

COMMONWEALTH OF PENNSYLVANIA
Department of Environmental Protection
Southeast Regional Office

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Subject: Addendum to Technical Review Memo
Renewal of Title V Operating Permit No. 23-00119
APS ID 823642, Auth ID 1508601, PF ID 757998
Energy Transfer Marketing & Terminals, L.P.—Marcus Hook Terminal
100 Green Street
Marcus Hook, PA 19061

To: James D. Rebarchak
Environmental Program Manager
Air Quality Program
Southeast Region

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

Through: Janine Tulloch-Reid, P.E.
Environmental Engineer Manager
Facilities Permitting Section
Air Quality Program

I. Introduction

Subsequent to its drafting of the technical review memo for the renewal of Title V Operating Permit (TVOP) No. 23-00119 for Energy Transfer Marketing & Terminals, L.P.'s (ETMT's) Marcus Hook Terminal (MHT), DEP received the following from ETMT and the United States Environmental Protection Agency (EPA):

- ETMT: Comments indicating corrections and requested updates to the preliminary draft TVOP renewal.
- EPA: A request for DEP to compare the Best Available Control Technology (BACT)/Lowest Achievable Emission Rate (LAER) requirements specified in the proposed TVOP renewal (and previously incorporated by reference from Plan Approval No. 23-0119K) with the applicable provisions of 40 CFR Part 60, Subpart VVb.

To address the above comments and request, DEP has drafted this addendum to the technical review memo. [Note: The below sections correspond to the sections of the technical review memo for which DEP has made changes.]

IV. Physical Changes at the MHT

In addition to the 27 storage tanks that ETMT stated in the TVOP renewal application are permanently out of service, ETMT has stated that Tank 97 “was cleaned, disconnected, and closed off” on July 11, 2022.

V. Changes to the TVOP

In addition to the significant changes for the proposed TVOP renewal listed in DEP's technical review memo, DEP has also included the following significant changes in the proposed TVOP renewal:

- The cooling water capacity and particulate matter (PM) and volatile organic compound (VOC) emission rate restrictions for the Mariner East 2 cooling tower (of Source ID 112) have been revised to match those for the Mariner East 1 cooling tower (of Source ID 112). [Note: This revision was not based on a physical change to the Mariner East 2 cooling tower, but rather the difference in the size of the cooling tower that ETMT requested to install under previously-approved Plan Approval No. 23-0119D versus what it actually installed.]
- The carbon monoxide (CO) emission factors for the diesel engine pumps (Source ID 113) have been updated based on the results of the most recent engine testing.
- The tanks listed under Source IDs T002–T004 have been updated (including the removal of Tank 97 from the listing of tanks under Source ID T002).
- Language has been added to Condition # 010, Section D (under Source ID T004), of the previously-amended TVOP (same condition number in the TVOP renewal), indicating that compliance with all applicable and/or streamlined provisions of 40 CFR Part 60, Subparts Kb, VV, and VVa, as specified in Section D (under Source IDs T002, 801, and 400–401), of the previously-amended (i.e., current) TVOP, respectively (same locations in the TVOP renewal, respectively), assures compliance with the overlapping provisions of 40 CFR Part 63, Subpart EEEE, for the affected storage tanks and associated fugitive emissions components.

VII. Regulatory Analysis

Since the provisions of 40 CFR Part 60, Subpart VVb, pertain to leak detection and repair (LDAR) requirements for fugitive emissions components in VOC service only, the comparison requested by EPA is limited to the LDAR requirements specified in Section D (under Source IDs 400–401), of Plan Approval No. 23-0119K (and the previously-amended TVOP and TVOP renewal). Moreover, as discussed in the *PSD Analysis* section of DEP's technical review memo for Plan Approval No. 23-0119K, dated April 18, 2024, since Delaware County is designated as nonattainment for ozone and VOCs are a precursor to ozone, VOCs are not a regulated NSR pollutant, as the term is defined in 40 CFR § 52.21(b)(50)(i). Therefore, the LDAR requirements are strictly LAER requirements.

