

## **APPENDIX V**

### **Draft General Conformity Determination**

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**Sea Port Oil Terminal  
Deepwater Port Project  
Draft General Conformity Determination**

January 2020

U.S. Coast Guard  
Maritime Administration

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## ACRONYMS AND ABBREVIATIONS

| <b>Acronym</b>  | <b>Definition</b>                             |
|-----------------|---|
| Applicant       | SPOT Terminals, LLC                           |
| bbbl            | barrel  |
| CAA             | Clean Air Act                                 |
| CFR             | Code of Federal Regulations                   |
| DWP             | deepwater port                                |
| ECHO            | Enterprise Crude Houston                      |
| HGB             | Houston-Galveston-Brazoria                    |
| MARAD           | Maritime Administration                       |
| NAAQS           | National Ambient Air Quality Standards        |
| NO <sub>x</sub> | nitrogen oxides                               |
| PLEM            | pipeline end manifold                         |
| Project         | SPOT Project                                  |
| SIP             | state implementation plan                     |
| SPOT            | Sea Port Oil Terminal                         |
| SPOT Project    | Sea Port Oil Terminal Deepwater Port Project  |
| U.S.            | United States                                 |
| USCG            | United States Coast Guard                     |
| USEPA           | United States Environmental Protection Agency |
| VOC             | volatile organic compound                     |

## 1. INTRODUCTION

In accordance with the National Environmental Policy Act of 1969 and the Clean Air Act (CAA), the United States Coast Guard (USCG) and United States (U.S.) Department of Transportation's Maritime Administration (MARAD) have prepared this draft General Conformity Determination to ensure that the Sea Port Oil Terminal (SPOT) Deepwater Port Project (Project or SPOT Project) conforms with the Texas State Implementation Plan (SIP). This review and determination is triggered by emissions from construction activities proposed by SPOT Terminals, LLC (the Applicant) that would exceed the applicable General Conformity *de minimis* threshold of 50 tons per year of nitrogen oxides (NO<sub>x</sub>) or volatile organic compounds (VOCs) set by "Determinations of Attainment by the Attainment Date, Extensions of the Attainment Date, and Reclassification of Several Areas Classified as Moderate for the 2008 Ozone National Ambient Air Quality Standards" (84 Fed. Reg. 44238, August 23, 2019) within the Houston-Galveston-Brazoria (HGB) area. The HGB area includes Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller counties, and extends 2.6 nautical miles offshore over state water. The attainment deadline for the HGB nonattainment area is July 20, 2021. Pursuant to Title 40 Code of Federal Regulations (CFR) Parts 93.155 and 156, this draft General Conformity Determination is being issued for public comment. Any person wishing to comment on this document may do so by either contacting the USCG or MARAD (melissa.e.perera@uscg.mil, william.a.nabach2@uscg.mil, or yvette.fields@dot.gov). To ensure that comments are properly recorded and considered prior to issuance of the final General Conformity Determination, it is important that the USCG and MARAD receive your comment on or before [TBD – to be updated once General Conformity comment period is confirmed with USEPA and TCEQ].

The SPOT Project would consist of construction of new onshore facilities and pipeline installation in Harris and Brazoria counties in Texas, as well as construction of offshore components associated with the deepwater port (DWP). For further information on the environmental impacts of the Project, including air quality impacts, see the Draft Environmental Impact Statement issued on January 24, 2020.<sup>1</sup> Construction and operation of the Project is contingent on MARAD approval (or approval with conditions) of a license.

## 2. SPOT PROJECT FACILITIES

The Project would consist of both onshore and offshore components. The onshore components of the Project would include:

- Modifications to the existing Enterprise Crude Houston (ECHO) Terminal, located on the southeast side of Houston, Texas just east of Pearland, Texas, including four electric motor-driven mainline crude oil pumps, four electric motor-driven booster crude oil pumps, and one measurement skid to support delivery of crude oil to the proposed Oyster Creek Terminal;
- One 50.1-mile, 36-inch-diameter pipeline from the existing ECHO Terminal to the proposed Oyster Creek Terminal (hereafter referred to as the ECHO to Oyster Creek Pipeline);

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<sup>1</sup> The Draft Environmental Impact Statement can be viewed at [www.regulations.gov](http://www.regulations.gov) under docket number MARAD-2019-0011.

