

RCRA Compliance Evaluation Inspection Report

1) **Inspector and Author of Report**

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2) **Facility Information**

Daikin America Inc.

EPA ID Number: ALD983192253
NAICS Code: 325120 / 325211

MDA Manufacturing Inc.

EPA ID Number: ALD983192246
NAICS Code: 325120

Physical Address: 905 State Docks Roads
Decatur, Alabama 35601
Morgan County

Mail Address: P.O. Box 2252
Decatur, Alabama 35609-2252
Website: www.daikin-america.com

3) **Responsible Officials**

Ralph Werling, Vice President, Manufacturing
Bill Ulrich, Environmental Manager

4) **Inspection Participants**

Tim Hollis, Environmental Engineer
Chad Bevis, SHES and Quality
Arash Ghoja, Environmental Engineer
Tawny Harville, Environmental Technician
Marlon McMillian, Alabama Department of Environmental Management
Raj Aiyar, U.S. EPA, Region 4

5) **Date and Time of Inspection**

June 29, 2021, 9:15 a.m.

6) **Applicable Regulations**

Resource Conservation and Recovery Act (RCRA) Sections 3002, 3004, 3005, 3007 and 3008, (42 U.S.C. §§ 6922, 6924, 6925, 6927 and 6928)

40 Code of Federal Regulations (C.F.R.) Parts 260-266, 270, 273, 279

Alabama Hazardous Waste Management and Minimization Act of 1978, Ala. Code § 22-30-1 et seq., and rules 335-14-1 to 335-14-17 (2016 and 2018) of the Alabama Department of Environmental Management (ADEM) Administrative Code (ADEM Admin. Code).

As the State's authorized hazardous waste program operates in lieu of the federal RCRA program, the citations of those authorized provisions alleged herein will be to the authorized State program; however, for ease of reference, the federal citations will follow in brackets.

7) **Purpose of Inspection**

On June 29, 2021, inspectors from the U.S. Environmental Protection Agency, Region 4, and the Alabama Department of Environmental Management (ADEM) conducted an unannounced compliance evaluation inspection (CEI) at Daikin America Inc. (hereinafter, "DAI" or the "facility") and MDA Manufacturing, Inc. (hereinafter, "MDA") to determine its compliance status with the RCRA and the State of Alabama regulations.

8) **Facility Description**

DAI is a wholly owned subsidiary of Daikin Industries Limited. The Decatur facility has been operating since 1993 at its current location. The facility is located on 110 acres and approximately 70% of the site is active. DAI manufactures fluorochemical and fluoropolymers for textile, food packaging, chemical, pulping, automotive, aerospace, and refrigerant industries. Some of the chemicals manufactured by DAI at the Decatur site includes Polytetrafluoroethylene (PTFE), Fluorinated ethylene propylene (FEP), Ethylene Tetrafluoroethylene (ETFE), Polychlorotrifluoroethylene (PCTFE), fluoroelastomer and Unidyne oil and grease repellents.

Daikin started a joint venture facility between 3M and Daikin America called MDA. This facility comprising of 20 acres is also located on the contiguous property at 905 State Docks Road in Decatur, Morgan County, Alabama. MDA produces Chlorodifluoromethane (R-22) refrigerant/propellant, tetrafluoroethylene (TFE) and Hexafluoropropylene (HFP). Approximately four years ago, DAI became the sole owner of the joint venture through a buyout of 3M's interest in the project. However, MDA continues to operate as a separate facility.

In its most recent notification of hazardous waste activity (ADEM Form 8700-12, dated February 22, 2021), both the facilities, DAI and MDA notified to ADEM as large quantity generators of hazardous waste, and as used oil generators. According to Mr. Werling, Vice President,

Manufacturing, DAI is currently reviewing the option of combining DAI / MDA under one EPA ID number however, no final decisions have been made. The DAI / MDA employs approximately 350 people and operates four shifts, 24 hours per day and seven days a week.

The hazardous waste codes of hazardous waste streams associated with production at MDA and Daikin are D001, D002, D006, D007, D011, D019, D035, D043, F003, F005 and U080.

Daikin and MDA use Tradebe Millington (EPA ID# TND000772186), Clean Harbors (EPA ID ARD069748192), Giant Resource Recovery Sumter (EPA ID# SCD987594991), Industrial Waste Services (EPA ID# SCR000762245) and Action Resources Recovery (EPA ID# ALR000007237) to pick up their waste.

