

Region 6 - Enforcement & Compliance Assurance Division

INSPECTION REPORT

Inspection Date(s):	02/04-06/2020	
Media Program:	Air	
Regulatory Program(s):	Risk Management Program, Clean Air Act (CAA) Section 112(r); Chemical Accident Pre	
Company Name:	Martin Operating Partnership, LP	
Facility Name:	Cross Oil Refining and Marketing	
Facility Physical Location:	484 East 6th Street	
City, State Zip Code:	Smackover, AR 71762	
Mailing Address:	484 East 6th Street	
City, State Zip Code:	Smackover, AR 71762	
County/Parish:	Union County	
Facility Phone Number:	(870) 881-8700	
Facility Contact Information:	Randall Whitmore	Director of Corporate Environmental
	Randall/Whitmore@martinmlp.com	
FRS Number:	110038160584	
Identification/Permit Number:		
Media Identifier Number:	RMP 100000230038	
NAICS:	32411	
SIC:	29111	
Personnel participating in inspection		
Name:	Affiliation/Mailcode:	Title:
Brian Ricker	Martin Operating Partnership, LP	VP Refinery Ops
Ryker McDaniel	Martin Operating Partnership, LP	Refinery Manager
Todd Pearson	Martin Operating Partnership, LP	PSM Specialist
Billy Stowe	Martin Operating Partnership, LP	Safety Specialist
Matt McIntosh	Martin Operating Partnership, LP	Corp. Process Safety Director
Randall Whitmore	Martin Operating Partnership, LP	Director of Corporate Environmental – Resp
Jamie Quinan	Martin Operating Partnership, LP	Sr. Environmental Specialist
Inspector Signature/Date:	MARIE STUCKY Digitally signed by MARIE STUCKY DN: cn=Stucky, o=EPA, ou=Region 6, email=marie.stucky@epa.gov, c=US	3/25/20
Inspector Name:	Marie Stucky	
Supervisor Signature/Date:	SAMUEL TATES Digitally signed by SAMUEL TATES DN: cn=Tates, o=EPA, ou=Region 6, email=samuel.tates@epa.gov, c=US	3/25/20
Supervisor Name:	Samuel Tates	

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

I, U.S. Environmental Protection Agency (EPA) Region 6 Inspector Marie Stucky, arrived at the Martin Operating Partnership, LP – Cross Oil Refining and Marketing (Cross Oil) refinery in Smackover, Arkansas at 9:00AM on February 4, 2020, for an announced inspection. I met with Randall Whitmore and others listed on page 1 of this inspection report. I presented my credentials to company officials in the opening conference, including Randall Whitmore, and informed them that this was an EPA inspection to determine compliance with the Risk Management Program Chemical Accident Prevention Provisions in 40 CFR Part 68 and the General Duty Clause in Clean Air Act Section 112(r)(1). The scope of the inspection was a partial compliance evaluation (PCE) and included evaluation of the compliance of the facility with applicable 40 CFR Part 68 requirements. Cross Oil is a union facility. An employee representative was invited to participate in the inspection.

FACILITY DESCRIPTION

Cross Oil is a manned refinery located in Smackover, Arkansas. According to the facility's Risk Management Plan (RMP), the facility has 85 full-time employees. The facility operates a lubricants refinery and a packaging facility.

Section II - OBSERVATIONS

40 C.F.R. Part 68 – CHEMICAL ACCIDENT PREVENTION PROVISIONS

Subpart A – General

40 C.F.R. § 68.10 Applicability – I observed that Cross Oil is a stationary source that has an Air Operating Permit and more than a threshold quantity of regulated substances in a process; therefore, these regulations are applicable. Cross Oil submitted an RMP, which describes the process that contains flammable chemicals held at more than threshold quantity. The process is Program Level 3 because the facility is subject to Occupational Safety and Health Administration (OSHA) Process Safety Management Standard (PSM), 29 CFR § 1910.119. Cross Oil is a refinery with a North American Industrial Classification Standard (NAICS) Code of 32411.

