

CLEAN AIR ACT SECTION 112(r) INSPECTION
REPORT

Catano, PR
Mays Ochoa Corporation
Mays Chemical Company of PR

GENERAL INFORMATION

Stationary Source	Mays Ochoa Corporation
Date of Inspection	February 8, 2023
USEPA Lead Inspector	Francesco Maimone – USEPA, REGION II (New York, NY)
Description of Activities	• Opening meeting with facility representatives • Program audit • Closing meeting with facility representatives Program audit consisted of the following activities: 1. Document review 2. Field verification 3. Personnel interviews
Reason for Inspection	Part 68 Sufficiency Inspection

STATIONARY SOURCE INFORMATION

EPA Facility ID #	1000 0003 2181
Current RMP (used for inspection)	Receipt Date: April 4, 2022 (Re-submission) 5-Year Anniversary Date: April 4, 2027
Facility Location	Road PR-869, St. 2 #515 Palmas Ward Westgate Industrial Park Catano, PR 00962 Latitude: 18.423734; Longitude: -66.150052 Tel. (787) 788-8000
Number of Employees	<i>RMP*eSubmit</i> states 60 employees (per RMP registration); facility states 63 people
Person Responsible for RMP Implementation	Lee K. Nieves, Compliance Leader
Emergency Contact Person	Jose Alsina, Emergency Coordinator (Operations Manager)

REGISTRATION INFORMATION

Process ID #	1000123219
Program Level (as reported in RMP)	Program 3
Process Chemicals	Anhydrous Ammonia @ 232,000-lbs.
NAICS Code	42469, Other Chemical and Allied Products Merchant Wholesalers

Process ID #	1000123220
Program Level (as reported in RMP)	Program 3
Process Chemicals	Chlorine @ 220,500-lbs.
NAICS Code	42469, Other Chemical and Allied Products Merchant Wholesalers; 32518, Other Basic Inorganic Chemical Manufacturing

Process ID #	1000123221
Program Level (as reported in RMP)	Program 3
Process Chemicals	Ethylene Oxide @ 38,400-lbs.
NAICS Code	42469, Other Chemical and Allied Products Merchant Wholesalers

INSPECTION PARTICIPANTS

Participants	Participants included: <u>USEPA:</u> Kristina Guarino, USEPA – Region II, New York City, NY Francesco Maimone, USEPA – Region II, New York City, NY (Lead Inspector) Brook McKeown, Eastern Research Group, EPA Contractor <u>LEPC</u> Did not participate <u>Mays Ochoa Corporation:</u> Jose Alsina, Operations Manager+ Omar Morales, Plant Manager+ Lee K. Nieves, Compliance Leader* *Designated RMP Lead +Lead representative during plant tour
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GENERAL COMMENTS

EPA conducted a Risk Management Plan (RMP) Program inspection at the Mays Ochoa Corporation facility (“Mays Ochoa”) located in Catano, Puerto Rico on February 8, 2023. The inspection focused on the facility’s conformance with regulatory requirements at 40 CFR Part 68. The inspection also included an evaluation of the facility’s annual Tier II chemical inventory (Emergency Planning & Community Right-to-Know Act Section 312). A follow-up virtual inspection session was conducted on March 23, 2023. EPA provided site-specific compliance assistance when appropriate.

Areas of Concern, if applicable, are included in *Italics*. Areas of Concern are not considered compliance determinations. EPA reserves the right to continue its inspection effort, request further information, and take enforcement actions, as appropriate.

OPENING CONFERENCE

The Opening Conference included an introduction of personnel, an EPA-led discussion regarding the purpose of the inspection, and an overview of facility operations. Mays Ochoa personnel provided a video explaining their operations. The overview of operations covered process equipment and storage quantities, personnel working at or near the covered RMP process, hours of operation, detection and safety systems, and actions taken for emergency response. Mays Ochoa explained, and EPA personnel verified during the Facility Tour, that chlorine was not present onsite. Facility personnel stated that there will be future storage and use of chlorine for bleach production.

