

# FEDERAL OPERATING PERMIT - TECHNICAL REVIEW SUMMARY

## GENERAL OPERATING PERMIT (GOP) RENEWAL

GOP Type:	514		
Permit #:	O3099	Company:	MarkWest Energy East Texas Gas Company, L.L.C.
Project #:	35414	Site:	Carthage Gas Plant
Regulated Entity #:	RN104609789	Application Area:	Carthage Gas Plant
Region:	5	Customer #:	CN602694523
NAICS Code:	211130	County:	Panola
Permit Reviewer:	John Walker	NAICS Name:	NATURAL GAS EXTRACTION

### SITE INFORMATION

Physical Location: 356 FM 959  
Nearest City: Carthage  
Major Pollutants: NOX  
Additional FOPs: None

### PROJECT SUMMARY

MarkWest Energy East Texas Gas Company, L.L.C., Carthage Gas Plant, is a natural gas extraction facility subject to the requirement of 30 TAC Chapter 122 which requires it to apply and obtain a Federal Operating Permit (FOP). The authorization to operate (ATO) under General Operating Permit (GOP) No. 514 was last renewed on 01/31/2019. A timely renewal application was received by the TCEQ on 07/25/2023. Significant emission sources at the site include compressors, engines, and tanks, which are subject to State and/or Federal regulations. Revisions included in the application requested group changes and updates to federal applicability for engines, and adding federal non-applicability for heaters. All necessary information to complete the renewal application for the ATO was provided by the applicant in various forms (OP-1, OP-2, OP-CRO1, OP-ACPS, OP-REQ1, OP-SUMR, OP-UA2, OP-UA3, OP-UA6, OP-UA7, OP-UA10, OP-UA12, OP-UA62, OP-PBRSUP, and COR). The COR certifies the information present in the application.

### PROCESS DESCRIPTION

This facility is a natural gas processing plant. High pressure natural gas enters the facility through inlet slug catchers where it enters into one of three process trains. Condensate from these slug catchers is routed off-site. Slop water from processes is stored on site in slop water tanks where it is loaded out via trucking.

In each train the gas enters a slug catcher prior to the mole sieve dehydrator. The mole sieve is regenerated with hot natural gas heated from regen gas heaters. Dry natural gas is processed by a cryogenic expander plant prior to being recompressed by engine driven residue compressors.

Natural gas liquids produced from the cryogenic process are treated in an amine treater to remove carbon dioxide (CO2) prior to being sent to sales. Rich amine is regenerated using heat from amine reboilers. Acid gas generated is recompressed and mixed into the residue gas.

In train 1, regen gas is further dried using a TEG dehydration unit that uses a BTEX condenser as a control.

During power outages, back up engine driven generators will provide power to the site.

In addition, there are emissions from fugitives, maintenance, startup, and shutdown activities and blowdowns. During site maintenance, the blowdown vapors may be captured by a VRU or flared in an emergency flare.

### TECHNICAL REVIEW

#### Application/Project Summary

1. Were any of the GOP index Nos. submitted in this application revised or updated?..... Yes  
a. Were any of these resolved without the submittal of a new UA form?..... No
2. Were provisional requirements or form OP-REQ3 submitted?..... No
3. Was form OP-REQ2 submitted?..... No
4. Were any high-level GOP index numbers included in the IMS for this project?..... No
5. Was Periodic Monitoring (PM) required and included in the IMS?..... No

6. Was Compliance Assurance Monitoring (CAM) required and included in the IMS?..... No
7. Was monitoring added in the IMS for emission limits identified in a Standard Permit or PBR?..... No
8. Were any existing GOP Index Nos. revised or updated? ..... Yes
9. Did this project incorporate a revised GOP? ..... No

Permit reviewer notes:

Unit ID E5 was removed from GRPENGINE1 and added to GRPENG3 on Form OP-SUMR.

