

EPA Region 10 Enforcement Division

INSPECTION REPORT

Inspection Entry Date/Time	08/23/2022 08:56 AM (PT)	Announced: No
Inspection Exit Date/Time	08/23/2022 03:07 PM (PT)	Access: Granted
Weather	Sunny, dry, 80s	
Regulatory Program	RCRA	
Type of Inspection	CEI - Compliance Evaluation Inspection	
Company Name	Qorvo	
Facility or Site Name	Qorvo Us Inc	
Facility/Site Identifier	ORQ000005322	
Facility/Site Physical Address	2300 Ne Brookwood Pky	
City, State, Zip Code	Hillsboro, OR 97124	
County/Borough	Washington	
Generator Status	LQG	
NAICS	334413	
Type of Operation	Semiconductor manufacturing	
Size of Facility		
Length of Facility at Location	Since 1997	
Geographic Coordinates	45.539682, -122.936288	
Mailing Address/Secondary Address	Same as above	
Permit Number (If Applicable)	Not Applicable	

Additional Persons Participating in Inspection:

Name	Title	Organization	Email	Phone
Zeb Bates	Inspector	Oregon DEQ	Zebuliah.bates@deq.oregon.gov	

Lead Inspector:

Katie Bradshaw		
	EPA Region 10	bradshaw.katrina@epa.gov (206) 553-6318

Supervisor Review:

Jen Sullivan		
	EPA Region 10	Sullivan.Jennifer.A@epa.gov (206) 553-6978

SECTION I – INTRODUCTION**Site Entry and Purpose of the Inspection**

Type of inspection: CEI - Compliance Evaluation Inspection

EPA Region 10 Lead Inspector, Katie Bradshaw, and Oregon DEQ Inspector, Zeb Bates, arrived at the Qorvo Us Inc Facility (the “Site” or “Facility”), located at 2300 Ne Brookwood Pky, Hillsboro, OR 97124, at 08:56 AM (PT) on 08/23/2022 for an unannounced inspection. EPA Region 10 Lead Inspector presented credentials to and informed James Cochran that this was an EPA Region 10 inspection to determine compliance with the Resource Conservation and Recovery Act (RCRA).

This report is based on information supplied by Qorvo Us Inc Facility representatives, observations made by the EPA Region 10 inspector, and records and reports maintained by the facility and its HQ including, but not limited to: direct observations made by the EPA Region 10 Inspector(s), photographs taken by EPA Region 10 inspector(s), physical evidence collected by the EPA Region 10 inspector(s), measurements or samples taken by EPA Region 10 inspector(s), verbal or written statements made by information supplied by the facility representatives during or subsequent to the on-site Inspection, and materials, processes, data, photographs, or documents shown, demonstrated, or submitted to the EPA Region 10 inspector(s) by the facility representatives during or subsequent to the on-site Inspection. In addition, information gathered prior to or subsequent to the Inspection from a review of USEPA, State, and public records may be included in this report.

Attendees

Title/Organization	Name	Phone	Email	Opening Conf.	Closing Conf.
Lead Inspector/EPA Region 10	Katie Bradshaw	2065536318	bradshaw.katrina@epa.gov	Yes	Yes
Inspector	Zeb Bates		zebuliah.bates@deq.state.or.us	No	Yes
Consultant	Kristina LeVelle			Yes	Yes
Environmental Engineer	Kiley Ross	(503) 615-9260	kiley.ross@qorvo.com	Yes	Yes
Manager of Environment, Health & Safety	James Cochran	(503) 615-9199	james.cochran@qorvo.com	Yes	Yes

Opening Conference

I, EPA Lead Inspector Katie Bradshaw arrived at the Qorvo Us Inc at 08:56 AM (PT) on 08/23/2022 for an inspection. I presented my credentials to and informed James Cochran that this was an EPA RCRA inspection. The table above presents all the inspection participants in opening and closing conferences. I also explained that I would be performing Leak Detection and Repair (LDAR) Monitoring on the Subpart BB and CC equipment, using a Toxics Volatile Analyzer (TVA2020).

Facility/Site Information

What type of generator facility verified as?	Large Quantity Generator (LQG)
What type of generator facility notified?	LQG
Operating Hours	24/7; 365
Weather Conditions	Sunny, dry, 80s
Number of employees	800

Process Description

The facility manufactures semiconductors in a series of etching and photoresist processes. There are a variety of waste streams produced, including metals, solvents, acids, and debris. The solvent system is gravity drained to a two-compartment 2,000-gallon tank, which has monthly checks (along with all the solvent piping and equipment) conducted by contractors using EPA Method 21.

During the tour, we looked at the facility's processes, in addition to hazardous waste management practices, generation points, and accumulation areas. We looked for wastes that facility representatives had not yet identified or designated as hazardous. We also observed the facility's universal waste and used oil management. Specifically, we inspected the following areas of the facility listed below.

Only those areas in which we observed areas of concern or noted other pertinent issues are discussed in this inspection report.

