EPA United States Environmental Protection Agency

Region 6 - Enforcement & Compliance Assurance Division

INSPECTION REPORT

Inspection Date(s):	04/22-25/2024	
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:	**Altivia Specialty Chemicals**	
Facility Name:	**Altivia Chemical Complex**	
Facility Physical Location:	1901 W H Street	
(city, state, zip code)	LaPorte, Texas 77571	
Mailing address:	1100 Louisiana St, Ste. 4800	
(city, state, zip code)	Houston, Texas 77002	
County/Parish:	Harris	
Facility Phone Number	(713) 658-9000	
Facility Contact:	Jeffrey Grimes	Environmental Engineer
	jgrimes@altivia.com	
FRS Number:	110070361699	
Identification/Permit Number:	N/A	
Media Identifier Number:	1000 0002 2334	
NAICS:	325199	
SIC:	N/A	
Personnel participating in inspection:		
Sherronda Phelps	US EPA	Air Inspector
Julia Torres	US EPA	Enforcement Officer
Jeffrey Grimes	Altivia	Environmental Engineer
Derrick Meadows	Altivia	Plant Manager
EPA Lead Inspector Signature/Date	Sherronda Phelps	07/01/2024
	Sherronda Phelps	Date
Supervisor Signature/Date	SAMUEL TATES	Digitally signed by SAMUEL TATES Date: 2024.07.02 14:52:49 -05'00'
	Samuel Tates	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

I , United States Environmental Protection Agency (EPA) Region 6 Inspector Sherronda Phelps, arrived at the Altivia Specialty Chemicals (Altivia) facility at 10:00 AM on April 22nd, 2024, for an announced inspection. EPA Region 6 personnel, Julia Torres, and I were greeted by Derrick Meadows (Plant Manager) and other Altivia 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 Clean Air Act (CAA) Section 112(r)(1) and 112(r)(7). The scope of the inspection was a partial compliance evaluation (PCE) of the facility with 40 C.F.R. Subpart 68 – Chemical Accident Prevention Provisions and further investigation of the incident that occurred at Altivia on December 4, 2023. An employee representative was invited to participate in the inspection; however, this site is a non-union facility.

FACILITY DESCRIPTION

According to the Altivia' s executive summary, "Altivia La Porte plant produces and stores alkyl chloroformates, organic acid chlorides and various specialty chemicals. The facility produces phosgene on demand for use as a raw material in its' manufacturing processes and stores chlorine on-site in railcars." The only chemicals meeting the threshold quantity as determined under 40 C.F.R. § 68.115 is phosgene and chlorine. The facility employs approximately 70 full-time employees (FTE's).

Section II – OBSERVATIONS

The initial documentation review began in person with Derrick Meadows (Plant Manager) and Jeffrey Grimes (Environmental Engineer). EPA began reviewing the details of the incident that occurred at the facility on December 4, 2023. As provided by Altivia, the cold vents vaporizer (in Area A) pressure relief device header ruptured. When it ruptured, the pressure relief device header, which takes emergency vents from the cold vents unit, caused the emergency caustic scrubber to fail. This allowed phosgene to be released to the atmosphere. One Altivia employee was exposed to 10 ppm per min of phosgene and another employee was exposed to phosgene at 0.5 - 1 ppm per minute. The event continued for a total of about two hours.

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

Subpart A – General

40 C.F.R. § 68.10 Applicability – Altivia is a stationary source that has more than a threshold quantity of regulated substances in their process. The last submittal was made October 17, 2019, due to the five-year resubmission date. Altivia is a 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 – Altivia submitted their most recent RMP submission on October 17, 2019. The regulated substance(s) chlorine and phosgene are the regulated substances listed over the threshold quantity for the RMP Program Level 3 processes.

40 C.F.R. § 68.15 Management – Altivia developed a management system to oversee the implementation of the Risk Management Program (RMP) elements. Altivia 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 – Altivia operates an RMP Program level 3 process, which is subject to this subpart, and 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 – Altivia 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.

40 C.F.R. § 68.25 Worse-case release scenario analysis – Altivia 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.

40 C.F.R. § 68.28 Alternative Release Scenario Analysis – Altivia 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.

40 C.F.R. § 68.30 Defining offsite impacts - Population – Altivia used the most current Census Bureau population data and the distances to endpoints to calculate the population numbers reported in their RMP, as specified in the regulation.

