



Region 6 - Enforcement & Compliance Assurance Division
INSPECTION REPORT

Inspection Date(s):	1/31/2022-2/3/2022	
Media Program:	Air	
Regulatory Program(s)	Clean Air Act (CAA) Section 112(r) and 40 C.F.R. Part 68 Chemical Accident Prevention Provisions – Risk Management Program (RMP)	
Company Name:	Exxon Mobil Corporation	
Facility Name:	ExxonMobil Baytown Refinery	
Facility Physical Location:	2800 Decker Drive	
(city, state, zip code)	Baytown, Texas 77520	
Mailing address:	P.O. Box 4004	
(city, state, zip code)	Baytown, Texas 77522	
County/Parish:	Harris	
Facility Phone Number	(281) 834-2000	
Facility Contact:	Meagan Bowman	Risk Management Section Supervisor
	Meagan.d.bowman@exxonmobil.com	
FRS Number:	1100 0050 2901	
Identification/Permit Number:	Air Operating Permit ID: O-01229	
Media Identifier Number:	RMP Number: 1000 0006 2905	
NAICS:	32411 Petroleum Refineries	
Personnel participating in inspection:		
Meagan Bowman	Exxon Mobil Corporation	Risk Management Supervisor
J. Derek Reese	Exxon Mobil Corporation	OE SSHE HQ Advisor
Michelle Baker	Exxon Mobil Corporation	Regulatory Compliance Coordinator
Melanie Holifield	Exxon Mobil Corporation	OIMS Coordinator
Ricky Brooks	Exxon Mobil Corporation	BTRF/USW President
Vic Pyle	Exxon Mobil Corporation	Senior Counsel
Jeremy Jones	Exxon Mobil Corporation	Safety Specialist
Ramon Echevarria	Echeverria Law PC	Outside Counsel
Ryan Kerrigan	Exxon Mobil Corporation	SSHE Manager
Timothy Rhine	Exxon Mobil Corporation	IBEW President
Seth Gray	Exxon Mobil Corporation	HDU-1/HF3 Process Engineer
Sherronda Phelps	US EPA	Environmental Engineer
Charese Simpson	US EPA	Life Scientist
Craig Haas	US EPA	Environmental Scientist
Amy Federoff	ERG	Chemical Engineer
Anthony Gagliani	ERG	Chemical Engineer
EPA Lead Inspector Signature/Date	<i>Sherronda Phelps</i> Sherronda Phelps	3/31/2022 Date
Supervisor Signature/Date	 Samuel Tate	 Date

Section I – INTRODUCTION**PURPOSE OF THE INSPECTION**

The United States Environmental Protection Agency (EPA) Region 6 inspectors Sherronda Phelps and Charese Simpson; United States Environmental Protection Agency (EPA) HQ inspector Craig Haas; Eastern Research Group (ERG) inspectors Amy Federoff and Anthony Gaglioni (contractors for US EPA); arrived at the ExxonMobil Baytown Refinery (BTRF) facility at 9:00 AM on Monday January 31, 2022, for an announced inspection. We met with Meagan Bowman (Risk Management Supervisor) and other ExxonMobil personnel listed in Table 1 for an opening meeting.

Charese, Craig, Amy, Anthony and I presented our credentials and informed ExxonMobil personnel that this was an EPA inspection to determine compliance with the facility's Chemical Accident Prevention Program. The scope of the inspection was a partial compliance evaluation (PCE), which included an evaluation of the facility's compliance with the Clean Air Act (CAA) Section 112(r) and the Chemical Accident Prevention Provisions in 40 C.F.R. Part 68.

On December 23, 2021, an incident occurred at the BTRF. During the repair of an active hydrocarbon leak on naphtha hydrotreater unit HDU-1, a release and ignition occurred resulting in an explosion and fire, multiple injuries, and shutdown of the HDU-1. Four contractors were transported to the hospital for medical treatment. The latest Risk Management Plan (RMP) submission from the BTRF lists the HDU-1 (submitted as the hydrodesulfurization process) as a program level 3 RMP-covered process. This report will evaluate compliance at the ExxonMobil Refinery with a focus on the recent incident occurring December 23, 2021.