RMP DOCUMENTATION

Mays Ochoa maintains both paper-based and electronic Risk Management Program documentation. Facility personnel stated that they are seeking to convert paper documents to an electronic format. Facility personnel stated that Risk Management Program documents were initially prepared by a consultant; however, personnel stated that they are considering developing such documents in-house. Facility personnel use an electronic system for certain Risk Management Program activities.

Prior to the inspection, Mays Ochoa submitted some Risk Management Program documentation for review. Additional documents were requested during the inspection. Following the onsite inspection, Mays Ochoa submitted requested documents electronically. Mays Ochoa provided additional documents following the March 23, 2023 virtual session.

Registration & Applicability

EPA reviewed Mays Ochoa's most recent Risk Management Plan (RMP) submission. Among other content in the RMP, EPA reviewed the registration quantity, the emergency contact person information, and the five-year accident history. EPA also reviewed dates referenced in the RMP, which correspond to certain regulatory requirements. EPA verified the Program Level of covered processes. EPA observed that chlorine was not present during the inspection.

Management System [40 CFR 68.15]

EPA reviewed Mays Ochoa's Management System documentation. EPA observed that Management System content included a section delegating specific RMP responsibilities to certain positions. A level of involvement was provided for each position for each applicable program element.

EPA learned that the Compliance Leader is responsible for many aspects of Part 68 regulatory compliance; however, this title and its roles and responsibilities were not included in Management System documents.

Hazard Assessment [40 CFR 68.20-68.39]

EPA reviewed Mays Ochoa's Worst Case (WC) and Alternative Case (AC) release scenarios, as reported in the RMP, and as presented in the facility's documentation. EPA verified the appropriateness of WC and AC release scenarios and whether the correct number of scenarios were reported in the RMP submission. EPA also reviewed methodologies used to calculate WC and AC distance-to-endpoints and determine public and environmental receptors, including whether the most-recent Census data was used to determine potentially impacted populations. EPA evaluated whether Mays Ochoa's WC and AC information has been reviewed and updated at least every five years.

Process Safety Information (PSI) [40 CFR 68.65]

EPA reviewed and discussed PSI with Mays Ochoa personnel. EPA reviewed information pertaining to hazards, technology, and equipment in the covered process.

EPA observed that PSI lacked complete safe upper and lower temperature and pressure limits information for ethylene oxide and chlorine containers. EPA observed that some but not all safe temperatures and pressures information was available in container specification documents provided by Mays Ochoa.

EPA also observed that PSI did not include consequences of deviation information.

EPA observed that PSI did not include ventilation system information for the ethylene storage area.

EPA observed that there were no block flow diagrams for the anhydrous ammonia, ethylene oxide, and chlorine storage processes.

EPA observed that Mays Ochoa retains information on design specifications for its anhydrous ammonia isotainers, ethylene oxide drums, and chlorine containers. *However, there was no other information available pertaining to other design codes and standards addressing equipment and the storage areas. Examples include those provided by OSHA's 1910.111, the Compressed Gas Association, The Chlorine Institute, National Fire Protection Association, American Chemistry Council, supplier guidance documents, and others as applicable.*

Following the onsite inspection, EPA evaluated the explosion proof rating of the forklift used to move ethylene oxide drums.

Process Hazard Analysis (PHA) [40 CFR 68.67]

EPA reviewed Mays Ochoa's PHA information. EPA reviewed PHA information for anhydrous ammonia and ethylene oxide since these were the only two regulated substances onsite at the time of the inspection. EPA observed that Mays Ochoa uses the "What-If" methodology.

EPA observed that the anhydrous ammonia and ethylene oxide PHAs omitted certain hazards of the processes. For example, the anhydrous ammonia PHA did not address a pressure relief valve release scenario. The ethylene oxide PHA addressed a pressure relief valve release; however, the pressure relief valve would not apply during storage and distribution (active only when the vent valve is open according to facility documentation). The ethylene oxide PHA did not address the hazard of a release from fusible plugs. These are examples and do not represent all potential hazards that might not have been addressed in the PHAs.

The anhydrous ammonia PHA did not address hazards of potential inadvertent mixing with other substances in the storage area. The anhydrous ammonia PHA states that this

material is exclusively stored in the isotainer parking area; however, EPA observed other substances stored in this area as well.

