prior to construction of final design**, Sabine Pass shall file drawings and documentation showing the location of all internal road vehicle protections, such as guard rails, barriers, and bollards to protect transfer piping, etc. to ensure that they are located away from roadway or protected from inadvertent damage from vehicles.
82. **Prior to commissioning**, Sabine Pass shall file a detailed schedule for commissioning through equipment startup. The schedule shall include milestones for all procedures and tests to be completed: prior to introduction of hazardous fluids and during commissioning and startup. Sabine Pass shall file documentation certifying that each of these milestones has been completed before authorization to commence the next phase of commissioning and startup would be issued.
83. **Prior to commissioning**, Sabine Pass shall file detailed plans and procedures for: testing the integrity of onsite mechanical installation; functional tests; introduction of hazardous fluids; operational tests; and placing the equipment into service.
84. **Prior to commissioning**, Sabine Pass shall file the operation and maintenance procedures and manuals, as well as safety procedures, hot work procedures and permits, abnormal operating conditions reporting procedures, simultaneous operations procedures, and management of change procedures and forms.
85. **Prior to commissioning**, Sabine Pass shall file a plan for clean-out, dry-out, purging, and tightness testing. This plan shall address the requirements of the American Gas Association's Purging Principles and Practice, and shall provide justification if not using an inert or non-flammable gas for clean-out, dry-out, purging, and tightness testing.

86. **Prior to commissioning**, Sabine Pass shall tag all equipment, instrumentation, and valves in the field, including drain valves, vent valves, main valves, and car-sealed or locked valves.
87. **Prior to commissioning**, Sabine Pass shall file a plan to maintain a detailed training log to demonstrate that operating, maintenance, and emergency response staff has completed the required training.
88. **Prior to commissioning**, Sabine Pass shall file the procedures for pressure/leak tests which address the requirements of American Society of Mechanical Engineers B31.3. In addition, Sabine Pass shall file a line list with pneumatic and hydrostatic test pressures.
89. **Prior to introduction of hazardous fluids**, Sabine Pass shall complete and document a pre-startup safety review to ensure that installed equipment meets the design and operating intent of the facility. The pre-startup safety review shall include any changes since the last hazard review, operating procedures, and operator training. A copy of the review with a list of recommendations, and actions taken on each recommendation, shall be filed.
90. **Prior to introduction of hazardous fluids**, Sabine Pass shall complete and document all pertinent tests (Factory Acceptance Tests, Site Acceptance Tests, Site Integration Tests) associated with the DCS and safety instrumented systems that demonstrates full functionality and operability of the system.
91. **Prior to introduction of hazardous fluids**, Sabine Pass shall update and implement an alarm management program to reduce alarm complacency and maximize the effectiveness of operator response to alarms.
92. **Prior to introduction of hazardous fluids**, Sabine Pass shall complete and document a firewater monitor and hydrant coverage test. The actual coverage area from each monitor and hydrant shall demonstrate it meets or exceeds the final design coverage area.
93. Sabine Pass shall file a request for written authorization from the Director of OEP **prior to unloading or loading the first LNG cargo**. Sabine Pass shall file weekly reports on the commissioning of the proposed systems that detail the progress toward demonstrating the facilities can safely and reliably operate at or near the design flow rates. The reports shall include a summary of activities, problems encountered, and remedial actions taken. The weekly reports shall also include a status and list of all planned and completed safety and reliability tests, work authorizations, and punch list items. Problems of significant magnitude shall be reported to the FERC **within 24 hours**.

