

- New! - Universal Waste Pick Up Services by EH&S

“Don’t Throw Us In The Trash!”




(by Kirk Matin, EH&S Hazardous Waste Supervisor)



In an effort to encourage recycling and proper disposal of certain common or widely generated hazardous wastes, the EPA has expanded the Universal Waste Rule. The original waste streams regulated under the Universal Waste Rule consisted of batteries, pesticides, and thermostats. Subsequently, fluorescent lamps, cathode ray tubes (computer monitors), and consumer electronic devices such as cell phones, VCRs, and microwave ovens were added to minimize hazardous waste releases to the environment.

| Waste Type | Waste Information | “Did You Know?” |
|------------------|--|---|
| FLUORESCENT LAMP | <p><i>What’s in a lamp?</i></p> <p>A fluorescent lamp consists of a glass shell, a high vacuum, a small amount of liquid and evaporated mercury, some phosphor powder, and the metal end-caps and heated filaments.</p> | <p>Each year, an estimated 600 million fluorescent lamps are disposed of in U.S. landfills amounting to 30,000 pounds of mercury waste.</p> <p>Mercury was number three on the EPA’s 1997 list of Hazardous Substances. Mercury is highly toxic to the human nervous system and particularly poisonous to the kidneys.</p> |

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| Waste Type | Waste Information | "Did You Know?" |
|--|--|---|
|  <p align="center">BATTERIES</p> <p>"Coming Soon! Look for a battery-recycling container near you."</p> | <p><i>What about batteries?</i></p> <p>Battery recycling protects our environment from heavy metal contamination. Some types of batteries recycled by EH&S include:</p> <p>Alkaline, AAA, AA, C, D, NiCd, Lead Acid, Magnesium, Lithium, Zinc-Carbon</p> | <p>These common types of batteries are found in a variety of items including cell phones, pagers, cameras, computers, flashlights, power tools, research equipment, monitoring devices, health monitors, lanterns, burglar alarms, emergency lights, automobiles, and heavy equipment.</p> |
|  <p align="center">COMPUTER SCREENS/ELECTRONIC EQUIPMENT</p> | <p><i>What makes computer screens and other electronic equipment hazardous?</i></p> <p>Cathode ray tubes (CRTs) such as those found in computer monitors and television sets contain approximately 5-8 pounds of lead. Recycling of electronic equipment which contain heavy metals in the circuit boards, as well as cathode ray tubes protect our environment from toxic metal contamination.</p> | <p><i>Recycle your CRTs!</i></p> <p>Request CRT pickup service via the Internet.</p> <p>Visit www.ehs.uci.edu and click on "On-line Hazardous Waste Collection".</p> <p>Fill out the CRT Disposal Request Form and EH&S will pickup your unwanted CRTs.</p> |
|  <p align="center">REFRIGERATORS</p>  <p>For more information or to find out how you can help protect the environment by recycling universal wastes, contact EH&S at 824-6200.</p> | <p><i>Why should I recycle my refrigerator?</i></p> <p>Refrigerators and freezers contain chlorofluorocarbons (CFCs) and oil in their compressors that are harmful to the environment.</p> | <p>CFCs are very stable in the troposphere. They are broken down by strong ultraviolet light in the stratosphere and release chlorine atoms that then deplete the ozone layer. CFCs are commonly used as refrigerants, solvents, and foam blowing agents.</p> <p>Recycle your CFC containing equipment!</p> <p>Request refrigerator/freezer pickup service via the Internet.</p> <p>Visit www.ehs.uci.edu and click on "On-line Hazardous Waste Collection".</p> <p>Fill out the Refrigerator Disposal Request Form and EH&S will pickup your unwanted CFC containing equipment.</p> |

SAFE WORK TIPS FOR WORKERS IN HOT ENVIRONMENTS

How Can I Protect Myself from the Effects of the Sun?



Some jobs must unavoidably take place in hot working environments. Working in conditions of extreme heat combined with additional stresses to the body from physical activity, loss of fluids, fatigue, and various other factors, can lead to dangerous health effects or can jeopardize worker safety. However, if the risks are understood and precautions are taken, work in hot environments can be performed in relative comfort and security.

Adapting to the Heat - Give workers time to get used to the heat. With gradual increased exposure, workers become better able to tolerate heat. Under normal circumstances, adjustment to heat usually takes about 5 to 7 days. Provide cool, shaded rest areas where workers can take periodic breaks as needed. Longer more frequent breaks may be necessary when it is very hot or the work is especially strenuous. Job sharing or heavy work rotation

among several employees can also lessen the heat load on workers.