40 C.F.R. § 68.12 General requirements – I reviewed the RMP submitted by Cross Oil on July 14, 2015, that lists one process. Cross Oil determined that the flammables-containing process met the requirements of Program Level 3. Cross Oil submitted a correction to the RMP on January 30, 2020, to change the emergency contact information.

40 C.F.R. § 68.15 Management – Cross Oil has developed a document showing the organization chart, PSM Element Ownership, and the overall responsibility for overseeing the implementation of the Risk Management Program elements. Additionally, the organization chart lists different positions as persons responsible for implementing individual requirements.

Subpart B – Hazard Assessment

40 C.F.R. § 68.20 Applicability – Cross Oil prepared worst-case release scenario analyses and completed the five-year accident history review. Since Cross Oil has a Program Level 3 flammable process, they must comply with the flammable sections in this subpart.

40 C.F.R. § 68.22 Offsite consequence analysis parameters – I observed that Cross Oil used parameters required in this part to calculate the flammable worst-case and alternative release scenarios. Cross Oil used parameters specified by EPA in this rule by using RMP*Comp™ to determine the scenarios using appropriate wind speeds, stability classes, ambient temperature and humidity values, height values, and surface roughness values.

40 C.F.R. § 68.25 Worst-case release scenario analysis – During the inspection, I reviewed documentation from the facility's worst-case release scenario analysis. This analysis for flammables used the RMP*Comp™ Model.

40 C.F.R. § 68.28 Alternative release scenario analysis – Cross Oil identified and documented an alternative release scenario for the Risk Management Program covered flammable substance in their RMP. This analysis used the RMP*Comp™ Model.

40 C.F.R. § 68.30 Defining offsite impacts – Population – Cross Oil used the most current (2010) Census Bureau population data and the distance to endpoints to calculate the population numbers reported in their RMP. Cross Oil used Marplot to define the population surrounding the facility.

40 C.F.R. § 68.33 Defining offsite impacts – Environment – Environmental receptors were identified in the distance to the endpoint map with Marplot.

40 C.F.R. § 68.36 Review and update – I reviewed the documentation that illustrated reviews and updates regarding the offsite consequences are completed at least every five years.

40 C.F.R. § 68.39 Documentation – Cross Oil provided documentation of the offsite consequence analyses. Included in the documentation of the worst-case and alternative release scenarios was a description of the vessel or pipeline and the assumptions and parameters used. The documentation also included the estimated quantities released, release rate, duration of release, methodology used, and the data used to estimate population. The documentation did not include the rationale for the selection of the alternative release scenario. **[Area of Concern (AOC) 1]**

40 C.F.R. § 68.42 Five-year accident history – Cross Oil reported no accidental release in their RMP. I also reviewed other incident investigations onsite for additional incidents that may have been required to be included in Cross Oil's five-year accident history.

Subpart D – Program 3 Prevention Program

40 C.F.R. § 68.65 Process safety information (PSI) – Cross Oil provided written PSI. I reviewed a selection of materials across the covered process. The PSI I reviewed included information pertaining to the hazards of the regulated substances used or produced by the processes, information pertaining to the technology of the processes, and information pertaining to the equipment in the processes. The PSI

contained Safety Data Sheets (SDSs), which included information on toxicity, permissible exposure limits, physical data, reactivity data, corrosivity data, thermal and chemical stability data, and the hazardous effects of inadvertent mixing of materials that could foreseeably occur. The facility documented information pertaining to the technology of the processes with block flow diagrams, process chemistries, maximum intended inventories, safe upper and lower limits, and evaluation of consequences of deviation. Also, the PSI included Piping and Instrument Diagrams (P&IDs), electrical classifications, relief system designs, ventilation system designs, design codes and standards, material and energy balances, and safety systems.

