

Region 6 - Enforcement & Compliance Assurance Division

INSPECTION REPORT

Inspection Date(s):	October 28-29, 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:	BioLab, Inc.	
Facility Name:	BioLab, Inc. Westlake Facility	
Facility Physical Location:	910 I-10 West	
(city, state, zip code)	Westlake, LA 70669	
Mailing address:	910 I-10 West	
(city, state, zip code)	Westlake, LA 70669	
County/Parish:	Calcasieu Parish	
Facility Phone Number	337-433-3030	
Facility Contact:	Laura Jones	EHS Director
	ljones@kikcorp.com	
FRS Number:	110033183695	
Identification/Permit Number:	State Permit 0520-00167-V7	
Media Identifier Number:	N/A	
NAICS:	325998 Manufacturing of all other miscellaneous chemical products and preparations	
SIC:	2819	
Personnel participating in inspection:		
Kristen Latiolais	EPA Region 6 ECDAC	Inspector
Daniel Williams	EPA HQ WCED	Inspector
Laura Jones	BioLab, Inc.	EHS Director
Crystal Delos santos	BioLab, Inc.	EHS Director
John Bourgeois	BioLab, Inc.	Assistant Plant Manager
Lou Buatt	Liskow & Lewis	Outside Council
Alfred Armstrong	Ramboll	Principal Consultant
Carolee Laffoon	Ramboll	Principal Consultant
EPA Lead Inspector Signature/Date		
	{Inspector name}	Date
Supervisor Signature/Date		
	{Supervisor name}	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

United States Environmental Protection Agency (EPA) Region 6 Inspector Kristen Latiolais and Office of Civil Enforcement, Daniel Williams (“We,” “Us”), arrived at BioLab, Inc. Westlake Facility (the “Facility”), operated by KIK Consumer Products in Westlake, Louisiana at 8:00 AM on October 28, 2024, for an announced inspection. We met with Laura Jones (EHS Director) and Crystal Delos santos (EHS Director) at the opening conference. I, Kristen Latiolais, presented my credentials to Laura Jones and Crystal Delos santos and informed them that this was an EPA inspection to evaluate compliance with the requirements of the General Duty Clause (GDC) (Clean Air Act (CAA) § 112(r)(1)) and to determine the applicability of the requirements promulgated in the Chemical Accident Prevention Provisions of Title 40 of the Code of Federal Regulations (C.F.R.) Part 68 under the Clean Air Act (CAA) § 112(r)(7). Employee representatives were invited to participate in the inspection. The facility did not have union representation during the inspection.

FACILITY DESCRIPTION

BioLab, Inc. Westlake Facility is located at 910 I-10 West, Westlake, Louisiana 70669. The facility has 115 employees and operates 24 hours a day/seven days a week. BioLab, Inc. is a KIK Custom Products (KIK) subsidiary that manufactures and supplies pool and spa chemicals, including chlorinated isocyanurates. The BioLab Westlake facility was built in the late 1970’s by Olin Chemical Corporation and sold to BioLab, Inc. in 1995. The BioLab Westlake facility manufactures powders containing trichloroisocyanuric acid (“trichlor” or “TCCA”), made from cyanuric acid and chlorine. Those powders are stored in 2,750 lbs. super sacks on site until they are shipped to be processed at other BioLab facilities. Those facilities then produce tablets and other consumer products used as cleaning agents for swimming pools and hot tubs. According to Assistant Plant Manager, John Bourgeois, the facility stores an average of 900,000 lbs. of TCCA on site at any given time.

