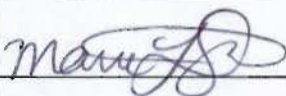
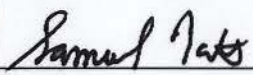


**Region 6 Compliance Assurance and Enforcement Division
INSPECTION REPORT**

Inspection Date(s):	05/1-3/2018	
Media:	Air	
Regulatory Program(s)	Risk Management Program, CAA 112(r) Accident Prevention Provisions 40 CFR 68	
Company Name:	Arch Chemicals, Inc.	
Facility Name:	Arch Chemicals, Inc.	
Facility Physical Location:	960 I-10 Service Road	
(city, state, zip code)	Westlake, LA 70669	
Mailing address:	960 I-10 Service Road	
(city, state, zip code)	Westlake, LA 70669	
County/Parish:	Calcasieu	
Facility Contact:	Jeffrey Lamper	
	Jeffrey.Lamper@Lonza.com	
FRS Number:	110029515807	
Media Number:	RMP: 1000 0014 7593	
NAICS:	32518	
SIC:		
Personnel participating in inspection:		
Jeff Lamper	Lonza	Prod. Supt.
Danny Henderson	Lonza	Manager, EHS
Kyle Baca	Lonza	Maint. And Comp. Supt.
Karley Vinson	LDEQ	
Marie Stucky	EPA Region 6 – 6EN-AS	
EPA Inspector:	Marie Stucky	
EPA Lead Inspector Signature/Date		6/14/18
		Date
Supervisor	Samuel Tates	
Supervisor Signature/Date		6 / 14 / 20 18
		Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

I, EPA Region 6 inspector Marie Stucky, arrived at Arch Chemicals, Inc. (Arch) at 9:00AM on May 1, 2018, for an announced inspection with Karley Vinson from the Louisiana Department of Environmental Quality (LDEQ). I met with Jeff Lamper (Lonza Production Supervisor) and others listed on page 1. I presented my credentials and informed them that this was an EPA inspection to determine compliance with the Clean Air Act (CAA) Section 112(r) and the Chemical Accident Prevention Provisions at 40 CFR Part 68. The scope of the inspection was a partial compliance evaluation (PCE) and included an evaluation of the compliance of the facility. On April 18, 2018, Arch received an announcement email from me, which outlined the directions for conducting an inspection from May 1-3, 2018. The email also contained a list of documents for Arch to gather for review during the inspection. Arch is a non-union facility.

FACILITY DESCRIPTION

The Arch facility is located in Westlake, Louisiana and is a production, storage, sales, and distribution site for hydrazine hydrates and hydrazine propellants, a sub business of Lonza Specialty Ingredients Industrial Solutions. The Arch Chemicals site has regulated toxics, such as hydrazine, methyl-hydrazine, and 1, 1-Dimethylhydrazine.

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 Arch is a stationary source that has more than a threshold quantity of a regulated substances in a process; therefore, these regulations are applicable. Arch submitted a Risk Management Plan (RMP) that describes the processes containing the toxic chemicals held at more than a threshold quantity. The processes are Program 3 due to the fact that the facility is subject to OSHA's Process Safety Management Standard (29 CFR 1910.119) and has the chemical manufacturing NAICS Code 32518.

40 C.F.R. § 68.12 General requirements – I reviewed the RMP submitted by Arch on February 20, 2018, that lists the toxic processes, as detailed below.

Table 1: Arch Risk Management Plan Chemical and Process

Process	Chemical Name	CAS Number
Hydrazine Manufacturing	Hydrazine	302-01-2
Blending and Shipping	Hydrazine	302-01-2
Blending and Shipping	1,1-Dimethylhydrazine	57-14-7
Blending and Shipping	Methyl Hydrazine	60-34-4

40 C.F.R. § 68.15 Management – Arch has developed a management system to oversee the implementation of the Risk Management Program elements. This system assigned qualified persons or positions overall responsibility for the development, implementation, and integration of the Risk Management Program elements.

Subpart B – Hazard Assessment

40 C.F.R. § 68.20 Applicability – Arch prepared a worst-case release scenario analysis and completed the five-year accident history. Since Arch has two Program 3 toxic processes, they must comply with the toxic sections in this subpart.

40 C.F.R. § 68.22 Offsite consequence analysis parameters – I observed that Arch used parameters required in this part to calculate toxic worst-case and alternative release scenarios.

40 C.F.R. § 68.25 Worst-case release scenario analysis – I reviewed documentation and had discussions with Arch during the inspection regarding the worst-case release scenario analysis. It showed that Arch analyzed and reported a worst-case toxic releases in its RMP. This analysis was done using EPA's RMP Comp.

40 C.F.R. § 68.28 Alternative release scenario analysis – Arch analyzed and reported the alternate release scenarios for the toxic substances in their RMP.