Building(s)

Building/Area/Sub-area	Process Description	Area Of Concern
Fab	Most of solvents	No
Chem pass through	SAA with two containers	Yes
Finish fab		Yes
Photo Room		No
Fab Tank		No
Fab WW		No
Machine shop	Universal waste area	Yes
Office bldg	A little bit of manufacturing	No
Link	ER	No
Outside	tank	No
Solvent tank room	background 0.9 ppm	No
Bin 103	CAA	No
Bin 104	Corrosive; requested profile	No
Outdoor CAA	Pending analysis. Should say pending hazardous	Yes

SECTION II – OBSERVATIONS

Inspection Date: 08/23/2022

QORVO US INC**Observation #:** KB1-OB-001 **Date:** 08/23/2022 **Contains AOC:** Yes **Contains CBI:** No**Person Interviewed:** **Title:**

Corrosive acid waste two containers. Both empty.

Photo(s)

1. [IMG-202208230941234123196533.jpg](#)

Building: Outside/ solvent tank room**Observation #:** KB1-OB-003 **Date:** 08/23/2022 **Contains AOC:** No **Contains CBI:** No**Person Interviewed:** **Title:**

- Tank East compartment had 277 gallons; West had 70 gallons
- Funnel
- End caps/valves x34
- Flanges x2
- Ships every 5 days
- Valves x 3

No component detected more than 20 ppm.

QORVO US INC**Observation #:** KB1-OB-006 **Date:** 08/23/2022 **Contains AOC:** Yes **Contains CBI:** No**Person Interviewed:** **Title:**

3 universal waste lamps on top of containers.

Photo(s)

1. [IMG-202208231128372837128416.jpg](#)

Building: Fab/Finish fab**Observation #:** KB1-OB-004 **Date:** 08/23/2022 **Contains AOC:** Yes **Contains CBI:** No**Person Interviewed:** **Title:**

Finish fab vacuum open end.

Photo(s)

1. [IMG-20220823110154154169187.jpg](#)

Building: Outside/Outdoor CAA/Bin 101

Observation #: KB1-OB-002	Date: 08/23/2022	Contains AOC: Yes	Contains CBI: No
Person Interviewed:		Title:	
Bin 101 label issue waste pending analysis didn't have "hazardous waste" or hazard indicator.			

SECTION III – RECORDS REVIEW

In the interest of time, I requested records to be reviewed after the inspection (see Communication Log in Section V).

SECTION IV – AREAS OF CONCERN

The presentation of areas of concern does not constitute a formal compliance determination or violation.

Building:	Area: SAA	Sub-area:
KB1-OB-001		
Corrosive acid waste 2 containers; Both empty.	Citations: 40 CFR	Sections: 262.34(c)(1)
Building:	Area: Universal Waste	Sub-area:
KB1-OB-006		
3 UW lamps on top of containers	Citations: 40 CFR	Sections: 273.13(d)(1)
Building: Fab	Area: Finish fab	Sub-area:
KB1-OB-004		
Finish fab vacuum open end	Citations: 40 CFR	Sections: 262.34(a)(1)(i)
Building: Outside	Area: Outdoor CAA	Sub-area: Bin 101
KB1-OB-002		
Bin 101 label issue waste pending analysis didn't have "hazardous waste" or hazard indicator	Citations: 40 CFR	Sections: 262.34(a)(3)

SECTION V – CLOSING CONFERENCE AND FOLLOW UP

Closing Conference

During the closing conference, I asked about BB equipment leaks recorded on 08/05/22, and if there was a timeframe for repair? Kylie Ross confirmed from the email traffic that it should be done within the next week. I reviewed the few areas of concern, and asked James Cochran to email the requested documents and photos of labels placed and containers closed as required. I explained that I was not making a compliance determination on site, and that any follow up would likely come from a compliance officer. I thanked them for their time and cooperation and departed the facility at 03:07 PM.

Follow Up

I observed some follow up at the time of the inspection. The extra container in the SAA was removed, the universal waste lamps were placed inside the closed containers, and labels placed to include the words hazardous waste and the hazard indicator.

Communication Log

Additional information was received by EPA Region 10 after exiting the Facility on 08/23/2022. James Cochran sent the following information on 08/25/2022:

- Contingency Plan
- Hazardous Waste Management SOP
- Inspection Photo Log and Corrections
- Manifest Tracking for 2021
- Current Training Status Reports
- Solvent Tank Integrity PE Stamp
- Waste Management Profile for Corrosive Acid Contaminated Solids
- EPA DEQ Inspection Photo Log 8-23-22

SECTION VI – MONITORING ACTIVITIES

Organic Air Emissions of some, but not all, Subpart BB and CC equipment. No emissions were detected above limits.

SECTION VII – LIST OF APPENDICES

1. Photo Log

Inspection Date: 08/23/2022

APPENDIX 1: PHOTO LOG

SAA	IMG-202208230941234123196533.jpg	
08/23/2022 09:42 AM	Photographer: Katie Bradshaw	
Near fabrication area	No CBI	No PII



Universal Waste Lamps on Containers	IMG-202208231128372837128416.jpg	
08/23/2022 11:28 AM	Photographer: Katie Bradshaw	
Machine Shop	No CBI	No PII

Inspection Date: 08/23/2022



"Waste Pending Analysis" not labeled hazardous nor a hazard indicator		IMG-202208230952155215211871.jpg	
08/23/2022 01:25 PM		Photographer: Katie Bradshaw	
Outdoor CAA Bin 101		No CBI	No PII



Hazardous waste vacuum with open end		IMG-20220823110154154169187.jpg	
08/23/2022 11:01 AM		Photographer: Katie Bradshaw	
Fab/Finish fab		No CBI	No PII