

Region 6 - Enforcement & Compliance Assurance Division
INSPECTION REPORT

Inspection Date(s):	September 17-20, 2024	
Media Program:	Air	
Regulatory Program(s)	Clean Air Act (CAA) § 112(r) and 40 Code of Federal Regulations (C.F.R.) Part 68 Chemical Accident Risk Management Plan (RMP)	
Company Name:	Galata Chemicals, LLC	
Facility Name:	Galata Chemicals- Taft Facility	
Facility Physical Location:	471 Highway 3142	
(city, state, zip code)	Hahnville, LA 70057	
Mailing address:	471 Highway 3142	
(city, state, zip code)	Hahnville, LA 70057	
County/Parish:	St. Charles Parish	
Facility Phone Number	985-783-6201	
Facility Contact:	Ken Lawson	EHS&S Manager
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FRS Number:	110000602465	
Identification/Permit Number:	1000 0006 5822	
Media Identifier Number:	RMP 1000091783	
NAICS:	325199 All Other Basic Organic Chemical Manufacturing	
SIC:	2869 Industrial Organic Chemicals, Not Elsewhere Classified	
Personnel participating in inspection:		
Kristen Latiolais	EPA Region 6 ECDAC	RMP Inspector
Howard Cole	EPA Region 6 ECDAC	RMP Inspector
Glen Jenkins	LA Dept. of Environmental Quality	RMP Inspector
Jamie Vicknair	LA Dept. of Environmental Quality	RMP Inspector
Ken Lawson	Galata Chemicals, LLC	EHS&S Manager
Tatum Rose	Galata Chemicals, LLC	RMP-Environmental Engineer
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John Joe	Galata Chemicals, LLC	Reliability Engineer
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Brandon Ledet	Acuren	Mechanical Integrity Contractor
Roger Collier	Sterling Specialty	Director of Manufacturing
EPA Lead Inspector Signature/Date		
	Kristen Latiolais	Date
Supervisor Signature/Date		
	Samuel Tates	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

United States Environmental Protection Agency (EPA) Region 6 Inspectors Kristen Latiolais and Howard Cole (“we”) arrived at the Galata Chemicals- Taft Facility (“Galata”), operated by Galata Chemicals, LLC., in Hahnville, Louisiana at 9:00 AM on September 17, 2024, for an announced inspection. We met with Ken Lawson (EHS&S Manager), Tatum Rose (RMP-Environmental Engineer) and Alec Anderson (Senior Process Engineer) at the Opening Conference. I, Kristen Latiolais, presented my credentials to Ken Lawson, Tatum Rose and Alec Anderson and informed them that this was an EPA inspection to evaluate compliance with the requirements of the Chemical Accident Prevention Provisions of Title 40 of the Code of Federal Regulations (C.F.R.) Part 68 under Clean Air Act (CAA) § 112(r). An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under 40 C.F.R. § 68.115, shall comply with the requirements of the Part 68 – Chemical Accident Prevention Provision. Employee representatives were invited to participate in the inspection. The facility does not have union representation.

FACILITY DESCRIPTION

Galata Chemicals- Taft Facility is located at 471 Highway 3142, Hahnville, Louisiana 79035. The Facility is in operation 24 hours a day, seven days a week, and has approximately 125 employees. The facility was constructed in 1966 under Witco Chemical Corporation ownership. On April 30, 2010, ownership and operation of the Taft Facility transferred to Galata Chemicals, LLC. The Taft Facility produces a variety of specialty chemical products including; epoxy plasticizers, thioglycolates, thiopropionate, mercaptopropionate, dimethyl tin dichloride, stannic chloride, and mixed metal heat stabilizers used in the manufacture of flexible polyvinylchloride products. These products are produced in one of the four units at the facility, which are the Epoxy Unit, Tin Unit, Thiochemical Unit, and Mixed Metal Unit. The facility stores more than a threshold quantity for Risk Management Plan (RMP) regulated substances of methyl chloride, ammonia, chlorine, and hydrogen sulfide.

PROCESS DESCRIPTION

Tin Unit

The Tin Unit produces intermediates and proprietary heat stabilizers under the “Mark” trade name. Mark stabilizers are used in rigid PVC to provide heat stabilization during processing.

Stannic Chloride

Stannic chloride is an important intermediate in the production of tin stabilizers. The production is accomplished via a batch process where tin is dropped into a reactor containing chlorine. Gaseous chlorine is then passed through the agitated mixture until the tin is consumed. Emissions of chlorine during this step are controlled by venting to a caustic scrubber. The stannic chloride is purified by

atmospheric distillation. The still and all storage vessels are also vented to scrubbers to control emissions.

Dimethyltin dichloride (DMT)

DMT is also an important intermediate in the production of tin stabilizers. The production of DMT is via a batch process. Tin is charged into a reactor. then the reactor is heated and charged with methyl chloride. When the tin is consumed, any residual methyl chloride in the reactor, head space is slowly vented to a scrubber. Vacuum is established on the reactor. and the DMT is distilled and used to produce stabilizers or other intermediates.

Stabilizers

Tin-containing intermediates are reacted with mercaptans and sulfides in batch reactors, the pH is brought close to neutral; and the batches are settled, decanted, dried, and filtered. Some of these materials are blended with other materials, and some are used without further blending. The products are shipped in bulk trucks and as packaged goods in drums and totes. This process also includes the manufacture of Dibutyltin Dichloride (DBT), Dioctyltin Dichloride (DOT), and 2-MET.

Thiochemicals Unit (THIO)

The Thiochemicals Unit produces several sulfur containing materials: these thiochemicals are used in a wide variety of applications. Some of the uses are as intermediates for use in heat stabilizers and other chemicals, graphite fiber production, pharmaceuticals, and construction.

Thioglycolates

Isooctylthioglycolate (IOTG) and ethylhexyl thioglycolate (EHTG) are intermediates for producing tin stabilizers. Thioglycolates are produced by reacting MCA (monochloroacetic acid) with sodium hydrosulfide (NaSH) under pressure in a continuous process. After reaction, the mixture is acidified with sulfuric acid and the liberated hydrogen sulfide is recovered as NaSH and reused. The resultant organic mixture is decanted and esterified, while the aqueous phase is discarded. The excess alcohol is recovered and reused. The product is shipped via rail and bulk trucks.

Methyl Mercapto Propionate (MMP)

MMP is produced in a continuous process under pressure where methyl acrylate is reacted with hydrogen sulfide. The excess hydrogen sulfide is stripped from the reaction mixture and reused. Pure MMP is distilled from the dimethyl dithiodipropionate, which is reused. MMP is shipped in truck trucks and ISO containers.

Dimethyl Dithio Dipropionate (DOD)/ Dimethylthio Dipropionate (DMD) Batch Process

DOD is produced via a batch process from the reaction of MMP with dilute hydrogen peroxide. Once all of the hydrogen peroxide has been added, the product is decanted and dried. DDD is used to produce MMP, and a small amount is sold in drums. DMD is produced via a batch process via the reaction of methyl acrylate with hydrogen sulfide. Once the hydrogen sulfide addition is complete, the batch is,

washed decanted and dried. This material is mostly used to produce other thiodipropionates, but a small amount is sold in drums.

2-Mercaptoethyltallate (2-MET) Batch Process

2-MET is an important intermediate that is used to manufacture low-cost tin heat stabilizers for use in rigid PVC, such as pipe and vinyl siding substrate. The material is produced via a batch process where tall oil is esterified. The product is then dried and is ready for use. This product is also produced in the Tm Unit via the same technique.

5.2 Ester

5.2 Ester, an intermediate for the production of Drapex 5.2. which is produced in the Epoxy Unit, can also be produced in the Thiochemicals Unit.

Mixed Metals Unit

The Mixed Metals Unit produces intermediates and proprietary heat stabilizers under the Mark trade name. Mark stabilizers are used mostly in non-rigid PVC to provide heat stabilization during processing.

Liquids

Liquid Mixed Metals Mark stabilizers are typically blends of either purchased or produced intermediates, which contain barium, zinc or calcium carboxylates mixed with diluent, phosphites, and antioxidants. The intermediates that are produced in-house typically are the reaction products of a metal oxide or hydroxide with a carboxylic acid such as ethylhexanoic acid, tall oil, or oleic acid. Once reacted these products are filtered and stored for use in producing blends. These products are shipped in bulk trucks, and as packaged good and drums and totes.

Solids

Solid Mixed Metal Mark stabilizers are typically dry blends of purchased barium and zinc solid soaps with antioxidants and other filler materials. Once all ingredients are charged and the mixture is homogeneous, the product is either loaded into drums or super sacks or placed in totes and ground in an air classification mill. Once ground, the products are packaged in drums super sacks or bags.

Paste

Paste Mixed Metals Mark stabilizers are typically blends of either purchased or produced intermediates which are simply blended in a reactor with moderate heating until homogenous and then packaged in a paste. These products are used in non-rigid PVC application such as fabric coating. The materials are typically packaged in lined open-head drums.

Epoxy Unit

Drapex 6.8, 4.4, and 5.2

The Epoxy Unit produces several epoxidized oils under the Drapex trade name. Drapex 6.8, 4.4. and 5.2 are used as plasticizers in vinyl (PVC) products. The Drapex products impart flexibility and provide some heat stability to vinyl while exhibiting very low extractability and toxicity. Soybean oil and ethylhexyl tallate (4.4) are reacted in a continuous process with hydrogen peroxide and formic acid. Emissions are

controlled through the use of refrigerated cooling water on vents. The Drapex products are shipped by rail, bulk truck, and as packaged goods.

AREAS EVALUATED

This inspection was a routine compliance inspection conducted in order to determine the degree of compliance with the RMP regulations. A file review in EDMS was conducted before the on-site compliance inspection to determine compliance history. A review of the CAA air permit conditions was conducted prior to the facility inspection. The inspection included a tour of the facility and interviews with facility personnel.

Section II - OBSERVATIONS

The documentation review began onsite with Galata Chemicals, LLC personnel as listed on the sign in sheets, see **Attachment 2**.

State and federal inspectors, conducted a walk-through of the facility, accompanied by facility representatives, to observe the facility process equipment, overall operations and major emission sources at the facility. Operators from the TIN and THIO units assisted during the facility tour. The facility was in operation at the time of inspection. No visible emissions or unusual odors were noted at the time of the inspection. See **Attachment 1** for photographs of the facility taken during the facility tour.

During the facility tour, it was noted that the Wastewater Unit experienced a leak of level 10pH wastewater on September 18, 2024. EPA observed the lack of structural integrity in multiple containment walls throughout the facility. EPA also observed multiple spills of material in and around containment walls throughout the facility.

Boiler No. 4 (EQT 0336) located at the Epoxy Unit was observed to be in operation at the time of Inspection. Boiler No. 2 (EQT 0042) was out of service for the past one to two years. Boiler No. 3 (EQT048) was out of service since 2002 due to a tube leak that needed repairs.

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

Subpart A – General

40 C.F.R. § 68.10 Applicability – Galata Chemicals is a stationary source that has more than a threshold quantity of regulated substances in their process. The facility is subject to the Occupational Safety and Health Administration's (OSHA) Process Safety Management (PSM) Standard (29 C.F.R. § 1910.119) and is therefore a RMP Program 3 facility.