EPA observed that the anhydrous ammonia PHA did not address the need for DANA assistance during emergency response as a hazard control. The anhydrous ammonia PHA did not address whether the SCBA program is adequate as a safeguard; EPA identified that certain Mays Ochoa procedures concerning SCBA fit-testing are not followed.

Additionally, the ethylene oxide PHA states that an emergency kit would be used during emergency response; however, the PHA did not address the adequacy of these kits. Mays Ochoa personnel confirmed that these kits are not currently onsite. The ethylene oxide PHA did not discuss ventilation as a control; Mays Ochoa's ethylene oxide supplier stresses the importance of adequate ventilation in the storage area.

EPA also observed that the PHAs did not fully include engineering and administrative controls, source siting, and human factors into the What-If analyses. Portions of these items were discussed in the PHAs, but not within the What-If analyses. EPA noted that the source siting discussion was limited solely to the location of the facility.

EPA observed that Mays Ochoa's evaluation of hazards and controls led to no PHA findings or recommendations, despite the concerns identified above.

EPA observed that the PHAs did not include a list of participants. Accordingly, EPA could not identify who led the PHA revalidation and which participants were knowledgeable on the processes.

On the date of the inspection, previous PHAs, for the life of the processes, were not available for review. Following the inspection, Mays Ochoa submitted PHAs conducted in 2014. During the virtual session, Mays Ochoa personnel stated that PHAs between the 2014 PHA and the most recent PHA are not available.

Because chlorine was not present on the date of the inspection, EPA did not focus its PHA review efforts on the chlorine storage area and the bleach plant. EPA discussed the additional PHA considerations for operating a bleach plant as opposed to those presented by receipt, storage, and distribution of RMP substances. EPA suggested that Mays Ochoa seek PHA guidance from a bleach producer that it has a pre-existing relationship with.

Operating Procedures [40 CFR 68.69]

EPA reviewed Mays Ochoa's Operating Procedures. EPA observed that there are facility-wide procedures pertaining to picking, shipping, and dispatching products; however, EPA observed that the procedures were not specific to the Part 68 substances. *Because procedures were not specific to the Part 68 substances, they were not consistent with PSI, operating limits, safety and health considerations, and safety systems.*

EPA observed that Mays Ochoa has a procedure for bleach production.

Mays Ochoa personnel stated that it has an internal procedure to review operating procedures every two years. EPA discussed the Operating Procedures requirement for the owner or operator to certify, at least annually, that operating procedures are current and accurate.

Training [40 CFR 68.71]

EPA reviewed Mays Ochoa's training program and its training matrix. EPA observed that Mays Ochoa completes various training sessions, including RMP Training, personal protective equipment, Hazardous Waste Operations and Emergency Response ("HAZWOPER"), ethylene oxide awareness, and other safe work practices. Mays Ochoa retains certificates for its various training courses.

There were no operating procedures specific to the handling, storage, and distribution of each RMP substance. As a result, EPA observed that training was not based on operating procedures specific to each Part 68 process.

Mechanical Integrity [40 CFR 68.73]

EPA and Mays Ochoa personnel discussed Mechanical Integrity for the regulated substances. EPA learned that suppliers are responsible for the integrity of containers. Mays Ochoa inspects containers upon receipt and rejects containers that fail physical inspection.

EPA learned that a weekly inspection is conducted for anhydrous ammonia isotainers and other substances located in the outdoor mobile container storage area. *However, facility personnel stated that there is no periodic visual inspection of ethylene oxide drums stored in the warehouse.*

EPA observed that facility documentation did not identify nor address the frequency of inspections and tests, consistent with manufacturer's recommendations and good engineering practices. Facility documentation did not include recognized and generally accepted good engineering practices for maintaining containers with regulated substances.

EPA discussed with Mays Ochoa personnel the importance of a Mechanical Integrity program for future operation of the bleach plant.

EPA is further evaluating this and other program elements.

Management of Change (MOC) [40 CFR 68.75] & Pre-Startup Review (PSR) [40 CFR 68.77]

EPA reviewed Mays Ochoa's Management of Change and Pre-Startup Review procedures. Prior to the inspection, EPA requested MOC and PSR documents. Mays Ochoa's response stated that there were no applicable MOCs and PSRs.

