



COMMONWEALTH OF PENNSYLVANIA
Department of Environmental Protection
Southeast Regional Office

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484.250.5920

Subject: Technical Review Memo
Administrative Amendment to Title V Operating Permit No. 23-00119
APS ID 823642, Auth ID 1488857, PF ID 757998
Energy Transfer Marketing & Terminals, L.P.—Marcus Hook Terminal
100 Green Street
Marcus Hook, PA 19061

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I. Introduction/Facility Description

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. ETMT operates the MHT under Title V Operating Permit (TVOP) No. 23-00119 and Plan Approval Nos. 23-0119E (revised), 23-0119J, and 23-0119K. The purpose of this authorization is to amend the TVOP to incorporate the requirements of Plan Approval No. 23-0119E (revised), in accordance with 25 Pa. Code § 127.450(a)(5). In addition, the Department of Environmental Protection (DEP) has incorporated the requirements of Plan Approval No. 23-0119K into the amended TVOP by reference.

II. Relevant Facility Permitting History

On March 2, 2015, DEP issued the TVOP to Sunoco Partners Marketing & Terminals, L.P. (SPMT), for the Marcus Hook Industrial Complex (MHIC).

On April 1, 2016, DEP issued Plan Approval No. 23-0119E to SPMT for the following:

- The redesign/modification and use of three existing fractionation towers at the MHIC, as follows, and associated equipment for the fractionation of propane/butane (transmix) and deethanized natural gas liquid feedstocks:
 - Two fractionation towers (15-2B T-4 [Source ID 091] and 15-2S T-4 [Source ID 090]) to operate as depropanizers for fractionation into propane and heavier hydrocarbons.

- A fractionation tower (15-2B T-2 [Source ID 092]) to operate as a debutanizer for fractionation of the heavier hydrocarbons from the depropanizers into butane and natural gasoline.
- The installation of the following equipment:
 - Meter provers.
 - Additional piping and components, including a flare header, from the fractionation towers and meter provers to an existing elevated flare at the MHIC.
- The associated use of existing refrigerated storage tanks, internal floating roof storage tanks, and caverns at the MHIC.
- The associated use of utilities (i.e., steam and cooling water) from existing auxiliary boilers and a cooling tower, respectively, at the MHIC.
- The routing of flows from the fractionation towers, meter provers, and caverns to the aforementioned elevated flare.

On April 29, 2016, Clean Air Council (CAC) appealed Plan Approval No. 23-0119E to the Environmental Hearing Board (EHB), arguing, among other things, that DEP erred in considering the sources and equipment permitted under the Plan Approval as a stand-alone project (i.e., versus as a larger project with the other sources and equipment related to NGLs processing, storage, and distribution at the MHIC that were previously permitted or authorized under other Plan Approvals or Requests for Determination of Changes of Minor Significance and Exemption from Plan Approval/Operating Permit [RFDs]).

On March 28, 2017, DEP modified Plan Approval No. 23-0119E to memorialize SPMT obtaining and surrendering nitrogen oxides (NO_x) and volatile organic compound (VOC) emission reduction credits (ERCs) to offset the NO_x and VOC emission increases for the sources and equipment permitted under the Plan Approval.

On October 6, 2017, DEP extended Plan Approval No. 23-0119E for the following:

- The commencement of operation and continued temporary operation of existing fractionation towers 15-2B T-4 and 15-2B T-2 at the MHIC to operate as a depropanizer and debutanizer, respectively.
- The shakedown of affected support sources.

On March 23, 2018, DEP extended Plan Approval No. 23-0119E (for a period of 18 months) for the following:

- The commencement of operation and continued temporary operation of existing fractionation towers 15-2B T-4 and 15-2B T-2 at the MHIC to operate as a depropanizer and debutanizer, respectively, which had not occurred since the previous Plan Approval extension request.
- The redesign/modification of existing fractionation tower 15-2S T-4 at the MHIC to operate as a depropanizer, which was delayed due to market conditions.

On January 9, 2019, the EHB remanded Plan Approval No. 23-0119E to DEP for the reevaluation of all past and future authorizations for sources and equipment related to the NGLs processing, storage, and distribution operations at the MHT as a single aggregated project to determine the applicability of Prevention of Significant Deterioration of Air Quality (PSD) and New Source Review (NSR) requirements.

On September 25, 2019, DEP extended Plan Approval No. 23-0119E (for a period of 18 months) for the following:

- The continued temporary operation of existing fractionation towers 15-2B T-4 and 15-2B T-2 at the MHIC to operate as a depropanizer and debutanizer, respectively, pending final resolution of the remand of the Plan Approval.
- The resumption and completion of the redesign/modification of existing fractionation tower 15-2S T-4 to operate as a depropanizer, which was delayed due to market conditions.

On March 31, 2020, DEP renewed the TVOP.

On February 12, 2021, DEP issued Plan Approval No. 23-0119E (revised) to SPMT. In addition to the sources and equipment permitted under the original Plan Approval No. 23-0119E, the revised version included all sources and equipment related to NGLs processing, storage, and distribution at the MHIC that were previously permitted under other Plan Approvals (i.e., three auxiliary boilers, eight refrigerated storage tanks, piping and components, marine vessel loading equipment, four caverns, an additional fractionation tower, a natural gasoline loading rack, three cooling towers, eight internal floating roof storage tanks, and two elevated cold flares). Moreover, Plan Approval No. 23-0119E (revised) required the installation of the following additional control devices:

- A secondary seal on one of the internal floating roof storage tanks (i.e., Source ID 190).
- High-efficiency drift eliminators on one of the cooling towers (i.e., Source ID 139).

