



Operations Plan Template For Permits for Facilities Primarily Processing and Storing Waste Electronic Devices

I. Introduction

- a. Purpose of the Operations Plan
- b. Regulatory Requirements

The regulatory requirements governing solid waste facilities are defined in the Oregon Administrative Rules Chapter 340, Divisions 93 through 97. Division 96-040 specifically address material recovery facilities including plans and specifications, design and construction, and operations. **Note: Most solid waste permits issued to e-waste facilities will be material recovery facility solid waste permits; however, some of the permits issued or modified will be transfer station solid waste permits and a few may be solid waste treatment permits. This operations plan template focuses on material recovery facilities but serves as a guide for any permitted facility.**

Hazardous Waste Requirements include 40 Code of Federal Regulations parts 124, 260-266, 268, 270, 273, and 279; Oregon Administrative Rule 340 Divisions 100 to 106, 109 to 111, 113, 124, and 142; and ORS 466.005 through 466.385. Applicable federal and state policies include the CRT policy, and EPA export notification. Universal Waste rules are found in 40 CFR § 273.

- c. Overview of Operations

II. Facility Description

- a. Site Location and Topography (Include proximity to residences, schools, day care facilities, parks, or other areas where children may be present.)
- b. Facility Layout Site Access and Egress
- c. Stormwater and Sanitary Disposal (Include description of pretreatment, holding tanks, infiltration areas, and engineered bioswales)
- d. Surface Water and Surface Drainage Control (Include distance to waters of the state such as surface waters, ditches and other conveyance to surface or ground water)
- e. Impervious Areas (Describe buildings, site surfaces, and roads)

III. General Facility Operations

- a. Hours of Operation
- b. Access Control, Site and Material Security
- c. Litter Prevention and Control
- d. Vector Prevention and Control
- e. Dust, Noise, Odor Prevention and Control
- f. Facility Operation Equipment
 - a. Equipment list and descriptions
 - b. Maintenance Records and Schedules

- g.** Complaint response procedures including keeping a log of complaints received and how each is addressed.

IV. Waste Handling Operations

a. Waste Streams

- i.** Acceptable Waste (List acceptable materials and describe potentially hazardous or toxic components of each)
- ii.** Unacceptable Waste (List unacceptable materials; these are materials prohibited by the permit, and any additional materials your facility chooses not to accept)
- iii.** Special Waste List and describe handling for each material type; list includes, but is not limited to:
 - 1.** Items containing polychlorinated biphenyls (PCBs),
 - 2.** Items containing mercury,
 - 3.** CRTs and CRT glass,
 - 4.** Batteries
 - 5.** Whole and shredded circuit boards, except for whole and shredded circuit boards that do not contain lead solder, and have undergone safe and effective mechanical processing, or manual dismantling, to remove mercury and batteries.

b. Waste Receiving

- i.** Incoming Waste
- ii.** Load Checking including visual inspection of incoming loads
- iii.** Rejection procedures for loads containing prohibited wastes or unauthorized wastes
- iv.** Screening procedures for reuse or refurbishment viability

c. Material storage and processing (Include measures for ensuring that materials are not exposed to stormwater, atmospheric conditions, floods, and unauthorized access. Also include protective measures against inadvertent breakage)

d. Waste Sorting and Recovery (Explain how each material type is handled from acceptance to shipment away from the facility. Material types include but are not limited to:

e. Housekeeping procedures

f. Procedures for measuring quantities of waste recovered for material recovery surveys and/or recycling rates

g. Procedures for measuring quantities of waste that disposed at a landfill or incinerator

h. Waste Control Procedures for discouraging disposal, identifying, containing, and disposing of unacceptable (prohibited) wastes.

i. Per Oregon Revised Statute (ORS) Chapter 459.247, facilities must establish and implement a program to prevent acceptance of covered electronic devices for disposal. (Covered electronic device includes televisions and monitors, and portable and desktop computers and is further defined in ORS 459A.305(3)(a))

Describe the following elements of your program to prevent acceptance for disposal of covered electronic devices:

- Signage
- Regular training for employees
- Outreach to waste generators (if applicable)
- Outreach to haulers (if applicable)

- Plan for handling, containing, and properly disposing prohibited waste discovered on site
 - Procedures for prohibited load or item rejection including keeping records of rejection
- Wastes prohibited for disposal may be collected on site for recycling or recovery depending on facility permit authorizations.