- One pipeline interconnection from the existing Rancho II 36-inch-diameter pipeline to the ECHO to Oyster Creek Pipeline, at the existing Rancho II Junction facility;
- A new Oyster Creek Terminal, including six electric motor-driven mainline crude oil pumps with the capacity to push crude oil to the offshore pipelines at a rate of up to 85,000 barrels (bbl) per hour; four electric motor-driven booster crude oil pumps; seven aboveground storage tanks (each with a capacity of 685,000 bbl [600,000 bbl of working storage]) for a total onshore storage capacity of approximately 4.8 million bbl (4.2 million bbl working storage) of crude oil; metering equipment; two permanent and one portable vapor combustion units; and a firewater system;
- Two collocated 12.2-mile, 36-inch-diameter crude oil pipelines from the Oyster Creek Terminal to the shore crossing where the onshore pipelines meet the offshore pipelines supplying the SPOT DWP (hereafter referred to as the Oyster Creek to Shore Pipelines); and
- Ancillary facilities for the onshore pipelines, including ten mainline valves, of which six would be along the ECHO to Oyster Creek Pipeline and four along the Oyster Creek to Shore Pipelines, pig launchers for the ECHO to Oyster Creek Pipeline, and pig launchers and receivers for the Oyster Creek to Shore Pipelines.

The offshore components of the Project would include:

- Two collocated, bi-directional, 46.9-mile, 36-inch-diameter crude oil offshore pipelines for crude oil delivery;
- One fixed offshore platform with eight piles, four decks, and three vapor combustion units;
- Two single point mooring buoys to concurrently moor two very large crude carriers or other crude oil carriers with capacities between 120,000 and 320,000 deadweight tonnage for loading up to 365 days per year, including floating crude oil and vapor recovery hoses (SPOT 2019a, Application, Vol IIa, Section 1; EIA 2014; Maritime Connector 2019);
- Four pipeline end manifolds (PLEM)—two per single point mooring buoy—to provide the interconnection with pipelines;
- Four 0.66-nautical mile, 30-inch-diameter pipelines (two per PLEM) to deliver crude oil from the platform to the PLEMs;
- Four 0.66-nautical mile, 16-inch-diameter vapor recovery pipelines (two per PLEM) to connect the very large crude carrier or other crude oil carrier to the three vapor combustion units on the platform;
- Three service vessel moorings, located in the southwest corner of Galveston Area lease block 463 and;
- An anchorage area in Galveston Area lease block A-59, which would not contain any infrastructure.

The General Conformity analysis detailed herein outlines whether portions of the Project are applicable to General Conformity. Where General Conformity is applicable, the analysis determines whether construction and operation would conform to the applicable state SIP.

### **3. GENERAL CONFORMITY REGULATORY BACKGROUND**

The U.S. Environmental Protection Agency (USEPA) promulgated the General Conformity Rule on November 30, 1993, to implement the conformity provision of Title I, section 176(c)(1) of the CAA. Section 176(c)(1) states that “any department, agency, or instrumentality of the federal government shall not engage in, support in any way or provide financial assistance for, license or permit, or approve, any activity that does not conform to an approved CAA implementation plan.” The General Conformity Rule is codified in 40 CFR Part 93, Subpart B.

The General Conformity Rule applies to all Federal actions occurring in nonattainment or maintenance areas. However, the General Conformity Rule excludes programs and projects that require funds or approval from the U.S. Department of Transportation, the Federal Highway Administration, the Federal Transit Administration, or the Metropolitan Planning Organization.

The General Conformity Rule only applies to areas specifically listed as nonattainment or maintenance in 40 CFR Part 81, Subpart C.

#### **3.1. GENERAL CONFORMITY REQUIREMENTS**

Conformity under Title I, section 176(c)(1) of the CAA, means to conform to the purpose of a SIP to eliminate or reduce the severity and number of violations of the National Ambient Air Quality Standards (NAAQS) and achieving expeditious attainment of such standards. A proposed action or activity cannot:

- Cause or contribute to new violations of any NAAQS in any area;
- Increase the frequency or severity of any existing violation of any NAAQS in the area; or
- Delay timely attainment of any NAAQS, interim emission reductions, or other milestones in the area.

