



COMMONWEALTH OF PENNSYLVANIA
Department of Environmental Protection
Southeast Regional Office

February 6, 2024
484.250.5920

Subject: Technical Review Memo
Extension of Plan Approval No. 23-0119J
APS ID 998548, AUTH ID 1462394, PF ID 757998
Energy Transfer Marketing & Terminals, L.P.—Marcus Hook Terminal
100 Green Street
Marcus Hook, PA 19061

To: James D. Rebarchak  2/7/24
Environmental Program Manager
Air Quality Program
Southeast Region

From: David S. Smith, E.I.T.  2/6/24
Air Quality Engineering Specialist
Facilities Permitting Section
Air Quality Program

Through: Janine Tulloch-Reid, P.E. JET 2/7/2024
Environmental Engineer Manager
Facilities Permitting Section
Air Quality Program

I. Introduction/Purpose of Authorization

Energy Transfer Marketing & Terminals, L.P. (ETMT), owns and operates the Marcus Hook Terminal (MHT), its petroleum terminal and natural gas liquids (NGLs) processing, storage, and distribution facility located in Marcus Hook Borough, Delaware County. The MHT is permitted under Title V Operating Permit (TVOP) No. 23-00119 and Plan Approval Nos. 23-0119E [revised] and 23-0119J. The purpose of this authorization is to extend Plan Approval No. 23-0119J (see *Justification for Plan Approval Extension* section, below, for further discussion).

Using the *Pennsylvania Environmental Justice Mapping and Screening Tool (PennEnviroScreen)*,¹ in accordance with Appendix B of the Department of Environmental Protection's (DEP's) Interim Final Environmental Justice Policy (Document No. 015-0501-002), effective September 16, 2023, the MHT is located in an Environmental Justice (EJ) area. In accordance with Appendix C of this policy, DEP does not consider the authorization to be a Public Participation Trigger or Opt-In Project. Therefore, DEP does not recommend any additional public participation actions at this time.

¹ *PennEnviroScreen* can be found on DEP's Public Participation EJ webpage at the following link:
<https://gis.dep.pa.gov/PennEnviroScreen>.

II. Relevant Facility Permitting History

On February 12, 2021, DEP issued Plan Approval No. 23-0119J to Sunoco Partners Marketing & Terminals, L.P. (SPMT),² for the following sources, equipment, and operations to enable or accommodate the processing of approximately 140,000 barrels per day of ethane feedstock into, as well as the transient storage onsite and transfer offsite of, refrigerated (liquified) ethane product (hereinafter collectively referred to as “Project Phoenix”):

- The installation and temporary operation of the following sources and equipment to enable the processing of ethane feedstock into refrigerated ethane product:
 - One new amine treatment system to remove excess carbon dioxide [CO₂] from ethane feedstock prior to fractionation.
 - One new dehydration train system to remove water from ethane feedstock prior to fractionation.
 - Two new refrigeration systems, each consisting of a closed-loop propane system followed by an open-loop ethane system, for the cooling of dry ethane.
 - Two new fractionation towers (demethanizers; Source ID 142³) and associated equipment for the removal of methane from dry ethane.
 - Two new wet surface air cooling (WSAC) systems (Source ID 141), one associated with each new refrigeration system, to process cooling water for the refrigeration systems.
 - All associated piping and components for the refrigerated ethane process.
- The installation and temporary operation or use of the following utilities to enable or accommodate the processing of ethane feedstock:
 - The installation and temporary operation of one new elevated, air-assisted Project Phoenix Cold Flare (Source ID C04), equipped with high- and low-pressure (HP and LP) cold flare tips, to enable the flaring of refrigerated streams that do not contain water.
 - The use of the existing West Warm Flare (Source ID C03 under the TVOP) to accommodate the flaring of streams from the amine treatment system and dehydration train system.
 - The use of three existing auxiliary boilers (1 and 3–4; Source IDs 031 and 033–034 under the TVOP) to accommodate the steam demand (36,300 *lbs/hr*) for the amine treatment system and dehydration train system.
- The installation and temporary operation of two new 600,000-*bbbl* refrigerated ethane storage tanks (Source IDs 124–125) to enable the transient storage of refrigerated ethane product prior to its transfer off-site.
- The use of two existing marine vessel loading docks (1A and 2A; part of Source ID 104 under the TVOP) to accommodate the loading of refrigerated ethane product into marine vessels for transfer off-site.

