EPA United States Environmental Protection Agency

Region 6 - Enforcement & Compliance Assurance Division

INSPECTION REPORT

Inspection Date(s):	10/24/2022 – 10/27/2022	
Media Program:	Air	
Regulatory Program(s)	Clean Air Act Section 112(r) and 40 Code of Federal Regulations (C.F.R.) Part 68 Chemical Accident Risk Management Plan (RMP)	
Company Name:	**Albemarle Corporation – Pasadena Plant**	
Facility Name:	**Albemarle Corporation**	
Facility Physical Location:	2500 North South St.	
(city, state, zip code)	Pasadena, Texas 77503	
Mailing address:	P.O. Box 2500	
(city, state, zip code)	Pasadena, Texas 77501	
County/Parish:	Harris	
Facility Phone Number	(713) 740-1000	
Facility Contact:	Lisa Fruge	Plant Manager
	Lisa.fruge@albemarle.com	
FRS Number:	1000 0013 2769	
Identification/Permit Number:	O-2310	
Media Identifier Number:	-------	
NAICS:	325199	
SIC:	N/A	
Personnel participating in inspection:		
Sherronda Phelps	US EPA	Air Inspector
Raina Warden	Albemarle	Operations Manager
Paul Hernandez	Albemarle	Safety Manager

EPA Lead Inspector Signature/Date	Sherronda Phelps	12/15/2022
	Sherronda Phelps	Date
Supervisor Signature/Date	SAMUEL TATES Digitally signed by SAMUEL TATES Date: 2023.01.05 12:08:33 -06'00'	
	Samuel Tates	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

I, Sherronda Phelps, United States Environmental Protection Agency (EPA) Region 6 inspector arrived at Albemarle Pasadena Plant (Albemarle) facility at 9:00 AM on October 24, 2022, for an announced inspection. I met with Lisa Fruge, Plant Manager, and other facility personnel at the opening conference. I presented my credentials to all present and informed them that this was an EPA inspection to determine compliance with the Clean Air Act (CAA) Section 112(r)(1) and 112(r)(7). The scope of the inspection was a partial compliance evaluation (PCE) and included evaluation of the compliance of the facility with 40 C.F.R. Subpart 68 – Chemical Accident Prevention Provisions. Albermale is a Union facility. Employee representatives were invited but chose not to participate or attend meetings.

FACILITY DESCRIPTION

According to the facility's executive summary, Albemarle – Pasadena Plant makes use of toxic chemicals chlorine and methyl chloride. Listed flammable chemicals are 1-butene, ethyl chloride, 2-methylpropene (isobutene), and isopentane. Anhydrous hydrogen chloride, ethylene, and hydrogen are used on the plant site from pipeline supplies, though these chemicals are not stored or present on site above the threshold quantities. Chlorine is used onsite for water treatment purposes and has a maximum storage capacity of 8,000-lb.

The facility employs approximately 207 full-time employees (FTE's).

Section II – OBSERVATIONS

The initial documentation review began on-site with Albemarle personnel. One day of the inspection was conducted virtually and the conclusion of the inspection resumed on-site.

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

Subpart A – General

40 C.F.R. § 68.10 Applicability – Albemarle is a stationary source that has more than a threshold quantity of regulated substances in their process. The last submittal was made June 20, 2019, due to the five-year resubmission date. Albemarle is a Risk Management Plan (RMP) Program 3 facility. The facility is subject to the Occupational Safety and Health Administration's (OSHA) Process Safety Management (PSM) Standard (29 CFR § 1910.119).

40 C.F.R. § 68.12 General requirements – Albemarle submitted their most recent RMP submission on June 20, 2019. The regulated substance(s) under the toxic and flammable tables are listed over the threshold quantity for the RMP Program Level 3 processes.

40 C.F.R. § 68.15 Management – Albemarle developed a management system to oversee the implementation of the risk management program elements. Albemarle provided an organizational chart that outlined the positions to implement the individual elements of the RMP, as required by this subpart.

Subpart B – Hazard Assessment

40 C.F.R. § 68.20 Applicability – Albemarle operates an RMP program level 3 process which is subject to this subpart and thus is required to prepare a worst-case release scenario analysis and complete the five-year accident history. I reviewed the documentation provided to make this analysis and identified no areas of concern with this subpart.

