CWU HAZARDOUS AND UNIVERSAL WASTE STATISTICS

Following are the latest statistics (disposal quantities) for hazardous and universal waste. The data begins in 2002, when CWU began disposal/recycling of universal waste.

	Hazardous Waste (lbs.)	Fluorescent Lamp Tubes (lbs.)	CRT/Monitor (# of units)	Batteries (lbs.)
2002	10,776	3,279	0	0
2003	6,180	2,559	400	2,524
2004	7,037	5,224	116	2,225
2005	4,489	4,129	430	4,249
2006	7,445	5,510	510	3,569
2007	21,085	5,702	499	1,912
2008	7,452	5,516	351	2,975
2009	5,130	4,432	337	1,336
2010	9,500	2,384	166	3,008
2011	10,002	4,308	280	3,158
2012	9,618	4,187	279	2,572
2013	11,807	5,803	290	3,245
2014	4,539	3,541	307	3,501
2015	10,080	3,975	266	1,254
2016	4,597	5,118	183	3,624
2017	8,508	3,933	408	2,615

Hazardous waste (or dangerous waste – the term used by the Department of Ecology) is material that has toxic, reactive, flammable or corrosive characteristics (as defined by various state and federal regulations) that requires specific disposal and documentation procedures. The Facilities Management Department (FMD) and the academic science departments are the primary generators of hazardous waste at CWU. Environmental Health and Safety (EH&S) trains the waste-generating departments, collects and stores the waste in the hazmat facility, and coordinates the transportation and disposal of the waste through various disposal companies. The wastes are disposed of in a variety of ways, but most are either incinerated or recycled. The increased quantity of hazardous waste generated in 2007 was primarily due to hazardous materials removed during the demolition of Dean Hall (primarily lead shielding from a radioactive

materials storage vault and some PCB-contaminated fluids and electrical equipment). CWU has been safely and appropriately managing hazardous waste for 30+ years. Periodic inspections by the Department of Ecology and Environmental Protection Agency have found CWU to be in significant compliance with all aspects of the regulations.

Universal waste (fluorescent lamps, cathode ray tubes, batteries and mercury-containing equipment) is a special class of waste that has some hazardous characteristics, but if managed appropriately (recycled) is not fully regulated as hazardous waste. EH&S also coordinates the collection, storage and disposal of this waste. The waste is periodically transported and recycled by companies meeting strict performance requirements per the Department of Ecology and EPA.

Fluorescent lamp tubes and a variety of other light bulbs (compact fluorescents, high intensity discharge, sodium vapor, mercury vapor, etc.) contain very small amounts of mercury, which is a toxic heavy metal. Recent state and federal programs strongly encourage the development of plans to reduce or eliminate these materials from getting into landfills and the environment. With the cooperation of the campus maintenance groups (FMD, SURC, etc.), the dead lamps/bulbs are collected from all areas of campus and stored in the universal waste storage unit for subsequent pickup and recycling by the appropriate waste contractor. It is expected that the volume of this waste stream will continue at the current rate or even grow somewhat (new building construction) until new technologies emerge which will reduce or eliminate the toxic heavy metals.

Cathode ray tubes (CRTs) are found primarily in the old-style computer monitors and in the older televisions with picture tubes. CRTs contain toxic phosphors, leaded glass and metallic lead. Surplus and Asset Management has been especially helpful in ensuring that all dead or unusable CRTs are identified, transported and stored in the universal waste storage unit. This waste stream will diminish over time as current CRTs wear out or are replaced by newer technology products, although many of the early flat screen monitors and televisions utilize fluorescent illumination which contains small amounts of mercury, thus requiring appropriate disposal as well. The latest flat screen monitors/televisions utilize LED (light emitting diode) technology which does not contain mercury.

All types of batteries (lead-acid, gel cell, alkaline, various forms of lithium, button cell, rechargeable, etc.) are collected from throughout the campus for recycling. It is especially important that rechargeable batteries (Ni-Cd, Ni-MH, Li-ion, lead-acid, etc.) are collected as they contain the largest quantities of toxic materials. This waste stream is expected to remain stable or possibly increase as batteries are used for a wide range of purposes throughout the campus (scientific and industrial instruments, laptops, cordless tools, vehicles, emergency lighting, back-up power supplies, entertainment devices, cameras, phones, etc.).