40 C.F.R. § 68.67 Process hazard analysis (PHA) – Cross Oil conducted re-validation PHAs for the flammable RMP process in September 2016. While on site, I requested PHAs and their respective recommendations. The PHA included the hazards of the process, engineering and administrative controls applicable to the hazards, consequences of failure of engineering and administrative controls, stationary siting, human factors, and an evaluation of a range of the possible safety and health effects of failure of controls. The technique used to conduct the process PHA was the Hazard and Operability Study (HAZOP). The PHA in September 2016 was conducted by a team that included appropriate personnel from Cross Oil and the findings and recommendations were documented. In reviewing the corrective action resolutions, Cross Oil has not promptly addressed the team's findings and recommendations. For the 2016 resolutions, due dates have passed but the recommendations had not been completed (Appendix 1). **[AOC 2]**

40 C.F.R. § 68.69 Operating procedures – Cross Oil developed and implemented written operating procedures that provided instructions or steps for conducting activities associated with the covered process, consistent with the documented safety information. I reviewed selected operating procedures to identify steps for each operating phase (initial startup, normal operations, emergency shutdown, normal shutdown, and startup following a turnaround or after emergency shutdown). The emergency shutdown procedure included conditions under which emergency shutdown is required and the assignment of shutdown responsibilities to qualified operators to ensure that emergency shutdown is executed in a safe and timely manner. Cross Oil was able to provide annual certifications dated November 8, 2018 and January 29, 2020; however, Cross Oil was unable to provide all required annual certifications for the five-year period of the current RMP (Appendix 2). **[AOC 3]**

40 C.F.R. § 68.71 Training – The training records for the four Cross Oil employees who operate the covered process were provided. Initial orientation includes a 25-minute video with a process description. To document knowledge and understanding of the process, the new employees are provided a training manual at the entry level. Operations training includes reviewing the manual and taking the Level 1 training schedule takes approximately 45 days. The new employees are evaluated the entire time. They are provided a study guide and take oral and written tests. Tests require a passing score of 85 percent. Refresher trainings were not yet required for the operators, since they all started within the last 3 years.

40 C.F.R. § 68.73 Mechanical integrity – I requested mechanical integrity records for Risk Management Program covered equipment. A written procedure for maintaining the integrity of the equipment in the covered process was provided for pressure vessels, pumps, compressors, rotating equipment, process piping, relief devices, pressure/vacuum valves, and vent stacks. I spoke with the representative who is responsible for mechanical integrity and reviewed documentation of preventative maintenance on tanks, piping, and instrumentation. The procedures for mechanical integrity did not provide information on how the facility would correct deficiencies in equipment that were outside acceptable limits, as

defined by the PSI, before further use or in a safe and timely manner when necessary means were taken to assure safe operations (Appendix 3). Recommendations from the inspections conducted on the pressure vessels were not addressed (Appendix 4). Additionally, Cross Oil was unable to provide inspection records for process piping and pressure safety valves on Equipment V7131, V7132, and V7133 in the Naphtha Storage Area [AOC 4]. Following EPA's inspection, Cross Oil provided copies of the inspection records for the process piping in the Naphtha Storage Area (Appendix 5).

40 C.F.R. § 68.75 Management of Change (MOC) – I asked for and was shown MOCs completed by Cross Oil and the written procedure for MOC. I reviewed MOCs for changes which occurred in covered processes. In one instance, a tank was taken out of service prior to the MOC being completed with final authorizations (Appendix 6). [AOC 5].

40 C.F.R. § 68.77 Pre-startup safety review (PSSR) – A PSSR procedure was provided by the facility for changes to the process, which would require a PSSR. No issues were found for this subpart.

40 C.F.R. § 68.79 Compliance audits – Cross Oil conducted their most recent Risk Management Program compliance audit on November 6-8, 2017. The compliance audit included a list of people knowledgeable about the process, a report of the findings, and the recommended action items in response to the findings. The compliance audit did include a certification statement. Some of the due dates had passed prior to completing the recommendations. (Appendix 7). [AOC 6]

40 C.F.R. § 68.81 Incident investigation – Prior to the inspection, I requested the incident investigations for all incidents which resulted in or could reasonably have resulted in, a catastrophic release of a regulated substance over the past three years. I reviewed a few incident investigations; however, none met the criteria of 68.81.