The ExxonMobil Baytown Refinery is listed as a Program Level three (3) process facility. Prior to the inspection, I inquired if an employee representative was available, pursuant to section 112(r)(6)(L) of the CAA, to participate in this inspection and I met with the United Steelworkers President, Ricky Brooks, who represents the refinery and one Timothy Rhine who serves as the International Brotherhood of Electrical Workers (IBEW) President.

Table 1: Opening Meeting Attendance, Monday January 31, 2022

NAME	POSITION
Sherronda Phelps	Inspector
Charese Simpson	Inspector
Amy Federoff	Chemical Engineer
Anthony Gaglione	Chemical Engineer
Craig Haas	Environmental Scientist
Meagan Bowman	Risk Management Supervisor
Michelle Baker	Regulatory Compliance Coordinator
Melanie Holifield	OIMS Coordinator
J. Derek Reese	Env. & Regulatory Advisor
Vic Pyle	Senior Counsel
Seth Gray	HDU-1/HF3 Process Engineer
Chad Shockley	FS Process Dept Head

Beverly Toups	Engineering Dept. Head
Jacob Dolezal	Engineering Supervisor
Ricky Brooks	USW 13-2001 President
Timothy Rhine	IBEW President
Reed Artim	Counsel
William Adamson	Process Manager
Jeremy Jones	Safety Specialist
Rohan Davis	Baytown Refinery Manager

FACILITY DESCRIPTION

The ExxonMobil Baytown Refinery employs approximately 1375 employees operating 24 hours a day/ 7 days per week with scheduled turnarounds. The Refinery, located in Baytown, Tx operates a variety of processes to produce petroleum products such as propane, butane, gasoline products, jet fuels, diesel fuels, asphalt, coke and lubricants from crude oil. Several regulated flammable substances and flammable mixtures and toxic substances (hydrogen sulfide, sulfur dioxide, and aqueous ammonia (>20%)) are contained in processes above threshold quantities. The ExxonMobil Baytown Refinery is a Program level 3 process.

Section II - OBSERVATIONS

. EWC representatives provided a process overview of the facility. The inspection team took a tour of the facility to visit the site of the incident at HDU-1, while being escorted by . EWC representatives. Contractor for ExxonMobil, Baker Risk, was also present to take photographs upon the request of the inspection team. Those photographs will be detailed in a later report provided by ERG. It should also be noted that the incident location was subject to an Evidence and Site Control Agreement between Exxon Mobil and OSHA, and limited investigative information was available to the parties at the time of EPA's onsite inspection.

The following observations for each RMP element/subpart was reviewed by various members of the inspection team. Each element/subpart was delegated to a responsible party of the inspection team which is detailed in table 2 below. A second report will be issued and will contain a separate Eastern Research Group (ERG) independent report that discusses additional findings and observations made on site.

Table 2: RMP Element Assignment

Section	Title	Responsibility	Personnel
68.12 - .15	Management System	EPA	Sherronda P.
68.20	Applicability	ERG	Amy F./Anthony G.
68.22 - .33	OCA	ERG	Amy F./Anthony G.
68.65	PSI	ERG	Amy F./Anthony G.
68.67	PHA	ERG	Amy F./Anthony G.
68.69	Operating Procedures	EPA	Sherronda P.
68.71	Training	EPA	Sherronda P.

68.73	MI	ERG	Amy F./Anthony G.
68.75	MOC	ERG	Amy F./Anthony G.
68.77	PSSR	ERG	Amy F./Anthony G.
68.79	Compliance Audits	EPA	Charese S.
68.81	Incident Investigations	EPA	Craig H.
68.83	Employee Participation	EPA	Craig H.
68.85	Hot Work Permit	EPA	Charese S.
68.87	Contractors	EPA	Sherronda P.
68.90 - .95	Emergency Response	EPA	Sherronda P.
Subpart G	Risk Management Plan	EPA	Craig H.

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

Subpart A – General

40 C.F.R. § 68.10 Applicability

The Exxon Mobil Baytown Refinery is the owner and operator of a stationary source that has more than a threshold quantity of regulated toxic and flammable substances, listed in 40 C.F.R. § 68.130, in a process and is subject to the Chemical Accident Prevention Provisions. ExxonMobil Baytown Refinery has a CAA Title V Permit (O1229) along with a New Source Review Permit (18287) for their Petroleum Refinery processes (32411). The ExxonMobil Baytown Refinery is subject to the Occupational Safety and Health Administrations (OSHA) process safety management (PSM) standard, 29 C.F.R. § 1910.119, and has Program Level three (3) processes.

