

E-Waste Departmental Roles for 2014

“REQUESTOR” E-Waste Removal

Procedures:

1. When either ETS or Plant Services comes to remove the equipment, the REQUESTOR must make themselves available to ensure the appropriate equipment is removed.
 - a. Specifically, it is imperative that the items for removal are readily available to ETS or Plant Services at the time of pick-up.
 - b. Your options to be readily available include:
 - i. Be physically present at pickup time to identify and verify the items on the list.
 - ii. Mark or label the items with tape, stickers or other identifying marks.
 - iii. Cordon off the floor to contain just the items for the pickup.
 - iv. Place items in rack dedicated only for the pick-up.
 - v. Use any other means that completely assures that the items precisely match the list.

Note: Every FHDA employee should guard against the temptation to “stockpile” electronic equipment that they “might use someday”. This is regulated waste.

ETS Call Center Role

Procedures:

1. Takes the initial call related to electronic equipment.
 - a. If the initial call or the first inquiry is made with Purchasing Services, then Purchasing Services refers the caller to ETS.
 - b. ETS may also find equipment which had been deposited at random on the campus.
2. The Call Center begins the paperwork trail by creating an internal departmental **ticket** and assigns the ETS E-Waste Supervisor to that particular request.
3. ETS tech goes to user site or equipment location and evaluates the equipment.
 - a. ETS takes the equipment back to the ETS shop to work on it
 - i. At this point, the units still have licensed software as well as data.
 - ii. ETS must remove all the software because it is **licensed** software and all the **data** because of concerns related to the privacy and security.
4. ETS evaluates whether the equipment is either **OPERABLE** or **E-WASTE**.
 - a. **OPERABLE** has three [3] classifications and will be used at another campus location by ETS reassignment
 - i. **Operable / RE-DEPLOY** –Units will be re-imaged and sent to the active inventory where they will be deployed to another user. The software is maintained but data is removed.
 - ii. **Operable / DONATED** – If the equipment is in good working order but does not meet the district standards for reuse [OTI, etc.].
 - iii. **Operable / SURPLUS** – will be not redeployed or donated to OTI. These items will NOT be used on campus but sent to Purchasing for Resale.
 - ETS uses a utility to over-write (rewrite) the hard disc.
 - Both the software and the data are removed.

Note: Federal Regulations on Privacy requires this re-write process to protect data and the purchase agreements for the operating systems are “owned” by FHDA and cannot be given away on the computers.

- b. **E-WASTE** has two [2] classifications:
 - i. **E-WASTE** – Due to ongoing technological advancement, many of electronic products become obsolete within a very short period of time, creating a large surplus of unwanted electronic products, or “e-waste.” “E-waste” refers to any unwanted electronic device or Cathode Ray Tube (CRT) and is classified as universal waste. E-waste frequently contains hazardous materials, predominantly lead and mercury, and is produced by households, businesses, governments, and industries.

- This definition includes a range of situations where the units may have missing parts, non-functional or are obviously archaic.
 - Group includes computers and other e-waste that appears as a “drive-by or drop off.”
 - ii. **Shattered E-WASTE** – This applies to a unit which is no longer intact ---glass may be shattered, part of the internal mechanism exposed, components falling out of the unit or the body is distorted. There is every possibility for the toxic materials used in the manufacturing of the computer to escape into the environment.
 - It must be cleaned up immediately by someone who is trained on containing a universal waste spill [i.e., Plant Services].
 - ETS or Plant Service may receive a call indicating a shattered computer. Since the equipment is damaged and ETS is not trained in remediation, ETS will call Plant Services and have them set up a Work Order to cleanup and remove the equipment by the end of the work day.
5. ETS initiates the management of electronic equipment as “universal or e-waste” by defining the date when the equipment is classified and cleared of information.
 - a. ETS assigns an “accumulation start date” for each unit they determine to be E-Waste. This date begins the regulatory compliance time requirement of one year for disposition.
 - i. ETS marks each E-Waste unit with a red sticker
 - b. ETS assigns a “processing date” for each Surplus unit.
 - i. ETS marks each Surplus unit with a green sticker
 6. **ETS fills out a Foothill – De Anza Community College District Surplus Disposal Form (SN 23500)**. This form is acquired by going to www.fhda.edu, to the Purchasing icon, to Forms and to Surplus Equipment Disposal where this form is located as well as the Electronic Waste [E-Waste] Disposal Form Attachment and the Surplus Attachment. No substitution of forms is approved. Only the posted forms can be used since they contain very specific information needed by the various departments, most specifically for Environmental Compliance for regulatory reports.
 7. ETS contacts Purchasing Services by phone or email to describe the surplus. To begin the surplus transfer process, ETS must convey the Surplus Disposal Form to Purchasing Service in a hard copy format. The list of specific equipment may be conveyed electronically. The Surplus Disposal Form is received by the administrative staff in Purchasing Services.
 - a. ETS prepares separate forms for equipment to be donated into OTI apart from the paperwork to be managed as Surplus.
 8. ETS must make timely submittals to Purchasing for the removal of e-waste.
 9. ETS must be prepared for the collection of E-waste by Plant Services. ETS has various options to guarantee that the equipment is ready. Any option may be followed, but one