40 C.F.R. § 68.30 Defining offsite impacts – Population – I spoke with Arch about how the offsite consequences analysis was done. Arch used Circular Area Profiling System (CAPS), Missouri Census Data Center, which uses 2010 census data. At the time of the inspection, Arch did not have documentation that represented each release scenario with the radius potentially impacted. **(PROC-00201 – Appendix 2 – 2018-02 RMP Calculations)**

40 C.F.R. § 68.33 Defining offsite impacts – Environment – Knowledge of the area was used to determine the environmental receptors and RMP Comp was used to determine the distance to endpoints. Arch did not have a map depicting the radius of the release scenarios. **(PROC-00201 – Appendix 2 – 2018-02 RMP Calculations)**

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. Arch provided documents showing calculations for offsite consequences were conducted in February 8, 2018.

40 C.F.R. § 68.39 Documentation – I was provided documentation of the offsite consequence analyses. For worst-case and alternative case scenarios, a description of the vessel or pipeline, the substance selected as worst-case, the assumptions and parameters used. The assumptions included use of any administrative controls and any passive mitigation that were assumed to limit the quantity that could be

released, estimated quantity released, release rate, and duration of release. The methodology used to determine distance to endpoints was documented by the facility. The data used to estimate population was provided from CAPS. Documentation of the environmental receptors potentially affected by the worst case toxic release was not provided. A circle showing distance to endpoints was not included in the documentation (**PROC-00201 – Appendix 2 – 2018-02 RMP Calculations**).

40 C.F.R. § 68.42 Five-year accident history – Arch had no reported accidental releases in their RMP. I reviewed the National Response Center (NRC) and Incident Investigations onsite for additional incidents that may have required addition to Arch's five-year accident history. No incidents were determined to meet the five-year accident history criteria.

Subpart D – Program 3 Prevention Program

40 C.F.R. § 68.65 Process safety information – I requested and reviewed a selection of process safety information for the RMP process. The process safety information was maintained in an organized manner. During the inspection, I reviewed process safety information provided by Arch, including process flow diagrams of the RMP process, safety data sheets, equipment files (including materials of construction and design basis), and maximum intended inventory to two significant digits was provided.

40 C.F.R. § 68.67 Process hazard analysis (PHA) – I requested and reviewed the PHAs for the RMP process. I reviewed the 2015 Ultra Pure Hydrazine and the 2014 Shipping PHA Reports with the recommendations. The team utilized What If, Checklist, and HAZOP methodologies and was conducted by a team that had appropriate expertise and knowledge specific to the process being evaluated. Arch provided a PHA schedule that showed plans to update and revalidate the PHAs appropriately.

40 C.F.R. § 68.69 Operating procedures – I reviewed several operating procedures during the inspection including startup, normal operations, temporary operations, emergency shutdown, emergency operations, and normal shutdown. Arch also provided the operating limits and safety and health considerations for the procedures. Emails were provided showing Operating Procedures were annually certified.

40 C.F.R. § 68.71 Training – I requested and was provided the training files for four individuals showing initial qualifications and training for the covered process or provided a statement to the file explaining how the initial training documents were no longer retained by Arch but had been conducted. Arch requires training through the safety council, onboarding, Computer Based Training, shadowing operators, reviewing operating procedures, and classroom training. Documents provided on four individuals showed refresher training was completed by the operators in June of 2012 for shipping. According to an additional document in the training records, Jeff Lamper certified these trainings in the November/December 2012 timeframe, although this note was added on May 9, 2018. In 2015, the operators initialed that they completed the training between September and December of 2015, and the training record was signed by the supervisor in December 2015. The UltraPure Recertification Training was recertified by Jeff Lamper in December 2012 but was completed by the operators between May and June 2012. In 2015, the recertifications were completed by the operators between September 2015 and December 2015 and the supervisor signed off on these recertifications in December 2015. In some instances, the recertification intervals were more than 3 years.

40 C.F.R. § 68.73 Mechanical integrity – I requested and was provided mechanical integrity records from Risk Management Program covered equipment and the written procedure for maintaining the integrity of the process.

For the C-89-300 tank, external inspections were conducted in 2013 and 2017 and an internal inspection was conducted in 2002. Arch was unable to show documentation of Ultrasonic Testing (UT) inspections on C-89-300. Deficiencies were noted in the C-89-300 2017 external inspection but were not addressed in the documentation at the time of the inspection. After the inspection, Arch provided a spreadsheet showing the decision and disposition of recommendations (**Inspection Deficiencies**).