PROCESS DESCRIPTION

TCCA is produced by adding crushed, neutralized cyanuric acid to a sodium hypochlorite solution in a reaction vessel which introduces gaseous chlorine into the mixture. Produced TCCA is filtered from the reaction solution, dried, and stored in bins for subsequent compaction, granulation, and onsite packaging. The filtrate is treated with hydrochloric acid and sodium hydroxide to convert the TCCA remaining in solution to chlorine and cyanuric acid salt, in which chlorine is removed out of the solution and recycled back into the process. Disodium Cyanurate, “Na₂CA” is produced by further reacting NACA (an intermediate produced in the manufacturing of TCCA) with caustic at a high pH concentration. The Na₂CA is de-watered by a basket centrifuge and a flash dryer. The dried Na₂CA powder is then collected, packaged on site, and stored in a warehouse prior to transport to other BioLab facilities.

Section II - OBSERVATIONS

The documentation review began onsite with BioLab, Inc. personnel on Monday, October 28, 2024. Facility representatives provided an overview of the safety requirements and the business of the facility. The representatives explained that the facility manufactures TCCA, which is a class 1 oxidizer, and has a chlorine pipeline on site owned by Westlake Chemical. The facility owns the chlorine, in gaseous form, from the manifold to the process, which contains around 91 lbs at a time. The facility is separated by a “wet” and “dry” process. Plant 4 and 6 are located on the “dry” side and plant 1, 2 & 5 are located on the “wet” side. On Tuesday, October 29, 2024, accompanied by BioLab staff, we performed a walkthrough inspection of the facility which included a discussion of the process and a visit to the areas where previous incidents had occurred.

Incident Background

July 2024 Incident

On July 2, 2024, BioLab, Inc. initially reported to the National Response Center (NRC) (Report # 1403590), three (3) super-sacks of TCCA that were decomposing in the storage warehouse on site with an unknown cause. During the time of the inspection, EPA requested the investigation report of this incident. Facility representatives stated that an investigation report could not be provided at the time of inspection as the incident investigation was still in progress. The facility hired a third-party consultant to investigate a root cause and issue an incident report. The facility was able to provide a description of the incident; including that the incident resulted in a decomposition of six (6) super-sacks of TCCA (16,500 lbs.) inside the warehouse building. The release was at the outer edge of the warehouse and on-site emergency response personnel used a long-arm forklift to tear down the side wall to access the super-sacks from the outside of the building. The decomposing super-sacks were then brought to a dedicated decon pad where they were flooded with a large amount of water. A root cause of the decomposition was not available at the time of inspection.

March 2023 Incident

On March 23, 2023, BioLab, Inc. initially reported to the NRC (Report #1362972) smoke emitting from the facility with an unknown cause. After further investigation from EPA, BioLab, Inc. stated the incident was caused by a process upset within the facility that caused a release from the 36-foot exhaust stack, which consisted of trichloroethene fines and residual chlorine gas from the product drying process. A separate release of chlorine gas from the caustic scrubber (2C-101) occurred during this time. The particulate scrubber at issue required additional neutralizing caustic, resulting in inadequate flow from vessel and causing the pH condition within the scrubber to fall outside normal operating parameters, resulting in an estimated release of 3.5 lbs of chlorine and 75 lbs of trichloroethene fumes to the atmosphere. A shelter in place was issued for this incident.

EPA issued a Consent Agreement and Final Order (CAFO) and Administrative Order on Consent in March of 2024 after reviewing this incident. The Administrative Order on Consent required the facility to implement additional interlocks in the affected process equipment, install perimeter chlorine monitors around the facility and conduct a dry side and wet side PHA within 90 days of the issued order.

August 2020 Incident

On August 27, 2020, Hurricane Laura made landfall near Lake Charles, Louisiana. BioLab, Inc. reported a large fire at the facility the same day that resulted from damage of Hurricane Laura. Hurricane force winds damaged almost the entire warehouse building, allowing water to come into contact with all the TCCA stored inside the warehouse building at the time. The facility explained the hurricane had strengthened overnight and they sent all the employees' home to ensure their safety. After returning the next morning, Mr. Bourgeois stated the plant was fully engulfed with smoke. US Fire and Pump assisted, and the deluge system was used to flood the smoking material. It took approximately 8-10 hours for the smoke to dissipate. A community shelter in place was issued for this incident. An incident report was not available at the time of inspection. The facility stated that they did not perform an inspection report due to their categorization of the event as an "Act of God".