must be followed so the equipment is both ready to go and completely consistent with the e-waste inventory to be removed. These options are the same as the Requestors:

- **Be physically present at pickup time to identify and verify the items on the list.**
- Mark or label the items with tape, stickers or other identifying marks.
- Cordon off the floor to contain just the items for the pickup.
- Place items in rack dedicated only for the pick-up.

Purchasing Services Role

Procedures:

1. Purchasing maintains the Website to provide information to the District and the Colleges related to the management of all Surplus, including the management of electronic waste.
2. Purchasing advises the campuses on the two types of e-waste at FHDA. Purchasing directs e-waste having data, software and campus reutilization (Category I) to ETS and the other e-waste (Category II) directly into the Purchasing surplus process.
3. Purchasing Services confirms that the paperwork from ETS or the Requestor is in order and ready for a pick up.
 - a. The items for surplus are kept together, frequently on a pallet. You cannot remove items from the pallets creating miss-counts and poor regulatory recordkeeping.
 - b. Also, additional equipment cannot be added at random to the pallet.
4. Purchasing Services writes a Work Order for Plant Services in the College Work Order System to pick up the surplus at the site where ETS has indicated the surplus to be located, either at a specific campus location for large volumes or at Tech Services. Purchasing Services writes the Work Order # on the Surplus Disposal to link the two documents.
5. Purchasing Services hand delivers the Surplus Disposal Form with Attachments to Plant Services, retaining a copy for recordkeeping. The Surplus Disposal Form is matched to the printed Work Order and given to the specific Plant Services person to collect the equipment.
 - a. Equipment cannot enter surplus storage without a surplus disposal form which includes the Work Order # written on the form.
6. Upon arrival of the surplus equipment to the Barn, Purchasing Services provides access to the e-waste storage area by physically being present and unlocking the cages.
 - a. Purchasing documents the number of pallets to the paperwork.
 - b. Each pallet **must** have a Surplus Disposal Form and a Universal Waste Label for E-Waste with the accumulation start date contained by shrink wrap.
7. Purchasing prepares a Board Agenda Item for all District Property.
 - a. Purchasing takes the action to the Board.
 - b. Purchasing intends to take requests to the Board on a monthly basis.
8. The Board generally approves the disposition request of surplus at the time of the request.
 - a. Disposition is based on statutes related to the dollar value, what is workable, etc.
 - b. Surplus may be sold, offered by bid, auctioned, recycled or donated.
 - c. For all E-Waste, a vendor can respond to a bid only if they have an identification number with the California DTSC proving their recycler status.

Plant Services Role

Procedures:

1. Purchasing prints the Work Order, matches it to the copies of the Surplus Disposal Form and Attachments and gives the paperwork to the Foothill Maintenance Supervisor to have the equipment collected.
2. The District Construction Crew calls ETS or the Requestor to indicate when they will be doing the pickup.
3. The District Construction Crew goes to the location noted on the Work Order.
 - a. If the equipment is not identified adequately, the District Construction Crew will not pick up the E-Waste surplus until the items are clearly identified due to the high potential of inaccurate inventories and documentation.
 - b. Paperwork must be maintained with the equipment for which it was written.
4. PS will palletize and shrink wrap the e-waste to secure it for the subsequent movement to the barn.
5. PS takes the surplus equipment to Building D183 (new barn), stages the pallets in the area designated by Purchasing.
6. Every pallet is treated as a “unit” of component parts for the purpose of labeling and storage with the following paperwork: *[i.e., pallet 1 of 5]*
 - a. PS places either the Electronic Waste Disposal Form or copies of these forms (if there is more than one pallet representing the equipment) within the shrink wrap.
 - b. If there are multiple pallets of the same work order, PS make a one page sign which included the Work order number in bold numbers and the term “pallet 1 of 5”. This designation confirms the number of pallets that were picked up under the same work order number.
 - c. A **Universal Waste Label** is completed for every pallet using the accumulation start date. The document number on the label is the Work Order number. The label is securely placed on the outside of the shrink wrap.
 - i. ***Each pallet must have this label (Universal Waste labels are white and purple or pink, but not yellow as hazardous waste) with an accumulation start date!***
 - ii. The labels read one of the following:
 - Universal Waste – CRTs
 - Universal Waste – Electronic Devices
 - Universal Wastes – CRTs and Electronic Devices
7. Following unit reconciliation and labeling, PS moves the pallets into the “cage” or rack system in the barn into the first two levels of the racks where they are stored with the