40 C.F.R. § 68.83 Employee participation – I reviewed an employee participation plan during this inspection from Cross Oil. The plan included a description of how the employees and their representatives would have access to the PHA and all other information required under this rule.

40 C.F.R. § 68.85 Hot work permit – While onsite, I reviewed hot work permits. The hot work permits included the dates authorized for hot work and identified the objects on which hot work was performed.

40 C.F.R. § 68.87 Contractors – I observed that contractors are vetted internally by reviewing *ISNetWorld*, which includes information covering background screenings, insurance coverage, and training requirements. Each year, contractors must update their status with re-qualification forms. The contractors are onboarded using a video and overview of the facility. Cross Oil maintains a badge access system to the facility. At the time of the inspection, a contractor evaluation form had been developed to meet the requirements to periodically review contractor performance, as required by the Compliance Audit recommendations, but it was not being used (Appendix 8). [AOC 7].

Subpart E – Emergency Response

40 C.F.R. § 68.90 Applicability – Cross Oil employees include designated first responders who respond to fires and releases on site. I requested and was provided the Cross Oil Emergency Response Plan. I reviewed this document onsite and observed that the emergency response plan did not include information on proper first-aid and emergency medical treatment necessary to treat accidental human exposures. This information could be found in other documentation from Cross Oil; however, it was not

included in the plan (Appendix 9). Additionally, I reviewed training records for designated emergency responders. Finally, I reviewed inspections of safety equipment and found one missing monthly inspection record (Appendix 10). [AOC 8]

40 C.F.R. § 68.195 Required corrections – The RMP for this facility was re-submitted five times between 1999 and 2019. The most recent re-submission prior to the inspection was submitted on February 2, 2016. At the time of the inspection, the emergency contact 24-hour phone number was not answered when called prior to the inspection and the emergency contact listed was no longer with the facility. [AOC 9] Cross Oil submitted an update on January 30, 2020, prior to the inspection, which included an updated emergency contact 24-hour phone number.

Section III – AREAS OF CONCERN

1. 40 C.F.R. § 68.39(b) Documentation

(b) For alternative release scenarios, a description of the scenarios identified, assumptions and parameters used, and the rationale for the selection of specific scenarios; assumptions shall include use of any administrative controls and any mitigation that were assumed to limit the quantity that could be released. Documentation shall include the effect of the controls and mitigation on the release quantity and rate.

The documentation did not include the rationale for the selection of the alternative release scenario.

2. 40 C.F.R. § 68.67(e) Process Hazard Analysis

(e) The owner or operator shall establish a system to promptly address the team's findings and recommendations; assure that the recommendations are resolved in a timely manner and that the resolution is documented; document what actions are to be taken; complete actions as soon as possible; develop a written schedule of when these actions are to be completed; communicate the actions to operating, maintenance and other employees whose work assignments are in the process and who may be affected by the recommendations or actions.

The PHA in September 2016 was conducted by a team that included appropriate personnel from Cross Oil and the findings and recommendations were documented. In reviewing the corrective action resolutions, Cross Oil has not promptly addressed the team's findings and recommendations. For the 2016 resolutions, due dates passed but the recommendation had not been completed (Appendix 1).

3. 40 C.F.R. § 68.69(c) Operating Procedures

(c) The operating procedures shall be reviewed as often as necessary to assure that they reflect current operating practice, including changes that result from changes in process chemicals, technology, and equipment, and changes to stationary sources. The owner or operator shall certify annually that these operating procedures are current and accurate.

Cross Oil was able to provide annual certifications dated November 8, 2018, and January 29, 2020, but was unable to provide all required annual certifications for the five-year period of the current RMP (Appendix 2).

4. 40 C.F.R. § 68.73 Mechanical Integrity

(b) Written procedures. The owner or operator shall establish and implement written procedures to maintain the on-going integrity of process equipment.