94. **Prior to accepting LNG carriers greater than 180,000m<sup>3</sup> nominal capacity,** Sabine Pass shall provide documentation of consultation with the U.S. Coast Guard concurring on the suitability of the waterway for increase in LNG carrier.
95. **Prior to commencement of service,** Sabine Pass shall file a request for written authorization from the Director of OEP. Such authorization would only be granted following a determination by the Coast Guard, under its authorities under the Ports and Waterways Safety Act, the Magnuson Act, the Maritime Transportation Security Act of 2002, and the Security and Accountability For Every Port Act, that appropriate measures to ensure the safety and security of the facility and the waterway have been put into place by Sabine Pass or other appropriate parties.
96. **Prior to commencement of service,** Sabine Pass shall notify the FERC staff of any proposed revisions to the security plan and physical security of the plant.
97. **Prior to commencement of service,** Sabine Pass shall label piping with fluid service and direction of flow in the field, in addition to the pipe labeling requirements of NFPA 59A.
98. **Prior to commencement of service,** Sabine Pass shall file plans for any preventative and predictive maintenance program that performs periodic or continuous equipment condition monitoring.
99. **Prior to commencement of service,** Sabine Pass shall develop procedures for handling offsite contractors including responsibilities, restrictions, and limitations and for supervision of these contractors by Sabine Pass staff.

In addition, conditions 100 through 102 shall apply **throughout the life of the Sabine Pass LNG Third Berth facilities.**

100. The facility shall be subject to regular FERC staff technical reviews and site inspections on at least an **annual basis** or more frequently as circumstances indicate. Prior to each FERC staff technical review and site inspection, Sabine Pass shall respond to a specific data request including information relating to possible design and operating conditions that may have been imposed by other agencies or organizations. Up-to-date detailed P&IDs reflecting facility modifications and provision of other pertinent information not included in the semi-annual reports described below, including facility events that have taken place since the previously submitted semi-annual report, shall be submitted.
101. **Semi-annual** operational reports shall be filed with the Secretary to identify changes in facility design and operating conditions; abnormal operating experiences; activities (e.g., LNG marine vessel arrivals, quantity and composition

of imported and exported LNG, liquefied and vaporized quantities, boil off/flash gas); and plant modifications, including future plans and progress thereof.

Abnormalities shall include, but not be limited to, unloading/loading/shipping problems, potential hazardous conditions from offsite vessels, storage tank stratification or rollover, geysering, storage tank pressure excursions, cold spots on the storage tanks, storage tank vibrations and/or vibrations in associated cryogenic piping, storage tank settlement, significant equipment or instrumentation malfunctions or failures, non-scheduled maintenance or repair (and reasons therefore), relative movement of storage tank inner vessels, hazardous fluids releases, fires involving hazardous fluids and/or from other sources, negative pressure (vacuum) within a storage tank, and higher than predicted boil off rates. Adverse weather conditions and the effect on the facility also shall be reported.

Reports shall be submitted **within 45 days after each period ending June 30 and December 31**. In addition to the above items, a section entitled "Significant Plant Modifications Proposed for the Next 12 Months (dates)" shall be included in the semi-annual operational reports. Such information would provide the FERC staff with early notice of anticipated future construction/maintenance at the LNG facilities.

102. Significant non-scheduled events, including safety-related incidents (e.g., LNG, condensate, refrigerant, or natural gas releases; fires; explosions; mechanical failures; unusual over pressurization; and major injuries) and security-related incidents (e.g., attempts to enter site, suspicious activities) shall be reported to the FERC staff. In the event that an abnormality is of significant magnitude to threaten public or employee safety, cause significant property damage, or interrupt service, notification shall be made **immediately**, without unduly interfering with any necessary or appropriate emergency repair, alarm, or other emergency procedure. In all instances, notification shall be made to the FERC staff **within 24 hours**. This notification practice shall be incorporated into the LNG facility's emergency plan. Examples of reportable hazardous fluids-related incidents include:

- a. fire;
- b. explosion;
- c. estimated property damage of \$50,000 or more;
- d. death or personal injury necessitating in-patient hospitalization;
- e. release of hazardous fluids for 5 minutes or more;
- f. unintended movement or abnormal loading by environmental causes, such as an earthquake, landslide, or flood, that impairs the serviceability,