40 C.F.R. § 68.12 General requirements

The ExxonMobil Baytown Refinery re-submitted an RMP based on the 5-year update requirement (40 CFR 68.190(b)(1)) on September 6, 2018. This re-submission listed a covered process containing regulated toxic and flammable chemicals. This requires ExxonMobil Baytown Refinery to develop and implement a management system, conduct a hazard assessment, implement the prevention requirements of 40 C.F.R. § 68.65 - § 68.67, develop and implement an emergency response program, and submit the data elements from 40 C.F.R. § 68.175 in their RMP.

40 C.F.R. § 68.15 Management

The ExxonMobil Baytown Refinery uses the Operations Integrity Management System (OIMS) as a structured approach for managing the safety, health, security, and environmental risk at the facility. OIMS consists of many programs, procedures, practices, and manuals that assist in the day-to-day operations at the facility and is used to assist in various sections of the RMP regulations. OIMS is separated into 11 elements, with each element being owned by either an ExxonMobil Baytown Refinery or ExxonMobil Baytown Area subject matter expert. The OIMS elements include the following: OIMS 1.1 Management Leadership, Commitment and Accountability; OIMS 2.1 Risk Assessment and Analysis; OIMS 3.1 Facilities Design and Construction; OIMS 4.1 Process and Facilities Information / Documentation; OIMS 5.2 Occupational Health; OIMS 5.4 Training; OIMS 6.1 Operations and Maintenance Procedures; OIMS 6.2 Work Permits; OIMS 6.3 Critical Equipment; OIMS 6.4 Mechanical Integrity; OIMS 7.1 Management of Change; OIMS 8.1 Third Party Services; OIMS 9.1 Incident Reporting Analysis and Follow up; OIMS 10.1 Emergency Preparedness; and OIMS 11.1 Assessment and Improvement. ExxonMobil Baytown Refinery has developed a management system to oversee the implementation of risk management program elements. ExxonMobil Baytown Refinery assigned a qualified person or position that has the overall responsibility for the development, implementation, and

integration of each of the risk management program elements. The inspection team has no areas of concern currently.

Subpart B – Hazard Assessment**40 C.F.R. § 68.20 Applicability**

The ExxonMobil Baytown Refinery is a program level three (3) stationary source subject to this subpart. The ExxonMobil Baytown Refinery is required to prepare an offsite consequence analysis and complete the five-year accident history.

40 C.F.R. § 68.22 Offsite Consequence Analysis Parameters – detailed in ERG report

40 C.F.R. § 68.25 Worst-case Release Scenario Analysis – detailed in ERG report

40 C.F.R. § 68.28 Alternative Release Scenario Analysis – detailed in ERG report

40 C.F.R. § 68.30 Defining Offsite Impacts - Population – detailed in ERG report

40 C.F.R. § 68.33 Defining Offsite Impacts - Environment – detailed in ERG report

40 C.F.R. § 68.36 Review and Update – detailed in ERG report

40 C.F.R. § 68.39 Documentation – detailed in ERG report

40 C.F.R. § 68.42 Five-year accident history – detailed in ERG report

Subpart D – Program 3 Prevention Program

40 C.F.R. § 68.65 Process Safety Information – detailed in ERG report

40 C.F.R. § 68.67 Process hazard analysis (PHA) – detailed in ERG report

40 C.F.R. § 68.69 Operating procedures – detailed in ERG report

40 C.F.R. § 68.71 Training

The Area Training Organization (ATO) maintains all required training in webCAT, a web-based application. New hires, specifically operators, receive basic operator training which consists of both classroom and computer-based training. Once completed, the operator moves on to shadow or field train with senior operators and complete several different modules before a final board exam is administered. Upon passing, the operator is deemed qualified. There are no areas of concern currently.

40 C.F.R. § 68.73 Mechanical integrity – detailed in ERG report

40 C.F.R. § 68.75 Management of change (MOC) – detailed in ERG report

40 C.F.R. § 68.77 Pre-startup safety review – detailed in ERG report

40 C.F.R. § 68.79 Compliance audits

The ExxonMobil Baytown Refinery does a plant wide comprehensive compliance audit. The facility provided their two most recent Compliance Audits (September 29-October 7, 2017, and August 10 – September 10, 2020). Each audit is conducted with internal ExxonMobil staff from the Baytown Refinery facility, as well as subject matter experts from other ExxonMobil facilities. There are no areas of concern at this time.