The General Conformity Rule applies to air pollutant emissions (direct and indirect) associated with Federal actions as defined in 40 CFR § 93.152 and ensures that the emissions do not contribute to air quality degradation or prevent the achievement of state and Federal air quality goals. General Conformity, if applicable to the action, refers to the process of evaluating the action to determine and demonstrate that it satisfies the requirements of the approved SIP. The purpose of the General Conformity Rule is to encourage Federal agencies to consult with state and local air quality districts so these regulatory entities are aware of the expected impacts of the Federal action and ensure the action meets the approved SIP.

#### **3.2. GENERAL CONFORMITY PROCESS**

The General Conformity process for a proposed action involves two distinct steps: applicability analysis and conformity determination.

1. The applicability analysis is an assessment of whether a proposed action is subject to the General Conformity Rule. If the General Conformity Rule is applicable for a proposed action, then a General Conformity Determination may be required.
2. A General Conformity Determination is an assessment of how a proposed action conforms to the applicable SIP.

An applicability analysis is required for any Federal action that is in a nonattainment or maintenance area and for which associated emissions associated may have the potential to exceed the applicability threshold specified in 40 CFR § 93.153(b)(1) and (2). If emissions would exceed these thresholds, then a General Conformity Determination is required.

The General Conformity process does not include a review of new sources or existing source modifications that are subject to state or Federal New Source Review permitting. Under the General Conformity Rule, these sources are presumed to comply with the SIP by completing the applicable air permitting process with the jurisdictional agency.

If a General Conformity Determination is required for the proposed action, an evaluation must be performed to determine if the action conforms to the SIP. The USCG and MARAD are the co-lead Federal agencies responsible for processing the DWP license application submitted by the Applicant for the SPOT Project. MARAD’s Federal action will be to approve, disapprove, or approve with conditions a license for the SPOT DWP. If licensed, the USCG will have oversight of development of the Port Operations Manual. Thus, the USCG and MARAD, as action agencies, are also responsible for making the General Conformity Determination. As required under General Conformity, an applicability analysis was performed for the Project to determine if the total direct and indirect emissions for criteria pollutants in nonattainment or maintenance areas would exceed the rates specified in 40 CFR § 93.153(b)(1) and (2). The results are presented in Section 4.0, General Conformity Applicability, and show that the SPOT Project would exceed the applicability threshold within the HGB 8-Hour Ozone (USEPA 2008) nonattainment area. The USCG and MARAD’s General Conformity Determination is presented in Section 5.0, General Conformity Analysis.

#### 4. GENERAL CONFORMITY APPLICABILITY

The General Conformity Rule applies only to actions in a nonattainment or maintenance area, and the applicability thresholds apply for those portions of the Project within each area. The General Conformity applicability thresholds are based on the attainment classification for each pollutant. Table 4-1 provides a summary of the applicable nonattainment areas, the pollutants/precursor for which they are listed, and the applicability thresholds for each pollutant/precursor.

**Table 4-1: General Conformity Applicability Thresholds**

| <b>Pollutant</b> | <b>Nonattainment / Maintenance Area</b> | <b>Pollutant or Precursor</b> | <b>Applicability Threshold (tons/year)</b> |
|------------------|---|-------------------------------|--|
| Ozone            | Houston-Galveston-Brazoria, Texas       | VOC and NO <sub>x</sub>       | 50   |

Source: 84 Federal Register 164 (August 23, 2019)

NO<sub>x</sub> = nitrogen oxides; VOC = volatile organic compounds

The SPOT Project’s onshore construction workspace would be within the HGB ozone nonattainment area. Since August 23, 2019 the area has been classified as a serious nonattainment area for ozone because the HGB area missed its 2008 ozone moderate nonattainment area attainment date of July 20, 2018 (as prescribed in 80 Fed. Reg. 12264, March 6, 2015). Additionally, the ozone nonattainment area extends 2.6 nautical miles offshore over state waters. Therefore, a portion of the offshore pipeline construction workspace would be within the nonattainment area. In addition, onshore operational emissions and a

portion of the offshore operational emissions (helicopter and supply vessel trips to/from shore to the DWP) would also be subject to review under the General Conformity Rule.

Ground level ozone, is not emitted directly into the air, but is created by chemical reactions between NO<sub>x</sub> and VOCs. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and airway inflammation. It can also reduce lung function and harm lung tissue. Ozone can worsen bronchitis, emphysema, and asthma, leading to a need for increased medical care (USEPA 2019).

