

Environmental, Health and Safety Compliance
and System EHSMS Audit in Response to:

Washington State Preferred Performance
Measures for Direct Processors

WAC 173-900-650

Facility Audited: Universal Recycling Technologies, Clackamas, Oregon

Auditor: Tom Delich, and Kelley Keogh

Date: November 8th, 2022

Scope of Audit

This audit was designed to meet the specific requirements of the State of Washington's "Environmentally Sound Management Performance Measures for Direct Processors – Preferred Status" qualification requirements. The WA State Standards, WAC 173-900-650. These were interpreted, and a facility checklist was prepared to meet the standards requirements that related directly to the operations. The audit consisted of confirming the nexus between the two documents and the operations.

The ISO system manages non-conformances with the CAPA process. All of the issues that have been identified will be managed appropriately to resolution and to prevent recurrence.

The facility audited:

Universal Recycling Technologies (URT) facility located at -10151 SE Jennifer St. Clackamas, OR, 97015 audit was performed November 8th, 2022.

The facility is well run and operating efficiently. Employees demonstrated proficiency in their job duties and the management system in general. The URT staff demonstrated strong commitment to the management systems and the overall QEHS performance of the company.

Audit Summary

The following is a summary of a comprehensive review for compliance of operations in response to the Washington State Department of Ecology Preferred Performance Standards for Direct Processors of Electronics Processors - WAC 173-9000.

1. Responsible Management Priorities – *Facility Maintains Compliance with Standards*

Inherent in the ISO 9001, ISO 14001, ISO 45001, R2v3, NAID AAA and e-Stewards v4.1 Standards, which is what this company utilizes as an EHSMS, is the continuous improvement of operations through management and operation's evaluations.

2. Legal Requirements – *Facility Maintains Compliance with Standards*

URT, OR utilizes a subscription service that identifies local, state, federal and international regulations. An external audit of compliance is completed every two years by a third party. Internal audits are completed annually, and the certification bodies do an annual surveillance audit as well.

At the OR facility material continues to be managed under Fed UW regulations (OR). The company agrees to be completely transparent with the WA DOE in regard to non-compliant events. This is added this to the Legal and Other Requirements register at the OR facility and corporate office.

3. Environmental, Health, and Safety Management System EHSMS - *Facility Maintains Compliance with Standards*

In Oregon, Universal Recycling Technologies is certified to ISO 9001, ISO 14001, ISO 45001, R2v3, NAID and e-Stewards v4.1. These are internationally recognized standards of excellence in

Environmental, Health and Safety Management Systems. The company wide EHSMS is audited and updated, as new procedures are implemented, or as new materials is accepted. The QEHSMS contains a diligent "Plan, Do, Check" component, which manages change and issues through constant management review. The system is 3rd party reviewed annually during surveillance audits required by these certifications.

4. Recordkeeping – Facility Maintains Compliance with Standards

Records are managed well as noted during the audits and all material downstream dispositions to final destinations were confirmed through the e-Steward and R2v3 audit certification processes, which also meet the WA DOE requirements. They are currently sending circuit boards to [REDACTED] France, [REDACTED] Japan. They send to [REDACTED] Texas who sends to [REDACTED] Japan, [REDACTED] Minnesota who sends to [REDACTED] (Japan), [REDACTED] (S. Korea) and [REDACTED] (Belgium) and [REDACTED] who sends to [REDACTED] who sends to [REDACTED] (S. Korea and [REDACTED] (Japan) for circuit boards. CRT glass is processed onsite and separated. The funnel glass is vitrified and leaves as a commodity for tile manufacturing. Batteries are processed [REDACTED] in GA, [REDACTED] in New York. Mercury containing devices are sent to [REDACTED], WA for processing and the mercury sent to [REDACTED] MA or to [REDACTED] CA who sends to [REDACTED] IN for retort. The facility's tracking database enables auditors to track all tonnage and materials to a final destination.

5. On-site requirements - Facility Maintains Compliance with Standards

Universal Recycling Technologies, LLC accepts all types of electronic waste. Material is received through one of their eight receiving docks, tagged with a personalized tracking slip, and sorted. CRTs are sent to the glass processing room. Material and components that have the capabilities for refurbishment are tested onsite. All flat screens, computers (removed batteries, ram and wire removed in processor), peripherals are shredded on-site.