RMP Covered Facility Determination

Section 112(r) of the Clean Air Act Amendments required EPA to publish regulations and guidance for chemical accident prevention at facilities that use certain hazardous substances. These regulations and guidance are contained in the Risk Management Program (RMP) standard. The RMP standard requires facilities that use, store, or handle a listed extremely hazardous regulated substance above a threshold quantity to comply with the requirements of 40 C.F.R. Part 68 standard.

To determine if BioLab, Inc. was an RMP-regulated facility containing a covered process, we sought to identify the chemicals and quantity of chemicals on site. In our initial document request we asked BioLab, Inc. to *"Please provide document(s) exhibiting or listing the maximum intended inventories of all chemicals stored on site (in pounds)." This information was provided and reviewed during the inspection, and we determined that BioLab, Inc. did not have an RMP-listed/regulated chemical over the threshold on site at this facility. Hence, the requirements of the RMP standard are not applicable to BioLab, Inc. at this site and we focused the inspection on compliance with the provisions of Section 112(r)(1) of the Clean Air Act (CAA), 42 U.S.C. § 7412(r)(1), commonly referred to as the General Duty Clause (GDC).*

Section 112(r)(1) of the Clean Air Act (CAA), 42 U.S.C. § 7412(r)(1) provides the following:

"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 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.”

TCCA is classified as a class 1 oxidizer by the facility’s safety data sheet (SDS) provided during the inspection. The National Fire Protection Association (NFPA) outlines Class 1 oxidizer storage provisions in NFPA 400 and NFPA 101 & 13 covers installation of sprinkler systems. For Class 1 and Class 2 oxidizers, NFPA 13 states standard water-based systems are often suitable. In many cases, automatic sprinkler systems are required in facilities that store oxidizers, especially when the quantity of oxidizers exceeds specific thresholds. However, as stated by the facility, in some instances and when stored in large quantities, water becomes detrimental to the oxidizer.

Section III – AREAS OF CONCERN (AOC)

Below are areas of concern EPA identified while on site October 28-29, 2024. A 114 Information request was submitted to BioLab, Inc. on November 18, 2024, for documents not provided to EPA during the inspection. EPA may identify additional areas of concern when the requested documents are reviewed.

Section 112(r)(1) of the Clean Air Act (CAA), 42 U.S.C. § 7412(r)(1): Failure to identify hazards which may result from (such) releases using appropriate hazard techniques:

1. BioLab, Inc. failed to perform an off-site consequence analysis and identify environmental and public receptors in the event of an accident.
 - a. According to EPA guidance published in May of 2000 the *Guidance for Implementation of the General Duty Clause Clean Air Act Section 112(r)(1)* states, “A sufficient hazard assessment should include the type, rate, and duration of potential releases. Modeling or an applicable dispersion analytical technique should be used to determine the potential impact of the releases. Models or analytical techniques selected for this activity should be appropriate for the material released and the process, atmospheric, and geographic conditions for the particular release scenario. Use of an inappropriate model will not provide accurate information for release prevention or emergency plan development and evaluation. A hazard assessment should also include approximate downwind or down gradient concentrations and how these factors impact the effect of the release on affected populations, systems, and environments.” (Page 13)
 - b. During the inspection, it was stated that in BioLab’s Emergency Response Plan, offsite consequences were addressed but after review, nothing indicates that an appropriate off-site consequence analysis was performed.
2. BioLab Inc. failed to identify hazards using appropriate hazard techniques by not performing a Process Hazard Analysis (PHA), or equivalent hazard technique, for the TCCA warehouse storage building.
 - a. The facility performed a PHA of the “wet” and “dry” side process areas in 2022 prior to the plant commission date in 2023. However, a PHA was not completed

for the storage building to evaluate the hazards of the warehouse that stores large amounts of TCCA. The warehouse is the location of two major incidents that have occurred on site. The facility also did not establish a tracking system for the recommendations in the 2022 PHA indicating what recommendations have been resolved, how they have been resolved and a resolution date.

