Environmental Health and Safety

The Environmental Health and Safety Department strives to ensure a safe and healthy environment for all students, faculty, staff and visitors and to protect the environmental integrity of the campus and surroundings.

The following slides illustrates some of our core functions.
**Training**

**EH&S** provides training to Staff employees and students. Training on a variety of environmental and safety subjects are offered throughout the year. Much of the training is mandated by government regulations. Custom classes are offered by request. **EH&S** has produced brochures, flyers and a newsletter that provide information on a verity of topics in safety and has written procedures, guidance documents and best management practices for labs and shops throughout campus.

2012 training

- **Total Number Attending**: 819
- **Total Training Contact Hours**: 1140
Ergonomics

Ergonomics issues not only exist in the office environment, but in any work environment. Ergonomic risk factors are found in jobs requiring repetitive, forceful, or prolonged exertions of the hands; frequent or heavy lifting, pushing, pulling, or carrying of heavy objects; and prolonged awkward postures. An improper ergonomic environment can lead to lost time and production and increased worker compensation claims. EH&S assesses those work-related factors that may pose a risk of musculoskeletal disorders and provides recommendations to alleviate them.

Ergonomic hand tools

Ergonomic considerations in an office setting
**Industrial Hygiene/Air Quality**

**EH&S** provides sampling and monitoring for a wide variety of environmental contaminants and physical hazards. Sampling includes: asbestos, wastewater, lead and toxic gases. Monitoring is conducted for noise and chemicals to determine exposure information. Indoor air quality is gauged through several monitoring parameters.

- **Noise Monitoring**
- **Boiler stack testing**
- **Ambient air testing**
- **Lead and Asbestos Compliance monitoring**
Air Pollution and Fuel Use Tracking

As part of EWU’s air discharge permit requirements EH&S tracks fuel use to determine specific discharges to demonstrate compliance. Thirty five generators, twenty three buildings using gas, five boilers and laboratory chemical use in 68 labs and six shops is tracked monthly. A year end report is generated for the local air pollution control authority.

### EWU YEAR END

<table>
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<th>Data From All Sources</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
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<th>2010</th>
<th>2011</th>
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</tbody>
</table>

- **Total natural gas usage, mcf**: 212.2 220.0 233.5 233.5 250.8 238.66 221.70 246.74 262.14
- **Natural Gas Usage Boilers 1-5 mcf**: 206.9 214.3 227.58 227.55 243.55 231.55 214.82 240.00 255.34
- **Natural Gas Equipment mcf**: 5.3 5.7 5.9 5.9 7.3 7.0 6.88 6.75 6.81
- **Total #6 fuel oil usage, gal.**: 0 0 0 0 0 0 0 52,200.00 0 0
- **Total #2 fuel oil usage boilers 1-4, gal.**: 51 0 8,680 0 7,414 5,777 5,164.00 7440 261.00 735,714
- **Total #2 fuel oil usage boiler 5, gal.**: 0 0 0 0 0 0 0 0 0 356,071
- **Total #2 fuel oil usage E. generator, gal.**: 123 168 218 397 284 184 110 164 134 45,540
- **Total propane gas usage emergency generators, gal.**: 10,044.0 10,068.0 15,824.0 10,160.0 11,772.0 16,481.0 11,660.84 15,086.73 13,957.42
Building Inspections and Safety Audits

**EH&S** conducts safety inspections looking for unsafe conditions and/or work procedures. Frayed electrical cords, blocked exits, dangerous storage and improper work procedures are among our findings.

**EH&S** oversees a Building Captain/Floor Manager program which aids **EH&S** in our safety mission by training people to look for safety concerns in their areas.
Radiation Safety

Radioactive materials are currently being used in research by chemists and physicists. X-ray machines are used in Geology, Physics and Dental Hygiene. EH&S is responsible for overall radiation safety on the EWU campus. Training is provided to new users. Radioactive waste is collected and placed in storage to decay, or be picked up by a disposal company. EH&S handles all licensing requirements for radioactive and X-ray use on the main campus.
EH&S oversees the pickup and disposal of thousands of pounds of hazardous chemicals and products from both Riverpoint and the Main Campus per year. Waste from the physical plant and the sciences are our main source. When needed we also coordinate the disposal of hazardous materials from building renovations and demolition.
Universal Waste

Universal waste is a common household and business waste that may contain hazardous components. Mercury containing thermostats and equipment, spent photographic fixer, light tubes, light ballasts, aerosol cans, batteries, lead, X-ray and photographic negatives are among the materials collected and processed by EH&S. Most universal waste when properly treated can be recycled.

Batteries Collected

Aerosol can draining for recycling

Typically collected lights and ballasts
Biowaste

EH&S collects and processes numerous types of biowaste including lab animals used in experiments, red bag waste, sharps and cadaver waste. Proper handling and disposal is important to prevent contact with potentially infectious materials (blood and other body fluids) that could spread hepatitis and HIV. These wastes are sent to a burner unit for proper treatment and disposal.
Emergency Response

From time to time emergencies involving health issues, chemical releases, fuel spills or explosive chemical disposal requires EH&S to provide guidance, emergency cleanup or contractor coordination to ensure a proper and safe response. It is not uncommon for EH&S to be called upon five or more times a year to handle emergency situations.

Damaged transformer releasing oil

Contractor explosive experts working with explosive chemicals collected from the science building
Reporting/Permitting

**EH&S** is responsible for reporting to several local, state and federal government agencies. Reports include: radiation use and waste, injuries, chemical use and security, waste disposal, community right to know, boiler plant fuel use and emissions, laboratory drug use and waste, asbestos reports and permitting issues.