For the T-89-100 tank, an external inspection was conducted in 2017, a visual inspection was conducted in 2013, and a visual internal inspection was conducted in 1998. Arch was unable to show documentation of UT inspections on T-89-100. Deficiencies were noted in the 2017 external inspection but were not addressed in the documentation at the time of the inspection. After the inspection, Arch provided a spreadsheet showing the decision and disposition of recommendations (**Inspection Deficiencies**).

For the T-89-500 Receiver, external inspections were conducted in 2017 and 2012. An external inspection and Eddy Current Tube inspection occurred in 2013.

In reviewing the pipe inspection spreadsheet (**Tank Farm Circuit 2 Data**), it was noted that UT Inspections were next due in 6-2017 and Visual (VT) inspections are due in 6-2022. In discussions with the facility and follow-up, Arch determined, "It appears this spreadsheet has an error in regards to the frequency of inspection for VT's and UT's. According to API 570 Class II piping has a frequency of VT's on a 5-year frequency and UT's on a 10-year frequency. However, the spreadsheet states the opposite." According to Arch, the most recent VT inspections occurred in April 2018.

40 C.F.R. § 68.75 Management of Change – I asked for and was given seven managements of change (MOC) done at the facility and the written procedure for MOC. I reviewed MOC documentation packages for changes occurring in covered processes.

40 C.F.R. § 68.77 Pre-startup review – Pre-startup review was included with the MOC documentation, which we reviewed covering actions that require a change in process safety information. This documentation showed completion dates prior to startup and that safety, operating, maintenance, and emergency procedures were in place and adequate prior to introduction of regulated substance to the process.

40 C.F.R. § 68.79 Compliance audits – I requested the last two Risk Management Program compliance audits. I was provided copies of audits that documented the review of all the elements of the Risk Management Program from December 2013 and September 2016. Certification statements were not provided for each of the Compliance Audits.

40 C.F.R. § 68.81 Incident investigation – Prior to the inspection, I requested the incident investigations for all the incidents which resulted in, or could reasonably have resulted in, a catastrophic release of a regulated substance over the last three years. I reviewed the incident investigations and they included the required information.

40 C.F.R. § 68.83 Employee participation – I reviewed the employee participation plan during this inspection and found no issues.

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

40 C.F.R. § 68.87 Contractors – I observed that contractors and visitors are required to attend the Southwest LA Council Basic prior to obtaining a Safety Card through BRIVO and entering the facility. These must be refreshed annually and will auto-disconnect on the appropriate day. Arch utilizes Contractor Safety Data for pre-qualification for contractor selection. Additionally, Arch requires job specific training to ensure that all contractors are trained on the potential hazards of the process. At the time of the inspection, the pre-qualification form for Air Compressor Energy Systems, Inc., a contractor that works at Arch, was not available for review.

After the inspection, Arch provided a copy of a newly completed prequalification **form (LCC-1076_PROC_00107_APPENDIX A WITH REVISIONS)**. According to Arch, “Prior data was stored at an offsite location in Brandenburg, KY and maintained by Purchasing and EHS departments there. This location is no longer a part of ARCH/LONZA and we did not receive the documentation when this location was sold to another company. In addition, there is an “evergreen” site for vendor pre-qualifications maintained by the Safety Council that has been utilized to verify and validate vendors over the years.” **(Prior Data Explanation ACES)**

Subpart E – Emergency Response –

40 C.F.R. § 68.90 Applicability – Arch employees are first responders that respond to releases onsite.

40 C.F.R. § 68.95 Emergency response program – I requested and was provided the Emergency Response Plan for Arch. The emergency Response plan included the procedures for informing the public and local emergency response agencies, documented first aid and emergency medical treatment, and the procedures for emergency response. Procedures for the use of emergency response equipment were also provided. According to documents provided by Arch for 2016 and 2017 on Hydrant, Monitor, and PIVs, some equipment remains broken **(Folders 2016 Hydrant, Monitor, and PIV and 2017 Hydrant, Monitor, and PIV)**. Additionally, Arch has not conducted pressure tests on the Level A Emergency Response Suits **(Level A Emergency Response Suits)**.

After the inspection, Arch provided additional information on some fire system components that were not repaired and/or determined to be non-critical firewater protection **(Fire Protection Inspection Equip Response)**.

40 C.F.R. § 68.195 Required corrections – The RMPs for this facility were submitted in 1999, 2004, 2009, 2013, and 2018. The resubmissions were all within the five-year timeframe. The most recent resubmission was February 20, 2018.

Section III – AREAS OF CONCERN

AOC 1: 40 C.F.R. 68.39(e) Hazard Assessment: Documentation.

(e) Data used to estimate population and environmental receptors potentially affected

Arch did not have documentation to represent estimated environmental receptors potentially affected. Arch did not provide any data used to estimate environmental receptors in the form of maps which had

the distance to endpoint labeled with a circle from the emissions point (**PROC-00201 – Appendix 2 – 2018-02 RMP Calculations**).