Printers, circuit boards, peripherals and all whole flat panel display devices are shredded in the e-waste shredder separation system which uses a proprietary shredding system with a HEPA and carbon air filter system. This was installed in July of 2017. There is a proprietary mercury recovery device on the shredder. The DEQ Air Quality Division has placed no limitations on what the facility can shred.

Facility has a Solid Waste Material Recovery Facility Permit #1405. The facility creates dust from the glass separation machine. During the tumbling process of the glass cleaning there is a cleaning reagent added to the process to stabilize the lead. The Oregon DEQ has authorized the process. The facility has recently installed new equipment and the glass lines do not produce fines as a waste. Fines are included in the vitrified frit commodity. A very small amount of municipal waste is generated that includes office waste that goes into the landfill and plastic film from the LCD line is landfilled.

The facility leases trailers that are dropped off at customer sites and picked up when full. Observed 16 trailers onsite or in the loading dock. 14 trailers were parked back to back, one trailer was available to be opened. Auditor observed skids of TVs with the oldest shipping date showing 10-3-22. The operations manager stated 2 other trailers contained similar unreceived equipment, the other 11 trailers did not have any material in them. The internal site auditor observed material handled per regulations and using acceptable industry standards.

Housekeeping and material management was on par to industry standards. Material is inventoried and moved quickly throughout and managed in a database to ensure that none is kept over 3 months. Facility scale in Oregon has been calibrated and certified. Materials of Concern are not stored outside, and the security is adequate with visitor sign in, perimeter fencing, and CCTV. Worker safety is protected through training, OSHA required safety programs and housekeeping practices. Risk assessments have been done for each job station and auditor can verify that the appropriate PPE is worn. The health and safety training are consistent with requirements for the operation and the facility.

All employees are trained in proper PPE use, mercury spill kits, and emergency procedures. Mercury Hygiene Policy/Procedures and Employee Exposure Programs including class topics such as, Decontamination of Hands, Decontamination of Clothing/PPE, Food and Drink Restrictions, Decontamination of Surfaces, Air Monitoring, Necessary PPE for Locations, and Employee Biological Monitoring (as necessary). Equipment is inspected and tested monthly. Evacuation routes and hazard signs are posted. Auditor reviewed Competence, Training, and Awareness Procedure, and Employee Training and Competence Records.

The facility does not discharge air emissions. They have two dust collection systems, one for the shred system (LCD's and small electronics) which has a mercury capturing system, and the other dust collection unit for CRT glass room where full CRT tubes are broken up and separated into funnel and panel glass. Air-testing results for particulate matter, opacity, and green loading were well below required limits in 2015, which satisfied the air permit, and does not require additional testing. The facility's renewed discharge air emissions permit doesn't require air emissions testing moving forward. The facility has an Air Contaminant Discharge Permit #03-9511-SI-01.

6. Materials of Concern - Facility Maintains Compliance with Standards

The auditor observed Materials of Concern (MOC) being handled in accordance with standards. A MOC flow chart is attached. The auditor verified that all downstream vendors for MOC's handle material per the WA State DOE Standards. URT agrees to notify the WA State DOE of vendor changes for all MOC's and will build this into their EHSMS.

7. Recycling - Facility Maintains Compliance with Standards

Materials managed to ANSI and OSHA standards - observed during the site visit. The auditor observed dismantling and separation to the highest marketable levels.

8. Reuse - Facility Maintains Compliance with Standards

Any material or components received that have the capability for reuse are tested for functionality according to e-Stewards requirements onsite. This includes RAM, Monitors, Processors, Video Cards, and Power Supplies. Failed devices are shredded or sent downstream for processing.

Facility is NAID certified. Hard drives are shredded onsite. Drives are stored for less than a month prior to shredding and all data bearing devices are shredded onsite. All material is stored indoors, and all staff are drug tested, and 7 year background checks conducted. There are 20 cameras with recordings which are stored for at least 180 days.

9. Disposal of Residuals - Facility Maintains Compliance with Standards

Facility waste management follows state and federal guidelines. No materials of concern go to non-HW landfills or incineration. Site waste is managed and separated to minimize material going to landfill and nothing from the recycling process goes to the landfill.

10. Refurbishment - Facility Maintains Compliance with Standards

The facility does not refurbish equipment, it is sent to their Janesville, WI site.