40 C.F.R. § 68.22 Offsite Consequence Analysis Parameters – Albemarle employed the parameters specified by EPA in this rule by using the RMP*Comp™ software. I reviewed the offsite consequence analysis and supporting documentation to assure the data was accurate and correct. No areas of concern with this subpart.

40 C.F.R. § 68.25 Worse-case release scenario analysis – Albemarle identified and analyzed at least one worst-case scenario in its Program 3 processes using the RMP* Comp™ software, thus meeting the requirements of the regulation. No areas of concern with this subpart.

40 C.F.R. § 68.28 Alternative Release Scenario Analysis – Albemarle identified and analyzed at least one alternative release scenario in its Program 3 processes using the RMP* Comp™ software, thus meeting the requirements of the regulation. No areas of concern with this subpart.

40 C.F.R. § 68.30 Defining offsite impacts- Population – Albemarle used the most current Census Bureau population data and the distances to endpoints, as specified in the regulation, to calculate the population numbers reported in their RMP. No areas of concern with this subpart.

40 C.F.R. § 68.33 Defining offsite impacts- Environment – Albemarle used US Geological Survey maps data to determine the environmental receptors and the distances to endpoints. No areas of concern with this subpart.

40 C.F.R. § 68.36 Review and update - Albemarle understands documentation associated with the worst-case scenarios that should be updated and reviewed at least every five years and are anticipating a review in 2024.

40 C.F.R. § 68.39 Documentation - Albemarle operates a RMP program level 3 process which is subject to this subpart and thus is required to prepare a worst-case release scenario analysis and complete the five-year accident history. I reviewed the documentation provided to make this analysis and identified no areas of concern with information pertaining to this subpart to include the Offsite Consequence Analysis (OCA) data. The facility used the EPA Model RMP*Comp™.

40 C.F.R. § 68.42 Five-year accident history – Albemarle did not report any accidental release(s) in their RMP that resulted in deaths, injuries, or property damage.

Subpart D – Program 3 Prevention Program

40 C.F.R. § 68.65 Process safety information (PSI) - I reviewed various sections of the process safety information (PSI) for the RMP covered process at Albemarle. There were no areas of concern identified with this subpart.

40 C.F.R. § 68.67 Process Hazard Analysis (PHA) – Albemarle provided me with their PHA Schedule detailing completion dates and due dates. All revalidation dates were met per the regulation. I reviewed the PHA's conducted for BEM in R201D, MASC R201D processes. The next revalidation is due in the year 2023. The PHA study was conducted using the Hazard and Operability Analysis (HAZOP) method along with What If Checklists. No areas of concern were observed . with this subpart.

40 C.F.R. § 68.69 Operating procedures - I reviewed several operating procedures for the covered process. I reviewed and discussed with Albemarle personnel operating procedures, which includedthe Standard Operating Procedure (SOP) certification procedure, confined space entry, and lockout/tag out procedures. Albemarle certified that the operating procedures were current, accurate, and that the procedures were reviewed as often as necessary, as required by this subpart, and used a single certification document for operating procedures annually. The master copy is the hard copy, and a new copy is printed after each revision is made. Operating procedures are available to the operators via the facility share point site. No areas of concerns were identified with this subpart.

40 C.F.R. § 68.71 Training – Operator Training consists of both On the Job Training and Computer Based Training. As a new hire, at least three to six months is allocated to initial job training. Refresher training is required every three years per the regulation or sooner. I requested training records for review and was provided the files for several employees at different experience levels. Of the employee files I reviewed, all took the initial training to operate within the unit and should be up for refresher training later this year while others are scheduled to refresh well into the year 2023. Training was a combination of classroom and hands on. There were no areas of concern identified with this subpart..

40 C.F.R. § 68.73 Mechanical integrity – EPA reviewed mechanical integrity records for randomly selected inspections of RMP covered process equipment and the written procedure for maintaining the integrity of the process. EPA also requested a query of any past due/overdue inspections in the program no items were identified as such. There were no areas of concern with this subpart noted from the review and follow up on implementation of the Mechanical Integrity program.

40 C.F.R. § 68.75 Management of change (MOC) – EPA discussed Albemarle's written procedure for MOC and the documentation with site personnel. The MOCs were implemented using an electronic System called Facilex. I reviewed several MOCs to evaluate the implementation of the procedures in place. No areas of concern were identified with this subpart.