9) Previous Inspection History

Daikin and MDA were both inspected by ADEM on September 7, 2016. Several deficiencies were observed at both the facilities at the time of the inspection. The deficiencies included failure to close a used oil container, failure to maintain proper signage at the central accumulation area (CAA), failure to label hazardous waste containers and tanks, and failure to update the contingency plan. Both the facilities returned to compliance on 12/02/2016. There was no prior EPA inspection at both these facilities.

10) Findings

Inspectors arrived at the facility at approximately 9:15 a.m. and were greeted by the facility personnel. The inspectors conducted a formal introduction, showed their credentials, and explained the purpose of the visit. Mr. Ulrich and Mr. Hollis provided the inspectors a general description of the on-site activities at the facility. The inspectors were later accompanied by Mr. Ulrich, Mr. Hollis and Mr. Bevis during the walk-through inspection of the facility. We were later joined by Mr. Ghoja and Ms. Harville for the hazardous waste tank inspection.

MDA Waste J2 Methanol Tank

The inspection began at the MDA portion of the facility at the Waste J2 Methanol Tank. This tank is used to store waste methanol from the chemical production process. Prior to conducting the inspection at the Waste J2 Methanol tank, inspectors checked-in with the control room for the production unit. At the control room, the inspectors were informed that the daily tank inspection logs are maintained in the control room. The inspectors reviewed the daily inspection logs for calendar years 2020 and 2021. The logs were observed to be complete. Mr. Walker, production supervisor gave the inspectors an overview of the process and the control room. Mr. Walker mentioned that the production process is monitored through the facility's distributed control system (DCS) which serves as a platform for automated control and operation of the industrial process.

After the visit to the control room, the inspectors proceeded to inspecting the Waste J2 Methanol Tank. Mr. Hollis stated that the tank was upgraded to manage the waste stream better from an approximately 3,000-gallon tank to a 6,500-gallon double walled fiberglass tank in May 2019. The tank was observed to be labeled with the words 'Hazardous Waste'. The waste codes on the

tank was D001, D035 and F005. The secondary containment for the tank was observed to be intact and free of any cracks or gaps (Picture-2). The volume of the material in the tank is monitored by the DCS in the control room. The alarm testing for the tank is conducted on an annual basis per the facility's preventive maintenance schedule.

The inspectors observed discoloration on the ancillary equipment and piping associated with the Waste J2 Methanol Tank (Pictures-2,3,4,5). Daikin responded to the concern raised by the inspectors during the inspection in a letter dated July 28, 2021 to the EPA. Daikin mentioned that as part of Daikin's Process Safety Management (PSM) program, applicable equipment including piping are evaluated in pursuant to Daikin's maintenance quality control procedures which includes In-Service Inspections of Pressure Vessels (mnt-qc-001); In-Service Inspection of Storage Tanks (mnt-qc-002); in-service examination of piping (mnt-qc-003); and examination of relief and vent systems (mnt-qc-004).

DAI 90-day Storage Area

This storage area is located at the end of MDA production area on the north side of the property. The hazardous waste storage area is comprised of a corrugated metal roof structure surrounded by a chain-link fence (Picture-6). The gate was closed, and the warning signs were posted at the entrance. The building was sloped with concrete berms around the perimeter of the storage area. The concrete floor was free of any cracks or gaps.

The storage area is divided into two sides, Hazardous and Non-Hazardous. There were four 250-gallon totes of waste methanol in storage at the time of inspection (Picture-7). The oldest accumulation date on the totes was observed to be 04/14/21. There were 26 55-gallon waste drums, 21 55-gallon used oil drums and three 250-gallon used oil totes on the nonhazardous waste side. All the containers and totes were observed to be closed, labeled, and dated. There was adequate aisle space in the storage. There were no leaks or spills observed in the storage area. The storage area was observed to be equipped with fire extinguisher and spill kits.

The inspectors observed some of the labels on the containers in storage were peeling. Daikin responded to the inspector's concern observed during the inspection in a letter dated July 28, 2021. According to Daikin, all the labels on the containers that were observed to be peeling at the time of inspection were replaced with new labels. All appropriate labels affixed are checked as part of the weekly inspection. In addition, appropriate shipping labels provided by the designated Treatment, Storage and Disposal (TSD) facility are placed on the containers prior to the shipping.

