



November 1, 2021

RE: FAA Draft Programmatic Environmental Assessment (PEA) for the SpaceX Starship/Super Heavy Launch Vehicle Program – Rio Grande LNG Comments

To Whom It May Concern:

We are writing in response to the Federal Aviation Administration's ("FAA") Draft PEA on the SpaceX Starship/Super Heavy Project at the Boca Chica Launch Site in Cameron County, Texas, which was signed on September 16, 2021. The public review and comment period has been extended by the FAA until November 1, 2021.

We understand that the FAA has utilized a "Programmatic" Environmental Assessment ("EA") given that the proposed Starship/Super Heavy launch operations from the SpaceX Boca Chica Launch Site will be conducted on a recurring basis and that each launch operation is likely to result in substantially similar impacts. According to guidance issued by the Council on Environmental Quality ("CEQ"), the Programmatic EA "must [therefore] provide sufficient detail to foster informed decision-making that reflects broad environmental consequences from a wide-ranging federal program."¹

NextDecade previously submitted comments on January 22, 2021, in response to the FAA's December 22, 2020, announcement that the agency was holding a public scoping period to determine the scope of issues for analysis in the Draft PEA. In these previous comments, we suggested that particular focus be placed on: (1) frequency and scope of launch operations and consistency with maximum number of launches assessed in the FAA's June 2014 final EIS; (2) Emergency response and planning; (3) offshore area clearing and facility closures; and (4) storage and handling of propellant fuel.

Upon review of the Draft PEA, many of these issues would seem to require further clarification or analysis. In fact, with the exception of the concern stated in Section 1.4, "Closure of public areas such as local roads and Boca Chica Beach," it does not appear that the FAA accounted for NextDecade's expressed concerns in the Draft PEA at all.

Of particular concern, the Chapter 1 Introduction of the Draft PEA includes the statement that "SpaceX does not have the full details of all its planned operations at this time." If the FAA cannot analyze the full environmental impacts because the full details of SpaceX planned operations are not yet known, then it is unclear how this Draft PEA can "foster informed decision-making that reflects broad environmental consequences from a wide-ranging federal program[,] as required by CEQ. It also is unclear how the FAA can evaluate the scope of impacts in this EA and reach a finding of no significant impact, and presents serious challenges to the safe and efficient construction and operation of critical infrastructure in the region. The frequency and scope of launch operations assessed in the Draft PEA have clearly exceeded those contemplated in the 2014 EIS, illustrating the ineffectiveness to date of "tiering" environmental reviews by the FAA. In effect, the analysis in the 2014 EIS and this draft PEA demonstrate that SpaceX and FAA are improperly and artificially segmenting this Federal action into

¹ https://www.energy.gov/sites/prod/files/2016/05/f31/effective_use_of_programmatic_nepa_reviews_18dec2014.pdf

smaller components to escape the full application of NEPA and a hard look at significant impacts. In light of this, the FAA must complete an EIS and provide complete details of all planned SpaceX operations so that a thorough and meaningful environmental review may be conducted at this stage, upon which stakeholders can base sound decisions.

As stated in our January 22, 2021, comments, the plans and conclusions of multiple federal agencies and community stakeholders as they relate to the safe coexistence of SpaceX with Rio Grande LNG were formulated in reliance on the FAA's statements regarding the "maximum 12 annual launch operations ... including launches of the Falcon 9, a maximum of two Falcon Heavy launches, and/or associated mission rehearsals and static fire engine testing, through the year 2025."² Section 2.1.3.3 of the Draft PEA states that "SpaceX is proposing to conduct up to 20 Starship suborbital launches annually." Section 2.1.3.4 of the Draft PEA states that "SpaceX is proposing to conduct up to five Starship/Super Heavy orbital launches annually." Therefore, launch operations that could potentially hinder the construction and operation of Rio Grande LNG have more than doubled from 12 to 25. In light of this increased activity, we strongly suggest that a launch failure analysis for the Starship/Super Heavy Project should be performed by the FAA.

Of specific concern with the increased annual launch activity is the ambiguity related to the impact on the Brownsville Ship Channel (BSC) (sometimes wrongly referred to in the 2014 FEIS and the Draft PEA as the Brownsville "Shipping" Channel). The 2014 FEIS stated categorically that the BSC "would not be affected by the closure." This has now changed in the Draft PEA. Section 2.1.3.5.1 of the Draft PEA states, "The Brownsville Shipping Channel would be temporarily restricted during orbital launches and some suborbital launches, but not restricted during tank tests, wet dress rehearsals, or static fire engine tests." The Draft PEA arbitrarily concludes without any meaningful analysis that this impact is insignificant.