11. Transport – Facility Maintains Compliance with Standards

URT accepts deliveries directly from customers, or they use their own box truck for pick-ups. They have one box truck and one tractor-trailer for local deliveries inbound. The facility uses third party transporters for outbound deliveries. Other trucking companies used by the facilities go through a transportation audit that includes 3 years of compliance certification, insurance requirements, ownership and company identification and annual vendor form updates. The auditor has reviewed the completed audits.

12. Prison Labor – Facility Maintains Compliance with Standards

URT does not use prison labor.

13. Facility Access – Facility Maintains Compliance with Standards

URT allows WA State DOE full record and site access – auditor discussed with management team.

14. Notification of Penalties and Violations – Facility Maintains Compliance with Standards

URT agrees to notify the WA DOE within 30 days if they receive a Notice of Violation at the facility. The facility has listed this requirement into the Legal and Other requirements to manage.

15. Due Diligence Downstream - Facility Maintains Compliance with Standards

As part of the audit process the auditor reviewed URT's comprehensive audit criteria for downstream vendor audits and sampled some of their annually updated audit packages which include permits, Bills of Ladings, Export Permissions, confirmation that the material processing meets the e-Steward, R2v3 and WMMFA requirements and worker health and safety protections. Processing technologies and material dispositions are listed in the MOC chart attached to this report. While onsite the auditor also reviewed 12 months of Bills of Lading for all Material of Concern against audit folders and the list of approved downstream vendors for accuracy. All current vendors have been audited and the CB auditor will review these documents with the next onsite e-Stewards and R2v3 surveillance audit.

16. Exporting – Facility Maintains Compliance with Standards

As confirmed during the e-Steward and R2v3 certification audits, URT is following WA DOE and FED EPA standards as the final destination for CRT glass processing as it leave the site as a commodity for tile manufacturing. Circuit Boards are sent to smelters in Japan, Belgium, France, and S. Korea either direct or through downstream vendors. All batteries except for spent lead acid are processed in GA. The facility has audits of these facilities on file which include required export requirements and are reviewed by the CB auditors during the certification audits.

17. Insurance - Facility Maintains Compliance with Standards

URT maintains more than adequate insurance to cover their employees, operations, and pollution liability.

18. Closure EHSMS and Financial Responsibility - Facility Maintains Compliance with Standards

The closure plan in place uses a surety bond to cover the estimated costs of calculated closure. Estimated cost of closure is \$260,466.63. URT is principal and it will be executed by Westchester Fire Insurance Company of the Surety Bond that has a value of \$260,467.

The facility holds the following insurances, which are valid through 7/06/2023:

General Liability: \$1,000,000 per occurrence / \$2,000,000 aggregate
Automobile Liability: \$1,000,000 Combined Single Limit
Umbrella Liability: \$10,000,000 per occurrence / \$10,000,000 aggregate
Workers Compensation: \$1,000,000 each/ \$1,000,000 disease
Pollution Liability: \$15,000,000, \$25,000 deductible expires on 7/06/2023

19. Facility Security - Facility Maintains Compliance with Standards

Facility stores all materials indoors and employees must complete a background check and drug testing before hire. There are a 24/7 intrusion detection system monitors the doors, motion, and electrical failure. Badge access is needed from outside. Any door open longer than 45 seconds trips an alarm and ADT monitors access control. There are 20 cameras with recordings stored for up to 6 months. The facility has a weekly camera check as well monthly security checklist completed monthly including checking motion detectors, camera functions, door contacts, keypads, battery back-ups, monitoring services, visitor in/out logs, visitor badges, lighting, and locks.

Hard drives are shredded onsite. Drives are stored for less than a month prior to shredding and all data bearing devices are shredded onsite. The entire warehouse is considered a secure warehouse with keycode access. Loading docks are shut unless active loading and unloading is being conducted. All material is stored indoors, and all staff are drug tested, and 7 year background checks conducted. There are 20 cameras with recordings which are stored for at least 180 days. The facility is preparing for their NAID certification audit Q2 2022, where they will also create a secure cage for additional security with specific contracts.

Findings

No findings were identified.

Auditor Qualifications

The auditor is certified by the State of WA DOE to perform this audit. Kelley Keogh is the Co-Founder/Managing Director of Greeneye Partners, LLC., for whom Tom Delich works. Their main body of work is in the electronics processing and recycling fields. The State of Washington's DOE maintains the auditor qualifications on file.