- structural integrity, or reliability of an LNG facility that contains, controls, or processes hazardous fluids;
- g. any crack or other material defect that impairs the structural integrity or reliability of an LNG facility that contains, controls, or processes hazardous fluids;
  - h. any malfunction or operating error that causes the pressure of a pipeline or LNG facility that contains or processes hazardous fluids to rise above its maximum allowable operating pressure (or working pressure for LNG facilities) plus the build-up allowed for operation of pressure-limiting or control devices;
  - i. a leak in an LNG facility that contains or processes hazardous fluids that constitutes an emergency;
  - j. inner tank leakage, ineffective insulation, or frost heave that impairs the structural integrity of an LNG storage tank;
  - k. any safety-related condition that could lead to an imminent hazard and cause (either directly or indirectly by remedial action of the operator), for purposes other than abandonment, a 20 percent reduction in operating pressure or shutdown of operation of a pipeline or an LNG facility that contains or processes hazardous fluids;
  - l. safety-related incidents from hazardous fluids transportation occurring at or en route to and from the LNG facility; or
  - m. an event that is significant in the judgment of the operator and/or management even though it did not meet the above criteria or the guidelines set forth in an LNG facility's incident management plan.

In the event of an incident, the Director of OEP has delegated authority to take whatever steps are necessary to ensure operational reliability and to protect human life, health, property, or the environment, including authority to direct the LNG facility to cease operations. Following the initial company notification, the FERC staff would determine the need for a separate follow-up report or follow up in the upcoming semi-annual operational report. All company follow-up reports shall include investigation results and recommendations to minimize a reoccurrence of the incident.



UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Sabine Pass LNG, L.P.

Docket No. CP19-11-000

(Issued February 21, 2020)

GLICK, Commissioner, *dissenting in part*:

1. I dissent from today's order because it violates both the Natural Gas Act<sup>1</sup> (NGA) and the National Environmental Policy Act<sup>2</sup> (NEPA). In particular, the Commission is again refusing to consider the consequences its actions have for climate change. Although neither the NGA nor NEPA permit the Commission to assume away the impact that constructing and operating this liquefied natural gas (LNG) facility and associated natural gas pipeline will have on climate change, that is precisely what the Commission is doing today.

2. In today's order authorizing Sabine Pass LNG's expansion of a third marine berth (Project) at the existing Sabine Pass LNG terminal pursuant to section 3 of the NGA, the Commission continues to treat climate change differently than all other environmental impacts. The Commission steadfastly refuses to assess whether the impact of the Project's GHG emissions on climate change is significant, even though it quantifies the GHG emissions directly caused by the Project.<sup>3</sup> That failure forms an integral part of the Commission's decisionmaking in today's order: The refusal to assess the significance of the Project's contribution to the harm caused by climate change is what allows the Commission to misleadingly state that the Commission's approval of the Project will not "significantly affect[] the quality of the human environment"<sup>4</sup> and, as a result, conclude that the Project satisfies the NGA's public interest standard.<sup>5</sup> Claiming that a project has no significant environmental impacts while at the same time refusing to assess the

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<sup>1</sup> 15 U.S.C. §§ 717b, 717f (2018).

<sup>2</sup> National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321 *et seq.*

<sup>3</sup> *Sabine Pass LNG*, 170 FERC ¶ 61,145, at P 62 (2020) (Certificate Order); Environmental Assessment at Tables B.8.1-4 & B.8.1-5 (EA).

<sup>4</sup> Certificate Order, 170 FERC ¶ 61,145 at P 64; EA at 225.

<sup>5</sup> Certificate Order, 170 FERC ¶ 61,145 at P 13.

significance of the project's impact on the most important environmental issue of our time is not reasoned decisionmaking

**I. The Commission's Public Interest Determinations Are Not the Product of Reasoned Decisionmaking**

3. The NGA's regulation of LNG import and export facilities "implicate[s] a tangled web of regulatory processes" split between the U.S. Department of Energy (DOE) and the Commission.<sup>6</sup> The NGA establishes a general presumption favoring the import and export of LNG unless there is an affirmative finding that the import or export "will not be consistent with the public interest."<sup>7</sup> Section 3 of the NGA, which governs LNG imports and exports, provides for two independent public interest determinations: one regarding the import or export of LNG itself and one regarding the facilities used for that import or export. DOE determines whether the import or export of LNG is consistent with the public interest, with transactions among free trade countries legislatively deemed to be "consistent with the public interest."<sup>8</sup> The Commission evaluates whether "an application for the siting, construction, expansion, or operation of an LNG terminal" is itself consistent with the public interest.<sup>9</sup> Pursuant to that authority, the Commission

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<sup>6</sup> *Sierra Club v. FERC*, 827 F.3d 36, 40 (D.C. Cir. 2016) (*Freeport*).