40 C.F.R. § 68.12 General requirements – Galata Chemicals submitted their most recent 5-year RMP submission update on January 20, 2021. The regulated substances methyl chloride and ammonia are listed as toxic substances over the threshold quantity for the RMP Program 3 process.

40 C.F.R. § 68.15 Management – Galata Chemicals has developed a management system to oversee the implementation of the RMP Program elements. Galata provided an organizational chart that outlined the positions for implementation of the individual elements of the RMP.

Subpart B – Hazard Assessment

40 C.F.R. § 68.20 Applicability – The owner or operator of a stationary source subject to this part shall prepare a worst-case release scenario analysis as provided in § 68.25 of this part and complete the five-year accident history as provided in § 68.42.

40 C.F.R. § 68.25 Worse-case release scenario analysis – EPA requested the Offsite Consequence Analysis- Worst Case scenarios for methyl chloride, hydrogen sulfide, chlorine, and ammonia held in a covered process. Galata Chemical analyzed and reported a worse-case scenario for ammonia in the RMP. Galata provided a screen shot of the ammonia worst-case scenario from RMP Comp and the RMP narrative prepared by Spirit Environmental for review. Galata manufacturers hydrogen sulfide using a batch process that includes several pressure vessels and connected piping; which according to the lead operator for the unit involves approximately 20,000 lbs of H₂S. Galata failed to submit worst-case scenarios for methyl chloride, chlorine, and hydrogen sulfide manufactured or stored on site. **[AOC 1-68.25(a)(2)]**

40 C.F.R. § 68.28(a) Alternative Worse-case Release Scenario Analysis – EPA requested the Offsite Consequence Analysis- Alternative release scenario for methyl chloride, chlorine, ammonia, and hydrogen sulfide. Galata provided a screen shot of an ammonia and methyl chloride alternative release scenarios from RMP Comp and an RMP narrative document prepared by Spirit Environmental for review. Galata was unable to provide an alternate worst-case scenario for chlorine and hydrogen sulfide. **[AOC 2- 68.28(a)(2)]**

40 C.F.R. § 68.30 Defining offsite impacts-population – Galata Chemicals used the most current census bureau population data available in January 2021 at the time of the update.

40 C.F.R. § 68.33 Defining offsite impacts-environment – Galata Chemicals did not have any environmental receptors within a distance to endpoint, as required by § 68.22.

40 C.F.R. § 68.36 Review and update – Galata Chemicals submitted their offsite consequence analysis with its RMP submission on January 20, 2021. The next 5-year offsite consequence analysis submission is due on January 20, 2026.

40 C.F.R. § 68.39 Documentation - Galata provided a screen shot of the ammonia and methyl chloride alternative release scenarios from RMP Comp and an RMP narrative document prepared by Spirit

Environmental. We reviewed the worst-case and alternative-case scenarios methodology provided; and the explanation of the parameters for the OCA. However, neither the narrative nor the screen shot provided indicated the exact vessel or pipeline chosen to determine the offsite consequence analysis in the RMP. [AOC 3 - 68.39(a)]

40 C.F.R. § 68.42 Five-year accident history – Galata Chemicals reported an accidental release in their RMP that resulted in one injury during the incident that occurred on April 5, 2019. However, failed to update the five-year accident history within 6-months when on site injuries occurred on January 29, 2024, in the Wastewater Unit and February 20, 2024, in the Thio Unit.

Subpart D – Program 3 Prevention Program

40 C.F.R. § 68.65 Process safety information (PSI) – Galata is responsible for completing a compilation of written process safety information before conducting any process hazard analysis. Their process safety information did not include accurate information pertaining to the relief system design and design basis. A relief study determined the pressure relief design basis calculations were outdated and did not meet current industry standards. The study identified deficiencies in pressure relief valves, rupture disks, and process vents. At the time of the EPA inspection, only 3 of the recommendations from the study had been completed. [AOC 4 - 68.65(d)(1)(iv)]

Galata did not ensure that equipment complies with recognized and generally accepted good engineering practices, such as but not limited to, CCPS Guidelines for Pressure Relief and Effluent Handling Systems and API 521, which requires pressure relief devices (PRD) discharge chemicals to a safe location. Atmospheric pressure relief devices discharged hydrogen sulfide and NaSH to the ambient environment. Galata has many atmospheric pressure relief devices which would release toxic chemicals (e.g., hydrogen sulfide, chlorine, ammonia, and methyl chloride) to the ambient environment.

[AOC 5 - 68.65(d)(2)]

40 C.F.R. § 68.67 Process hazard analysis (PHA) – Galata Chemicals uses the What-If Checklist methodology to determine and evaluate the hazards of the process being analyzed. EPA reviewed Galata Chemical's written process hazard analysis and identified the following Areas of Concern (AOC): The PHAs conducted by Galata were not appropriate to the complexity of the process and did not identify, evaluate, and control the hazards involved in the process [AOC 6 - 68.67(a)]. The Galata PHA did not address facility stationary source siting [AOC 7 - 68.67(c)] and did not establish a system to promptly address the PHAs team's findings and recommendations to assure that the recommendations were resolved in a timely manner and the resolution documents what actions are to be taken [AOC 8- 68.67(e)]. Galata failed to retain the process hazards analyses and updates or revalidations for each process covered by this section are kept for the life of the process and Galata failed to perform a process hazard analysis at least every five (5) years to assure that the process hazard analysis is consistent with the current process [AOC 9- 68.67(f) & 68.67(g)].

40 C.F.R. § 68.69 Operating procedures – We reviewed several operating procedures which included: initial startup, normal operations, temporary, emergency shutdown, emergency operations, normal shutdown, and startup following a turnaround.

Galata failed to develop operating procedures that provide clear instructions for safely conducting activities. **[AOC 10- 68.69(a)]**. Galata failed to develop written operating procedures addressing consequences of deviation or steps required to correct or avoid deviation **[AOC 11- 68.69(a)(2)]** and failed to develop written operating procedures that address safety and health considerations **[AOC 12- 68.69(a)(3)]**. Galata did not ensure that updated hard copies of the emergency operating procedure were maintained in the field control rooms **[AOC 13- 68.69(b)]**. Also, the operating procedures were not certified annually **[AOC 14- 68.69(c)]**.

40 C.F.R. § 68.71 Training – Galata provided EPA with their available training documentation and corresponding policy. This subpart requires each new employee to be trained in an overview of the process, the operating procedures and provide refresher training at least every three years. We randomly reviewed the training records of selected process operators. Galata was unable to provide initial and refresher training records for multiple employees addressing an overview of the process, operating procedures, Hazwoper, first responder, and fire brigade training. Multiple training records lacked a trainer, team lead or unit lead signature documenting the employee had received and understood the training **[AOC 15- 68.71(b)]** and **[AOC 16- 68.71(c)]**.

40 C.F.R. § 68.73 Mechanical integrity (MI) – EPA reviewed the written procedures Galata established to maintain the ongoing integrity of the process equipment. The review was conducted both on site and in further detail after leaving the facility, post-inspection. EPA examined the inspections and tests Galata performed on equipment to ensure that the frequency of inspections and tests of process equipment are consistent with applicable manufacturers’ recommendations and recognized and generally accepted good engineering practices (RAGAGEP).

Galata failed to establish and implement written procedures for the inspection of process equipment **[AOC 17- 68.73(b)]**. EPA found inspection and testing of process equipment lacking and deficient **[AOC 18- 68.73(d)(1)]**. Galata failed to conduct external inspections, internal inspections, and ultrasonic testing in accordance with API 510, API 521 and 570 RAGAGEPs **[AOC 19- 68.73(d)(2)]**. The 2021 compliance audit also had numerous mechanical integrity findings and recommendations for piping and pressure vessels that had not been addressed and resolved.

Galata was not able to provide any documents indicating that calibration and testing of monitors was being performed. The manufacturer, RKI Instruments, Inc., on page 2 of the operations manual for the instrument indicated the following:

WARNING: Read and understand this instruction manual before operating detector. Improper use of the detector could result in bodily harm or death. Periodic calibration and maintenance of the detector is essential for proper operation and correct readings. Please calibrate and maintain this detector regularly! Frequency of calibration depends upon the type of use you have and the sensor types. Typical calibration frequencies for most applications are between 3 and 6 months, but can be required more often or less often based on your usage.

*The operation manual for the monitors (page 12) indicates the following: “Although there is no particular calibration frequency that is correct for all applications, a calibration frequency of every 3 to 6 months is adequate for most combustible gas transmitter applications. Unless experience in a particular application dictates otherwise, **RKI Instruments, Inc., recommends a calibration frequency of every 3 months.** [AOC 20- 68.73(d)(3)]*

Galata has a procedure, Form 7410, *Relief and Vent Systems and Devices Inspection and Test Procedure*, which addresses the inspection and testing of pressure relief devices. Section 6.1.3. *Routine External Visual Inspection of Pressure Relief Valves, Relief Valves, Safety Valves and Safety Relief Valves, Scheduled Maintenance*, 7.1.2. *Visual inspection results for valves scheduled for testing and repair shall be detailed on the inspection report (see Appendix A) and 7.2.1. Inspection results for rupture disks shall be detailed on the inspection report (see Appendix A).* The table below indicates the degree of compliance with API 510 as a result of the 2008 pressure relief study and the Galata procedure. Documentation that corrections were made, bringing these pressure relief devices into compliance was not provided.

Unit	Number	PSV	RD	RV	OOS	In Compliance
Utilities	50	1	0	48	1	0
Epoxy	227	68	12	137	9	19
Mixed Metals	200	194	0	6	0	40
Thio	224	64	11	149	0	18
Tin	335	73	38	224	0	11
Total	1026	39.0%	5.9%	55.0%	1.0%	8.6%

Galata failed to correct deficiencies in process equipment that were outside acceptable limits before further use or in a safe and timely manner.

Galata conducted a study of its pressure relief system/pressure safety valves beginning in 2008. As deficiencies were identified, many of the pressure safety valves required adjustments or the installation or new pressure safety valves. There are 100+ pressure safety valves that still require a field modification such as, but not limited to, replacing a pressure safety valve, installing a new pressure safety valve, adjusting the set pressure, modification to inlet/outlet piping or identifying the maximum allowable working pressure (MAWP) of a pressure vessel.

Galata did not correct deficiencies in the HVAC unit before further use or in a safe and timely manner for the TIN/THIO Control Room building. The HVAC unit was not designed to maintain positive building pressure and did not have operable flammable and/or toxic gas detection on the intake, capable of shutting down upon detection of a flammable and/or toxic gas. NFPA 496 applies to purging and pressurizing for control rooms or buildings located in areas classified as hazardous and indicates that the building pressurization system must be monitored and include a low-pressure alarm available to ensure that building pressure is greater than 0.1 inches of H₂O.

Galata failed to correct deficiencies in a H₂S gas detection sensors located throughout the facility.

Galata failed to correct deficiencies in the high-level alarm for tank 1206 which did not activate/sound resulting in the tank overfilling, leaking out of an electric motor operated valve (EOV).