On August 18, 2021, DEP extended Plan Approval No. 23-0119E (revised) (for a period of 18 months) for the following:

- The continued temporary operation of all sources and equipment related to NGLs processing, storage, and distribution at the MHIC (that were included in the Plan Approval).
- The completion of installation of the aforementioned control devices.¹

On March 1, 2022, SPMT changed its company name to ETMT (and also the name of the facility from MHIC to MHT).

On February 15, 2023, DEP extended Plan Approval No. 23-0119E (revised) (for a period of 18 months) for the following:

- The continued temporary operation of all sources and equipment related to NGLs processing, storage, and distribution at the MHT (that were included in the Plan Approval).
- The resumption and completion of the redesign/modification of existing fractionation tower 15-2S T-4 to operate as a depropanizer, which was “delayed due to various challenges and complications related to COVID-19 and market conditions,” in accordance with specifications in the application for the original Plan Approval No. 23-0119E and the conditions in Plan Approval No. 23-0119E (revised).

On March 15, 2024, DEP issued a significant modification to the TVOP to establish Reasonably Available Control Technology (RACT) requirements and emission restrictions, pursuant to 25 Pa. Code §§ 129.111–129.115, for various sources at the MHT that commenced operation on or before August 3, 2018, to address the 2015 8-hour ozone National Ambient Air Quality Standards (NAAQS) (also referred to as “RACT III”). In addition, DEP incorporated the requirements of Plan Approval Nos. 23-0119E (revised) and 23-0119J into the TVOP by reference.

¹ ETMT completed installation of the additional control devices required under Plan Approval No. 23-0119E (revised) in June 2022.

On June 14, 2024, DEP received a Request for State Only/Title V Operating Permit Administrative Amendment (Request), along with monies for the application fee of \$1,500 [25 Pa. Code § 127.704(b)(5)(ii)], from ETMT, via DEP's Public Upload with Payment tool, to incorporate the requirements of Plan Approval No. 23-0119E (revised) into the TVOP. In the cover letter accompanying the Request, ETMT stated "that Source ID 090: Depropanizer (15-2S T4) was not constructed ... [and] can be excluded from the [TVOP]." Since all other sources under Plan Approval No. 23-0119E (revised) are existing and being operated in accordance with the terms and conditions of the Plan Approval, DEP concurs with the Request.

III. Changes to the TVOP

In addition to no longer including existing fractionation tower 15-2S T-4 as a source in the amended TVOP (i.e., Source ID 090), as a result of a U.S. Environmental Protection Agency (EPA) order responding to petitions submitted to EPA by the Sierra Club, Little Blue Regional Action Group, Environmental Integrity Project, Group Against Smog and Pollution, and the Clean Air Council objecting to TVOPs previously issued by DEP for the Homer City and Bruce Mansfield coal-fired electric generating facilities (Nos. 32-00055 and 04-00235, respectively), DEP has incorporated the requirements of Plan Approval No. 23-0119K into the amended TVOP by reference.

In accordance with Condition # 001(a)(1), Section C, of Plan Approval No. 23-0119K, the requirements specified in Section D (under Source ID 103), of the previously-modified TVOP, have been superseded and replaced by the requirements specified in Section D (under Source IDs 400–401 and 501), of the Plan Approval. These requirements are specified in Section D (under Source IDs 400–401 and 501), of the amended TVOP, except that DEP has not incorporated the following conditions from Plan Approval No. 23-0119K:

- Condition # 024(c), Section D (under Source ID 400).
- Condition # 026(c), Section D (under Source ID 401).
- Condition #s 004 and 007(b), Section D (under Source ID 501).

Moreover, DEP has corrected the following:

- The source names for Source IDs C01 and C02 have been corrected to East Cold Flare (Modified) and West Cold Flare (New Tanks Project), respectively.
- The control device efficiency restrictions referenced for the existing refrigerated storage tanks in Condition #s 004(a)(1) and 006(b), Section D (under Source IDs 101–102 and 117–120), of the previously-modified TVOP.
- The monitoring frequency for VOC leaks for the cooling towers in Condition # 003(e), Section D (under Source ID 112), of the previously-modified TVOP (inadvertently not incorporated by reference from Plan Approval No. 23-0119E (revised)).
- The condition reference in Condition # 008(b), Section D (under Source ID 501), of Plan Approval No. 23-0119K (Condition # 007(b), Section D (under Source ID 501), of the amended TVOP).

Lastly, DEP has added control device efficiency restrictions for the East Cold Flare, West Cold Flare, and West Warm Flare as Condition # 002, Section D (under Source IDs C01–C03), of the amended TVOP, respectively (the first two were inadvertently not incorporated by reference from Plan Approval No. 23-0119E (revised), while the second corresponds to the control device efficiency indicated in previous applications).

IV. Recommendation

Based on a review of the previously-modified TVOP and Plan Approval Nos. 23-0119E (revised), 23-0119J, and 23-0119K, I recommend that DEP amend the TVOP for ETMT for the MHT, as indicated above.