Region 6 Compliance Assurance and Enforcement Division

INSPECTION REPORT

Inspection Date(s):	05/22/18-05/25/18
Media:	Air
Regulatory Program(s)	RMP
Company Name:	**Kuraray America, Inc.**
Facility Name:	**Kuraray La Porte**
Facility Physical Location:	12342 Strang Road
(city, state, zip code)	La Porte, Texas 77571
Mailing address:	2625 Bay Area Blvd.
(city, state, zip code)	Houston, Texas 77058
County/Parish:	Harris
Facility Contact:	Jermichael Thacker — Sr. HSE Specialist
	Jermichael.thacker@kuraray.com
FRS Number:	1000 0022 5909
Identification/Permit Number:	O-1911
Media Number:	1000 0022 5909
NAICS:	325199

Personnel participating in inspection:

Jermichael Thacker	Kuraray La Porte	HSE Supervisor	281-309-8790
Nelson Rodriguez	Kuraray La Porte	Operations Manager	713-894-6149
Charles Neal	Kuraray La Porte	Plant Manger	832-414-9557

EPA Lead Inspector Signature/Date	Sherronda Phelps Sherronda K. Phelps	7/13/2018 Date
Supervisor Signature/Date	Samuel Tates Samuel G. Tates	7/12/2018 Date

6ENFORM-019-R7 (2/15/2017)

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

On May 22, 2018, I (Sherronda Phelps) arrived at the Kuraray La Porte facility for an announced Clean Air Act (CAA) inspection. A notification of my arrival was sent via email on May 9, 2018. I met with Jermichael Thacker, Senior Health Safety and Environment (HSE) Specialist. I presented my credentials to Mr. Thacker and informed him and other personnel that this was an U.S. Environmental Protection Agency (EPA) inspection to determine compliance with the 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. An employee representative was invited to participate in the inspection. The site has union representation on site due to the many specialty job craft positions on site.

FACILITY DESCRIPTION

The Kuraray Vinyl's facility (Kuraray) creates vinyl alcohols, and stores vinyl acetate monomer and ethylene, as well as, acetaldehyde at the facility to be used in the process. The facility employs about 170 employees. The following units were the primary focus during the Risk Management Plan (RMP) inspection: "A" Plant, vinyl acetate manufacture and "B" Plant, Polyvinyl Alcohol Manufacture. The Kuraray La Porte facility is located at 12342 Strang Road in La Porte, Texas. Kuraray acquired the Dupont Vinyl's units back in June of 2014. Kuraray and other companies occupy and operate facilities on site as well. The plant is also a CAA Title V facility.

Section II - OBSERVATIONS

40 C.F.R. Part 68 – Chemical Accident Prevention Provisions
Subpart A-General

40 C.F.R. § 68.10 Applicability – Kuraray La Porte submitted a single Risk Management Plan with covered processes that are subject to Program 3 requirements. There first submission was completed June 27, 2014. As a facility with Program 3 processes, Kuraray La Porte must develop and implement a management system, conduct a hazard assessment, implement the prevention requirements of 68.65 through 68.87, develop and implement an emergency response program, and submit the data elements from 68.175 in their RMP.

§ **68.12 General Requirements**

Kuraray submitted a single RMP with covered processes that are subject to Program 3 requirements. Their first submission was completed on June 27, 2014. As a facility with Program 3 processes, Kuraray

La Porte must develop and implement a management system, conduct a hazard assessment, implement the prevention requirements of 40 C.F.R. §§ 68.65 through 68.87, develop and implement an emergency response program, and submit the data elements from 40 C.F.R. § 68.175 in their RMP.

§ **68.15 Management System**

Kuraray provided a document which notes the Process Safety Management (PSM) Committee as the individuals responsible for implementing the RMP elements. However, there is no clear line of authority defined on the person or positions responsible for each element, nor is it documented in the form of an organization chart or similar document. From the information reviewed Kuraray has failed to properly document the lines of authority as required by 40 C.F.R. § 68.15(c).

Subpart B – Hazard Assessment

§ **68.20 Applicability**

Kuraray operates a 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 area of concern with information pertaining to sections 40 C.F.R. §§ 68.22 – 68.33 or any Offsite Consequence Analysis (OCA) data. The facility used the EPA Model RMP*Comp™.

§ **68.36 Review and Update**

Kuraray indicated their plan to review their OCA at least once every five years as required. The facility made their first RMP submission on June 27, 2014 upon acquiring Dupont's Vinyl's units and other land.