Galata failed to correct deficiencies in the pressure vessel TD-117 rupture disk outlet piping. When the rupture disk activated it released Dimethyl tin (DMT) vapors which leaked out of corroded rupture disk outlet piping. Galata failed to ensure that steel beams in the Tin Unit, drumming room, were structurally sound. A rusted steel beam fell from the roof onto existing process piping.

Galata failed to correct deficiencies in overhead process piping to the TD-143 Reactor. While charging the TD-143, the operator identified a hole in the overhead piping to TD-143 which resulted in a vapor cloud in an area in the Unit. Galata failed to correct deficiencies in the bottom nozzle of the Ultra TX tank. **[AOC 21- 68.73(e)]**

40 C.F.R. § 68.75 Management of change (MOC) – Galata established written procedures to manage change, except for “replacements in kind”, for changes to process chemicals, technology, equipment, procedures, and changes to stationary sources that affect a covered process.

Galata does not use the management of change process when there is a revision/change in the operating procedure or to manage the installation of pipe clamps. Galata staff indicated that there are many pipe clamps throughout the facility but there was no documentation provided that identified the location of all pipe/valve clamps, documentation indicating when the clamp was installed, or if the replacement of the damaged equipment had been completed. **[AOC 22- 68.75(a)]**. Galata was not using the management of change process when revising operating procedures **[AOC 23- 68.75(e)]**.

40 C.F.R. § 68.77 Pre-startup safety review (PSSR) – EPA reviewed Galata Chemicals’ written PSSR procedures, as well as various PSSRs completed by the facility within the past 5 years.

40 C.F.R. § 68.79 Compliance Audits – EPA reviewed Galata Chemicals’ two most recent compliance audits, conducted on July 12, 2019 and January 26-29, 2021. Both compliance audits were conducted by at least one person knowledgeable in the process. Galata failed to certify the January 2021 compliance audit. Galata conducted a compliance audit in January 2021 but had not performed the next required compliance audit which was due January 2024. **[AOC 24- 68.79(a)]**

EPA reviewed the findings and recommendations to the 2021 compliance audit. Galata failed to promptly determine and document an appropriate response to each of the findings and recommendations of the 2021 Galata Chemical Compliance Audit; documenting that deficiencies have been corrected **[AOC 25- 68.79(d)]**

40 C.F.R. § 68.81 Incident investigation – Galata Chemicals is required to investigate each incident which resulted in, or could reasonably have resulted in, a catastrophic release of a regulated substance. Galata has recorded numerous accidental releases year to date in 2024. Vapor clouds were recorded for incidents on April 12, May 9, June 5, June 11, and June 13 of 2024. Without documentation of the calculations regarding the quantity or constituents of the vapor clouds, EPA cannot make a determination regarding the hazard posed to employees, the public or the environment. EPA reviewed a summary of incident investigation reports for several releases. Below are incidents that occurred in 2024 that EPA identified and considered as the most serious:

1. January 29, 2024- Wastewater Unit

Pre-Contact: Employees reporting to work for shift change and walking to units from locker room.

Contact: Two employees were walking by Tank 1208 to their Units when their personnel H2S alarm went off. Employee #1 told Employee #2 that they needed to go back to locker room for safety. At that time Employee #1 heard and saw that Employee #2 had collapsed. Employee #1 evacuated to lab and reported man down. Tin Shift lead and Wastewater operator responded and saw employee was trying to get up. Took Employee #2 back to the lab and put him on oxygen and bandaged his injuries (busted lip, scuffed hand and knees).

Post Contact: Employee #2 was taken on oxygen, to emergency room by Tin Shift lead.

2. February 1, 2024- THIO Unit

Pre-contact: Operator ran H2S scrubber sample and determined that it was shot. Then he started pumping it out to recharge.

Contact: Operator got busy doing something else and forgot about the scrubber pumping out. When the scrubber went empty there was nothing to absorb the H2S and the H2S vented out of the scrubber stack. The wind was blowing from the north so the H2S went towards the maintenance shop. The H2S got strong enough in the maintenance shop that the shop had to be evacuated. When it was found that the scrubber was empty, the operator remembered that he was pumping it out. He stopped it from pumping out and started recharging it. This stopped the H2S release and maintenance was able to go back into the shop.

8/20/2024 - Root Cause found and corrective action issued. "Retraining of employee is no longer possible because they left the company. Employee review is part of the corrective action."

3. February 12, 2024: Contractor reported an H2S level of 59 ppm

4. February 20, 2024- THIO Unit

Pre-Contact: The operator was working on starting up the MMP unit and was trying to troubleshoot an issue with the H2S compressor.

Contact: There was a leak of H2S from the compressor and the operator passed out and hit the ground.

Post Contact: The operator was helped by another operator back to the control room and brought to the hospital around 30 minutes after the initial incident.

5. April 2, 2024- TIN Unit

Around approximately 1:30AM CST, the operator noticed a large amount of gas coming out of Reactor 114. The Reactor was shut down immediately and the area was cleared for a period of time before returning to work. Upon further investigation, we discovered the sodium sulfide valve from the manifold was left turned on, but the main valve was closed. This allowed NaSH to be mixed in with 2 Met, which created an off-gas reaction in which H2S over-pressured the reactor and blew off a previous patch repair.

Safety stand downs for each shift were called, and the seriousness of this incident was stressed to everyone involved.

6. April 5, 2024- Epoxy Unit- Fire and Explosion

Pre-Contact: The thermal oxidizer was online and operating at normal temperatures.

Contact: The operator received a low temperature alarm on the TO. He notified the supervisor on duty of the occurrence. Not noticing anything unusual he proceeded to restart the system. As the system begin to restart, he then noticed fire coming from the chamber stack.

Post-Contact: The operator immediately shut down the system. The fire died out on its own. He then contacted the Unit Superintendent and the other units. The Superintendent contacted all other management necessary.

7. April 6, 2024- Epoxy Unit- Fire and Explosion

Pre-Contact: The Thermal Oxidizer (TO) was operating, and the operator was doing rounds.

Contact: The operator noticed flames coming out of the cone from the thermal oxidizer to the scrubber. He hit the emergency stop button after trying to stop it on the touch screen and shut down the TO. He then notified the unit superintendent of the incident.

Post Contact: The TO was not restarted after the incident and remained down until more instructions came through.

8. April 17, 2024- THIO Unit

At approximately 18:30 a production operator in Thio was trying to start up the back end of the EHTG unit. While checking pumps on the first level a pressure relief valve on the reactor released sodium hydrosulfide (NaSH) that sprayed on him as he walked past the staircase. Operator immediately went to the safety shower and started rinsing.

9. May 9, 2024

Pre-contact: KM was steaming Ultra TX line when leak occurred.

Contact: Chemical Ultra TX started leaking heavily from the bottom of main Ultra TX tank into the Thio Southwest tank farm. KM started pumping Ultra TX into plastic totes and running water into sump drain to try and help dilute Ultra TX going into drain. MMs arrived and assisted KM with procedures. When enough Ultra TX acid mixed with 7:0 PH wastewater in 1206, H₂S was generated and overwhelmed the vent system, lifting conversation vent on 1203, releasing an H₂S vapor cloud. H₂S monitors in Waste unit started going off and a shelter-in-place was called. St. Charles EOC and DOW EOC were contacted with incident update.

Post Contact: After three rounds of monitoring H₂S levels and two sweeps with no H₂S levels above 2 ppm, shelter-in-place was lifted and return to work was initiated. Post incident investigation revealed a mechanical failure on the bottom nozzle of the Ultra TX tank. Most probably due to corrosion under insulation (CUI).

10. May 14, 2024

Pre-contact: WATCO was moving rail cars around on tracks 45 and 46.

Contact: As they hooked to rail cars on track 45 and were pulling out of Galata gates, tracks pushed apart and rear cab-side wheel on locomotive and front cab-side wheel on first car came off track, creating a derailment situation.

Post-Contact: Engine and one connected car put back on rail and able to safely leave site. Epoxy Peroxide car off-spot but onsite.

11. June 5, 2024

While charging the TD-135 reactor operator noticed a HCL vapor cloud coming from a random part of the unit. After investigating closer realized it was tied into the overhead for TD-135. Operator shut down reactor and noticed a hole in the overhead pipe after the vapor cloud dissipated and drifted across the DOW fence line.

12. June 20, 2024

Pre-contact: Operator was doing start of shift walk through of Tin unit work areas

Contact: Operator noticed loose rust on ground in drumming room, looked up and noticed a rusted beam had fallen from roof into existing piping.

Post Contact: He took a photo and notified production shift supervisor of situation and a placed danger tape around area. Notification was done to have beam removed (#100158427").

13. June 26, 2024

Pre-contact: TD-117 Reactor heating up

Contact: Reactor reached a temperature of 411 degrees F. Rupture disk released Dimethyl tin vapors DMT vapors and leaked out of rupture disk line. Rupture Disk has rotten piping.

Post-contact: Operators made necessary calls to Supervision while others isolated incident and cooled down reactor.

14. August 29, 2024

Pre-contact-1210 pH went out of spec, and we started recycling 1210 through 1206 so as to adjust PH.

Contact-the level in 1206 came up and the high-level alarm that sounds outside of the MCC did not work. Tank 1206 overflowed and came out of the electric motor operated valve (EOV); when it started overflowing it splashed several maintenance men that were working on 1205.

Post contact- "as soon as we were alerted that the tank was overflowing, I went and closed the valve from 1210; as soon as this valve was closed the overflow stopped."

15. September 3, 2024

Pre-Contact: Thio operator was walking around in the MMP unit around the H2S generator.

Contact: Thio operator was sprayed with Sulfuric Acid and NaSH coming out of bleeder valve on knock out pot for H2S generator that was left open.

Post Contact: Thio operator informed Shift Supervisor that he was sprayed with chemicals on leg and was sent to lab to rinse leg with soap and water for at least 20 minutes. When it was determined that operator was sprayed with Sulfuric Acid and Nash EHSS instructed Shift Supervisor to take operator to emergency room (ER).

16. September 13, 2024

Pre-contact - Operator was performing rounds

Contact- Operator found a leak on the bottom header of TD-112

Post Contact - Operator stopped circulation and blocked in valves to stop leak. Maintenance capped the leak and will do permanent repair Monday, September 16, 2024.

Galata failed to establish a system to promptly address and resolve the incident report findings and recommendations; and document the resolution and corrective actions. Galata's site incident investigation reporting system reported 86 overdue incident reports that have not been resolved or closed out as identified in the February 2021 Compliance Audit.

[AOC 26- 68. 81(e)]

40 C.F.R. § 68.83 Employee participation –Galata provided EPA with their written plan of action regarding the implementation of the employee participation.

40 C.F.R. § 68.85(b) Hot Work Permit – EPA reviewed hot work permits and the corresponding hot work policy, Form 23050. Galata failed to complete hot work permits in accordance with the Galata Hot Work Policy and 29 CFR 1910.252(a). **[AOC 27- 68.85(b)]**

40 C.F.R. § 68.87 Contractors – Galata does provide site specific training to the contractors prior to the commencement of work. However, Galata currently does not have a formal process to select contractors and does not perform periodic evaluations of the performance of the contractors. Currently, Galata uses Bayou Electric and Accuran on site on a regular basis. **[AOC 28- 68.87(b)(1) & 68.87(b)(5)]**.