Section 112(r)(1) of the Clean Air Act (CAA), 42 U.S.C. § 7412(r)(1): Failure to design and maintain a safe facility taking such steps as are necessary to prevent releases:

1. BioLab, Inc. failed to design a safe facility taking such steps as are necessary to prevent releases as the storage warehouse building, where large amounts of TCCA are stored, does not have a fire suppression system. BioLab Inc. failed to determine a way to safely store large amounts of TCCA.
 - a. BioLab, Inc. does not currently have a fire suppression system in the warehouse building which stores an average of 900,000 lbs. of TCCA at a given time. The facility stated that although KIK and BioLab have been evaluating various systems to put in place that would allow for the safe storage of TCCA, both companies have not determined a safe way to store such large amounts of TCCA at this time.
2. BioLab, Inc. failed to design a safe facility taking such steps as are necessary to prevent releases when repairs were made to the storage warehouse building after Hurricane Laura. BioLab failed to repair the warehouse building that conformed to the current building codes at the time of the repair.
 - a. BioLab, inc. stated after Hurricane Laura damaged almost the entire storage warehouse buildings, repairs were made with only the building codes in mind from when the building was originally constructed in 1995 due to the building being “grandfathered in”. The facility did not ensure the repairs that were made would withstand category 4 hurricane winds. BioLab indicated that more fasteners and screws have been installed. However, engineering data indicating the building can withstand 150 mph winds (Category 4 Hurricane) was not available.
3. BioLab, Inc. failed to design a safe facility taking such steps as are necessary to prevent releases by failing to address hazards identified in industry standards and guidance.
 - a. The National Fire Protection Association (NFPA) 101 *Life Safety Code* for high-hazard industrial occupancies required automatic sprinkler systems or other protection designed to minimize danger to occupants before they have time to evacuate from high hazard occupancies.
 - b. BioLab, Inc. Westlake facility, built in 1979, failed to conform to NFPA 400 Hazards Material Code, which requires a fire detection system and an automatic fire sprinkler system, and which Louisiana requires adherence to for structures built or remodeled after July 1, 2017. The facility stated that thermal cameras

have been installed to detect a temperature change where TCCA is stored, but the system doesn't operate how they would like and they are in the process of installing a different system.

4. BioLab, Inc. failed to design a safe facility taking such steps as are necessary to prevent releases by allowing raw TCCA material to drop from the 3rd floor of Plant 2 through grating, with no proper containment, making contact with multiple surfaces on the way down to the first floor.
 - a. The Filter Wheel, located on the 3rd floor of Plant 2, is used during the TCCA process and is opened for maintenance activities. When this occurs, TCCA can spill out with no containment. Below the filter wheel is open grate flooring, allowing for TCCA to drop to the below level if/when spilled. During the facility tour, EPA noted that this area and all areas beneath it were oxidized (metal). Mr. Bourgeois stated the facility is currently evaluating secondary containment at this location in the process.
5. BioLab, Inc. failed to maintain a safe facility taking such steps as are necessary to prevent releases by not storing Cyanuric Acid (CA) according to the storage requirements specified in the Safety Data Sheet (SDS) provided to EPA during the inspection.
 - a. As observed during the inspection, the facility stores CA outside in a breezeway. The SDS sheet for CA 98.5% states "Store in tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture".
 - b. **Louisiana frequently has high humidity, with temperatures that peak in the upper 90's in the summertime.*
6. BioLab, Inc. failed to maintain a safe facility taking such steps as are necessary to prevent releases and minimize the consequences of releases by being unprepared to respond to a TCCA decomposition incident in the warehouse if it were to occur the day of the inspection.
 - a. BioLab was asked at of the time of inspection, what they would do in the event of a decomposition of TCCA in the warehouse if the supersack decomposing was in the middle of a row to where a forklift could not easily get to it. Mr. Bourgeois stated that they would use a pallet jack. BioLab was then asked where the pallet jacks were stored, and Mr. Bourgeois stated they did not have pallet jacks onsite due having been delivered the wrong pallet jack's. At the time of inspection, BioLab would not have been able to appropriately respond to a TCCA decomposition incident in the warehouse.
 - b. BioLab's Emergency Response Plan does not indicate how the facility would possibly respond to a decomposing supersack of TCCA or the use of pallet jacks in an emergency situation in the warehouse building. The Emergency Response Plan only addresses how the facility will evacuate away from, and return to, a decomposition in the warehouse building.