On May 27, 2022, DEP received an electronic letter from ETMT stating that “construction has not yet commenced on the sources authorized under this Plan Approval [No. 23-0119J] because of various complications due to COVID-19. Due to these complications, ETMT respectfully requests [DEP] to authorize an 18-month commence construction extension to February 12, 2024.”

On June 13, 2022, DEP received an e-mail with anticipated construction schedule from ETMT, which included a listing of various project milestones ranging from “March 2023 – Begin detailed engineering design” to

² On March 1, 2022, SPMT changed its name to ETMT.

³ In the original Plan Approval No. 23-0119J, DEP had intended to indicate the demethanizers as sources with this Source ID. DEP has done this in the extended Plan Approval.

“February 2026 – Complete all construction activities and begin system commissioning and startup” (see *Attachment #1*).

On August 4, 2022, ETMT confirmed that it had not entered into any binding agreements or contractual obligations for any of the sources or equipment authorized under Plan Approval No. 23-0119J, which may qualify as commencing construction pursuant to the definition of the term “commence” in 25 Pa. Code § 121.1.

On August 8, 2022, DEP extended the timeframe for ETMT to commence construction on the sources and equipment authorized under Plan Approval No. 23-0119J to February 12, 2024.

On November 20, 2023, DEP received a Plan Approval extension package for Plan Approval No. 23-0119J from ETMT. The Plan Approval extension package included the Plan Approval extension form, the compliance review form [25 Pa. Code §§ 127.12(a)(11) and 127.12a(b)–(c)], and monies for the application fee of \$750 [25 Pa. Code § 127.702(i)(2)(ii)].

III. Justification for Plan Approval Extension

ETMT indicated in the cover letter accompanying the Plan Approval extension package that “construction has not yet commenced on the sources authorized under this Plan Approval [No. 23-0119J] and ETMT anticipates commencement of construction could be delayed beyond February 12, 2024 because of changes in the ethane market, which has been impacted by COVID-19, natural gas production forecasts in the Northeast, and regulatory hurdles faced by customers for expansion projects. Construction of the project will commence once the customer off-take agreements have been completed.” To this end, ETMT included in the Plan Approval extension package an anticipated construction schedule with the exact same project milestones as previously submitted, except that all the milestone dates were extended out 18 months (i.e., “September 2024 – Begin detailed engineering design” to “August 2027 – Complete all construction activities and begin system commissioning and startup”).

On December 7, 2023, DEP met with ETMT to discuss ETMT’s plans for Project Phoenix. Based on the facts that construction on the sources and equipment authorized under Plan Approval No. 23-0119J had yet not commenced (over a period of almost 3 years) and DEP no longer considers COVID-19 or any associated impacts to constitute a force majeure, DEP advised ETMT that it was unwilling to extend the Plan Approval if ETMT did not commence construction prior to February 12, 2024, the expiration date of Plan Approval No. 23-0119J.

On January 8, 2024, DEP confirmed in a telephone conversation with ETMT that ETMT intended to commence construction under Plan Approval No. 23-0119J prior to the expiration date and, correspondingly, submit a revised Plan Approval extension package with updated anticipated construction schedule.

To this end, on January 10, 2024, DEP received the revised Plan Approval extension package with updated anticipated construction schedule. ETMT indicated in its cover letter accompanying the revised Plan Approval extension package that it was “planning to begin foundation work for the sources authorized by Plan Approval 23-0119J during the week of January 29, 2024.” The rest of the project milestones in the updated anticipated construction schedule ranged from “February 2024 – Finalize detailed engineering design” to “January 2027 – Complete all construction activities and begin system commissioning and startup.” In addition, ETMT requested that DEP extend the term of the Plan Approval by 18 months (i.e., until August 12, 2025).