§ **68.39 Documentation**

Kuraray maintains documentation describing the vessel selected for review as a worst-case scenario and the assumptions and parameters used. A description of the scenarios identified, assumptions and parameters used, and the rationale for the selection of specific scenarios was documented as well.

§ **68.42 Five Year Accident History**

Kuraray reported in their RMP accident history all incidents that have caused injuries. The accident history reported events that occurred April 30, 2017 and September 15, 2016. These incidents were reviewed for completeness and thoroughness, as well as, follow-up on any corrective actions from these incidents and their status to this date.

Subpart D – Program 3 Prevention Program

§ **68.65 Process Safety Information**

Kuraray provided documentation of process safety information including information pertaining to the hazards of substances in the processes, pertaining to the technology of the process, and pertaining to the equipment in the process. Kuraray also provided the maximum intended inventory for the RMP covered process units of interest.

§ **68.67 Process Hazard Analysis**

I selected the Process Hazard Analysis (PHA) for the areas of focus: 1VA – Vinyl Acecate (VAC) – Reactor, Feeds, RGC, Vap, and Coolers; 5VB – Polyvinyl Alcohol (PVA) – Stripper System, Dist. Recovery. All appeared to be current, regarding the required revalidation dates. The Hazard and Operability (HAZOP) methodology was used to conduct the review. Upon further review, Kuraray is addressing all action items and tracking them to completion. Kuraray uploads all recommendations and action items into the QISS database where they are assigned and tracked to completion. The facility PHA's can also be accessed via the facility's intranet network.

§ **68.69 Operating Procedures**

I reviewed several operating procedures while on site. Kuraray provided examples for each phase of operation identified in the rule. Kuraray has a procedure in place for the maintaining and handling of operating procedures. The procedures address the annual certification with a thorough review of the operating procedures. Thorough reviews were conducted every three years per Kuraray guidelines, while annual certifications were conducted on an annual basis, as required by Kuraray guidelines and the RMP regulation. I suggested the thorough review and annual certification be conducted at the same time which aids in the procedures being reviewed more often and assures that they reflect current operating practices while Kuraray still meets the annual certification requirement of 40 C.F.R. § 68.69(c). Kuraray provided certifications of operating procedures for the last five years as requested.

§ **68.71 Training**

I reviewed training documentation for selected operators from the units of focus for the inspection. Kuraray is considered a self-training program. Operator qualification includes the following phases: process overview training, process and job specific training and operator initial qualification. Operator training is a combination of classroom, computer based and on-the-job training. Each operator at a minimum is required to work three different jobs in the unit they've been assigned. From the information reviewed refresher training occurs, every three years as required by the regulation. Monthly employee evaluations are completed to check the progress of the new hires.

§ **68.73 Mechanical Integrity**

I met with Kevin McMeramy, Mechanical Engineer, who aided me with my requests for mechanical integrity information. Kuraray established and implemented a procedure to maintain the on-going integrity of process equipment. I requested a list of past due/overdue inspections within the last five years of all process equipment. I was provided records from 2014 to present that noted several past due inspections within the last five years. This documentation titled "Critical and PM's Report," detailed the historical trend of past due inspections, testing and preventative maintenance activities. The reports detailed several overdue and extension items spread out over the four-year period. I researched a sample of the extensions for a completeness check. I reviewed several extensions granted over the four-year period, at least one went past the extension date granted [Work Order# 90003968]. Several of the extensions granted appeared to be completed, but the actual extension paperwork could not be located to prove this extension was granted [Work Order# 91541839, 91541838]. Lastly, there were extensions granted, but no records or work orders attached to these extensions could be located to prove their validity [5403-0058-25.01, 5403-0058-25.02, 5403-0058-25.05, 6077-0011-04.01, 6077-001-0011-04.02]. Kuraray failed to conduct testing and inspections of process equipment according to 40 C.F.R. § 68.73(d)(3). Kuraray failed to properly implement the written procedures according to 40 C.F.R. § 68.73(b).

§ **68.75 Management of Change (MOC)**

The Kuraray facility established and implemented a procedure to manage changes to process chemicals, technology, equipment, and procedures. I requested several MOC's for review and this information will be evaluated later to ensure the procedures are being properly implemented. (See Follow Up section).

§ **68.77 Pre-Startup Review (PSSR)**

The Kuraray facility established and implemented a procedure to perform a pre- startup safety review for new stationary sources and modifications of stationary sources on site when the change is significant enough to require a change in process safety information. This will be evaluated alongside the MOC's requested for review from the facility. (See Follow Up Section).