<sup>7</sup> 15 U.S.C. § 717b(a); see *EarthReports, Inc. v. FERC*, 828 F.3d 949, 953 (D.C. Cir. 2016) (citing *W. Va. Pub. Servs. Comm'n v. Dep't of Energy*, 681 F.2d 847, 856 (D.C. Cir. 1982) ("NGA [section] 3, unlike [section] 7, 'sets out a general presumption favoring such authorization.'")). Under section 7 of the NGA, the Commission approves a proposed pipeline if it is shown to be consistent with the public interest, while under section 3, the Commission approves a proposed LNG import or export facility unless it is shown to be inconsistent with the public interest. Compare 15 U.S.C. § 717b(a) with 15 U.S.C. § 717f(a), (e).

<sup>8</sup> 15 U.S.C. § 717b(c). The courts have explained that, because the authority to authorize the LNG exports rests with DOE, NEPA does not require the Commission to consider the upstream or downstream GHG emissions that may be indirect effects of the export itself when determining whether the related LNG export facility satisfies section 3 of the NGA. See *Freeport*, 827 F.3d at 46-47; see also *Sierra Club v. FERC*, 867 F.3d 1357, 1373 (D.C. Cir. 2017) (*Sabal Trail*) (discussing *Freeport*). Nevertheless, NEPA requires that the Commission consider the direct GHG emissions associated with a proposed LNG export facility. See *Freeport*, 827 F.3d at 41, 46.

<sup>9</sup> 15 U.S.C. § 717b(e). In 1977, Congress transferred the regulatory functions of NGA section 3 to DOE. DOE, however, subsequently delegated to the Commission authority to approve or deny an application for the siting, construction, expansion, or

must approve a proposed LNG facility unless the record shows that the facility would be inconsistent with the public interest.<sup>10</sup>

4. As part of that determination, the Commission examines a proposed facility's impact on the environment and public safety. A facility's impact on climate change is one of the environmental impacts that must be part of a public interest determination under the NGA.<sup>11</sup> Nevertheless, the Commission maintains that it need not consider whether the Project's contribution to climate change is significant in this order because it lacks a means to do so—or at least so it claims.<sup>12</sup> However, the most troubling part of the Commission's rationale is what comes next. Based on this alleged inability to assess significance when it comes to climate change, the Commission relies on the conclusion that the Project will have “no significant impact.”<sup>13</sup> Think about that. The Commission is saying out of one side of its mouth that it cannot assess the significance of the Project's impact on climate change<sup>14</sup> while, out of the other side of its mouth, assuring us that all environmental impacts are insignificant.<sup>15</sup> That is ludicrous, unreasoned, and an

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operation of an LNG terminal, while retaining the authority to determine whether the import or export of LNG to non-free trade countries is in the public interest. *See EarthReports*, 828 F.3d at 952-53.

<sup>10</sup> *See Freeport*, 827 F.3d at 40-41.

<sup>11</sup> *See Sabal Trail*, 867 F.3d at 1373 (explaining that the Commission must consider a pipeline's direct and indirect GHG emissions because the Commission may “deny a pipeline certificate on the ground that the pipeline would be too harmful to the environment”); *see also Atl. Ref. Co. v. Pub. Serv. Comm'n of N.Y.*, 360 U.S. 378, 391 (1959) (holding that the NGA requires the Commission to consider “all factors bearing on the public interest”).

<sup>12</sup> Certificate Order, 170 FERC ¶ 61,145 at P 63; EA at 214-215.

<sup>13</sup> EA at 225.

<sup>14</sup> Certificate Order, 170 FERC ¶ 61,145 at P 63; EA 215 (“[W]e are unable to determine the significance of the Project's contribution to climate change.”).