NO<sub>x</sub> and VOCs are referred to as precursor pollutants, and are regulated to control ozone formation. NO<sub>x</sub>, which are a combination of nitric oxide and nitrogen dioxide, react with VOCs in the presence of sunlight. NO<sub>x</sub> may also react with water and ammonia in the atmosphere to form nitric acid, which is a significant component of smog and acid rain. VOCs are organic compounds that have a high vapor pressure at ambient temperatures. VOCs are ubiquitous, and include alcohols, solvents, methane, and ammonia, among others.

Table 4-2 presents the construction emissions that would occur within the HGB ozone nonattainment for the SPOT Project for calendar years 2020 to 2022, during which construction would be completed if the Project is licensed. Direct and indirect construction emissions in the HGB ozone nonattainment area are estimated to exceed the General Conformity threshold of 50 tons per year for NO<sub>x</sub>. Emission sources that are subject to the General Conformity Applicability Analysis include the onshore and offshore Project construction emissions that are proposed to occur in 2021.

Table 4-3 presents the estimated annual operational emissions, including helicopter trips and supply vessel transits, that would occur within the HGB ozone nonattainment area that are subject to review under the General Conformity Rule. These emissions would be below the General Conformity threshold.

**Table 4-2: Construction Emissions Summary for the SPOT Project**

| Nonattainment Area    | Emissions (tons/year) |             |
|-----------------------|-----------------------|-------------|
|                       | NO <sub>x</sub>       | VOC         |
| Onshore Construction  | 7.4                   | 0.9         |
| Offshore Construction | 0.0                   | 0.0         |
| <i>Total 2020</i>     | <i>7.4</i>            | <i>0.9</i>  |
| Onshore Construction  | 51.0                  | 5.9         |
| Offshore Construction | 43.7                  | 0.81        |
| <i>Total 2021</i>     | <b><i>94.7</i></b>    | <i>6.71</i> |
| Onshore Construction  | 25.0                  | 2.3         |
| Offshore Construction | 0.2                   | 0.003       |
| <i>Total 2022</i>     | <i>25.2</i>           | <i>2.3</i>  |

Source: SPOT 2019b, Response to Information Request #276.

NO<sub>x</sub> = nitrogen oxides; VOC = volatile organic compound

Note: Total emissions in bold italics indicate exceedances of the *de minimis* threshold.

Note: These emissions were calculated using the USEPA’s MOVES 2014 modeling software and Year 2014 Gulfwide Emission Inventory Study for marine vessel emissions.<sup>2</sup>

<sup>2</sup> Detailed information on calculation methodology for each emission source is available in the SPOT Application, Volume IIa, Appendix N (SPOT 2019a) and the Applicant’s Response to Information Request #62 (SPOT 2019c), both of which can be found at [www.regulations.gov](http://www.regulations.gov) under docket number MARAD-2019-0011.

**Table 4-3: Operation Emissions Summary for the SPOT Project**

| Nonattainment Area | Emissions (tons/year) |     |
|--------------------|-----------------------|-----|
|                    | NO <sub>x</sub>       | VOC |
| Annual Emissions   | 1.2                   | 0.1 |

Source: SPOT 2019b, Response to Information Request #276.

NO<sub>x</sub> = nitrogen oxides; VOC = volatile organic compound

Based on the emission estimates in Table 4-2, the NO<sub>x</sub> emissions for the HGB ozone nonattainment area in 2021 would exceed the General Conformity applicability threshold value of 50 tons per year, as a precursor pollutant to ozone. Because the emissions from the Project in the HGB ozone nonattainment area would exceed the applicability threshold for NO<sub>x</sub>, a General Conformity Determination must be completed to assess the conformance of the Project’s emissions to the approved requirements and emission budgets within the Texas SIP for 2018 (TCEQ 2018). These emissions are referred to within this determination as the “General Conformity Project emissions.”

## 5. GENERAL CONFORMITY ANALYSIS

Under 40 CFR Part 93, Subpart B, a Federal action required to have a conformity determination for a specific pollutant would be determined to conform to the SIP if it meets one of several requirements in 40 CFR § 93.158.

The General Conformity Determination is based on the 8-hour ozone standard and the corresponding attainment date. For the HGB Ozone Nonattainment Area, the most recently approved SIP revision is the *2018 Houston-Galveston-Brazoria (HGB) Redesignation Request and Maintenance Plan for the One-Hour and 1997 Eight-Hour Ozone Standards* (TCEQ 2018). These revisions were approved by the USEPA on December 12, 2018 and include lowering the maximum emission of criteria pollutants from 100 tons per year to 50 tons per year for the HGB area due to its status as serious nonattainment. In this SIP revision, the emissions budgets for NO<sub>x</sub> and VOC were updated in accordance with USEPA guidance regarding mobile source emissions.