MDA 90-day Storage Area

The hazardous waste storage area comprised of a corrugated metal roof structure surrounded by a chain-link fence (Picture-8). The gate was closed, and warning signs were posted at the entrance. The building was sloped with concrete berms around the perimeter of the storage area. The concrete floor was free of any cracks or gaps. The inspectors observed a fire extinguisher and a portable eye wash station. The storage area is divided into two sides, Hazardous and Non-Hazardous. There was adequate aisle space in the storage area. There were six 250-gallon totes of waste methanol (Picture-9) and one 55-gallon drum of waste methanol (Solids) in storage at

the time of inspection. All the totes and the drum were observed to be closed, labeled, and dated. The waste codes on the totes and the drum were observed to be D001, D002 and D007. The oldest accumulation date was observed to be 05/30/2021. The inspectors stated that the housekeeping could be improved at the MDA Storage.

Daikin responded to the inspector's concern observed during the inspection in a letter dated July 28, 2021 to the EPA and the State. Daikin indicated that they have prepared a plan to upgrade the MDA 90-day storage which includes installing a bird netting, recoat the floor and paint the plywood wall, remove stained/torn tarps from the side wall, restripe the area for the designated container location, install a new signage and replace the portable eye wash unit with an installation of a permanent shower / eyewash station.

DAI MEK Tank

The tank farm consists of two 15,000-gallon aboveground storage tanks located in the Daikin production area (Picture-10). One 15,000-gallon tank contained spent Methyl Ethyl Ketone (MEK); the other 15,000 tank contained clean product solvent (MEK). Both the tanks were observed to be labeled and placarded. Both the tanks are monitored by DCS. The spent MEK is sent offsite for reclamation twice a week and returned to the facility for reuse in the production process. The secondary containment for the tanks was observed to be intact and free of any cracks or gaps (Picture-11). There were no leaks or spills observed in the secondary containment.

Satellite Accumulation Areas

Three satellite accumulation areas (SAAs) in the B9 (Picture-12) and B10 units were inspected in the DAI area of the facility. There was one SAA drum in the B9 unit (Picture-12). Two 55-gallon SAA drums in the B10 unit. The SAA drums in both the units were observed to be closed and labelled with the words "Hazardous Waste". Both the drums had waste codes. None of the SAA drums in both the SAA units had markings and/or labels indicating the hazard.

The inspectors told Mr. Hollis although the drums had hazardous waste labels and waste codes, however, pursuant to ADEM Admin. Code r. 335-14-3 [40 C.F.R. § 262.15(a)(5)] which is a condition of the SAA Permit Exemption, a generator is required to mark or label its container with (i) with the words "Hazardous Waste" and (ii) with an indication of the hazards of the content. Mr. Hollis later showed pictures of the SAA containers having pictograms before the end of the inspection. The inspectors stated to Mr. Hollis that all the SAA containers in the production area should have labels and/or marking indicating the hazard. Mr. Hollis stated to the inspectors that he would ensure that all SAA containers in the production area would have pictograms and would also ensure that the procedures for SAA containers are updated to include the placement of DOT labels on the SAA containers.

Daikin further responded to the inspector's concern observed during the inspection in a separate letter dated July 28, 2021 to the EPA. Daikin stated that as part of their continual improvement action, Daikin had placed applicable DOT labels on their SAA containers at other locations and revised their procedure to include the placement of DOT labels on their SAA containers.

11) Record Review

Once we completed the walkthrough of the facility, we returned to the office area to conduct a review of the required documentation. The records reviewed for a three-year period (2019-2021) included the following:

- Personnel Training
- Contingency Plan and Quick Reference Guide
- Weekly Hazardous Waste Inspection Log
- Hazardous Waste Manifests
- Documents showing emergency arrangements with local authorities
- Daily Tank Inspection Logs
- LDAR Records for the Waste J2 Methanol Tank, 2018-2021

Based on the review of the records, the records appeared to be complete.

12) **Out-Briefing**

An exit briefing was conducted at the conclusion of the inspection. Mr. Werling, Mr. Bevis, Mr. Ulrich, Mr. Hollis, Mr. Ghoja and Ms. Harville participated in the exit briefing. The observations made during the inspection were discussed and the inspection was concluded.