40 C.F.R. § 68.33 Defining offsite impacts - Environment – Altivia used U.S. Geological Survey maps and data to determine the environmental receptors and the distances to endpoints.

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

40 C.F.R. § 68.39 Documentation - Altivia operates a RMP program level 3 process, which is subject to this subpart and 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 the 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 – Altivia did not report any accidental release(s) in their last RMP submittal that resulted in deaths, injuries, or property damage. However, the next submission which is due September of 2024 should detail the phosgene release that occurred on December 4, 2023.

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 Altivia. There were no areas of concern identified.

40 C.F.R. § 68.67 Process Hazard Analysis (PHA) – Altivia provided their PHA schedule detailing completion dates and due dates. All revalidation dates were met pursuant to the regulation. I reviewed the PHA's conducted for the Cold Vents from September 2017 and its revalidation in September of 2022. The next revalidation is due in 2027. The PHA study was conducted using the Hazard and Operability Analysis (HAZOP) method along with the use of PHA Works. No areas of concern were observed.

40 C.F.R. § 68.69 Operating procedures - I reviewed several operating procedures for the covered process. I reviewed and discussed the operating procedures with Altivia personnel, which included the Standard Operating Procedure (SOP) certification procedure, confined space entry, and lockout/tag out procedures. Altivia certified that the operating procedures were current, accurate, and that the procedures were reviewed as often as necessary, as required by this subpart used. Altivia used a single certification document for operating procedures annually from the years 2020 to 2024. 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 an electronic data management system. 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 four 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 for refresher training in2026. Training was a combination of classroom and hands on. There were no areas of concern identified.

40 C.F.R. § 68.73 Mechanical integrity – EPA reviewed the historical maintenance records involving the mechanical integrity equipment from the December 4th event. Records regarding Equipment No. 8320-29-134 and Equipment No. 8320-29-134 show it was inspected routinely as required. However, there was still a failure in the piping which contributed to the release event. Also, on the topic of Quality Assurance (QA) and its implementation at the facility, it would appear there was a QA issue in that area. Specifically, the rupture disk failure due to bursting prematurely was a contributing factor. It was understood that the facility ordered one piece of equipment with a failure rating of 100 PSI; however, in this instance, the disk failed at 79.6 Psi, which would bring in to question the checks of equipment received and installed. EPA also requested a list of past due/overdue mechanical integrity inspections. There were none showing past due or overdue. While piping inspections were completed on a routine basis, it would appear that Altivia failed to implement the frequency of inspections and tests of process equipment consistent with the applicable manufacturer's recommendations and good engineering practice and more frequently if necessary, given the internal condition of the vent header, which contributed to the pressure accumulation and pipe failure. (**AOC 1)**

Altivia also failed to conduct the appropriate checks and inspections on equipment received and installed to be certain they are consistent with the design specifications and manufacturer's instructions. **(AOC 2)**

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

40 C.F.R. § 68.77 Pre-startup safety review (PSSR) – Altivia 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. Altivia provided compliance audit reports completed in March 2021. The audit for the year 2024 was a work in progress and the facility will provide upon completion. Action Items from the audit were placed in the electronic tracking system called Frontline. I reviewed several items from the March 2021 audit to observe Altivia' s follow through and implementation of each action item created. Altivia brought each action item to a close in a timely manner as required by the regulation. No areas of concern were identified.

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. This included the incident that occurred on December 4, 2023. From the information provided, the investigation start date was within the 48 hours alloted per the regulation. The facility makes use of a system called Frontline, where all details of the event/incident are entered and an incident report is created. A responsible party is assigned to see that any and all actions items associated are completed per the due dates given. Any additional details or attachments can be entered into Frontline and show when action items have been completed. All incident investigations appear to have been conducted as required per the subpart. No areas of concern were identified.

40 C.F.R. § 68.83 Employee participation – Altivia implemented the requirements of this subpart. Examples of this were provided via MOC's that have been put in place, which required training after a new procedure was put in to place or a change within a procedure. An active role was taken by personnel in the process hazard analysis and monthly safety meetings that occur. The attendance sign in sheets were provided by Altivia. No areas of concern were identified.

40 C.F.R. § 68.85 Hot work permit - Altivia discussed the process for conducting hot work onsite and several hot work permits were reviewed. Monthly audit checks are conducted to note completeness and thoroughness. However, Permit No. 25533 lacked a reason why the work was not completed. **(AOC 3)** The permit has a section where details on this should be shared in lieu of creating a new permit on the continuation of work. All hot work permits are retained for one year upon completion of work.