Universal Waste Label facing out. At this point, all equipment is secured by shrink-wrap bound securely enough to prevent shifting and labeled accordingly.

8. PS then finalizes their comments in the Work Order system to indicate that the surplus is moved and stored.
 - a. Closing of the Work Order by Plant Services verifies that the equipment identified by ETS and Purchasing did indeed move to storage.
 - b. The Work Order in the system then shows as “complete”. As described earlier, Purchasing prints the completed Work Order, matches it to the E-Waste Disposal Form and uses the information to prepare the inventory list for Board action.
9. PS schedules routine pick-ups on Wednesdays for De Anza and Foothill. Middlefield may require special scheduling directly with management of the Middlefield campus based on the specific needs of that location.
10. **Electronic Waste Shipments** - The pallets of electronic waste will be stored in D183 (the Barn) on racks until the day of the sale. The pallets of waste will be moved to the yard in front of the barn or in the general area in front of the barn and staged pending the arrival of the Recycling Vendor.

11. Remediation of broken e-waste:

- a. In case of shattered e-waste during a pickup, Plant Services has that responsibility to remediate the breakage before the fragments or residues of the waste can be scattered about the campus.
- b. This is also true when scattered E-Waste fragments are discovered by Plant Services personnel while making their rounds around each campus. The appropriate Plant Service person will be notified by the Work Order system to conduct this cleanup.
- c. The qualified Plant Services person will don gloves, pick up all broken glass and parts, sweep up smaller fragments, and fully containerize all intact and broken components of the unit into a suitable container. The bag, box with liner, pail or drum must be labeled as Universal Waste with all the appropriate marking including the accumulation start date (the day of the incident). The containerized waste is placed in the Universal Waste shed with a Universal Waste Label indicating the type of waste in the container.
 - i. Brooms, brushes, dust pans and liners and other spill cleanup material are stored in the material storage shed in the Plant Services Yard, next to the hazardous waste sheds on each campus.
 - ii. Additional pails areas stored in the Universal waste sheds.
- d. The Plant Service person will write description of the clean up activities in the Spill log maintained in the Universal waste shed. This information will become part of the Hazardous Waste inspection logs and reporting system.
- e. If the breakage occurs in the barn Building 183, the incident will be noted on the Spill log kept with the Inspection form inside the cage.

Environmental Compliance [EH&S]

Procedure or Responsibilities:

1. EH&S retrieves E-Waste lists monthly from the online Board Agendas. In addition, following each shipment, EH&S creates a regulatory report based upon the handling/tracking of all E-Waste within that month and has the support documents [backup] for these reports available for the regulatory inspections conducted each year by the Department of Environmental Health [DEH].
2. In January of each year, the annual regulatory report is due to the State of California Department of Toxic Substances Control [DTSC].
3. When filled out completely, the E-Waste Disposal Form and the monthly Shipping and Tracking Logs, contain the information that is required for the Annual Report for DTSC.
4. EH&S must assure that our report is accurate based on information provided by the Board Agendas.
5. EH&S provides online training to personnel handling and tracking E-Waste in order to understand the significance of providing accurate and complete regulatory information.
6. EH&S provide labels for the labeling of E-Waste that meet regulatory guidelines
7. **Hazardous Material Business Plan (HMBP)** – The disclosure of the electronic waste storage areas are indicated on the online CERS HMBP for annual submittal. As with all disclosures, the “waste” was listed in applicable units at both the maximum and the average storage levels.