- (d) Inspection and testing. (1) Inspections and tests shall be performed on process equipment.*
- (e) Equipment deficiencies. The owner or operator shall correct deficiencies in equipment that are outside acceptable limits (defined by the process safety information in §68.65) before further use or in a safe and timely manner when necessary means are taken to assure safe operation.*

The procedures for mechanical integrity did not provide information on how the facility would correct deficiencies in equipment that were outside acceptable limits, as defined by the process safety information, before further use, or in a safe and timely manner, when necessary means were taken to assure safe operations (Appendix 3). Recommendations from the inspections conducted for the pressure vessels were not addressed (Appendix 4). Additionally, Cross Oil was unable to provide inspection records for process piping and pressure safety valves on Equipment V7131, V7132, and V7133 in the Naphtha Storage Area. Following EPA's inspection, Cross Oil provided copies of the inspection records for the process piping in the Naphtha Storage Area (Appendix 5).

5. 40 C.F.R. § 68.75(b) Management of Change

- (b) The procedures shall assure that the following considerations are addressed prior to any change:*
- (5) Authorization requirements for the proposed change.*

In one instance, a tank was taken out of service prior to the MOC being completed with final authorizations (Appendix 6).

6. 40 C.F.R. § 68.79(a) Compliance Audits

- (a) The owner or operator shall certify that they have evaluated compliance with the provisions of this subpart for each covered process, at least every three years to verify that the procedures and practices developed under the rule are adequate and are being followed. When required as set forth in paragraph (f) of this section, the compliance audit shall be a third-party audit.*

Some of the due dates had passed prior to completing the recommendations. (Appendix 7).

7. 40 C.F.R. § 68.87(b)(5) Contractors

- (5) The owner or operator shall periodically evaluate the performance of the contract owner or operator in fulfilling their obligations as specified in paragraph (c) of this section.*

At the time of the inspection, a contractor evaluation form had been developed to meet the requirements to periodically review contractor performance, as required by the Compliance Audit recommendations; however, it was not being used (Appendix 8).

8. 40 C.F.R. § 68.95 Emergency Response Plan

- (a)(1)(ii) Documentation of proper first-aid and emergency medical treatment necessary to treat accidental human exposures*
- (a)(2) Procedures for the use of emergency response equipment and for its inspection, testing, and maintenance;*

The emergency response plan did not include information on proper first-aid and emergency medical treatment necessary to treat accidental human exposures. Although this information could be found in other documentation from Cross Oil, it was not included in the plan (Appendix 9). Also, inspections of safety equipment were missing one monthly inspection record (Appendix 10). **[AOC 8]**

9. 40 C.F.R. § 68.195 Required Corrections

(b) Emergency contact information - Beginning June 21, 2004, within one month of any change in the emergency contact information required under § 68.160(b)(6), the owner or operator shall submit a correction of that information.

At the time of the inspection, the emergency contact 24-hour phone number was not answered when called prior to the inspection and the emergency contact listed was no longer with the facility. Cross Oil submitted an update on January 30, 2020, which included an updated emergency contact 24-hour phone number.

I conducted a closing conference at Cross Oil at 9:50AM on February 6, 2020, for the inspection. During the closing conference, I reviewed the nine Areas of Concern noted during the inspection with the attendees.

Section IV – FOLLOW UP

The following information was received by EPA on February 21, 2020, after exiting the Facility on February 6, 2020:

Followup Email and 16 API 570 Inspections – Appendix 5

Section V – LIST OF APPENDICES

Photo/Video Log Appendix – There are no photos or videos for this report.

Sensitive Appendices (not included in published version of the report)

Appendix 1 – Naptha Storage Flare PHA with recommendation

Appendix 2 – Annual Certifications 2018 & 2019

Appendix 3 – Mechanical Integrity Procedures

Appendix 4 – Pressure Vessel Inspections

Appendix 5 – Follow-up Email and 570 Inspections

Appendix 6 – Naptha Storage Temporary MOCs

Appendix 7 – PSM/RMP Compliance Audit with Certifications

Appendix 8 – Contractor Evaluation Form

Appendix 9 – Notification to LEPC of updated ERP and ERP

Appendix 10 – Facility Checklist for 1/4/2020 & 11/2/2019