Subpart E – Emergency Response

40 C.F.R. § 68.90 Applicability – Galata is a responding stationary source in case of an accidental release of a regulated substance.

40 C.F.R. § 68.93 Emergency response coordination activities – Galata does not currently coordinate response needs with local emergency planning and response organizations. EPA requested documentation showing coordination with local emergency planning and response organizations on an annual basis. Mr. Lawson verbally stated that he attends local meetings every month presented by the St. Charles LEPC-EOC for the public but has not provided Galata’s emergency response plan to LEPC nor coordinated response needs with the LEPC on an annual basis. **[AOC 29- 68.93(a)]**

40 C.F.R. § 68.95 Emergency Response Program – EPA reviewed the Emergency Response Plan (ERP) provided by Galata. It included procedures and measures for emergency response after an accidental release of a regulated substance. The facility currently has on site two emergency equipment trailers and two warehouse locations equipped with emergency response equipment. The facility utilizes a manually operated audible horn system in the event of an emergency, which is tested monthly. The following deficiencies were noted with the emergency response program:

Emergency evacuation drills and emergency response drills were not being conducted annually and coordination with the local emergency planning and response organizations was not being performed on an annual basis. **[AOC 30- 68.95(a)(1)]**

Emergency response equipment was not being maintained and inspection and testing was not being performed at the appropriate intervals. **[AOC 31- 68.95(a)(2)]**

Subpart G – Risk Management Plan

40 C.F.R. § 68.150 Submission – Galata submitted their 5-year update to their RMP on January 20, 2021. The facility included ammonia and methyl chloride as chemicals stored on site above the threshold quantity. The facility also has on site hydrogen sulfide and chlorine above the threshold quantity but did not include this information in the January 2021 submittal.

40 C.F.R. § 68.160 Registration -- Galata did not include it in their RMP, all regulated substances present at the site above their designated threshold quantity. Hydrogen sulfide is manufactured and chlorine is used in the process at this facility and are present at a quantity that exceeds its threshold quantity of 10,000 lbs./2,500 lbs. [AOC 32- 68.150(a) & 68.160(a)/68.160(b)(7) & 68.175(a)/68.175(c)].

40 C.F.R. § 68.190 Updates – Galata’s RMP submittal was on January 20, 2021, and the previous submittal for this facility was on January 20, 2016.

40 C.F.R. § 68.195 Required Corrections– Corrections to the RMP are required for any accidental release meeting the five-year accident history reporting criteria of §68.42 the owner shall submit the data required under §§ 68.168, 68.170(j), and 68.175(l) with respect to that accident within six months of the release. Galata failed to provide a correction to the RMP for three accidental releases which occurred on January 29, 2024, February 1, 2024, and February 20, 2024, which met the five-year accident history reporting criteria of §68.42. [AOC 33- 68.195(a) and 68.42]

Galata experienced new management changes throughout the facility in August of 2023, including the emergency contact, and failed to provide a correction to the RMP within one month of the change. [AOC 34- 68.195(b)]

Clean Air Act (CAA) §112(r)(1) – General Duty Clause

Galata failed to identify hazards which may result from the release of hazardous substances such as sodium hydrosulfide and hydrogen sulfide, using appropriate hazard assessment techniques and to design and maintain a safe facility taking such steps as are necessary to prevent releases. [AOC 35- CAA Section 112(r)(1)- General Duty Clause]

SECTION III - AREAS OF CONCERN

AOC 1 - 40 C.F.R. § 68.25(b) Worse-case release scenario analysis

§ 68.25(b) The owner or operator shall analyze and report in the RMP: (b) Determination of worst-case release quantity: (1) For substances in a vessel, the greatest amount held in a single vessel, taking into account administrative controls that limit the maximum quantity or; (2) for substances in pipes, the greatest amount in a pipe, taking into account administrative controls that limit the maximum quantity.

Galata failed to submit a worst-case scenario analysis for methyl chloride and hydrogen sulfide present in vessels and piping on site.

AOC 2 - 40 C.F.R. § 68.28(a) Alternative release scenario analysis

§ 68.28(a) The owner or operator shall identify and analyze at least one alternative release scenario for each regulated toxic substance held in a covered process(es).

Galata failed to identify and analyze at least one alternative release scenario for hydrogen sulfide, a regulated toxic substance held in a covered process(es); contained in a pipeline or pressure vessel on

site.

AOC 3 - 40 C.F.R. § 68.39(a) Documentation

§ 68.39 The owner or operator shall maintain the following records on the offsite consequence analyses: (a) For worst-case scenarios, a description of the vessel or pipeline and substance selected as worst case, assumptions and parameters used, and the rationale for selection; assumptions shall include use of any administrative controls and any passive mitigation that were assumed to limit the quantity that could be released. Documentation shall include the anticipated effect of the controls and mitigation on the release quantity and rate.

Galata failed to include a description of the vessel or pipeline chosen to determine the offsite consequence analysis in the RMP.

AOC 4 – 40 C.F.R § 68.65(d)(1)(iv) Process safety information

§ 68.65(d)(1)(iv) The owner or operator shall complete a compilation of written process safety information before conducting any process hazard analysis required by the rule. This process safety information shall include information pertaining to the equipment in the process. Information pertaining to the equipment in the process shall include relief system design and design basis.

1. Galata failed to complete a compilation of written process safety information pertaining to the relief system design and design basis for equipment in the process. An audit of the pressure relief system was performed in approximately 2008, entitled "Basis for Relief Vent System". The Audit determined that the pressure relief design basis calculations were outdated and did not meet current industry requirements. The inspection identified deficiencies in approximately 75+ pressure relief valves, rupture disks, and process vents, requiring complete re-design packages. At the time of this inspection only 3 of the recommendations from the study had been completed. The redesign will require the installation of new or updated pressure relief devices valves.

2. Galata failed to properly document and ensure the correct maximum allowable working pressure (MAWP) for 35 pressure relief valves was available in the process safety information.

3. There were approximately 7 instances where the set pressure of the pressure relief device was higher than the MAWP.

4. Galata failed to ensure that 12 pressure relief devices were provided and in place given that overpressure scenarios existed for the protected pressure vessel.

5. Galata failed to document that pressure relief valves would provide protection and function properly given fire (8) and block flow (9) case scenarios.

6. The 2008 Utilities Relief Study identified the following the following issues encountered for utilities devices:

- The maximum and/or minimum working pressure is unknown for 12 tanks.
- Contradictions exist between data sources (P&ID, equipment files, SAP, Maintenance databases).
- Several tank vents do not provide sufficient relief capacity for a fire scenario.
- Several relief valves are not sized for upstream regulator failure.

-Boiler #2 Economizer PSV setpoint is less than vessel MAWP.

AOC 5 – 40 C.F.R. §68.65(d)(2) Process Safety Information

§ 68.65(d)(2) The owner or operator shall document that equipment complies with recognized and generally accepted good engineering practices complies with recognized and generally accepted good engineering practices.

1. Galata failed to document that the changes in 5th edition 2007 and the 7th edition 2020 API 521 Pressure Relief Systems were evaluated and incorporated in the relief system design and design basis. Changes include Moved Material, Clarified, New Definitions, Deleted, Equation Modifications, New Sections, and Additional Requirements or Guidance.
2. Galata failed to ensure that atmospheric pressure relief devices (PRD), rupture disks, explosion vents discharge to a safe location in accordance with API 521 and CCPS Guidelines for Pressure Relief and Effluent Handling Systems. There is no documentation in place to confirm that these PRDs vent to a safe location.

AOC 6 - 40 C.F.R. §68.67(a) Process Hazard Analysis (PHA)

§ 68.67(a) The process hazard analysis shall be appropriate to the complexity of the process and shall identify, evaluate, and control the hazards involved in the process.

1. For PHAs conducted between 2019-2024, Galata did not perform a process hazard analysis appropriate to the complexity of the process as it did not identify, evaluate, and control the hazards involved in the process based on the available process safety information. After completing a pressure relief system study in 2008, which determined that the pressure relief system design basis and design calculations required updating; Galata failed to reflect these issues and correct deficiencies in the system in their process hazard analysis.
2. The PHAs failed to recognize, evaluate, or control the hazards posed by deficiencies in the pressure relief devices. Galata PHAs were not appropriate for the complexity of the process in that it did not evaluate and control the hazards related to atmospheric 50+ pressure relief devices, rupture disks, and explosion vents to ensure that they discharge to a safe location. The PHA must evaluate the hazards posed by atmospheric pressure relief valves, rupture disks, and explosion vents which would discharge chemicals (e.g., hydrogen sulfide, chlorine, ammonia, and methyl chloride) to the ambient environment.

AOC 7 - 40 C.F.R. §68.67(c)(1) and (c)(5) Process Hazard Analysis

The process hazard analysis shall address: (1) The hazards of the process; including (5) stationary source siting.

1. The process hazards identified in the facility siting blast and toxics evaluation studies have not been addressed. There is no documentation that the findings and recommendations from the 2003 facility siting study were addressed in any PHA. This study does not reflect the change in ownership, equipment, procedures, chemical processes or quantities, or changes in relevant recognized and generally accepted good engineering practices, such as but not limited to API

752 and API 521 between 2003-2002.

2. Galata failed to establish a system to promptly address finding and recommendation, from 2003 facility siting study and the 2022 facility siting study to assure that the recommendations are resolved in a timely manner and that the resolution is documented; document what actions are to be taken; complete actions as soon as possible; and develop a written schedule of when these actions are to be completed.

3. The Tin Unit is exposed to excessive risk of vessel and building structural failure in the following Vapor Cloud Explosion Scenarios:

- 1a, b, and c-Liquid Methyl Chloride leak in the Tin Unit or at TF-220
- 29 -Runaway reaction in TD-137 with rupture disk discharge at the tank.

In these Scenarios the Control Room and much of the Tin Unit would be within the vapor cloud, due in large part to the elevation at which the releases take place. Therefore, reduction of these hazards is recommended as opposed to upgrading the building.

Preliminary recommendations include:

- Relocation of the vaporizers close to TF-280 to eliminate local storage and piping of pressurized liquid MeCl .
- Rerouting TD-137 rupture disk discharge to the vent header system.
- Elevating the TD-137 vent to at least 30 feet.
- Elimination of access to the process area for any vehicles that do not comply with Class 1, Div. 2 electrical classification.

4. Failure of the Thia Unit Scrubbers would cause H₂S gas concentrations above the 100 ppm IDLH over a large portion of the plant. Offsite impact would be unlikely.

None of the existing buildings have positive pressure or intake gas detection to protect against toxic exposure hazards. H₂S, ammonia, and methyl chloride are the most likely to impact buildings on the plant.

AOC 8 - 40 C.F.R. §68.67(e) and §68.67(g) Process Hazard Analysis

§ 68.67 (e) The owner or operator shall establish a system to promptly address the team's findings and recommendations; assure that the recommendations are resolved in a timely manner and that the resolution is documented; document what actions are to be taken; complete actions as soon as possible; develop a written schedule of when these actions are to be completed; communicate the actions to operating, maintenance and other employees whose work assignments are in the process and who may be affected by the recommendations or actions.