Regulatory Requirements

“REQUESTOR” of E-Waste Removal

- Understand the FHDA categories of E-Waste [Category I and Category II].
- Notify ETS if the requested item/s to remove are Category I.
- Notify Purchasing if the requested item/s to remove are Category II.
- For Category II, provide accurate list of the e-waste material to be removed on the appropriate form.

ETS Call Center Role

- Remove the software and data as necessary to support the licenses purchased from the software manufacturer and data security of the campuses.
- Provide accurate list of the e-waste material to be removed on the specifically designated form. The list and the inventory must exactly match on every count at the time of pickup.
- Assure that the item are processed, recorded accurately and moved from the department in a timely manner.

Purchasing Services Role

- Maintains a tracking system of electronic surplus that verifies the items being shipped, vendor information, work order number and number of pallets, utilizing a Universal Waste Pickup Receipt. This receipt must be made available upon the request of a DEH inspector.
- Perform weekly inspection on the e-waste area to verify storage conditions are being maintained — labeling (Universal waste labels facing out for observation, all labels having an accumulation start date), aisle space for inspection, absence of breakage or spills and storage within Regulatory storage times, etc.
- Purchasing advises the Requestor or ETS that their items have been approved for removal and at what time the Plant Service staff will be there. Purchasing indicates that item must be staged and readily available to Plant Services at the time of pick-up in one of the approved methods.
- Take request for surplus disposal to the Board in a time effective manner so that the volume of e-waste can be maintained within regulatory storage parameters.
- Provide accurate lists of the e-waste material to be removed by Plant Services.
- Verify that the pallet work order # assembled for outbound shipment essentially matches the Universal Waste Pickup Receipt.
- Present accurate paperwork to EH&S
 - c. EH&S must maintain the information related to the shipping documents for the management of Universal waste. In this case, these documents are the verification of the items shipped, recycling location with DTSC authorization, shipment date, information on the recycling vendor, etc.
 - d. Purchasing provides regulatory information to EH&S within 30 days being shipped.

Plant Services Role

- When picking up the e-waste item, Plant Services (PS) verifies the inventory to the list for accuracy. This may involve PS requiring one of the specific approaches for staging that have been identified in the Requestor section.
- PS moves and labels each pallet with the Universal Waste label including the accumulation start date for the material. They include the Surplus Form since it is part of the complete tracking process. This tracking is an essential regulatory requirement. This tracking must be made available upon the request of a DEH or DTSC inspector.
- The pallets are stored with the labels facing out for inspection purposes and with aisle space that would accommodate an emergency vehicle (forklift).
 - e. They store e-waste in a manner to prevent damage to the equipment so that nothing spills or breaks.
 - f. Due to DEH, DTSC, Fire code and OSHA regulations, there must be aisle space in the storage area.
 - g. Aisle Space is a requirement for inspections, verification of labels, fire egress and spill response, if needed.
- Respond to any spills or breakage that occurs during a shipment.
- Additionally respond to a spill or breakage that may occur on campus or to material abandoned on campus in a manner consistent to the procedures established by Environmental Compliance for a Universal Waste “spill”.

Environmental Compliance [EH&S]

- The Environmental Compliance Department (EC) is responsible to interpret regulations in a manner to make them effective for college policy, procedures and activities and thus assist FHDA to achieve compliance with regulations (DTSC, DEH, Fire Codes for storage and OSHA) and the Stipulated Judgment.
- EC must promote the understanding of the FHDA categories of Universal Waste / E-Waste so that the waste may be managed as to written regulatory protocols for Surplus Guidelines and Regulatory Tracking
- Set up mechanisms so that records are appropriate and accurate
- Complete regulatory report on the behalf of FHDA in a timely manner – report due to DTSC and DEH on February 1 of every year
- Provide training and guidance on Universal waste and remediating spills
- Maintain the Hazardous Material Business Plan (HMBP) to reflect the correct designated storage areas and the correct volumes or units of Electronic Waste. In this case, the most appropriate unit is in pounds with the average weight of a pallet being used.

Occupational Technology Institute (OTI) Role

- Understand the FHDA categories of E-Waste so that the waste may be managed as to written protocol for Surplus Guidelines and Regulatory Tracking
- Provide accurate list of the e-waste material that is accepted into the department from ETS and item leaving the department
- Maintain e-waste storage standards – aisle space, storage to minimize potential for breakage, awareness of inventory.