AOC 2: 40 C.F.R. 68.71 Refresher Training.

(b) Refresher training. Refresher training shall be provided at least every three years, and more often if necessary, to each employee involved in operating a process to assure that the employee understands and adheres to the current operating procedures of the process. The owner or operator, in consultation with the employees involved in operating the process, shall determine the appropriate frequency of refresher training.

Documents provided for four individuals showed that certifications of the refresher trainings were completed in November/December 2012 and December 2015. However, the operators completed the trainings in May/June 2012 and September-December 2015, which is more than three years. (**Folder Operator Training**).

AOC 3: 40 C.F.R. 68.73(d)(1), (3) & (4) Mechanical Integrity.

(d) Inspection and testing.

(1) Inspections and tests shall be conducted on process equipment.

(3) The frequency of inspections and test 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.

(4) The owner or operator shall document each inspection and test that has been performed on process equipment. The documentation shall identify the date of the inspection or test, the name of the person who performed the inspection or test, the serial number or other identifier of the equipment on which the inspection or test was performed, a description of the inspection or test performed, and the results of the inspection or test.

Documentation showing current Ultrasonic Testing for C-89-300 and T-89-100 was not available at the time of the inspection (**Folder Mechanical Integrity**).

Deficiencies were noted in the 2017 external inspections but were not addressed in the documentation at the time of the inspection. After the inspection, Arch provided a spreadsheet showing the decision and disposition of recommendations (**Inspection Deficiencies**).

AOC 4: 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 at least every three years to verify that procedures and practices developed under this subpart are adequate and are being followed.

Arch did not include certification statements for each of the Compliance Audits in 2013 and 2016 (**Folder Compliance Audits**).

AOC 5: 40 C.F.R. 68.87(b)(1) Contractors.

(1) The owner or operator, when selecting a contractor, shall obtain and evaluate information regarding the contract owner or operator's safety performance and programs.

At the time of the inspection, the pre-qualification form for Air Compressor Energy Systems, Inc., a contractor that works at Arch, was not available for review (**Folder Contractor Safety Data (ACES)**).

AOC 6: 40 C.F.R. 68.95(a)(2) Emergency Response: Emergency Response Program.

(a)The owner or operator shall develop and implement an emergency response program for the purpose of protecting public health and the environment. Such program shall include the following elements:

(2) Procedures for the use of emergency response equipment and for its inspection, testing, and maintenance;

According to documents provided by Arch for 2016 and 2017 on Hydrant, Monitor, and PIVs, some equipment remains broken (**Folders 2016 Hydrant, Monitor, and PIV and 2017 Hydrant, Monitor, and PIV**). Additionally, Arch has not conducted pressure tests on the Level A Emergency Response Suits (**Level A Emergency Response Suits**).

Section IV – FOLLOW UP

Additional documents were received by EPA on May 18, 2018, after exiting the Facility on May 3, 2018, as requested by the inspector.

Section V – LIST OF APPENDICES

CD Documents:

Folder Compliance Audit

Page 1 of 2016 PSM audit Lake Charles final report

Page 1 of Lake Charles PSM audit report 12-16-2013 final

Folder Contractor Safety Data (ACES)

ACES NON-DOT DRUG POLICY-DCCHA, DCCEO, DCCHT, Rev. 7, Nov.2016

ACES Safety Manual_Rev 18, March2018

LCC-1076_PROC_00107_APPENDIX A WITH REVISIONS

PQFReport Safety Council

Prior Data Explanation ACES

Folder Emergency Response

Fire Protection Inspection Equip Response

Level A Emergency Response Suits

PROC-00118 Emergency Response Plan – Final

Pages from 2016LonzaHydrantPivsSafetyShowerReport

Hydrant Monitor Inspection 2017

PIV Inspection 2017

Folder Mechanical Integrity

Inspection Deficiencies

PROC-00075 LCC-1019 Hose Selections, Care and Use WITH REVISIONS

PROC-000109 Mechanical Integrity Overview WITH REVISIONS

Folder C-89-300

2002 Inspection

2013 Inspection

2017 Inspection Data

C 89 300

Folder T-89-100

1998 inspection

2017 Inspection

2103 Inspection

T 89 100

Folder T-89-500

2002 Inspection

2013 Inspection

2017 Inspection

Folder Operator Training

2012 Shipping Certification Document Explanation

2012 Shipping Recertification

2012 UltraPure Recertification

2015 Shipping Recertification

2015 UltraPure Recertification

Folder RMP Submission

Inventory and Calculation Comments

Maximum Intended Inventory

PROC-00201 – Appendix 2 – 2018-02 RMP Calculations

Folder Training Plan

Emergency Response Training Notes

Training Plan