40 C.F.R. § 68.87 Contractors – Altivia hires contractors on occasion to conduct specific maintenance and construction activities. Prior to selecting a contractor, a thorough evaluation of safety performance of the contractor is carried out. The company has a strict policy of informing the contractors of known potential hazards related to 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. No areas of concern were identified.

Subpart E – Emergency Response

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

40 C.F.R. § 68.93 Emergency Response Coordination Activities – Altivia coordinates with the local emergency planning and response organizations to ensure that local response organizations are aware of the regulated substances at the stationary source. I reviewed Altivia' 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. Altivia coordinates with the local authorities in the city at least annually. I reviewed the facility's Emergency Response Drill forms. 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.

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

Subpart G – Risk Management Plan (RMP)

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. However, the incident occurring December 4th, 2023 should be added to the five year accident history as per section 68.190. If a facility experiences an accidental release that meets the criteria for reporting in the five-year accident history section of the RMP, information about that accident must be added to the accident history and incident investigation sections of the RMP within six months of the date of the accident. This reporting update should have been provided no later than June 4th, 2024. Altivia had not submitted such information.

40 C.F.R. § 68.195 Required corrections -The next RMP re-submission is due by October 17, 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. § 68.73 (d)(3)**, "The frequency of inspections and tests of process equipment shall be consistent with applicable manufacturers recommendations and good engineering practices, and more frequently if determined to be necessary by prior operating experiences."

   While piping inspections were completed on a routine basis, it would appear that Altivia failed to implement the frequency of inspections and tests of process equipment in consistency with the applicable manufacturer's recommendations and good engineering practices, and more frequently if necessary, given the internal condition of the vent header found after the incident, which contributed to the pressure accumulation and pipe failure.

2) **40 C.F.R. § 68.73 (f)(2)**, "Appropriate checks and inspections shall be performed to assure that equipment is installed properly and consistent with design specifications and the manufacturer's instructions."

   Altivia failed to conduct the appropriate checks and inspections on equipment received and installed to be certain they are consistent with the design specifications and manufacturer's instructions.

3) **40 C.F.R. § 68.85 (b)**, "The permit shall document that the fire prevention and protection requirements in 29 CFR 1910.252(a) have been implemented prior to beginning the hot work operations; it shall indicate the dates authorized for hot work; and identify the object on which hot work is to be performed. The permit shall be kept on file until completion of the hot work operations.

   Altivia failed to document on the hot work permit as required why work had not been completed, why the work permit should be extended, or a new permit be created.

4) **40 C.F.R. § 68.190**, "If a facility experiences an accidental release that meets the criteria for reporting in the five-year accident history section of the RMP, information about that accident must be added to the accident history and incident investigation sections of the RMP within six months of the date of the accident."

   Altivia failed to update the RMP Report with the latest accident history which is to be added to the five year accident history within six months of its occurrence. This reporting update should have been provided no later than June 4th, 2024.

5) **112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1) General Duty Clause**, Section 112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1), otherwise known as the "General Duty Clause" states the following: "(r) Prevention of Accidental Releases (1) Purpose and General Duty – It shall be the objective of the regulations and programs authorized under this subsection to prevent the accidental release and to minimize the consequences of any such release of any substance listed pursuant to paragraph (3) or any other extremely hazardous substance. The owners and operators of stationary sources producing, processing, handling or storing such substances have a general duty, in the same manner and to the same extent as section 654, title 29 of the United States Code, to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental release which do occur." As provided by Altivia, on December 4th, 2023, the cold vents vaporizer (in Area A) pressure relief device header ruptured. When it ruptured, the pressure relief device header, which takes emergency vents from the cold vents unit, caused the emergency caustic scrubber to fail. This allowed phosgene to be released to the atmosphere. One Altivia employee was exposed to 10 ppm per min of phosgene and another employee was exposed to phosgene at 0.5 - 1 ppm per minute. The event continued for a total of about two hours.

I, EPA Region 6 Inspector Sherronda Phelps, conducted a closing conference at Altivia Specialty Chemicals on April 25, 2024, for the inspection. During the closing conference, I reviewed the areas of concern and other recommendations identified during the inspection.

Section IV – FOLLOW UP

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

Section V – LIST OF APPENDICES

No Appendix Attached.