EPA observed that the bleach plant was nearly operational. Mays Ochoa personnel stated that the bleach plant will be ready for startup towards the end of 2023. *EPA requested, and did not receive, PSR or MOC documents related to the bleach plant. Given the advanced state of the bleach plant, EPA anticipated that PSR documents would have been in-progress.*

Compliance Audits [40 CFR 68.79]

EPA requested and reviewed records for the two most-recent Compliance Audits. Records included template forms, completed documentation, and a recent Compliance Audit in ZebSoft.

EPA observed, and discussed with facility personnel, that the 2022 Compliance Audit did not include a review of the applicable Part 68 program elements. EPA observed, instead, that the 2022 Compliance Audit was used to address field observations. EPA observed that the 2022 Compliance Audit action items were indicated as resolved when assigned to contractors; however, EPA stated that resolution is accomplished once the tasks are verified and documented as completed.

EPA observed that the recent Compliance Audit, conducted January 25, 2023 using ZebSoft software, appeared to include the appropriate Part 68 program elements. This Compliance Audit included findings assigned to facility personnel for resolution.

Incident Investigation [40 CFR 68.81]/ Five-Year Accident History [40 CFR 68.42]

EPA reviewed Mays Ochoa's Five-Year Accident History in the RMP submission and inquired about Incident Investigations. EPA reviewed Mays Ochoa's procedures regarding the implementation of Incident Investigations.

Employee Participation [40 CFR 68.83]

EPA reviewed Mays Ochoa's Employee Participation Plan. The plan states that facility personnel may participate in safety meetings, however, *EPA observed, and Mays Ochoa personnel confirmed, that safety meetings had not been occurring for an extended period. Facility personnel stated that safety meetings were reinstated in January 2023.*

EPA observed that PHAs did not include a list of participants; as a result, EPA was not able to ascertain whether operators were included in conducting and developing PHAs.

Hot Work Permit [40 CFR 68.85]

There were no open Hot Work Permit projects on the date of the inspection.

Contractor Safety [40 CFR 68.87]

Mays Ochoa personnel stated that all handling and maintenance of RMP substances is conducted by facility personnel. Mays Ochoa personnel also stated that since the bleach plant is not yet operational, there is no need for contractors to assist in maintaining it yet.

Emergency Response [40 CFR 68.90 – 68.95]

EPA and Mays Ochoa personnel discussed Mays Ochoa's Emergency Response Program. EPA learned that Mays Ochoa has an emergency response team whose tasks include responding to releases of its RMP substances.

Facility personnel referred EPA to the Environmental Health and Safety Plan for the Emergency Response Plan. EPA reviewed full-face air purifying respirator qualitative fit-testing records, HAZWOPER, and personal protective equipment training records.

Records for air-supplied respirators fit-testing and inspections of SCBAs, protective suits and response equipment were not available for review. On March 28, 2023, Mays Ochoa provided evidence of qualitative fit-testing for air-supplied respirators, which took place as a corrective action. EPA observed that tools and repair supplies in the Chlorine B Kit have not been inventoried and that the Chlorine B Kit was not sealed closed.

Mays Ochoa's Emergency Response document did not reference use of the Chlorine B Kit and other equipment specific to the regulated RMP substances. The Emergency Response document did not include procedures for the use and inspection of response equipment.

EPA observed that the Emergency Response document did not specifically discuss the administration of first aid and medical treatment for exposures to the regulated RMP substances.

EPA observed that procedures and measures for emergency response, after an accidental release of a RMP substance, were not complete. Procedures were not specific to the RMP substances and their storage locations. For example, Mays Ochoa personnel stated that DANA expertise would be needed for emergency response at the anhydrous ammonia isotainer storage area. Mays Ochoa's Emergency Response document did not discuss the need for DANA assistance. Mays Ochoa provided information that Chemtrec would be consulted for ethylene oxide response; however, Chemtrec was not referenced in emergency response procedures.

EPA observed that annual coordination activities with local response and planning organizations have not taken place. EPA observed that an attempt to coordinate with local authorities took place on February 7, 2023.