40 C.F.R. § 68.77 Pre-startup safety review – Albemarle provided documentation regarding pre-startup safety review which accompanied several MOC's reviewed. All PSSR requirements were satisfied before startup.

40 C.F.R. § 68.79 Compliance audits – EPA requested the two most recent compliance audits for review. Albemarle provided compliance audit reports completed in March 2021 and April 2018. Action Items from the audit were placed in the electronic tracking system via System Application and Products (SAP).

I followed up on several items from the most recent audit to observe Albemarle's follow through, and implementation of each action item created. Albemarle brought each action item to a close in a timely manner as required by the regulation. The certification for the 2018 Compliance Audit was requested and could not be produced. Albermale noted that during that time of the 2018 Compliance Audit, the facility deemed a review from the plant manager and other higher up as a sufficient means, but later determined that an actual certification with signature was/is required. Which is what the facility began to implement back in the year 2020. Albemarle failed to certify the 2018 Compliance Audit as required by the regulation.

40 C.F.R. § 68.81 Incident investigation - I reviewed a list of incident reports/investigations for all incidents, which resulted in, or could have reasonably resulted in, a catastrophic release of a regulated substance for the last five years. All incident investigations appear to have been conducted as required per the subpart.

40 C.F.R. § 68.83 Employee participation – Albemarle implemented the requirements of this subpart.

40 C.F.R. § 68.85 Hot work permit - Albemarle discussed the process for conducting hot work onsite and several hot work permits were reviewed. All hot work permits are retained for one year upon completion of work.

40 C.F.R. § 68.87 Contractors – Albemarle selects contracts from the ISNetworld database. While they have nested contractors in place there are occasions when they may bring on additional contractors for a specific matter. Prior to selecting a contractor, a thorough evaluation of safety performance of the contractor is carried out. That contractor must be subscribed to ISNetworld as well. A Pre-Job Meeting is held with the contractors to discuss known potential hazards related the contractor's work and the processes. Contractors are also informed of all the procedures for emergency response should an accidental release of a regulated substance occur. Daily audits and Engagement Analysis are conducted to keep a hand on the happenings at the jobsite. No areas of concern were identified.

Subpart E – Emergency Response

40 C.F.R. § 68.90 Applicability –Albemarle is a first responder stationary source in case of an accidental release of a regulated substance, therefore, the facility need not comply with the requirements of part 68.95.

40 C.F.R. § 68.93 Emergency Response Coordination Activities – Albemarle coordinates with the local emergency planning and response organizations to ensure that local response organization are aware of the regulated substances of the stationary source. EPA reviewed Albemarle's coordination notification documentation which included the names of the individuals involved, their contact information, dates of the coordination activities, and the nature of the coordination activities. Albemarle coordinates with the local authorities in the city at least annually. Also noting that Albemarle is linked in a multi-tenant complex, meaning other companies are located on the same site where a shared fence line defines the complex. EPA reviewed the facility's Emergency Response Drill forms and training. The facility conducts drills on a quarterly basis that consist of exercises such as: air monitoring, entry control, medical checks, decontamination, and HAZMAT immediate control. No areas of concern were noted with this subpart.

40 C.F.R § 68.96 Emergency response exercises – As part of coordination with local emergency response officials required by §68.93, Albemarle consult with officials to establish an appropriate frequency for tabletop exercises. In addition, Albemarle provided notification exercises dates and indicated that notification exercises are conducted on an annual basis.

Subpart G – Risk Management Plan

40 C.F.R. § 68.190 Updates – There have been no recent additions or upgrades to the unit that would have triggered an update to the Risk Management Plan.

40 C.F.R. § 68.195 Required corrections -The next RMP re-submission is due by June 20, 2024, unless an update or correction is required by 40 C.F.R. § 68.190 and § 68.195.

Section III – AREAS OF CONCERN (AOC)

1) **40 C.F.R. § 68.79 -** Albemarle failed to certify the 2018 Compliance Audit, as required by the regulation.

EPA Region 6 inspector, Sherronda Phelps, conducted a closing conference at Albemarle – Pasadena Plant on October 27, 2022, for the inspection. During the closing conference, Sherronda Phelps, reviewed the AOC noted during the inspection.

Section IV – FOLLOW UP

There was no follow up information provided after completion of inspection.

Section V – LIST OF APPENDICES

No Appendices to attach.