<sup>15</sup> Certificate Order, 170 FERC ¶ 61,145 at P 64 (asserting that “[b]ased on the analysis in the EA, as supplemented herein, we conclude that if constructed and operated in accordance with Sabine Pass's application and supplements, and in compliance with the environmental conditions in the appendix to this order, our approval of this proposal would not constitute a major federal action significantly affecting the quality of the human environment”); *see also* EA at 225.

abdication of our responsibility to give climate change the “hard look” that the law demands.<sup>16</sup>

5. It also means that the Project’s impact on climate change cannot play a meaningful role in the Commission’s public interest determination, no matter how often the Commission assures us that it does. Using the approach in today’s order, the Commission will always conclude that a project will not have a significant environmental impact irrespective of the project’s actual GHG emissions or those emissions’ impact on climate change. If the Commission’s conclusion will not change no matter how many GHG emissions a project causes, those emissions cannot, as a logical matter, play a meaningful role in the Commission’s public interest determination. A public interest determination that systematically excludes the most important environmental consideration of our time is contrary to law, arbitrary and capricious, and not the product of reasoned decisionmaking.

6. The failure to meaningfully consider the Project’s GHG emissions is all-the-more indefensible because the Commission has acknowledged that “GHG emissions due to human activity are the primary cause of increased levels of all GHG since the industrial age”<sup>17</sup> and “GHGs in the atmosphere threaten the public health and welfare of current and future generations through climate change.”<sup>18</sup> In light of this undisputed relationship between anthropogenic GHG emissions and climate change, the Commission must carefully consider the Project’s contribution to climate change when determining whether

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<sup>16</sup> See, e.g., *Myersville Citizens for a Rural Cmty., Inc. v. FERC*, 783 F.3d 1301, 1322 (D.C. Cir. 2015) (explaining that agencies cannot overlook a single environmental consequence if it is even “arguably significant”); see also *Michigan v. EPA*, 135 S. Ct. 2699, 2706 (2015) (“Not only must an agency’s decreed result be within the scope of its lawful authority, but the process by which it reaches that result must be logical and rational.”) (internal quotation marks omitted); *Motor Vehicle Mfrs. Ass’n, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (explaining that agency action is “arbitrary and capricious if the agency has . . . entirely failed to consider an important aspect of the problem, [or] offered an explanation for its decision that runs counter to the evidence before the agency.”).

<sup>17</sup> Corpus Christi Liquefaction Stage III, LLC Environmental Assessment, Docket No. CP18-512-000, at 112 (Mar 29, 2019).

<sup>18</sup> EA at 100. See also *id.* at 214 (where the Commission also acknowledges that “construction and operation of the Project would increase the atmospheric concentration of GHGs, in combination with past, current, and future emissions from all other sources globally and contribute incrementally to future climate change impacts.”).

the Project is consistent with the public interest—a task that it entirely fails to accomplish in today’s order.

## **II. The Commission Fails to Satisfy Its Obligations under NEPA**

7. The Commission’s NEPA analysis is similarly flawed. In order to evaluate the environmental consequences of the Project under NEPA, the Commission must consider the harm caused by the Project’s GHG emissions and “evaluate the ‘incremental impact’ that these emissions will have on climate change or the environment more generally.”<sup>19</sup> Today’s order discloses the operation of the Project will directly emit nearly 46,000 metric tons of GHGs annually.<sup>20</sup> Although that quantification of the Project’s GHG emissions is a necessary step toward meeting the Commission’s NEPA obligations, listing the volume of emissions alone is insufficient.<sup>21</sup>

8. As an initial matter, identifying the consequences that those emissions will have for climate change is essential if NEPA is to play the disclosure and good government roles for which it was designed. The Supreme Court has explained that NEPA’s purpose is to “ensure[] that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts” and to “guarantee[] that the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the

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<sup>19</sup> *Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1216 (9th Cir. 2008); *WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41, 51 (D.D.C. 2019) (explaining that the agency was required to “provide the information necessary for the public and agency decisionmakers to understand the degree to which [its] decisions at issue would contribute” to the “impacts of climate change in the state, the region, and across the country”).