1. Galata failed to establish a system to promptly address the team's findings and recommendations identified in the January 2018 MMP Process and Thio Unit PHA to assure that the recommendations are resolved in a timely manner and that the actions are completed as soon as possible. Galata failed to ensure the documented resolution and closure of all recommendations in the 2018 MMP Process, Thio Unit PHA. There were 31 recommendations but only 2 were marked as closed.

2. Galata failed to establish a system to promptly address the team's findings and recommendations identified in the February 2018 DMT & Stannic Chloride, Tin Unit PHA to assure that the recommendations are resolved in a timely manner and that the actions are completed as soon as possible. Galata failed to ensure the documented resolution and closure of 16 of 29 recommendations in the 2018 DMT & Stannic Chloride PHA.

For example, Item #29 –: "A dedicated emergency shutdown panel does not exist. The recommendations were "Consider installing one" and "include shutdown panel in DCS". This was not assigned and is still labeled describes as open."

Item #22 - Galata failed to check and revise the electrical classification map as recommended (Item 22) in the 2018 DMT and Stannic Chloride PHA. The facility electrical classification map was last updated in 1992.

3. Galata failed to establish a system to promptly address the findings from the May 2019 Thermal Oxidizer PHA checklist. There were 30 questions in the checklist that were answered negatively. No recommendations were given for any of these questions; the recommendations were left unaddressed.

4. Galata failed to establish a system to promptly address the findings from the 2020 Tin Stabilizer PHA. There were still findings from the previous PHA (2011) that had not been addressed and closed. These findings were then added to the 2020 PHA for management review; recommendations were made, and due dates were assigned. At the time of this inspection, none of the recommendations from the open 2011 PHA items or the 2020 PHA findings had been resolved and closed.

AOC 9 - 40 C.F.R. §68.67(f) and 68.67(g) Process Hazard Analysis

At least every five (5) years after the completion of the initial process hazard analysis, the process hazard analysis shall be updated and revalidated by a team meeting the requirements in paragraph (d) of this section, to assure that the process hazard analysis is consistent with the current process. Updated and revalidated process hazard analyses completed to comply with 29 CFR 1910.119(e) are acceptable to meet the requirements of this paragraph.

At the time of this inspection, Galata failed to perform a process hazard analysis at least every five (5) years to assure that the process hazard analysis is consistent with the current process for the following process units:

1. Thermal Oxidizer Unit: last PHA was performed in May 2019; next PHA was due by May 2024
2. MMP Thio Unit: last PHA was performed in January 2018; next PHA was due by January 2023
3. DMT/Stannic chloride Tin Unit: last PHA was performed in February 2018; next PHA was due by March 2023

(g) The owner or operator shall retain process hazards analyses and updates or revalidations for each process covered by this section, as well as the documented resolution of recommendations described in paragraph (e) of this section for the life of the process.

Galata failed to retain PHAs for the life of the process for the THIO Unit, TIN Unit, Thermal Oxidizer, and the Tin stabilizer. The 2018/2019 PHA was provided for the MMP process in the

THIO unit, the DMT & stannic chloride process in the Tin Unit, and the Thermal Oxidizer, but no other PHAs were provided for review for these units. The 2020 PHA was provided for the Tin Stabilizer but no other PHA's were provided for review for this unit.

AOC 10- 40 C.F.R. §68.69(a)(1) Operating Procedures

§ 68.69(a)(1) The owner or operator shall develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information and shall address at least the following elements: (1) steps for operating each phase: Initial startup, normal operations, temporary operations, emergency shutdown, emergency operations, normal shutdown and startup following a turnaround.

Galata failed to develop operating procedures that provide clear instructions for safely conducting activities involved in the DMT unit. Specifically, DMT operating procedure #9222 did not include the steps for operating each phase of the unit.

AOC 11- 40 C.F.R. §68.69(a)(2) Operating Procedures

§ 68.69(a)(2) The owner or operator shall develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information and shall address at least the following elements:

(2) Operating limits:

i. Consequences of deviation and ii. steps required to correct or avoid deviation.

i. Galata failed to develop written operating procedures that address consequences of deviation or steps required to correct or avoid deviation for the following operating procedures:

1. Form 864 - DMT reactor turnaround (recharging new catalyst) (TIN unit)
2. Form 133 - DMT production TD-140, TD-141, DDMT (TIN unit)
3. Form 1161- MMP emergency for electrical failure (THIO unit)
4. Form 1385 - Anhydrous Ammonia tank wagon unloading (THIO unit)
5. Form 1394 - Anhydrous Ammonia tank car unloading (THIO unit)
6. Form 1395 - Anhydrous Ammonia process feed (THIO unit)
7. Form 9771 - 1% Ammonia blending procedure (THIO unit)
8. Form 1530 - Dimethyl Dithiodipropionate (DDD) (THIO unit)

AOC 12- 40 C.F.R. §68.69(a)(3) Operating Procedures

§ 68.69(a)(3) The owner or operator shall develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information and shall address safety and health considerations.

i. Galata failed to develop written operating procedures that address safety and health considerations for the following operating procedures:

1. Form 9221 - DMT D119-D120-D121-D122 Parameters and emergency procedures (TIN unit)
2. Form 133 - DMT production TD-140, TD-141, DDMT (TIN unit)
3. Form 129 - DMT Production in TD-119, TD-120, TD-121 or TD-122 (TIN unit)

4. Form 9776 - Methyl Mercaptopropionate unit parameters (THIO unit)
5. Form 9774 - Thioglycolate (EHTG/IOTG) unit parameters (THIO unit)
6. Form 864 - DMT reactor turnaround (recharging new catalyst) (TIN unit)

AOC 13- 40 C.F.R. 68.69(b) Operating Procedures

§ 68.69(b) Operating procedures shall be readily accessible to employees who work in or maintain a process.

Galata failed to ensure that updated hard copies of the operating procedures, including but not limited to the emergency operating procedures, were readily accessible to the field operators who work in or maintain the process from the Tin/THIO control room.

AOC 14 - 40 C.F.R. §68.69(c) Operating Procedures

§ 68.69(c) The operating procedures shall be reviewed as often as necessary to assure that they reflect current operating practice, including changes that result from changes in process chemicals, technology, and equipment, and changes to stationary sources. The owner or operator shall certify annually that these operating procedures are current and accurate.

Galata failed to certify annually that operating procedures are current and accurate; as multiple operating procedures were overdue for certifications. The following operating procedures were overdue:

Operating Procedure	Last Certified
-Form 64 Tin Unit Deluge test equipment preparation checklist	8/24/2020
-Form 129 DMT production in TD-119, TD-121, TD-122	12/02/2020
-Form 864 DMT reactor turnaround (recharging new catalyst)	10/05/2020
-Form 1106 Thioglycolate (EHTG/IOTG) procedure for shutdowns	4/19/2021
-Form 1115 Thio emergency procedure for chemical release	4/26/2021
-Form 1117 Thio emergency procedure for electrical failure	4/26/2021
-Form 1119 Thio emergency procedure for steam failure	4/26/2021
-Form 1394 Anhydrous ammonia tank car unloading	4/23/2021

AOC 15- 40 C.F.R. § 68.71(b) Training

§ 68.71(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.

Galata failed to provide ten employees, at least every three years and annually if necessary, with refresher training for Hazwoper, first responder and the current operating procedures.

AOC 16- 40 C.F.R. §68.71(c) Training

§ 68.71(c) Training Documentation: The owner or operator shall ascertain that each employee involved in operating a process has received and understood the training required by this paragraph. The owner or operator shall prepare a record which contains the identity of the employee, the date of training, and the means used to verify that the employee understood the training.

1. Galata failed to ensure that the records of ten operators included documentation that the operator had received initial training on an overview of the process and operating procedures as specified in § 68.69; with an emphasis on the specific safety and health hazards, emergency operations including shutdown, and safe work practices applicable to the employee's job tasks.
2. Galata failed to provide documentation that ten employees received refresher training addressing emergency operations and operating procedures.

AOC 17 - 40 C.F.R. §68.73(b) Mechanical Integrity

§ 68.73 (b) Written procedures. The owner or operator shall establish and implement written procedures to maintain the on-going integrity of process equipment.

1. Galata failed to establish and implement written procedures for corrosion under insulation inspections to identify areas susceptible to corrosion on process equipment, including but not limited to nozzles and manways. There was a failure of the bottom nozzle of the Ultra TX storage tank due to corrosion under insulation that resulted in the release of Ultra TX into tank 1206, and the creation and release of an H2S vapor cloud from a conversation vent on storage tank 1203.
2. Galata failed to develop or implement written procedures to maintain process equipment by December 2023, and at times prior to, as documented in the February 2021 compliance audit to include:

Pressure Vessels:

- developing a pressure vessel inspection program per API 510
- performing inspections on all overdue pressure vessels, and
- ensuring internal, external, and ultrasonic testing (UT) inspections are performed, documented, and filed in accordance with API 510
- developing inspection plans for all pressure vessels to include damage mechanisms
- properly recording UT readings and performing calculations to establish retirement thickness and ensuring all equipment has appropriate thickness for its current service
- taking UT readings on all equipment, reflecting expired retirement dates and developing equipment deficiency measures until replacement or repairs can be made
- ensuring pressure vessel repairs are being conducted as recommended by inspectors and all results are documented and R1s are on file for the life of the equipment

Piping:

- develop a piping inspection program per API 570
- inspection plans have not been developed for all pipe circuits
- damage mechanisms have not been identified for all pipe circuits
- there have been no tracking of pipe circuits since 2014
- SAP does not have all pipe circuits accounted for in the three units or local spreadsheets.

- accountability of all pipe systems is at roughly 50%; therefore, all overdue pipe circuits are not accounted for, and some pipe circuits which are accounted for are overdue for inspection per API 570 Piping Inspection Code
- dead legs, injection points and mixing points have not been identified and are not receiving 3-year thickness inspections per API 570 Table 1
- a buried chlorine line has not been inspected and is not part of the site mechanical integrity (MI) program, and is currently overdue for inspection
- no deferrals have been generated or approved for all the overdue inspections for fixed equipment per Piping Inspection Code.

Atmospheric Storage Tanks: The atmospheric storage tanks (ASTs) inspection program does not comply with Tank Inspection, Repair, Alteration, and Reconstruction API Standard 653 Fifth Edition, November 2014 Addendum 1, April 2018.

- No current external inspections were found for tanks EF-212 and EF-104A.
- Internal and external reports do not have next due dates determined by the inspector.
- Thickness data have due dates in October and November 2020 or red flags on nozzles but they have not been followed up for tank HF- 104A.
- Tanks are not being tracked in any computer-based system or by spreadsheets to know when the next inspections are due.
- Thickness readings with retirement within 10 years are not being adjusted to half-life inspection intervals, and no inspections are being performed.
- API 653 required monthly visual inspections are not being performed and are all overdue for each atmospheric storage tank.

AOC 18 - 40 C.F.R. §68.73(d)(1) Mechanical Integrity

§ 68.73 (d)(1) Inspection and testing. Inspections and tests shall be performed on process equipment.