§ **68.79 Compliance Audits**

I requested the two most recent compliance audits conducted from the facility. Kuraray conducted a compliance audit for each element of the PSM/RMP as opposed to an audit for the entire program at one time. I reviewed all elements for last and most recent compliance audit completed. After reviewing such documentation, it appeared that the facility was reviewing all the elements of the RMP finding recommendations and assigning these details through staff. I reviewed several findings made and the associated actions items for completeness and proper close out. All action items created from the recommendations of these audits were assigned and tracked to completion via the QISS database.

§ **68.81 Incident Investigation**

Kuraray investigated all incidents promptly and assigned personnel to the recommendations and findings. I reviewed several incidents while on site to ensure their incident investigation procedures were being implemented as written. Completed investigation reports were stored in Kuraray's internal database system. The incidents, as required in the PHA, were also used to identify any mitigating factors that might have been overlooked or that still needed an opportunity for improvement.

§ **68.83 Employee Participation**

The Kuraray developed a written plan of action regarding the implementation of employee participation. I was provided a copy, and upon review, it met all conditions as required.

§ **68.85 Hot Work Permit**

Kuraray had a procedure in place for the permitting of hot work on site. I requested several hot work permits to review and this information will be evaluated later to ensure the procedures were being properly implemented (See Follow Up section).

§ **68.87 Contractors**

I met with Daniel Cantu, Site Contractor Leader and Jose Vasquez, Field Contractor to discuss the details and implementation of the Contractor Safety Program. The process of bringing on contractors was explained and the site safety manual referenced for this element was shared. I reviewed the manual and observed it was previously revised on August 5, 2014, which would suggest that this manual had not been revised or even updated since that date. It was also noted that this was a finding made from the Compliance Audit of this element. The original due date was granted an extension until June 2018. I suggested that this finding be addressed promptly, as this was a finding made over a year ago. Given the corrective action attached to it, this could have been addressed in a timelier manner. It is apparent Kuraray has a policy in place from the explanation given while on site, but this policy should be current and detail. Many of the findings made from the Compliance Audit on this element were granted extensions all of which have a due date of June 2018. It was mentioned that this is a work in progress and they've been meeting once a month with their corporate counterparts on how to move forward. Kuraray has failed to fully comply with 40 C.F.R. § 68.87(b)(4) and their use of an out of date safety manual for their contractor safety program.

Subpart E – Emergency Response

§ **68.90 Applicability**

Kuraray is a stationary source with program 3 processes subject to this subpart and is thus required to comply with the requirements of 40 C.F.R. § 68.95. Kuraray has an emergency response team that will respond to incidents on site.

§ **68.95 Emergency Response Program**

Kuraray and Dupont have a service level agreement in place where Dupont maintains equipment to respond to emergency events. Kuraray employees participate, but Dupont provides the fire protection and emergency response services. The site includes several other companies and is considered a shared site services facility. The Emergency Response Team includes participants from Chemors, Invista, Kuraray and Dupont. The emergency plan includes procedures for informing the public and local emergency response agencies about accidental releases. I randomly selected members of the Emergency Response Team to review their training records. Kuraray has an emergency response team that will respond to incidents on site.

Subpart G – Risk Management Plan

§ **68.150 Submission**

Kuraray has submitted a single RMP which includes the information required in 40 C.F.R. §68.150.

Section III – AREAS OF CONCERN

On May 25, 2018, I conducted an exit briefing with all involved personnel during the inspection and others who were invited. I reviewed all elements covered and the areas of concern noted during the on-site inspection which are as follows:

1) 40 C.F.R. § 68.15(c), "When responsibility for implementing individual requirements of this part is assigned to persons other than the person identified under paragraph (b) of this section, the names or positions of these people shall be documented and the lines of authority defined through and organization chart or similar document." Kuraray failed to properly document the lines of authority, specifically documenting the line of authority through an organization chart or similar document.

2) 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 experience." Kuraray failed to consistently inspect and test process equipment as required by the recommended frequency.

3) 40 C.F.R. § 68.73(b), The owner or operator shall establish implement written procedures to maintain the on-going integrity of process equipment." Kuraray failed to properly implement the written procedures, specifically the granting of extensions and not meeting the assigned date.

4) 40 C.F.R. § 68.87(b)(4), "The owner or operator shall develop and implement safe work practices consistent with 68.69(d), to control the entrance, presence, and exit of the contract owner or operator and contract employees in covered process areas." Kuraray failed to comply with their use of an out of date safety manual for their contractor safety program.

Section IV – FOLLOW UP

Kuraray has not yet provided follow up information, but EPA expects to receive it in the coming weeks. Once received this information will be reviewed and evaluated.

Section V – LIST OF APPENDICES

Appendix 1 – Opening conference/Exit briefing sign-in sheet