7. BioLab, Inc. failed to design and maintain a safe facility taking such steps as are necessary to prevent releases by not adhering to their own TCCA storage guidance and addressing hazards outlined in NFPA 400 storage provisions for Class 1 oxidizers.
 - a. BioLab, Inc. Guidance Document for Storage of TCCA states “maximum grid pattern size shall not exceed 3 x 5.” EPA observed the TCCA warehouse had TCCA stored in a grid of more than 3 x 5.
 - b. NFPA 400 Table 15.3.2.2.2(A)(a) identifies the storage configurations and allowable distances for Class 1 Oxidizers stored in a non-sprinklered or detached unprotected building. This table specifies a pile weight limit is 20 tons and cannot exceed 16 ft wide with a minimum isle width that equals the pile height. Bio-Lab is currently storing TCCA super sacks, two sacks high, which are around 6 feet tall. Each stack consists of a wooden pallet on the floor with a TCCA super-sack on top of that pallet. On top of the first stack is another wooden pallet, with a TCCA super-sack on top of that pallet. The isle widths were approximately three (3) feet wide, only wide enough to maneuver a pallet jack in between the isles.
8. BioLab, Inc. failed to design and maintain a safe facility taking such steps as are necessary to prevent releases by not addressing hazards outlined in ASME.B31.3 Code for Pressure Piping which requires that materials for permanent supports and restraints shall be of material suitable for the service conditions. “Wood or other materials may be used for pipe supporting elements, provided the supporting element is properly designed, considering temperature, strength and durability”.
 - a. During the facility tour, on the second floor of Plant 2, there was a rope attached to the grating on the floor that was serving as a pipe support to a pipe underneath. It was stated by Mr. Bourgeois that the contractor installed the rope to support the pipe while removing the pumps attached to the piping on the first floor. I observed an old rope that seemed to be present for quite some time. The facility is currently not operating and in a turnaround since October 4, 2024.
9. Biolab, Inc. failed to maintain a safe facility taking such steps as are necessary to prevent releases by not addressing hazards identified in NFPA 400 Section 15.3.2.1 *Bulk Storage of Class 1 Oxidizers* which requires oxidizers to be stored in bins or piles, seperated from all other materials. Section 15.3.2.1.2 states bins shall be of noncombustible construction.
 - a. During the facility tour, I noted that TCCA super-sacks are stored on wooden pallets, stacked two super-sacks high, one on top of the other. BioLab’s ERP acknowledges that “fires could occur because of a decomposition combined with solid combustibles like packs or pallets igniting in air” (ERP Page 76). Wood pallets are classified as a combustible material.