1. Galata failed to conduct inspections and tests of pressure safety/relief valves and rupture disks at a frequency consistent with good engineering practices and in accordance with its own procedure "Relief and Vent Systems and Devices Inspection and Test Procedure", April 27, 2016, Form (7410) Galata was not able to provide documentation that the following 27 pressure relief devices had ever been inspected and tested in accordance with "Table 6.3, Relief Device Inspection Frequency Relief Device".

Pressure Relief Valve # and test date

HD-501-RD (12/1/2015)	HD-501-RV1 (10/17/2019)	HD-501-RV3-(9/13/2018)
HD-511-RD (12/1/2015)	HD-511-RV1 (4/21/2014)	HD-511-KO-RV (11/30/2011)
HD-407-RV (10/18/2019)	HF-547-RV (9/7/2016)	HF-1203-PSV2 (no test data)
HF-1204-PSV2 (11/27/2012)	HF-1206-PSV1 (9/14/2016)	HF-1206-PSV2 (11/19/2013)
HF-1203-PSV1 (4/16/2024, prior 5/14/2015)	HF-1204-PSV1 (4/12/2024, prior 5/22/2012)	
HF-1205-PSV1(5/31/2024, prior 10/17/2016)	HF-1205-PSV2 (6/4/2024, prior 12/23/2013)	

Galata did not provide any inspection and testing date for the following pressure relief valves
TF-280-RV1 TF-280-RV2 TF-280-RV3 TF-280-RV4 (no test data provided)
TD-119-RD TD-119-RV1 (no test data provided)
TD-120-RD TD-120-RV1 (no test data provided)
TF-119 RV-0210 1/2 (no test data provided) and TF-120 RV-0226 1/2 (no test data provided)
Pressure Vessel TF-280F2 No relief device identified

Table 6.3

Relief Device Inspection Frequency Relief Device
NDE Method

	External Visual	Functional Test
Safety/Relief Valves		
(Pressure Vessels & Tanks)	1 year	6, 12, 24, 48, 60 & 72 months
Rupture Disks	1 year	6, 12, 24, 48, 60 & 72 months

Galata procedure states that the best practice testing interval for pressure relief devices at this facility is 1-2 years.

2. Galata failed to have documentation that ultrasonic testing is being performed on all piping and pressure vessels.

AOC 19 - 40 C.F.R. §68.73(d)(2) Mechanical Integrity

§ 68.73(d)(2) Inspection and testing. Inspection and testing procedures shall follow recognized and generally accepted good engineering practices.

i. Galata failed to conduct external inspections and ultrasonic testing in accordance with API 570 Section 6.3.3 Table 1 for the following piping circuits:

1. 1"-PR-1015-30B1 and 1"-SA-118-40C4 (P&ID #0070-330-EF01)
1"-PR-121-30B1 and 1.5"-PR-124-40C4
3"-PR-138-30B1
2. 2"-PR-201-30B1 and 2"-PR-211-30B1 (P&ID #0070-330-EF02)
3"-PR-502-30B1
3. 3"-PR-303-30B1 and 1"-PR-302-30B1 (P&ID #0070-330-EF03)
4. 2"-PR-301-30B1 and 2"-PR-702-30B1 (P&ID #0070-330-EF04)
5. 1"-PR-1701-30B1 and 4"-PR-4A02-30B1 (P&ID #0070-330-EF05)
6. 2" PR-102-15A2 (P&ID #220-EF1 23)
1.5" PR-105-15A2 and 107-PR-107-15A2
7. 1" PR-101-15A2 and 1.5" PR-200-15A2 (P&ID #220-EF1-23)
8. 3"P-0101-TN-2242-NI (P&ID #0070-210-EF1)
9. 3"P-0206-TN-2242-ET (P&ID #0070-210-EF1)
10. 3"P-0202-TN-2242-NI (P&ID #0070-210-EF1)
11. 1"PR-300-30B1 (P&ID #0070-210-EF4)

2. Galata failed to conduct external inspections and testing of underground buried chlorine piping that has not been inspected, is not part of the site mechanical integrity (MI) program and is currently overdue for inspection in accordance with API 570 Section 9, Inspection of Buried Piping.

3. Galata failed to conduct external inspections every 5 years and/or internal inspections every 10 years in accordance with API 510 Sections 6.4 and 6.5 for the following pressure vessels:

TD119 DMT Reactor (Internal and External)	TD120 DMT Reactor (Internal and External)
TD122 DMT Reactor (Internal and External)	Receiver TD280F2 KO Pot (Internal)
TF-120 Vaporizer (Internal)	MMP Stripper Overhead Condenser (Internal and External)
MMP Surge Tank (External)	HF402 Anhydrous Ammonia Tank (Internal)
TGA #3 Reactor (Internal)	HD501 MMP Reactor (Internal)

AOC 20 - 40 C.F.R. § 68.73(d)(3) Mechanical Integrity

§ 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.

1. Galata Chemicals failed to calibrate and bump test hydrogen sulfide chemical monitors/detectors consistent with applicable manufacturers' recommendations and good engineering practices. Galata provided no records indicating that calibration and testing of monitors was being performed. *The operation manual for the monitors indicates the following: "Although there is no particular calibration frequency that is correct for all applications, a calibration frequency of every 3 to 6 months is adequate for most combustible gas transmitter applications. Unless experience in a particular application dictates otherwise, RKI Instruments, Inc., recommends a calibration frequency of every 3 months.*

The following chemical monitors were not inspected, tested, and calibrated every 3 months as per the manufacturer's recommendations:

Tank 8 and 124	RR Sump 7 and 23	Control Room 1,4,6,7,23
Scn/IOTG 2,3,4,7,8,9,10,11,12,13,14,15,16		MA Unit 5,6, 17,18,18,19,20,22
North Fence 1,2	Union Carbide 3,4	Waste Dump Area 8
Waste Unit Area 1,2,3,4	Waste Area HF-1210 #7	Shell Area 5-East, 6-West

#1 TD-114 area #2 TD-134 area #3 Filter area
#4 South stairs #5 Top deck

Chlorine monitors: #1 (top deck) T-CL2-AI1 #2(hopper level) T-CL2-AI2

2. Galata failed to conduct inspections and tests of process equipment at a frequency consistent with good engineering practices and **Galata's own internal procedure**. The following pressure vessels were overdue for internal or external inspections.

TD119EC5 Dow Therm Cooler (Internal)	TD 119 Jet Condenser (Internal)
TD120 Jet Condenser (Internal)	TD120 Second Condenser (External)
TD121 Jet Condenser Cooler (Internal)	TD122 Jet Condenser Cooler
TD122 Product Condenser	DMT Jet Condenser 1&2 (Internal)
TD 121 KO Pot A/B (Internal)	TD 122 KO Pot A/B (Internal)
TD 119 KO Pot A/B (Internal and External)	HX1411 DMT Condenser (Internal and External)
MMP Stripper (Internal and External)	HD511 KO Pot (Internal and External)
HD503 MMP Still (Internal and External)	

UF1208 Neutralized Wastewater Tank (Internal) UF1210 Neutralized Wastewater Tank (Internal)
HD107N North Scrubber Receiver (Internal and External)
HD107S South Scrubber Receiver (External)

AOC 21 - 40 C.F.R. §68.73(e) Mechanical Integrity

§ 68.73(e) Equipment deficiencies. The owner or operator shall correct deficiencies in equipment that are outside acceptable limits (defined by the process safety information in §68.65) before further use or in a safe and timely manner when necessary, means are taken to assure safe operation.

1. Galata failed to correct deficiencies in pressure safety valves that were outside acceptable limits before further use or in a safe and timely manner. Galata conducted a study of its pressure relief system/pressure safety valves beginning in 2008. As deficiencies were identified, many of the pressure safety valves required adjustments to function as required by code. There is no indication that these field modifications have been performed such as, but not limited to the following:

2. Galata did not correct deficiencies in conditions that are outside acceptable limits as defined by the June-August 2008, HF Engineering (Relief Systems Documentation Study) before further use or in a safe and timely manner where:

- the maximum allowable working pressure (MAWP) of the pressure vessel is unknown
- the set pressure is set above the MAWP of the vessel
- there is insufficient relief capacity for the following pressure relief devices:
fire case scenario - (HD-103-RV, HD-106-RV1 HD-107B—RV1, HD-407-RV1, HF-303-RV, BD-108—PSV 0603) or
block flow case scenario (HF-402-RV4, HF-402-RV1, HF-402-RV2, HF-402-RV8, BD-108—PSV 0603, BD-109-PSV0904, HD-304-EC-RV, HF-112-RV2)
- pressure relief valves (12) were required but did not exist on the pressure vessel.

3. Galata failed to correct deficiencies in Operator Control Building, HVAC Unit: The HVAC unit cannot maintain positive building pressure and did not have flammable and/or toxic gas detection on the intake capable of shutting down upon detection of flammable and/or toxic gas. Galata Chemicals failed to correct deficiencies in the building pressurization and alarm system for the TIN/THIO control room. *NFPA 496 applies to purging and pressurizing for control rooms or buildings located in areas classified as hazardous; and indicates that the building pressurization system must be monitored and include a low-pressure alarm available to ensure that building pressure is greater than 0.1 inches of H₂O.*

4. Galata failed to correct deficiencies in the H₂S gas detection sensors located throughout the facility.

5. Galata failed to correct deficiencies in the high-level alarm for tank 1206 which did not activate/sound resulting in tank overfilling, and chemicals leaking out of an electric motor operated valve (EOV).

6. Galata failed to correct deficiencies in the pressure vessel TD-117 rupture disk outlet piping. When the rupture disk activated it Dimethyl tin vapors (DMT) vapors which leaked out of rotten rupture disk outlet piping.

7. Galata failed to ensure that steel beams in the Tin Unit, drumming room, were structurally sound, after a rusted steel beam fell from the roof onto existing process piping.
8. Galata failed to correct deficiencies in overhead process piping to the TD-143 Reactor. While charging the TD-143, the operator identified a hole in the overhead piping to TD-143 which resulted in a vapor cloud in an area in the Unit.
9. Galata failed to correct deficiencies in the bottom nozzle of the Ultra TX tank which failed due to corrosion under insulation.
10. Galata failed to ensure that TF280F2 Knockout Pot containing methyl chloride and operating at 250 psi is protected from overpressure by a pressure relief device.

AOC 22 - 40 C.F.R §68.75(a) Management of Change

§ 68.75 (a) The owner or operator shall establish and implement written procedures to manage changes (except for "replacements in kind") to process chemicals, technology, equipment, and procedures; and, changes to stationary sources that affect a covered process.

Galata failed to establish and implement written procedures to manage changes in equipment. Galata did not implement the management of change documentation process establishing a tracking system to identify the location of all pipe/valve clamps, determine when the clamp was installed, or if the replacement of the damaged equipment had been completed.

AOC 23 - 40 C.F.R §68.75(b)(3) and 68.75(e) Management of Change

The owner or operator shall establish and implement written procedures to manage changes (except for "replacements in kind") to procedures that affect a covered process.

§ 68.75(b)(3) The procedures shall assure that modifications to operating procedures are considered prior to any change and;

§ 68.75(e) If a change covered by this paragraph results in a change in the operating procedures or practices required by § 68.69, such procedures or practices shall be updated accordingly.

Galata failed to ensure that the changes/revisions in the following operating procedures were implemented using the management of change process.