<sup>20</sup> Certificate Order, 170 FERC ¶ 61,145 at P 62; EA at Table B.8.1-5.

<sup>21</sup> See *Ctr. for Biological Diversity*, 538 F.3d at 1216 (“While the [environmental document] quantifies the expected amount of CO<sub>2</sub> emitted . . . , it does not evaluate the ‘incremental impact’ that these emissions will have on climate change or on the environment more generally . . . .”); *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 995 (9th Cir. 2004) (“A calculation of the total number of acres to be harvested in the watershed is a necessary component . . . , but it is not a sufficient description of the actual environmental effects that can be expected from logging those acres.”).

implementation of that decision.”<sup>22</sup> It is hard to see how hiding the ball by refusing to assess the significance of a project’s climate impacts is consistent with either of those purposes.

9. In addition, under NEPA, a finding of significance informs the Commission’s inquiry into potential ways of mitigating environmental impacts.<sup>23</sup> An environmental review document must “contain a detailed discussion of possible mitigation measures” to address adverse environmental impacts.<sup>24</sup> “Without such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects” of a project, making an examination of possible mitigation measures necessary to ensure that the agency has taken a “hard look” at the environmental consequences of the action at issue.<sup>25</sup>

10. The Commission responds that it need not determine whether the Project’s contribution to climate change is significant because “there is no universally accepted methodology” for assessing the harms caused by the Project’s contribution to climate change.<sup>26</sup> But the lack of a single consensus methodology does not prevent the

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<sup>22</sup> *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 768 (2004) (citing *Robertson v. Methow Valley Citizens Coun.*, 490 U.S. 332, 349 (1989)).

<sup>23</sup> 40 C.F.R. § 1502.16 (2018) (NEPA requires an implementing agency to form a “scientific and analytic basis for the comparisons” of the environmental consequences of its action in its environmental review, which “shall include discussions of . . . [d]irect effects and their significance.”).

<sup>24</sup> *Robertson*, 490 U.S. at 351. *See also* 40 C.F.R. §§ 1508.20 (defining mitigation), 1508.25 (including in the scope of an environmental impact statement mitigation measures).

<sup>25</sup> *Robertson*, 490 U.S. at 352. The discussion of mitigation is especially critical under today’s circumstances where the Commission prepared an EA instead of an Environmental Impact Statement to satisfy its NEPA obligations. The EA relies on the fact that certain environmental impacts will be mitigated in order to ultimately reach a “finding of no significant impact.” EA at 225. Absent such mitigation requirements, the Project’s environmental impacts would require the Commission to engage in a more intensive Environmental Impact Statement review. *See Sierra Club v. Peterson*, 717 F.2d 1409, 1415 (D.C. Cir. 1983) (“If *any* ‘significant’ environmental impacts might result from the proposed agency action then an [Environmental Impact Statement] must be prepared before the action is taken.”) (emphasis in original).

<sup>26</sup> EA at 214-215 (stating “there is no universally accepted methodology to attribute discrete, quantifiable, physical effects on the environment to a project’s

Commission from adopting *a* methodology, even if that methodology is not universally accepted. The Commission could, for example, select one methodology to inform its reasoning while also disclosing the potential limitations of that methodology or it could employ multiple methodologies to identify a range of potential impacts on climate change. In refusing to assess a project's climate impacts without a perfect model for doing so, the Commission sets a standard for its climate analysis that is higher than it requires for any other environmental impact.