All of the SPOT Project construction emissions above the General Conformity applicability thresholds are expected to occur in the HGB ozone nonattainment area. The criteria for determining conformity are provided in 40 CFR § 93.158. An action would be determined to conform for a specific pollutant if it meets the requirements of 40 CFR § 93.158(c) and any of the applicable requirements in 40 CFR § 93.158(a)(1) through (5). Section 40 CFR § 93.158(c) requires the total of direct and indirect emissions from the action to be in compliance with all relevant requirements and milestones contained in the applicable SIP. Sections 40 CFR § 93.158(a)(1) through (5) provide a number of pollutant- and state-specific options for demonstrating conformity. The Applicant has indicated that it would demonstrate compliance with the Texas SIP requirements, in accordance with 40 CFR § 93.158(c), as discussed in Section 5.2, Conformity with State Implementation Plan.

## 5.1. CONSISTENCY WITH RELEVANT TEXAS STATE IMPLEMENTATION PLAN REQUIREMENTS AND MITIGATION MEASURES

The NO<sub>x</sub> emission control measures and regulations included in the Texas SIP that may potentially apply to the Project are listed in Table 5-1.

**Table 5-1: Control Measures in the Texas State Implementation Plan**

| <b>Emission Control Measures</b>                     | <b>Type</b> | <b>Potential Direct Applicability to the Project</b>               |
|--|-------------|--|
| Emissions Standards for Large Spark Ignition Engines | Federal     | Construction equipment and marine vessels less than 175 horsepower |
| Reformulated Gasoline Program                        | Federal     | Delivery and commuter vehicles                                     |
| Vehicle Inspection and Maintenance Program           | State       | Delivery and commuter vehicles                                     |
| Emissions Reduction Plan                             | State       | Delivery and commuter vehicles, construction equipment             |
| Texas Low Emission Diesel                            | State       | Construction and off-road equipment, diesel fuel reformulation     |
| Transportation Control Measures                      | State       | Delivery and commuter vehicles                                     |
| Voluntary Mobile Emissions Reduction Program         | State       | Delivery and commuter vehicles                                     |

Source: TCEQ 2019

Several of the measures identified in Table 5-1 would also indirectly affect the emissions from the proposed Project through implementation of new Federal standards for manufacturers (such as reformulated fuel and engines) contained in USEPA’s Tier 4 emission standards and reformulated gasoline program. During construction of the proposed facilities, SPOT would use construction equipment powered by diesel engines, which are subject to these Federal programs. Implementation and compliance with these programs would be required by the manufacturers; therefore, it can be assumed that the Project would be in compliance with these regulations. As such, the Project would meet the requirements of 40 CFR § 93.158(c) for complying with all relevant requirements and milestones contained in the Texas SIP.

## 5.2. CONFORMITY WITH STATE IMPLEMENTATION PLAN

The construction-related emissions caused by the Project in the HGB ozone nonattainment area are not specifically identified in the SIP; however, the SIP identifies air emission growth allowance for particular activities. Preliminary conversations with Texas Commission on Environmental Quality staff indicate that the construction-related emissions caused by the Project, along with all other construction-related emissions in the area, would not exceed the air emission growth allowance for 2021. Specifically, the emissions from the construction phase of the action, combined with the emissions from all other construction activities in the area, would not exceed the SIP budget for construction emissions. This would allow the Project to conform to the Texas SIP as allowed in 40 CFR § 93.158(a)(5)(i)(A).

## 5.3. ONGOING COMPLIANCE

If licensed, the USCG and MARAD would require, as a condition of the license, that the Applicant provide ongoing construction progress reports, which would allow USCG and MARAD to track the progress of the activities subject to the General Conformity Determination, as outlined in 40 CFR § 93.157.

## 6. REFERENCES

- EIA (U.S. Energy Information Administration). 2014. "Oil Tanker Sizes Range from General Purpose to Ultra-Large Crude Carriers on AFRA Scale." Accessed December 16, 2019. Available online at: <https://www.eia.gov/todayinenergy/detail.php?id=17991>.
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