Operating Procedure	Revision Date
Thioglycolate Unit (EHTG)	
Emergency Procedure for Steam Failure	April 28, 2021
Thioglycolate Unit (EHTG)	
Emergency Procedure for Electrical Failure	April 26, 2021
Thioglycolate Unit (EHTG)	
Procedure for All Startups	April 23, 2024

Anhydrous Ammonia

Tank Wagon Unloading Procedure April 22, 2021

Anhydrous Ammonia

Tank Car Unloading Procedure April 23, 2021

Tin Unit

DMT Product TD-119/TD-120/TD-121/TD-122 December 2, 2020

DMT Production TD-140 & TD-141 DDMT March 21, 2024

DMT Reactor Turnaround
(Recharging New Catalyst) October 5, 2020

DMT D119/D120/ D121/D122

Parameters and Emergency Procedures September 17, 2020

DMT Operating Procedure September 17, 2020

Safety, Health & Environmental November 10, 2021

Emergency Procedure for H₂S Release April 22, 2021

Emergency Pro for D-509 Batch Reactor November 09, 2020

Drapex 6.8S Blending SOP March 18, 2020

Caustic Scrubbers August, 8, 2021

Anhydrous Ammonia Process Feed June 6, 2023

AOC 24 - 40 C.F.R. §68.79(a) Compliance Audits

§ 68.79(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.

1. Galata failed to perform an evaluation of compliance with the provisions of this subpart at least every three years. Galata conducted a compliance audit in February 2021 but did not perform the next required compliance audit in February 2024. At the time of this EPA inspection, September 2024, Galata had not performed a compliance audit.

2. Galata failed to certify the 2021 compliance audit verifying that procedures and practices developed under this subpart are adequate and are being followed.

AOC 25 - 40 C.F.R. §68.79(d) Compliance Audits

§ 68.79(d) The owner or operator shall promptly determine and document an appropriate response to each of the findings of the compliance audit, and document that deficiencies have been corrected.

Galata failed to promptly determine and document an appropriate response to each of the findings and recommendations of the February 2021 Galata Chemicals; documenting that deficiencies have been corrected. Approximately 31 findings and recommendations were found; none of which have been closed or documented that the deficiencies have been corrected. Examples of these February 2021 compliance audit findings include:

- PSI-5-R: audit of all relief systems and associated records to ensure design data available
- PHA-2-R: conducting complete redoes of the PHAs, using the HAZOP methodology,

supplemented with checklists for human factors and facility/stationary source siting

-PHA-5-R: conducting a formal review of all open recommendations and develop responsibilities and action plans to complete as soon as practical.

-PHA-7-R: Consider updating the PHA revalidation schedule to include (1) all covered processes and (2) timing to complete each revalidation PHA to meet the 5-year requirement. Schedule all overdue revalidations as soon as practical.

-MI-9-R: Consider developing an equipment deficiency program to (1) correct deficiencies in equipment that are outside acceptable limits before further use.

-CA-2-R: Develop a 3-year compliance audit schedule and ensure audits are performed

-CA-4-R: Promptly resolve, and implement if applicable/appropriate, all open compliance audit recommendations from the 2019 audit. Ensure recommendations from the current 2021 audit are similarly resolved in a timely manner and document their resolution.

AOC 26 - 40 C.F.R. §68.81(e) Incident Investigations

§ 68.81(e) The owner or operator shall establish a system to promptly address and resolve the incident report findings and recommendations. Resolutions and corrective actions shall be documented.

Galata failed to establish a system to promptly address and resolve the incident report findings and recommendations; and document the resolution and corrective actions.

Galata's site incident investigation reporting system reported 86 overdue incident reports that have not been resolved or closed out as identified in the February 2021 Compliance Audit.

AOC 27 - 40 C.F.R. §68.85(b) Hot Work Permit

§ 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 date(s) 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.

Galata failed to complete hot work permits in accordance with the Galata Hot Work Policy and 29 CFR 1910.252(a). The following hot work permits were deficient:

1. Galata failed to identify the specific location and object on which the hot work was performed on the following days: August 8, 24, 27, and 28, 2024.

2. Galata failed to assign a fire watch for the following hot work permits that indicated hot work was performed in accordance with 29 CFR 1910.252(a): August 5, 6, 2024.

3. The Hot Work Policy, Form 23050, states "permits are to be issued for one working shift only". However, EPA noted that the time the permits were issued was not being recorded on the permits, thus not specifying how long until the permit expires.

4. The hot work policy states "Periodic atmospheric checks or continuous monitoring for flammable content will be made and recorded while the work proceeds. EPA observed hot work permits where air monitoring was conducted but the time period was not recorded.

5. The policy states “The person acting as the fire watch must sign the permit indicating the date and time the fire watch ceased”. EPA noted there were multiple hot work permits where a fire watch was present but the fire watch did not sign the permit and did not specify an ending time.

6. The policy states “An “X” will be placed across the permit so it can be identified as completed and no longer valid. EPA noted multiple hot work permits without an “X” across the permit which had been closed.

AOC 28 - 40 C.F.R. §68.87(b)(1) and §68.87(b)(5) Contractors

§ 68.87(b)(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.

1. Galata failed to establish a formal process to evaluate information regarding the contract owner or operator's safety performance and programs.

§ 68.87(b)(5) The owner or operator shall periodically evaluate the performance of the contract owner or operator in fulfilling their obligations as specified in paragraph (c) of this section.

2. Galata failed to establish a program to periodically evaluate the performance of the contract owner or operator in fulfilling their obligations as specified in paragraph (c) of this section.

AOC 29- 40 C.F.R. §68.93(a) Emergency Response Coordination Activities

§ 68.93(a) The owner or operator of a stationary source shall coordinate response needs with local emergency planning and response organizations to determine how the stationary source is addressed in the community emergency response plan and to ensure that local response organizations are aware of the regulated substances at the stationary source, their quantities, the risks presented by covered processes, and the resources and capabilities at the stationary source to respond to an accidental release of a regulated substance. (a) Coordination shall occur at least annually, and more frequently, if necessary, to address changes.

Galata failed to coordinate response needs with the local emergency planning and response organizations on an annual basis.

AOC 30 - 40 C.F.R § 68.95(a) Emergency Response Program

§ 68.95(a) The owner or operator shall develop and implement an emergency response program for the purpose of protecting public health and the environment.

Galata failed to implement their emergency response program which states in the emergency response plan, (Form 21000, 1 Section 1.5 & Form 21011, Section 2), that evacuation drills will be conducted annually, and emergency response plan refresher meetings will be held monthly. Galata has not conducted evacuation drills annually or held emergency response

plan refresher meetings monthly as required by their emergency response plan.

AOC 31 - 40 C.F.R § 68.95(a)(2) Emergency Response Program

§ 68.95(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:

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

1. Galata failed to implement appropriate inspection, testing, and maintenance intervals for emergency response equipment, such as but not limited to self-contained breathing apparatus (SCBAs) and the Hazmat trailer located on site equipped with response equipment. Galata has monthly SCBA and Hazmat equipment trailer inspection forms in their emergency response plan, but these inspections are not being performed as indicated by the form.

2. Galata failed to maintain the following deluge systems which as of March 14, 2024 were currently out of service:

Deluge System

Epoxy Cooling Tower, Thio Cooling Tower, MM Cooling Tower, Tin Unit, TD-116 Area, TNO Unit, THIO MA Process Unit, MM Cooling Tower

3. Galata failed to perform monthly inspections of their deluge systems.

4. The Fire Water Pump Engine EQT 0333 was under repair due to damage from Hurricane Ida in September 2021.

AOC 32- 40 C.F.R. §68.150(a) Submission

§ 68.150(a) The owner or operator shall submit a single RMP that includes the information required by §§ 68.155 through 68.185 for all covered processes.

§ 68.160(a) and (b)(7) Registration

§ 68.160(a) The owner or operator shall complete a single registration form and include it in the RMP. The form shall cover all regulated substances handled in covered processes. § 68.160(b)(7) For each covered process, the name and CAS number of each regulated substance held above the threshold quantity in the process, the maximum quantity of each regulated substance or mixture in the process (in pounds) to two significant digits, the five- or six-digit NAICS code that most closely corresponds to the process, and the Program level of the process;

40 C.F.R §68.175(a) and (c) Prevention program/Program 3.

§ 68.175(a) For each Program 3 process, the owner or operator shall provide the information indicated in paragraphs (b) through (p) of this section.

§ 68.175(c) The name(s) of the substance(s) covered.

Galata did not comply with the following Sections 68.150, 48.160, and 68.175 of 40 CFR part

68, Chemical Accident Prevention Provisions when it failed to submit in their 2021 RMP the necessary information for hydrogen sulfide which is manufactured, used stored and present on site in an amount that exceeds its designated threshold quantity of 10,000 pounds and thus is a regulated substances under the provisions of this rule.

AOC 33 - 40 C.F.R §68.195(a) Required corrections.

§ 68.195(a) The owner or operator of a stationary source for which a RMP was submitted shall correct the RMP for any accidental release meeting the five-year accident history reporting criteria of §68.42 and occurring after April 9, 2004, the owner or operator shall submit the data required under §§ 68.168, 68.170(j), and 68.175(l) with respect to that accident within six months of the release or by the time the RMP is updated under § 68.190, whichever is earlier.

§ 68.42(a) Five-year accident history.

The owner or operator shall include in the five-year accident history all accidental releases from covered processes that resulted in deaths, injuries, or significant property damage on site, or known offsite deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage.

§ 68.168 Five-year accident history.

The owner or operator shall submit in the RMP the information provided in § 68.42(b) on each accident covered by § 68.42(a).

Galata failed to provide a correction to the RMP for the following accidental releases meeting the five-year accident history reporting criteria of §68.42; within six months of the release or by the time the RMP is updated under § 68.190, whichever is earlier.

1. January 29, 2024, Wastewater Unit:

Two employees were walking by Tank 1208 to their Units when their personnel hydrogen sulfide (H₂S) alarm went off. Employee #2 collapsed. Employee #1 went back to the lab and put him on oxygen and bandaged his injuries (busted lip, scuffed hand and knees). Employee #2 was taken on oxygen, to the emergency room by Tin Shift lead related to exposure to H₂S.

2. February 1, 2024, Thio Unit:

H₂S vented out of the scrubber stack resulting in a path to the maintenance shop. The H₂S got strong enough in the maintenance shop that the shop had to be evacuated.

3. February 20, 2024, Thio Unit:

An operator was working on starting up the MMP unit and was trying to troubleshoot an issue with the H₂S compressor. There was a leak of H₂S from the compressor and the operator passed out and hit the ground. The operator was helped by another operator back to the control room and brought to the hospital around 30 minutes after the initial incident.

AOC 34- 40 C.F.R. §68.195(b) Emergency Contact Information

§ 68.195(b) Emergency contact information—Beginning June 21, 2004, within one month of any change in the emergency contact information required under § 68.160(b)(6), the owner or operator shall submit a correction of that information.

Galata failed to provide a correction to the RMP within one month of any change in the emergency contact information when the emergency contact information changed in August 2023.

AOC 35 – Clean Air Act (CAA) §112(r)(1) – General Duty Clause

Section 112(r)(1) states: 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 releases which do occur.