11. In any case, the Commission has several tools to assess the harm from the Project's contribution to climate change. For example, by measuring the long-term damage done by a ton of carbon dioxide, the Social Cost of Carbon links GHG emissions to the environmental harm caused by climate change, thereby facilitating the necessary "hard look" at the Project's environmental impacts that NEPA requires. Especially when it comes to a global problem like climate change, a measure for translating a single project's climate change impacts into concrete and comprehensible terms plays a useful role in the NEPA process by putting the harm in terms that are readily accessible for both agency decisionmakers and the public at large. Yet, the Commission continues to ignore the Social Cost of Carbon, relying instead on deeply flawed reasoning that I have previously critiqued at length.<sup>27</sup>

12. Furthermore, even without a formal tool or methodology, the Commission can use its expertise and discretion to consider all factors and determine, quantitatively or qualitatively, whether the Project's GHG emissions will have a significant impact on climate change. That is precisely what the Commission does in other aspects of its environmental review. For example, consider the Commission's evaluation of the Project's impact on surface water. The EA finds that the 40,000 gallons of water used for dust suppression and hydrostatic testing during construction would be "minimal" and "would not result in a significant impact on surface waters in the Project area."<sup>28</sup> In drawing this conclusion, the EA does not rely on any "universally accepted methodology"<sup>29</sup> to "attribute discrete, quantifiable, physical" effects caused by this

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incremental contribution to GHGs" and "[w]ithout either the ability to determine discrete resource impacts or an established target to compare GHG emissions against, we are unable to determine the significance of the Project's contribution to climate change"); *see also* Certificate Order, 170 FERC ¶ 61,145 at P 63.

<sup>27</sup> *See, e.g., Fla. Se. Connection, LLC*, 164 FERC ¶ 61,099 (2018) (Glick, Comm'r, dissenting).

<sup>28</sup> EA at 35.

<sup>29</sup> *Id.* at 214.

consumption of water on the quality of human environment in order to reach a reasonable determination. Instead, the Commission simply makes a reasonable judgment call based on its assessment of the evidence in the record. Indeed, throughout today's order and in the EA, the Commission makes several other significance determinations without the tools it claims it needs to assess the significance of the Project's impact on climate change.<sup>30</sup> The Commission's refusal to similarly analyze the Project's impact on climate change is arbitrary and capricious.

13. And even if the Commission were to determine that the Project's GHG emissions are significant, that would not end its analysis of the adverse impacts. Instead, as noted above, the Commission could blunt those impacts through mitigation—as the Commission often does with regard to other environmental impacts. The Supreme Court has held that an environmental review must “contain a detailed discussion of possible mitigation measures” to address adverse environmental impacts.<sup>31</sup> As noted above, “[w]ithout such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects.”<sup>32</sup> Consistent with this obligation, the EA discusses mitigation measures to ensure that the Project's adverse environmental impacts (other than its GHG emissions) are reduced to less-than-significant levels.<sup>33</sup> And throughout today's order, the Commission uses its conditioning authority under section 3 of the NGA<sup>34</sup> to implement these mitigation measures, which support its public interest finding.<sup>35</sup> Once again, however, the Project's

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<sup>30</sup> See *e.g.*, EA at 28, 29, 90 (concluding there will be no significant impact on soil, groundwater resources, or traffic).

<sup>31</sup> *Robertson*, 490 U.S. at 351.

<sup>32</sup> *Id.* at 351-52; see also 40 C.F.R. §§ 1508.20 (defining mitigation), 1508.25 (including in the scope of an environmental impact statement mitigation measures).

<sup>33</sup> EA at 39 (concluding that construction or operation of the Project would not have a significant impact on wetlands based on the mitigation measures proposed by the applicant and implementation of Commission Procedures); *id.* at 130 (concluding that “with the implementation of the mitigation measures presented, and compliance with our recommendations, we conclude that operational noise from the Project would not have a significant impact on the acoustical environment at the nearby [noise sensitive areas]”).

<sup>34</sup> 15 U.S.C. § 717b(e)(3)(A); Certificate Order, 170 FERC ¶ 61,145 at P 65 (“[T]he Commission has the authority to take whatever steps are necessary to ensure the protection of environmental resources . . . , including authority to impose any additional measures deemed necessary . . .”).

<sup>35</sup> See Certificate Order, 170 FERC ¶ 61,145 at PP 65 (explaining that the



climate impacts are treated differently, as the Commission refuses to identify any potential climate mitigation measures or discuss how such measures might affect the magnitude of the Project's impact on climate change.