13) **Signed**

Raj Aiyar
Environmental Engineer

Date

14) **Concurrence**

Araceli B. Chavez
Chief
RCRA Enforcement Section

Date

Attachment A

DAIKIN AMERICA, INC.

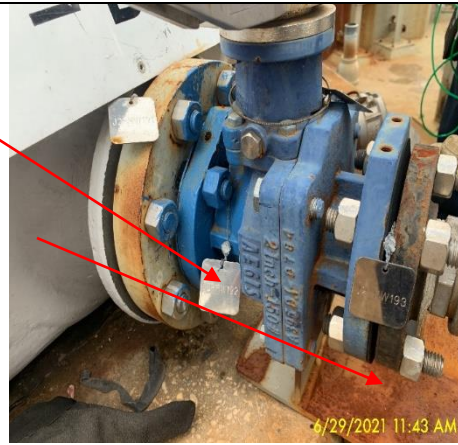
HUNTSVILLE, ALABAMA

EPA ID # ALD983192253

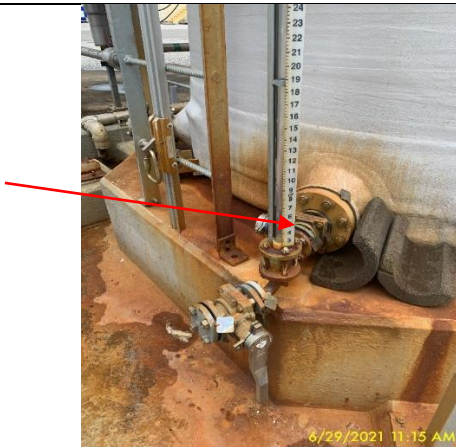
JUNE 29, 2021



Picture-1 Waste J2 Methanol tank



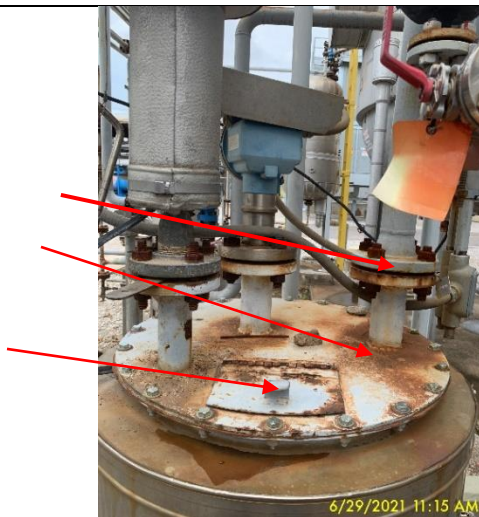
Picture-4 Subpart BB tags, Discoloration of Ancillary Equipment



Picture-2 Secondary Containment; Discoloration on Piping and Ancillary Equipment



Picture-5 Potential Rust on the Ancillary Equipment associated with the Waste J2 Methanol Tank



Picture-3 Discoloration on Piping and Ancillary Equipment associated with the Waste J2 Tank



Picture-6 DAI 90-day Waste Storage Area



Picture-7 Hazardous Waste in the DAI Waste Storage



Picture-10 DAI Spent MEK Tank & Product Tank



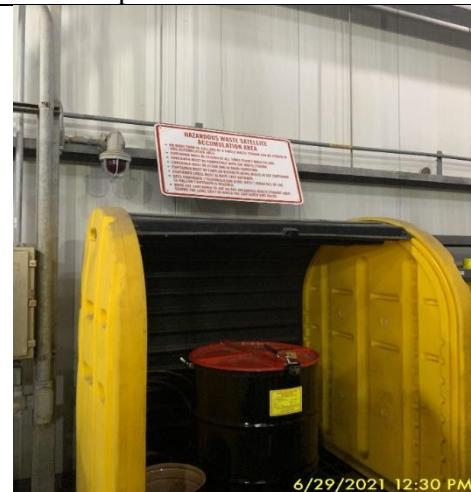
Picture-8 MDA 90-day Waste Storage Area



Picture-11 Secondary Containment DAI Spent MEK Tank Area



Picture-9 Waste Methanol in MDA 90-day Storage



Picture-12 B9 SAA Drum