10. BioLab, Inc. failed to maintain a safe facility taking such steps as are necessary to prevent releases by not properly documenting fire watch activities in Hot Work Permits according to the facility's Hot Work Procedure.
 - a. The Hot Work Permit and Procedure states, "the permit will be completely filled out and will be signed by all person engaged in the work in addition to the person issuing the permit and the fire watch if one is required" (Page 2 Hot Work Procedure). It further states, "The Permit shall state the time and duration of issuance, location, description of work, details of practices to be followed, fire protection equipment required, and signatures of the individual requesting the cutting and welding permit, fire watch, or the Maintenance employee(s) doing the work. The permit will not be issued until all requirements are met" (Page 5 Hot Work Procedure). The hot work permits provided by Bio-Lab were not completely filled out but had been issued against the policies of the Hot Work Permit and Procedure. This makes it unclear if the fire watch fulfilled their duties. EPA observed several hot work permits missing information required by Bio-Lab's policy. Copies of select permits found with deficiencies were requested in a CAA Section 114 Information Request to the facility on November 18, 2024.
11. BioLab, Inc. failed to maintain a safe facility taking such steps as are necessary to prevent releases by failing to periodically evaluate contractors and their performance on site.
 - a. The facility does not evaluate contractors after they have performed their job duties on site. Initially, BioLab, Inc. has a contractor selection policy that requires the contractor to go through an internal selection process with training and safety qualifications. However, after the contractor performs their job duties on site, the facility does not evaluate the contractor any further.
12. BioLab, Inc. failed to maintain a safe facility taking such steps as are necessary to prevent releases by not having operating procedures readily available to employees in an emergency situation.
 - a. BioLab operators have personal binders that are assigned to them with operating procedures, but they are required to maintain them on their own and not required to have the binders with them during their shift. They can also access procedures on a share-point site but in the event the power fails, and an operator doesn't have their binder, they will not have access to procedures. It was verbally stated that in the event of an emergency and power is lost, the operators should "already know what to do."
13. BioLab, Inc. failed to design and maintain a safe facility taking such steps as are necessary to prevent releases by failing to demonstrate that they have an active preventative maintenance plan.
 - a. BioLab, Inc. has not provided records that demonstrate they have an active preventative maintenance program. We requested documentation related to a Mechanical Integrity (MI) or preventative maintenance program (e.g.

procedures, records, etc.) to indicate that BioLab, Inc. was performing the maintenance on equipment, but only a few maintenance work orders for a pump, blower and PH/ORP probe were provided. The work orders indicate that they are fixing something after it has broken, but not as part of a preventative maintenance plan.

Section 112(r)(1) of the Clean Air Act (CAA), 42 U.S.C. § 7412(r)(1): Failure to minimize the consequences of accidental releases which do occur:

1. BioLab, Inc. failed to minimize the consequences of accidental releases which do occur for the incident on July 2, 2024. Bio-Lab's response to knock down a wall to the metal warehouse building to access a super sack of TCCA that was decomposing, demonstrates the facility was not storing the TCCA in a manner to easily access from the side entrance.
 - a. During the incident on July 2, 2024, an employee initially saw smoke and prompted management to start an onsite response. The facility used a long arm forklift to tear down an external wall of the metal warehouse building to get to the decomposing super-sack of TCCA. The facility verbally stated, they "couldn't get to it from the other side entrance." The facility then removed the TCCA from the warehouse, cut the bags, spread the TCCA out, and then flooded it with water. This incident was handled internally. Six (6) super-sacks of TCCA were decomposed as a result of this incident.
2. BioLab, Inc. failed to minimize the consequences of accidental releases which do occur by not designing a safe way to transport a decomposing super-sack of TCCA from the warehouse building to the decomp pad.
 - a. The pathway from the TCCA warehouse to the decomposition pad requires the navigation of several obstacles. A forklift transporting decomposing TCCA would have to drive approximately 220 yards by cyanuric acid supersacks, turn a tight corner, and drive over a lip/curb to access the decomposition pad.
 - b. **It should be noted, that TCCA decomposes at 437° F and Cyanuric acid decomposes at 347° F. Bringing decomposing TCCA near Cyanuric Acid could cause it to decompose and further exacerbate an incident. By-products of Cyanuric Acid decomposition includes ammonia (toxic) and isocyanic acid.*