Emergency Planning and Community Right-to-Know Act (EPCRA) Section 312

EPA evaluated Mays Ochoa's 2021 annual chemical inventory filing (Tier II Report). EPA focused on substances listed in the submitted RMP and other potential RMP substances.

EPA observed that the maximum intended inventories for anhydrous ammonia, chlorine, and ethylene oxide were different between the RMP submission and the Tier II Report.

EPA also observed that aqueous ammonia, in a 29% solution, is listed on the 2021 Tier II Report. When calculating the ammonia portion of the solution, this portion is close to the RMP threshold for aqueous ammonia 20% solution.

EPA learned that Mays Ochoa submits its Tier II report to the Local Emergency Planning Committee, the State Emergency Response Commission, and the Puerto Rico Fire Brigade. EPA received Tier II reports for the 2018 – 2021 reporting years. A copy of Mays Ochoa's 2022 Tier II report was provided on March 24, 2023.

FACILITY TOUR

EPA conducted a Facility Tour, with Mays Ochoa representatives, to evaluate the anhydrous ammonia, chlorine, and ethylene oxide storage areas. The storage areas were evaluated to identify hazards and to evaluate conformance with Recognized and Generally Accepted Good Engineering Practices ("RAGAGEP"). EPA observed that the chlorine storage area and bleach plant did not contain chlorine gas on the date of inspection. Although not in operation, EPA evaluated the bleach plant for the presence of valve and equipment labels, chlorine detectors, door labeling, safety equipment, and other equipment configurations pertaining to chlorine use for bleach production. We also evaluated areas onsite containing emergency response equipment.

EPA and Mays Ochoa personnel evaluated the isotainer storage area. EPA observed that anhydrous ammonia isotainers are stored with other mobile containers containing chemicals. *EPA and Mays Ochoa personnel discussed whether Mays Ochoa has evaluated the compatibility of anhydrous ammonia with chemicals stored in adjacent isotainers and mobile containers. EPA observed that the current PHA did not identify this potential hazard.*

EPA and Mays Ochoa personnel discussed whether there is sufficient space between isotainers and mobile containers to facilitate emergency response and isotainer inspection. When discussing response capabilities for the isotainers, Mays Ochoa personnel stated that DANA assistance would be needed. Emergency response documentation did not discuss response strategies for isotainers and coordination with DANA.

EPA observed anhydrous ammonia cylinders in the ethylene oxide building. Mays Ochoa personnel stated that they were empty and were removed by the end of the inspection.

EPA and Mays Ochoa personnel discussed emergency response concerns. For example, EPA observed that response equipment was located in various parts of the facility. Specifically, SCBAs were in a different area than their protective suits.

EPA also observed that the Chlorine B Kit was not sealed closed and was not subject to periodic inspection of its contents. EPA and Mays Ochoa personnel discussed why applicable industry standards emphasize sealing the kit and verifying its contents.

CLOSING CONFERENCE

EPA provided a closing conference to discuss the course of events. EPA stated that all potential Areas of Concern, and other matters discussed, are preliminary and subject to further Agency review. EPA encouraged Mays Ochoa to take corrective action on any items they believe might be deficient. EPA explained that it is our intention to promptly issue an inspection report, and that other inspection-related matters may be addressed after the report. EPA provided Mays Ochoa personnel an opportunity to ask any questions they might have concerning the inspection, follow-up activities, and other Part 68 matters. EPA stated that due to time constraints on the date of the inspection, a follow-up virtual session was needed. The follow-up virtual session took place on March 23, 2023.

As of the date of this report, EPA is further evaluating compliance with Part 68 regulatory requirements referenced above.

INSPECTOR SIGNATURE: **FRANCESCO MAIMONE** Digitally signed by FRANCESCO MAIMONE
Date: 2023.04.04 11:32:32 -04'00'

Francesco Maimone, Physical Scientist Date

INSPECTOR SIGNATURE: **KRISTINA GUARINO** Digitally signed by KRISTINA GUARINO
Date: 2023.04.04 11:50:45 -04'00'

Kristina Guarino, Life Scientist Date

APPROVER SIGNATURE: **HARISH PATEL** Digitally signed by HARISH PATEL
Date: 2023.04.05 10:34:50 -04'00'

Harish Patel, Team Leader Date