The LAER LDAR requirements specified in Section D (under Source IDs 400–401), of the proposed TVOP renewal, meet or exceed the requirements specified in 40 CFR Part 60, Subpart VVa, which pertain to the existing natural gas liquids (NGLs)-related fugitive emissions components in VOC service at the MHT. Therefore, the comparison will focus on the changes between 40 CFR Part 60, Subparts VVa and VVb, and whether or not the LAER LDAR requirements specified in Section D (under Source IDs 400–401), of the proposed TVOP renewal, meet the requirements specified in 40 CFR Part 60, Subpart VVb, which pertain to the NGLs-related fugitive emissions components in VOC service approved to be installed under Plan Approval Nos. 23-0119J and 23-0119K.

The comparison between the LAER LDAR requirements specified in 40 CFR Part 60, Subpart VVb, and Section D (under Source IDs 400–401), of the proposed TVOP renewal, is presented in Table 1, below (organized by the citations of the requirements that have changed between 40 CFR Part 60, Subparts VVa and VVb):

Table 1
LAER LDAR Requirement Comparison Between 40 CFR Part 60, Subpart VVb, and
Section D (under Source IDs 400–401), of the Proposed TVOP Renewal

Subpart VVb Citation	Subpart VVb Requirement	Corresponding Condition Citation(s)	Source IDs 400–401 Requirement
§ 60.482-7b(a)(1) and (c)	Monitor each valve for leaks monthly or quarterly (if no leak detected for 2 successive months) using a gas analyzer	Source ID 401: Condition # 009(a)–(c)	Monitor each valve for leaks monthly or quarterly (if no leak detected for 2 successive months) using a gas analyzer with a directed maintenance program
§ 60.482-7b(b)	Leak definition for valves of 100 parts per million (<i>ppm</i>)	Source ID 400: Condition #s 022 and 023(a); Source ID 401: Condition #s 001(b), 012(b), and 017	Leak definition for all fugitive emissions components of 500 <i>ppm</i>
§ 60.482-11b(a) and (b)(3)(i)–(iii)	Monitor connectors for leaks annually, every 4 years, or every 8 years (based on the percent of connectors leaking) using a gas analyzer	Source ID 400: Condition # 003(a)–(d)	Monitor connectors for leaks quarterly, semiannually, or annually (based on the percent of connectors leaking) using a gas analyzer with a directed maintenance program
§ 60.482-11b(b)(2)	Leak definition for connectors of 500 <i>ppm</i>	Source ID 400: Condition #s 022 and 023(a); Source ID 401: Condition #s 001(b), 012(b), and 017	Leak definition for all fugitive emissions components of 500 <i>ppm</i>
§ 60.482-1b(g)	The standards for fugitive emissions components apply at all times, including periods of startup, shutdown, and malfunction (SSM)	N/A	N/A

The LAER LDAR requirements specified in Plan Approval No. 23-0119K (and the previously-amended TVOP and TVOP renewal) do not include any exemption for operations during periods of SSM, so are intended to apply at all times. The only requirement specified in 40 CFR Part 60, Subpart VVb, which is not met or exceeded by the requirements specified in Section D (under Source IDs 400–401), of the proposed TVOP renewal, is the leak definition for valves of 100 *ppm* required in 40 CFR § 60.482-7b(b). DEP has added a footnote to the leak definition for fugitive emissions components of 500 *ppm* indicated in Condition # 022, Section D (under Source ID 400), of the proposed TVOP renewal, stating that “[t]he applicable provisions of 40 CFR Part 60, Subpart VVb, including the leak definition for valves of 100 *ppm* required in 40 CFR § 60.482-7b(b), apply to all new fugitive emissions components that are subject to the LDAR requirements specified in Section D (under Source IDs 400–401), of this permit, upon commencing operation.”