V. Downstream Due Diligence

- a. Explain how the facility will ensure that waste receiving vendors will recycle, refurbish, reuse, or dispose materials in accordance with federal, state and local laws.
- b. Describe procedures for ensuring compliance with applicable transporting, shipping, handling laws of recipient states and countries.
- c. Explain implemented practices that establish and maintain a written record such as shipping documents, database extracts, or other documents that identify where any waste electronic devices, components, or materials that are recycled from the time the equipment, components or materials leave the facility through to the point at which materials become a single material commodity suitable for processing.

VI. Reporting Requirements

Include all DEQ required reports and documentation (examples include, Material Recovery Survey, Annual Compliance Forms, Financial Assurance documentation, Hazardous Waste Generator requirements, Universal Waste Handler requirements)

VII. Contingency Plan

- a. Safety Program
- b. Emergency Agencies and Phone Numbers
- c. Emergency Access
- d. Personal Protective Equipment
- e. On Site Emergency Equipment
- f. Spill Prevention and Response Procedures (Include procedures for dealing with releases of all types of materials the facility handles in every environment a spill could occur on site.)
- g. Prohibited Waste Disposal Procedures
- h. Special Waste Management Plan (Include procedures for handling unintentionally broken CRTs,

VIII. Site Closure and Financial Assurance Plans

- a. Closure Plan
- b. Financial Assurance requirements and mechanism

IX. Job Descriptions and Training

- a. Description of Personnel Duties
- b. Personnel Training

X. Appendices

- a. Definitions:
 - i. Covered Electronic Device—Covered electronic devices are computers (including laptops) and monitors and televisions with screens larger than 4 inches measured diagonally. Other electronic devices, such as cell phones, fax machines, and

printers, are not covered. See Oregon Revised Statute (ORS) 459A.300 to 459A.365

- ii. Waste Electronic Devices— Electronic devices that are used in the work-place and at home that may contain toxic or hazardous substances such as lead or mercury and that have been discarded or are intended to be discarded by the owner. These devices include such items as televisions, computer monitors, computers, printers, facsimile machines, copying equipment, calculators, VCRs, cell phones, telephones, radios, DVD players, portable DVD players with video screens, and any other or new (future) types of equipment that are designed primarily to store or convey information electronically, and any new accessories to such equipment.
 - iii. Disposal site—see Oregon Administrative Rules (OAR) 340-093-030(2)
 - iv. “Recycling” means: Processing through disassembling, dismantling, shredding, transforming or remanufacturing covered electronic devices, components and by-products into usable or marketable raw materials or products in a manner such that the original products may lose their identity; or smelting materials from components removed from covered electronic devices to recover metals for reuse in conformance with applicable laws and rules. ORS 459A.305(12)
 - v. “Recycling” does not include: Landfill disposal or incineration of covered electronic devices; or energy recovery or energy generation by means of combusting covered electronic devices, components and by-products with or without other waste. ORS 459A.305(12)
 - vi. “Speculative Accumulation” is prohibited in accordance with 40 CFR § 261.1(c)(8).
- b.** List of waste electronic devices accepted at the facility
 - c.** Copies of other DEQ issued permits (Examples include Air Contaminant Discharge Permit (ACDP), Stormwater permit (1200C, 1200Z, 1200COLS), Water Pollution Control Facility Permit (WPCS), Underground Injection Control Registration (UIC), Title V Air Quality Permit, Wastewater pretreatment permit)
 - d.** Site Maps