Galata failed to identify hazards which may result from the release of hazardous substances such as sodium hydrosulfide and hydrogen sulfide, using appropriate hazard assessment techniques and to design and maintain a safe facility taking such steps as are necessary to prevent releases.

1. Galata failed to ensure that atmospheric pressure relief valve relieve to a safe location in accordance with API 521; when an operator trying to start up the back end of the EHTG unit, was sprayed with sodium hydrosulfide (NaSH), discharged from an atmospheric pressure relief valve on a reactor, as he walked past a staircase.
2. Galata failed to maintain a safe facility by not taking such steps as are necessary to prevent releases. Galata did not perform inspection and testing to ensure that the Thermal Oxidizer (TO) emergency shutdown device controlled and activated by the Distributed Control System (DCS) was operable when required to extinguish a fire coming out of the cone from the thermal oxidizer to the scrubber in the Epoxy Unit.
3. Galata failed to maintain a safe facility by not taking such steps as are necessary to prevent releases of H₂S at concentrations which exceed acceptable limits. An employee collapsed to the ground, unconscious, and was hospitalized, following exposure to H₂S while walking by Tank 1208 in the Wastewater Unit.
4. Galata failed to maintain a safe facility by not taking such steps as are necessary to prevent releases of H₂S at concentrations which exceed acceptable limits. H₂S venting out of a scrubber stack resulted in employees evacuating from the maintenance shop.
5. Galata failed to maintain a safe facility by not taking such steps as are necessary to prevent releases of H₂S at concentrations which exceed acceptable limits. An operator, collapsed to the ground,

unconscious, and was hospitalized, following exposure to H₂S while trying to troubleshoot an issue with an H₂S compressor.

6. Galata did not maintain a safe facility by not taking such steps to prevent an incident on May 9, 2024 which resulted in a hydrogen sulfide vapor cloud and a shelter in place. The incident review identified the following issues which need to be corrected and resolved:

- complete upgrade of the radio system and start using it
- follow wastewater procedure 9808, specifically page 10 of 30
- inoperability of page system for notifications
- inoperability of push button on building
- inaccuracy of Ultra TX scales, correctly operating could have indicated the tank leak
- Emergency Response Program was thrown away when decluttering THIO/TIN unit

Section V – LIST OF ATTACHMENTS

Attachment 1 – Photo Log – 11 photos taken from September 17-20, 2024

Attachment 2 – Opening and closing conference sign-in sheets

Attachment 3 – Facility emission inventory included in Louisiana Permit Application

Attachment 1

Photograph Log



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

Location: Galata Chemicals- Taft Facility		
City: Taft	County/Parish: St. Charles	State: Louisiana





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: Galata Chemicals- Taft Facility		
City: Taft	County/Parish: St. Charles	State: Louisiana





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: Galata Chemicals- Taft Facility		
City: Taft	County/Parish: St. Charles	State: Louisiana





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Location: Galata Chemicals- Taft Facility		
City: Taft	County/Parish: St. Charles	State: Louisiana





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

Location: Galata Chemicals- Taft Facility		
City: Taft	County/Parish: St. Charles	State: Louisiana





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Photograph Log

Photo No. 6

Location: Galata Chemicals- Taft Facility		
City: Taft	County/Parish: St. Charles	State: Louisiana





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 7

Location: Galata Chemicals- Taft Facility		
City: Taft	County/Parish: St. Charles	State: Louisiana





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 8

Location: Galata Chemicals- Taft Facility		
City: Taft	County/Parish: St. Charles	State: Louisiana





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 9

Location: Galata Chemicals- Taft Facility		
City: Taft	County/Parish: St. Charles	State: Louisiana





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 10

Location: Galata Chemicals- Taft Facility		
City: Taft	County/Parish: St. Charles	State: Louisiana





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 11

Location: Galata Chemicals- Taft Facility		
City: Taft	County/Parish: St. Charles	State: Louisiana





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 12

Location: Galata Chemicals- Taft Facility		
City: Taft	County/Parish: St. Charles	State: Louisiana





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 13

Location: Galata Chemicals- Taft Facility		
City: Taft	County/Parish: St. Charles	State: Louisiana





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 14

Location: Galata Chemicals- Taft Facility		
City: Taft	County/Parish: St. Charles	State: Louisiana



Attachment 2

Opening and closing conference sign-in sheets

U.S. EPA RMP Inspection Daily Log

9/17/24

Name	Title	e-mail
Howard Cole	EPA RMP Inspector	cole.howard@epa.gov
Glen Jenkins	LDEQ/CAPP Inspector	glen.jenkins@la.gov
Tatum Rose	RMP-ENV. ENGINEER	tatum.rose@galatachemicals.com
Ken Lawson	EHS MANAGER	Kenneth.Lawson@galatachemicals.com
Jamie Vicknair	LDEQ/Environmental Scientist	jamie.vicknair@la.gov
Knsten Latiolais	US EPA RMP Inspector	latiolais.knsten@epa.gov
Alec Anderson	Sr. Process Engineer	alec.anderson@galatachemicals.com
John Joe	Reliability Engineer	john.joe@galatachemicals.com
Brandon Ledet	Mechanical Integrity Contractor	brandon.ledet@acuren.com
Roger Collier	Dir of Manufacturing	roger.collier@sterlingspec.com

9/19/24

KIP LAUFF

TIN Specialist

Kip.lauff@galatachemicals.com

U.S. EPA RMP Inspection

Close out meeting
September 20, 2024

Name	Title	Email
Kristen Latuda	EPA Inspector	latuda.kristen@epa.gov
JAMIE VICKNOR	LDEQ Inspector	jamie.vicknor@la.gov
Glen Jenkins	LDEQ Inspector	glen.jenkins@la.gov
Howard Cole	EPA RMP Insp.	cole.howard@epa.gov
Tatum Rose	RMP - Env. Engineer	tatum.rose@galatachemicals.com
Ken Lawson	EHSS MANAGER	Kenneth.Lawson@galatachemicals.com
Alec Anderson	Sr. Process Engineer	alec.anderson@galatachemicals.com
JOSHUA SALLEE	OPS MANAGER	JOSHUA.SALLEE@GALATACHEMICALS.COM
Goffery Jackson	Environmental SPL	geoffery.jackson@galatachemicals.com
Brian Andrus	Safety Specialist	Brian.andrus@galatachemicals.com
Robert Alsbrooks	Plant Manager	robert.alsbrooks@sterlingspec.com

Attachment 3
Facility emission inventory included in Louisiana
Permit Application

AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

AI No. 2706
Galata Chemicals, LLC – Taft Facility
Taft, St. Charles Parish, Louisiana

- d. D-131 Cleaning, and
 - e. F-235 Filter Replacement;
9. Additions to the Insignificant Activity List as follows:
- a. A new 996 gallon Undistilled Stannic Chloride Storage Tank #1,
 - b. A new 631 gallon stannic chloride storage tank, TD-108B [EPN351-88SN],
 - c. A new 8,019 gallon DBT Tank, and
 - d. A 70 gallon Hotwell Tank TF-125B [EPN 718-88MA] associated with the Tin Unit's production of 2-MET in TD-107,
 - e. A 12,689 gallon Tank HF-601 [EPN 464-89TH] that was authorized for the storage of 45% KOH as a case-by-case insignificant activity, issued November 17, 2017, and
 - f. A 6,079 gallon Tank TF-207A that was authorized for LTDI storage as a case-by-case insignificant activity, issued October 31, 2017.

Galata determined the aggregate VOC emissions from all insignificant activities including the proposed tanks to be approximately 0.2 tpy¹.

Estimated emissions from this facility in tons per year (tpy) are as follows:

Pollutant	Before	Phase 1 ^a	Phase 2 ^b	Change
PM ₁₀	34.87	34.87	34.87	--
PM _{2.5}	34.87	34.87	34.87	--
SO ₂	0.75	0.87	0.87	+ 0.12
NO _x	48.12	48.11	48.11	- 0.01
CO	69.35	69.35	69.35	--
VOC*	91.24	98.13	80.54	- 10.70

^a Emissions before Tin Stabilizer Dryer vents are controlled by the Thermal Oxidizer.

^b Emissions after Tin Stabilizer Dryer vents are controlled by the Thermal Oxidizer.

*VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs) in TPY:				
Pollutant	Before	Phase 1 ^a	Phase 2 ^b	Change
1,3-Butadiene	<0.001	<0.001	<0.001	--
2,2,4-Trimethylpentane	0.05	0.07	0.02	- 0.03
Benzene	0.01	0.01	0.01	--
Carbon disulfide	<0.01	<0.01	<0.01	--
Chloroacetic acid	0.09	0.09	0.09	--
Cumene	0.02	0.02	0.02	--
Diethanolamine	0.26	0.26	0.26	--
Ethylbenzene	<0.01	<0.01	<0.01	--

¹ EDMS Document ID 10945248

AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

AI No. 2706
Galata Chemicals, LLC – Taft Facility
Taft, St. Charles Parish, Louisiana

*VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs) in TPY:				
Pollutant	Before	Phase 1 ^a	Phase 2 ^b	Change
Ethylene oxide	0.02	0.02	0.02	--
Formaldehyde	0.07	0.07	0.07	--
Glycol ethers (Table 51.3)	0.83	0.83	0.83	--
Maleic anhydride	1.20	1.20	1.20	--
Methanol	0.05	0.05	0.05	--
Methyl chloride	3.06	3.07	3.07	+ 0.01
Methyl Tertiary Butyl Ether	<0.01	<0.01	<0.01	--
Phenol	0.02	0.02	0.02	--
Toluene	0.84	0.84	0.84	--
Triethyl amine	0.03	0.03	0.03	--
Xylenes	0.04	0.04	0.04	--
n-Hexane	1.58	1.59	1.53	- 0.05
Total VOC TAPs	8.20	8.24	8.13	

NON-VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):				
Pollutant	Before	Phase 1 ^a	Phase 2 ^b	Change
Ammonia	1.49	1.49	1.49	--
Barium (and compounds)	1.80	1.80	1.80	--
Chlorine	3.62	3.62	3.63	+ 0.01
Cobalt compounds	0.05	0.05	0.05	--
Hydrochloric Acid	0.41	0.52	0.52	+ 0.11
Hydrogen sulfide	0.19	0.19	0.19	--
Sulfuric acid	0.13	0.13	0.13	--
Zinc (and compounds)	1.32	1.32	1.32	--
Total	9.01	9.12	9.13	

^a Emissions before Tin Stabilizer Dryer vents are controlled by the Thermal Oxidizer.

^b Emissions after Tin Stabilizer Dryer vents are controlled by the Thermal Oxidizer.

IV. TYPE OF REVIEW

This permit was reviewed for compliance with Louisiana Air Quality Regulations, New Source Performance Standards (NSPS), and National Emission Standards for Hazardous Air Pollutants (NESHAP). Prevention of Significant Deterioration (PSD) does not apply.

This facility was a major source of LAC 33:III.Chapter 51 Toxic Air Pollutants (TAPs), but through reductions in TAP emissions it is now a minor source. The facility is a minor source for Hazardous Air Pollutants (HAPs).

This facility an area source of 40 CFR 63 Subpart ZZZZ – *National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines* and 40 CFR 63