14. Finally, the Commission's refusal to seriously consider the significance of the impact of the Project's GHG emissions is even more mystifying because NEPA "does not dictate particular decisional outcomes."<sup>36</sup> NEPA "'merely prohibits uninformed—rather than unwise—agency action.'"<sup>37</sup> The Commission could find that a project contributes significantly to climate change, but that it is nevertheless in the public interest because its benefits outweigh its adverse impacts, including on climate change. In other words, taking the matter seriously—and rigorously examining a project's impacts on climate change—does not necessarily prevent any of my colleagues from ultimately concluding that a project satisfies the relevant public interest standard.

For these reasons, I respectfully dissent in part.

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Richard Glick  
Commissioner

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environmental conditions ensure that Project's environmental impacts are consistent with those anticipated by the environmental analyses, which found that the Project would not significantly affect the quality of the human environment).

<sup>36</sup> *Sierra Club v. U.S. Army Corps of Engineers*, 803 F.3d 31, 37 (D.C. Cir. 2015).

<sup>37</sup> *Id.* (quoting *Robertson*, 490 U.S. at 351).

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Sabine Pass LNG, L.P.

Docket No. CP19-11-000

(Issued February 21, 2020)

McNAMEE, Commissioner, *concurring*:

1. Today's order issues a section 3 authorization to Sabine Pass LNG, L.P. (Sabine Pass) to site, construct, and operate its Third Berth Expansion Project (Project) at its existing Sabine Pass LNG Terminal in Cameron Parish, Louisiana.<sup>1</sup>

2. I fully support the order as it complies with the Commission's statutory responsibilities under the Natural Gas Act and the National Environmental Policy Act. The order determines that the siting, construction, and operation of Sabine Pass's proposed third marine berth is not inconsistent with the public interest.<sup>2</sup> The order also finds that the Project will not significantly affect the quality of the human environment.<sup>3</sup> Further, consistent with the holding in *Sierra Club v. FERC (Sabal Trail)*,<sup>4</sup> the order and the Environmental Assessment (EA) for the Project quantified and considered greenhouse gases (GHGs) emitted during the construction and operation of the Project, including the emissions from the additional LNG carriers serving the LNG Terminal.<sup>5</sup>

3. I write separately to respond to my colleague's argument that the Commission should have determined whether the GHGs emitted during the construction and operation of the Project are "significant" using the Social Cost of Carbon or by establishing its own framework. In my concurrence in *Adelphia*, I explain why the Social Cost of Carbon is not a useful tool to determine whether the GHG emissions are "significant" and the Commission has no authority or reasoned basis to make a determination of significance using its own expertise.<sup>6</sup> Further, it is not appropriate for the Commission to establish

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<sup>1</sup> 170 FERC ¶ 61,145 (2020).

<sup>2</sup> *Id.* PP 10-12.

<sup>3</sup> *Id.* P 64.

<sup>4</sup> 867 F.3d 1357 (D.C. Cir. 2017).

<sup>5</sup> 170 FERC ¶ 61,145 at PP 62-63; EA at 110, 112.

<sup>6</sup> See paragraphs 62-73 of my concurring statement in *Adelphia Gateway, LLC*.

out of whole cloth a GHG emission mitigation program, particularly when Congress has introduced and failed to pass 70 legislative bills to reduce GHG emissions over the last 15 years.<sup>7</sup> As I explain in *Adelphia*, Congress delegated the Administrator of the U.S. Environmental Protection Agency the exclusive authority to establish standards of performance for air pollutants, including GHGs.<sup>8</sup> For logistical reasons and administrative efficiency, I hereby incorporate my analysis in *Adelphia* by reference and am not reprinting the full text of my analysis here.<sup>9</sup>

For the reasons discussed above and incorporated by reference herein, I respectfully concur.

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Bernard L. McNamee  
Commissioner

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*Adelphia Gateway, LLC*, 169 FERC ¶ 61,220 (2019) (McNamee, Comm'r, concurrence) (McNamee *Adelphia* Concurrence).

<sup>7</sup> McNamee *Adelphia* Concurrence PP 52-61.

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

<sup>9</sup> *Id.* PP 52-73.