For instance, by way of comparison, Section 3.8.3.2.1 of the Draft PEA states the following about parks and management areas, including beaches:

The proposed launch activities related to Starship/Super Heavy would have temporary, intermittent impacts on the access and availability of the parks and management areas identified as Section 4(f) properties.

And then goes on to explain:

The closures for Starship/Super Heavy operations would occur on an intermittent basis, up to 500 hours per year, and would be temporary. Additional environmental review will be required should the FAA learn from Cameron County that it will close its roads and beach access in excess of 500 hours. Assuming normal availability of the Section 4(f) property, the proposed closure hours would result in the Section 4(f) property being closed to the public up to 11.4 percent of the year.

Despite these impacts to Section 4(f) properties, FAA concludes:

Based on the temporary and short duration of the closures, the FAA has made a preliminary determination that the scheduled closures associated with launch

² https://www.faa.gov/about/office_org/headquarters_offices/ast/environmental/nepe_docs/review/launch/spacex_bras_launch_site_environmental_impact_statement/

operations of the Proposed Action would not substantially impair the activities, features, or attributes that qualify the state parks, historic resources, and Preserve for protection under Section 4(f) within the study area.

The Draft PEA does not even contain this level of analysis for the BSC, which at least based on the Draft PEA presumably also would be closed for 500 hours annually, which amounts to approximately 11% of the entire year. This is not insignificant for BSC-dependent industries like Rio Grande LNG, and there is no justification for such a conclusion in the Draft PEA.

Even more problematic, however, is the FAA's failure to devote even this level of analysis anywhere in the Draft PEA on the impacts related to the BSC. Nowhere in the Draft PEA does FAA provide a hard look at the impacts to the Port of Brownsville (the "Port"), the fishing, commercial and recreational users in the area, and companies like NextDecade that rely on access to the BSC.

Despite this significant omission, the FAA concludes that "the Proposed Action does not involve activities anticipated to adversely affect existing economic activity, income, employment, population, housing, sustenance, public services, and social conditions." As part of its justification for reaching this arbitrary conclusion, FAA states that "SpaceX operations would not result in the closure of any public airport during the SpaceX operation, nor would it so severely restrict the use of the surrounding airspace as to prevent access to an airport for an extended period of time." Yet the Draft PEA completely ignores the impacts to the Port and other entities that would use the BSC. Certainly, SpaceX would consider it a significant impact if its own operations were impeded. For example, Section 2.1.3.4 of the Draft PEA states "If a Super Heavy landing occurred downrange in the Gulf of Mexico on a floating platform, Super Heavy would be delivered by barge to the Port of Brownsville and transported the remaining distance to the Boca Chica Launch Site over the roadways." If these SpaceX activities and uses of the Port were impacted due the operation of a nearby facility that caused similar closures of the BSC, SpaceX would demand a thorough analysis.

Additionally, Draft PEA Section 2.1.3.5.2 Waterway Hazard Warnings states the "proposed action would not require shipping lanes to be altered or closed." Given that the previous section states the BSC *would* be temporarily restricted, this suggests the BSC was not treated by the FAA as a waterway or shipping lane in the Draft PEA. Given the potential for up to twenty suborbital launches per year and the uncertainty as to whether the BSC would be restricted or not and for how long, the FAA should work with SpaceX to clarify these impacts. Rio Grande LNG (and the BSC more broadly) stands to suffer an unknown economic burden brought about by SpaceX disruption to shipping in the BSC.

"An environmental assessment that fails to address a significant environmental concern can hardly be deemed adequate for a reasoned determination that an EIS is not appropriate." *Foundation on Economic Trends v. Heckler*, 756 F.2d 143, 154 (D.C. Cir. 1985). As the Court of Appeals for the D.C. Circuit recognized in 1985, "[s]imple, conclusory statements of 'no impact' are not enough to fulfill an agency's duty under NEPA." *Id.* Here, the FAA has made conclusory statements regarding the "nominal" effect of ground closures and restrictions on the BSC without adequately addressing or explaining why these impacts will not be significant.

Moreover, the FAA and SpaceX inappropriately segmented the analysis of the facility from the 2014 EIS to this Draft PEA; and now for any future activities FAA and SpaceX are seeking to do the same in this

Draft PEA by avoiding an analysis of the direct, indirect and cumulative impacts of nominal closures of the BSC. Based on the history of this project since 2014, and the SpaceX statements about future development in the draft PEA, the FAA cannot simply kick down the road the required hard-look analysis, and make a finding of no significant impact “because the full details of SpaceX planned operations are not yet known.”