On February 5, 2024, Heather Henry, Air Quality Specialist, DEP, and I met with Kevin Smith, Supervisor–Environmental Compliance, ETMT, at the MHT to verify whether ETMT commenced foundation work and, hence, construction under Plan Approval No. 23-0119J (see *Attachment #2*). Mr. Kevin Smith drove Ms. Henry and I out to the section of the MHT designated for the new sources and equipment of Project Phoenix. There, Ms. Henry and I observed construction equipment, including a pile driver, on-site and twelve piles sticking out of the ground roughly 12 feet above grade. Mr. Kevin Smith stated that the piles were installed between January 30–

February 2, 2024, and are for the foundation of one of the two refrigerated ethane storage tanks authorized under Plan Approval No. 23-0119J (Source IDs 124–125). Moreover, Mr. Kevin Smith stated that:

- The piles were driven down until they reached bedrock.
- The excess length of the piles above grade is not needed for the foundation and will be cut off as waste.
- The remaining piles required for the foundation will be ordered at the appropriate length(s) (i.e., the minimum length(s) required to reach bedrock and minimize the wasting of material) and driven at some point after they are delivered to the MHT.

Therefore, DEP considers ETMT to have commenced construction under Plan Approval No. 23-0119J.

IV. Recommendation

Based on a review of Plan Approval No. 23-0119J and the associated extension package, as well as DEP's verification that ETMT commenced construction under Plan Approval No. 23-0119J, I recommend that DEP extend Plan Approval No. 23-0119J for a period of 18 months.

Smith, David S

From: Garcia, Lisa M <Lisa.Garcia@energytransfer.com>
Sent: Monday, June 13, 2022 7:28 AM
To: Smith, David S
Cc: Rebarchak, James; Tulloch-Reid, Janine; Gallagher, Jillian; Mclemore, Kevin; Henry, Heather; Smith, Kevin W
Subject: RE: [External] Marcus Hook Terminal Plan Approval J Construction Extension Request

Dave,

I apologize for the delayed response to this request. Please see the information below provided by our engineering team and let me know if you need anything else. Thank you.

- March 2023 – Begin detailed engineering design
- June 2023 – Develop packages and start procuring critical equipment
- July 2023 – Begin utility upgrades
- January 2024 – Begin tank construction
- February 2024 – Begin chiller construction
- July 2025 – Energize PDC
- November 2025 – Tank mechanically complete
- February 2026 – Complete all construction activities and begin system commissioning and startup



Lisa M. Garcia, P.E.

Sr. Manager – Engineering
E&C Environmental
Energy Transfer

O: 713.989.7762

C: 210.540.8853



From: Smith, David S <dssmith@pa.gov>

Sent: Friday, May 27, 2022 1:26 PM

To: Garcia, Lisa M <Lisa.Garcia@energytransfer.com>

Cc: Rebarchak, James <jrebarchak@pa.gov>; Tulloch-Reid, Janine <jtullochre@pa.gov>; Gallagher, Jillian <jjgallaghe@pa.gov>; Mclemore, Kevin <kmcmore@pa.gov>; Henry, Heather <hehenry@pa.gov>

Subject: RE: [External] Marcus Hook Terminal Plan Approval J Construction Extension Request

Hi Lisa, are you able to provide an updated timeline/schedule for when ETMT anticipates that construction will commence and, if known, be completed for the various sources under Plan Approval No. 23-0119J?

Thanks,

David S. Smith, E.I.T. (he/him/his) | Air Quality Engineering Specialist
Pennsylvania Department of Environmental Protection
Southeast Regional Office
2 East Main Street | Norristown, PA 19401
Phone: 484.250.5064 | Fax: 484.250.5921

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From: Garcia, Lisa M <Lisa.Garcia@energytransfer.com>
Sent: Friday, May 27, 2022 11:12 AM
To: Smith, David S <dssmith@pa.gov>
Cc: Rebarchak, James <jrebarchak@pa.gov>; Mclemore, Kevin <kmclemore@pa.gov>; Gallagher, Jillian <jgallaghe@pa.gov>; Henry, Heather <hehenry@pa.gov>; Tulloch-Reid, Janine <jtullochre@pa.gov>
Subject: [External] Marcus Hook Terminal Plan Approval J Construction Extension Request

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Dave,
Please see the attached Commence Construction Extension Request for Plan Approval 23-0119J for the Marcus Hook Terminal. Please let me know if you have any questions. Thank you.



Lisa M. Garcia, P.E.
Sr. Manager – Engineering
E&C Environmental
Energy Transfer

O: 713.989.7762
C: 210.540.8853



Private and confidential as detailed [here](#). If you cannot access hyperlink, please e-mail sender.
Private and confidential as detailed [here](#). If you cannot access hyperlink, please e-mail sender.