Re-hydration – Sweating is part of the body’s natural cooling system, but it does result in water loss. The way to replace this loss and help the body continue to cool itself is to drink water throughout the day, at least one cup every 20-30 minutes. Thirst is not enough to insure sufficient water intake. Workers should be encouraged to drink before, during and after work. Alcohol, coffee, tea, and caffeinated soft drinks which cause dehydration should be avoided.

Appropriate Dress – Thin, light-colored, loose-fitting clothing aids in evaporation and allows air movement near the skin. Reflective clothing can shield the body from radiant and convective heat. Those who work outdoors should wear a hat and sunscreen for increased protection against the sun.

Physical Conditioning – Workers who are in good physical condition are better able to tolerate higher work temperatures. Encourage workers to stay in shape, avoid alcohol, and eat light, healthy meals. Heavy meals contribute to body heat and divert blood to the digestive system.

Engineering Controls – Fans, ventilators, exhaust systems, and air coolant systems help keep worksite temperatures to adaptable levels. Other controls such as installing heat shields and insulating heat-producing machinery can also help reduce radiant heat or areas or shade heavy equipment operators to lessen the sun’s intensity. Use available mechanical devices to reduce physical exertion.

Work Scheduling – To take advantage of climatic and other environmental conditions, start jobs earlier in the morning, and then space hot work throughout the day. Schedule more strenuous or hottest work for the coolest times of the day. Schedule more workers to reduce the workload, have them work in shifts or limit work hours within shifts to minimize exposure to high temperature and sun. Rotate work in areas where humidity may be high and air movement is minimal. Postpone nonessential tasks during heat spells.

Monitoring – Supervisors should check environmental conditions at least hourly and monitor worker response to the heated conditions. Heat stress is a silent hazard. Workers may not realize that there is a problem until heat stress is well advanced. The victim of serious heat distress must be transported as soon as possible to the nearest medical facility. In the meantime, every effort to reduce the victim’s body heat load must be made.

Educating – Workers should be aware of the need to replace fluids, recognize dehydration and heat exhaustion, and know what to do when these conditions appear. Workers should know how to get immediate emergency medical attention if a worker has one or more of the following symptoms: mental confusion or loss of consciousness, flushed face, hot dry skin or no sweating. Make sure all workers know who is trained to give first aid. The emergency phone numbers for ambulances, hospitals, and doctors should be posted and readily accessible at all job sites.

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"SAFE WORK TIPS FOR WORKERS IN HOT ENVIRONMENTS" con't...

Safety is also a concern in hot environments. Accident frequency seems to be higher in hot environments. Hot environments tend to lower mental alertness, impair judgment, and reduce physical performance. Increased body temperatures and physical discomfort in turn promotes irritability, anger, and other emotional states that may cause workers to become less aware of safety procedures.

During unusually long exposure to hot working conditions, the number of heat illnesses typically rises. Heat stress can be life threatening. The key to preventing heat related illnesses and accidents is to understand the hazards of working in hot environments, take proper precautions to safeguard health, insure recognition of early warning signs of heat stress, and make sure workers follow recommended safe work practices.

MORE INFORMATION

A 15-page booklet, **Working in Hot Environments**, is available free from (NIOSH) National Institute for Occupational Safety and Health Publications, 4676 Columbia Parkway, Cincinnati, Ohio 45226; Telephone: (513) 533-8287.

<http://www.cdc.gov/niosh/hotenvt.html>

Heat Stress – OSHA Technical Manual, Section II – Chapter 4
http://www.osha-slc.gov/dts/osta/otm/otm_iii/otm_iii_4.html

Working Outdoors Fact Sheet provides information on ways to protect yourself during the hot summer months against sun, heat, Lyme disease, and West Nile Virus.

http://www.osha.gov/OshDoc/data_General_Facts/working-outdoors-factsheet.pdf

Protecting Yourself Against Harmful Sunlight explains the risks of skin cancer from exposure to sunlight and how to protect yourself from ultraviolet radiation.

<http://www.osha.gov/Publications/osha3166.pdf>

Heat Stress Card gives information on Heat Stroke and Heat Exhaustion. The card offers quick references on these heat-related injuries, including warning signs, symptoms, and early treatment.

<http://www.osha.gov/Publications/osha3154.pdf>

For questions related to this article, contact [Jesse Wallace](mailto:jwallace@uci.edu) at 949-824-9864.

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<http://www.ehs.uci.edu/>

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