Rio Grande also notes that conspicuously missing from the draft PEA is a meaningful cumulative impacts analysis. The Council on Environmental Quality has long recognized, and continues to recognize, the importance of analyzing direct, indirect, and cumulative impacts.³ The same can be said of the FAA.⁴ “Cumulative effects are effects resulting from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of who undertakes the other actions.”⁵

The Court of Appeals for the D.C. Circuit has held that

a meaningful cumulative impact analysis must identify (1) the area in which the effects of the proposed project will be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions—past, present, and proposed, and reasonably foreseeable—that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate.

Del. Riverkeeper Network v. F.E.R.C., 753 F.3d 1304, 1319 (D.C. Cir. 2014) (internal quotations omitted) (citing *Grand Canyon Trust v. FAA*, 290 F.3d 339, 345 (D.C. Cir. 2003)). “To satisfy ‘hard look’ review, an agency’s cumulative impacts analysis must contain ‘sufficient discussion of the relevant issues’ and be ‘well considered.’” *City of Boston Delegation v. F.E.R.C.*, 897 F.3d 241, 253 (D.C. Cir. 2018) (citing *Myersville Citizens for a Rural Community, Inc. v. F.E.R.C.*, 783 F.3d 1301, 1324-25 (D.C. Cir. 2015)).

In *Delaware Riverkeeper*, the D.C. Circuit found that FERC’s cursory statement that the connected pipeline projects were “not expected to significantly contribute to cumulative impacts in the Project area” did not satisfy the cumulative impacts test as enunciated in *Grand Canyon Trust*. *Id.*

The same is true here: the Draft PEA does not satisfy the *Grand Canyon Trust*’s cumulative impacts test. SpaceX estimates 500 hours of closures per year, which amounts to more than twenty full days of closure per year. The BSC and the Port tenants, including Rio Grande LNG and other businesses that critically depend on the BSC, will surely be impacted by over twenty full days of closures due to SpaceX launches. But the Draft PEA does not even acknowledge the presence of Rio Grande LNG or other Port tenants, let alone any impacts on the Port or BSC. Overall, the Draft PEA does not take a “hard look” at the effects of SpaceX’s operations and does not contain a “sufficient discussion” of relevant issues regarding potential impacts to the BSC and Port tenants. Thus, the Draft PEA’s cumulative impacts analysis is inadequate.

³ See, e.g., National Environmental Policy Act Implementing Regulations Revisions, 86 Fed. Reg. 55,757, 55,762 (Oct. 7, 2021), <https://www.govinfo.gov/content/pkg/FR-2021-10-07/pdf/2021-21867.pdf>.

⁴ See, e.g., U.S. DEPT. OF TRANS., FED. AVIATION ADMIN., Order 1050.1F, Environmental Impacts Policies and Procedures (2015), https://www.faa.gov/documentLibrary/media/Order/FAA_Order_1050_1F.pdf.

⁵ 86 Fed. Reg. 55,757 at 55,762.

Also missing from the Draft PEA is NextDecade's concern about the storage and handling of propellant fuel. To repeat the concern from our January 22, 2021, comments: energy infrastructure projects in South Texas have been subjected to appropriate regulatory scrutiny to ensure compliance and consistency with standards maintained by the Pipeline and Hazardous Materials Safety Administration and the National Fire Protection Association ("NFPA"), among others. While it is standard practice that facilities that store and utilize flammable liquids be required to model vapor cloud dispersion and design for blast overpressure, it is unclear to what extent NFPA reviews have been required of the SpaceX facility. It is also unclear what Process Safety Management guidelines have been incorporated in the design of the storage facility to accommodate requisite fuel quantities and conditions. Given the potential for now even larger quantities of fuel to be stored at the Boca Chica Launch Site, further modeling, review, and approval protocols must be applied to ensure the health and safety of the local community.

As set out in the Rio Grande LNG final EIS,⁶ the construction schedule for Rio Grande LNG contemplates carefully integrated and phased interruptions based specifically on information provided by SpaceX to the FAA pertaining to the 2016-2025 period. FERC has approved our project siting, construction and operations, based on these representations by the FAA and SpaceX. It is our continuing expectation that any alterations to the SpaceX launch program will result in no greater impacts to Rio Grande LNG or the community than contemplated in the 2014 SpaceX EIS, including through restrictions to the BSC. Upon review of the Draft PEA, the concerns stated above and repeated from our January 22, 2021, comments suggest the FAA needs to clarify certain aspects of SpaceX's proposed operations and the Final PEA should include indication of the FAA's plan for further analysis in the form of a Notice of Intent to prepare an Environmental Impact Statement ("EIS").

Respectfully submitted,



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⁶ https://www.ferc.gov/sites/default/files/2020-05/PEIS-volume-1_0.pdf