Form OP-UA2

- Updated Unit ID EG-1 NSPS IIII applicability by removing GOP Index No. 514-23-027 and adding 514-23-029. Removed GOP Index No. 514-21-030 for MACT ZZZZ applicability and added 514-21-016.
- Updated Group ID GRPENGINE1 NSPS JJJJ applicability with GOP Index No. 514-24-050 (changed from GOP Index No. 514-24-049 which was provided in the initial application submittal).
- *Note: Pre-existing manual builds for Group ID GRPENGINE1 for MACT ZZZZ applicability were removed from Form OP-UA2 in the database in this project. MACT ZZZZ applicability for GRPENGINE1 is documented on Form OP-UA2 with GOP Index No 514-21-016.*

Form OP-UA3

- Unit IDs TK-003 and TK-004 were removed from Form OP-UA3 Table 25a due to NSPS OOOO non-applicability GOP Index Nos. not existing with their negative applicability reason.

Form OP-UA6

- Unit IDs H-1, H-3, H-4, H-5, and H-7 were added on Forms OP-SUMR and OP-UA6 with GOP Index No. 511-19-002 for NSPS Dc non-applicability.

Form OP-UA7

- Unit ID FL is documented on Table 1 with GOP Index No. 514-04-001 for 30 TAC Chapter 111, Visible emissions non-applicability, Table 3 with GOP Index No. 511-12-001 for NSPS A non-applicability, and Table 4 with GOP Index No. 514-07-001 for MACT A non-applicability.

Form OP-UA10

- Unit ID AU-1 was added to Table 2a for NSPS LLL non-applicability with GOP Index No. 511-09-002 (GOP Index No. 511-14-003 was initially provided) and Unit IDs AU-2, AU-3, and AU-4 were added with GOP Index No. 511-14-002 for NSPS LLL non-applicability.
- Unit IDs AU-2, AU-3, and AU-4 changed from GOP Index No. 514-30-004 to 514-30-003 on Table 4 for NSPS OOOO non-applicability.

Form OP-UA12

- Several updates were made to Form OP-UA12 to correct what was initially submitted for Unit IDs FUG, FUG-3, and FUG-FL on Tables 1a-1j and 19e-p. Now the units are documented correctly according to the form instructions for NSPS KKK non-applicability on Table 1a and Table 19e for NSPS OOOOa applicability.

Form OP-UA62

- Unit ID G1 was documented on Table 1a with GOP Index No. 514-02-002 for MACT HH applicability.

**Compliance History Review**

1. In accordance with 30 TAC Chapter 60, the compliance history was reviewed on December 11, 2023  
Site rating: 0.00 / High Company rating: 8.54 / Satisfactory  
(High < 0.10; Satisfactory ≥ 0.10 and ≤ 55; Unsatisfactory > 55)
2. If the compliance history is unsatisfactory, is the authorization renewal period less than 5 years?..... No
3. If the compliance history is unsatisfactory, is the permit recommended to be denied..... No
4. Was an OP-ACPS submitted and are any units not in compliance?..... No

Permit reviewer notes:

Form OP-ACPS was submitted and indicates all units are in compliance.

**Delinquent Fee Check**

1. The delinquent fee check was performed on July 26, 2023.
2. Were there any delinquent fees owed? ..... No


Permit reviewer notes:

The delinquent fee check was performed by APIRT.

**IMPORTANT MILESTONES**

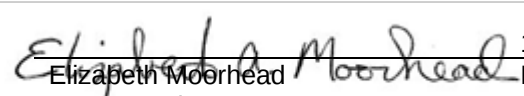
Milestone (Standard)	Start Date	End Date
Date Application Received by TCEQ	07/25/2023	
Date Project Received by Engineer	09/01/2023	
Technical Review Period	09/12/2023	11/28/2023

**EFFECTIVE PERMIT ISSUANCE DATE: December 15, 2023**

  
\_\_\_\_\_  
John Walker  
Permit Reviewer  
Operating Permits Section  
Air Permits Division

12/11/2023

Date

  
\_\_\_\_\_  
Elizabeth Moorhead  
Team Leader  
Operating Permits Section  
Air Permit Division

12/11/2023

Date

**CONTACT INFORMATION**

**Responsible Official:**

Edward Cimaroli  
VP, West Region  
MarkWest Energy East Texas Gas Company LLC  
19100 Ridgewood Pkwy  
San Antonio, Texas 78259-1834  
Email: EPCimaroli@marathonpetroleum.com

**Technical Contact:**

Jacob Mezey  
Environmental Specialist  
MarkWest Energy East Texas Gas Company, L.L.C.  
19100 Ridgewood Pkwy  
San Antonio, TX 78259-1834  
Phone: (210) 626-6230  
Email: JGMezey@marathonpetroleum.com