2700-FM-BAQ0023 2/2015 pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION		INSPECTION REPORT		Commonwealth of Pennsylvania Department of Environmental Protection Air Quality Program	
Date(s) of Inspection: 2/5/2024	TV <input type="checkbox"/> SM <input type="checkbox"/> NM <input type="checkbox"/>	PA <input checked="" type="checkbox"/> GP <input type="checkbox"/> MEGA <input type="checkbox"/>	Permit #(s): PA-23-0195	Expiration Date: 2/12/24	Case #: PF ID #:
Company Name: STMT		Municipality: MARIUS HOOK		County: DELAWARE	
Plant Name: STMT MARIUS HOOK		Physical Location: 100 GREEN ST		Federal ID - Plant Code #: 23-3102655-3	
Responsible Official: KEVIN SMITH			Mailing Address: 100 GREEN ST		
Title: ENV. COMP. SPECIALIST			MARIUS HOOK, PA 19061		
Phone #(s): 610-859-1912					

Mark (X) All Inspection Types That Apply To This Inspection:

<input type="checkbox"/> Full Compliance Evaluation (FCE)	<input checked="" type="checkbox"/> Plan Approval Inspection	<input type="checkbox"/> File Review (FR)
<input type="checkbox"/> Operating Permit Inspection (PI)	<input type="checkbox"/> Initial Permit Inspection (IPI)	<input type="checkbox"/> Complaint Inspection (CI)
<input type="checkbox"/> Routine/Partial (RTPT)	<input type="checkbox"/> Follow-Up Inspection (Ref. Date: _____)	<input type="checkbox"/> Sample Collection (SC)
<input type="checkbox"/> Minor Source(s) Inspection (RFD)	<input type="checkbox"/> Stack Test Observation	<input type="checkbox"/> Multi-Media Inspection (MM)
<input type="checkbox"/> Other:	<input type="checkbox"/> Announced	

Annual Compliance Certification Received: <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Date Received:
AIMS Report Received: <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Date Received:

Mark (X) All Activities That Apply:

<input type="checkbox"/> File Review	<input checked="" type="checkbox"/> Pre-Inspection Briefing	<input checked="" type="checkbox"/> Exit Interview/Briefing
<input type="checkbox"/> Pre-Inspection Observations	<input type="checkbox"/> Check For New/Unreported Sources	<input type="checkbox"/> Sample(s) Collected
<input checked="" type="checkbox"/> Visible Emissions Observations	<input type="checkbox"/> Verify Operation of CEMS	<input type="checkbox"/> Other

Comments/Recommendations: Enforcement since last FCE Yes No (If yes, attach summary)

ON THE ABOVE DATE DAVE SMITH & I MET W/ KEVIN SMITH FOR AN UNANNOUNCED PLAN APPROVAL INSPECTION. WE SAW THAT PERMANENT FOUNDATION WORK HAD BEGUN FOR WHAT WILL BE AN ETHANE (REFRIDGE.) TANK UNDER PA-23-0195. WE SAW MULTIPLE PILES DRIVEN INTO THE GROUND. K. SMITH TOLD US THAT CONTRACTORS HAD MOBILIZED & WERE ACTIVELY DRIVING THE PILES WE SAW ON JAN 30 THROUGH FEB 2, 2024. DEP HAD RECEIVED A PLAN APPROVAL SUSTENSION REQUEST FROM STMT ON JAN 10, 2024 REGARDING PA-23-0195.

Compliance Status: <input checked="" type="checkbox"/> In <input type="checkbox"/> Out <input type="checkbox"/> Pending <input type="checkbox"/> Awaiting Co. Report		Needs a Follow-Up Inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Company Representative: Kevin Smith	Title: ENV	Signature: 	Date: 11:43 am 2/5/24
DEP Representative: Heather Henry	Title: AQS	Signature: 	Date/Time: 11:42 AM 2/5/24

This document is official notification that a representative of the Department of Environmental Protection, Air Quality Program, inspected the identified site. The findings of this inspection are shown above and on any attached pages, and may include violations uncovered during the inspection. Violations may also be discovered upon review of sample results or from any additional review of Department records. Notification will be forthcoming, if such violations are noted.