40 C.F.R. § 68.81 Incident investigation – detailed in ERG report**40 C.F.R. § 68.83 Employee participation**

The facility appears to have a written plan of action regarding the implementation of the employee participation required under §68.83. We were told that employees have access, via a company intranet, to documents related to construction,

- piping and instrument diagrams,
- electrical diagrams,
- relief system design bases,
- applicable design codes and standards, and
- material and energy balances.

We were told that relevant employees will participate in the development of process hazards analyses (PHA). All members of the HAZOP team play an active role in data collection, hazard(s) identification, risk assessment, and final report generation. The inspection team has no areas of concern currently.

40 C.F.R. § 68.85 Hot work permit

The ExxonMobil Baytown Refinery appear to have a system in place whereby hot work permits are issued for hot work operations conducted on or near covered processes. It is the policy of the facility to retain hot work permits for 72 hours post completion of the work. The inspection team has no areas of concern currently.

40 C.F.R. § 68.87 Contractors

The inspection team spoke with Sara Mondier, Contractor Administrator, who handles third-party services by contractors at the facility. There is a list of contractors maintained; when needed, the facility can consult the list and select an appropriate contractor. Time on site varies by the services being provided by the contractor. If there are issues that arise with a given contractor, they could possibly be removed from the approved list or given a probationary period. Prior to commencing work at the facility, contractors must undergo site specific orientation training. Access to the facility is controlled via the badging system. The inspection team has no areas of concern currently.

Subpart E – Emergency Response**40 C.F.R. § 68.90 Applicability**

The ExxonMobil Baytown Complex is designated as a “first responder” in case of an accidental release of a regulated substance.

40 C.F.R. § 68.95 Emergency response program

ExxonMobil's Baytown Complex Emergency Response Team consists of ExxonMobil employees, including 195 part-time and 4 full-time responders. ExxonMobil trains employees in fire, rescue, hazmat, and medical emergency response activities.

Once trained, the employees have a wide range of capabilities as they are self-reliant to handle exterior, interior, confined space, and high angle incidents. Shifting teams of process responders conduct drills once per month in addition of the annual training that is required. The facility is a member of the Mutual Aid Mont Belvieu plan, Channel Industries Mutual Aid (CIMA) and Baytown ExxonMobil Emergency Response Network (BEERN) where they provide emergency services to sister facilities. They also participate in the Baytown Area Local Emergency Planning Committee and periodic meetings of the committee. The facility is equipped with fire trucks, a medical vehicle and dedicated rescue trucks with monitoring equipment. Inspections and maintenance of their emergency response equipment are handled by third party services.

Subpart G – Risk Management Plan

40 C.F.R. § 68.190 Updates – The last update was submitted on September 6, 2018, addressing their 5-year update as required by 40 C.F.R. § 68.190.

40 C.F.R. § 68.195 Required corrections –The next RMP re-submission is due by September 6, 2023, unless an update or correction is required by 40 C.F.R. § 68.190 and § 68.195.

Section III – AREAS OF CONCERN

There are no identified areas of concern at this time, based on the documentation reviewed to-date.

*Additional Areas of Concern may be included in the ERG inspection report, which will be provided to ExxonMobil upon its completion.

Section IV – FOLLOW UP

The BTRF sent copies of all remaining requested documents to the inspection team by February 18, 2022. At the date of this report, the inspection team continues to review all information available to understand the implementation of and compliance with the requirements under CAA § 112(r) RMP, EPCRA §§ 302-312, and CERCLA § 103 at the HDU-1.

Given the Evidence and Site Control Agreement that has been implemented, it is expected that EPA will return to BTRF once ExxonMobil's root cause investigation is complete to determine the cause and address any potential non-compliance. Additional information may be requested and provided for review via the provided Sharefile site created by ExxonMobil.

Section V – LIST OF APPENDICES

Attachment 1: Opening Meeting Sign-In Sheet

Attachment 2: Interview Sign-In Sheets

Attachment 3: Inspection Document Review/Request List

Attachment 4: Close Out Meeting Sign-In Sheet