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I. INTRODUCTION

The Environmental & Safety Services (ESS) department is staffed by Jon Kujat, Coordinator of ESS, Dan Lyons, Environmental Administration, Caren Pankow, Safety Administrator, and Amy Gehring, Administrative Secretary.

As in the past, ESS continues to deal with environmental and safety issues on campus, whether employee, student, or visitor related. Our goal is to prevent work related injuries by reaching out through safety training, consultations, job safety analyses, etc. In addition, environmental issues such as underground storage tanks and asbestos are addressed on a daily basis. We also strive to be in compliance with regulatory agencies by researching regulations, maintaining material safety data sheet (MSDS) inventory, and keeping up with regulatory reporting, such as S.A.R.A. Title III. We are also responsible for performing small-scale hazardous materials clean up and conducting/reviewing Phase I Environmental Assessments. These various activities will be broken down in the following report. With addition of new staff, ESS’s responsibilities have been broadened to include underground storage tanks, stormwater permitting, air permitting, asbestos, as well as enhanced emergency response.

ESS has continued to enjoy a strong working relationship with University Health Services, Facilities Management, Central Health Improvement Program, Residence Life, Risk Management & Insurance, CMU Police Department, University Counsel, the College of Science & Technology, Herbert H. & Grace A. Dow College of Health Professions and Office of Research and Sponsored Programs to make CMU the safest it can be.

II. EMERGENCY COORDINATOR PROGRAM

Now in its third year the Emergency Coordinator program continues to evolve. The Emergency Coordinator serves as a primary liaison between Environmental & Safety Services (ESS), CMU Police, and employees, students and visitors within his/her respective building.

The Emergency Coordinator is the contact person for the building regarding emergency planning and preparedness. Emergencies may include natural disasters, bomb threats, power failures, medical emergencies, fires, and hazardous material conditions.

The Emergency Coordinator is also the primary communication contact by the university relative to matters affecting emergency action plans in his/her respective building and surrounding the facility.

III. EMERGENCY PREPAREDNESS PLANNING

ESS continues to assist the campus community with emergency preparedness planning by conducting fire drills, presenting tabletop scenarios, and authoring emergency action plans. A total of 43 fire drills were conducted in the following buildings:

- Anspach Hall
- Barnes Hall
- Beddow Hall
- Calkins Hall
In conjunction with Risk Management & Insurance and Health Services, ESS has worked to reduce the deficiencies noted in the Pandemic Influenza tabletop that was conducted in 2007. In addition ESS has begun to work on a severe weather tabletop exercise for the Crisis Response Team slated to take place in August 2008.

IV. WRITTEN PLANS

There are many written health and safety plans required by federal and state regulatory agencies. ESS authors these plans and updates them on an annual basis. This is done to ensure compliance with any new regulations, and also to keep current with personnel changes within the University, which are listed in various plans. All of the written plans can be found on the ESS web site at www.ess.cmich.edu. These plans include:

- Bloodborne Pathogen Exposure Control Plans for the following departments:
  - Campus Collection Sites for Bio-Hazardous Waste
  - Central Health Improvement Program (C.H.I.P)
  - College of Science & Technology
  - College of Health Professions
  - CMU Police
  - Facilities Management
  - Residence Life
  - University
- Confined Space Program
- Emergency Action Plans (or Emergency Procedure Manuals) for all CMU staffed buildings in the State of Michigan
- Hazard Communication Program
V. TRAINING

Training is an on-going focus of the ESS department. Training not only helps to ensure that employees have the knowledge and skills to work safely; it is also one way to ensure regulatory compliance for the University. For the 2007-2008 fiscal year, ESS trained a total of 2,886 individuals on campus.

Training modules are updated on an annual basis to assure the information is current. On page 13 is a breakdown depicting the number of employees trained in each subject (July 1, 2007 – June 30, 2008). As mandated by regulations, several of the training modules are repeated annually.

In previous years, ESS has attempted to reach a more diverse audience and provide training for departments who are not specifically required to attend safety training with monthly “open” sessions for some of the more relevant topics, such as Bloodborne Pathogens, Fire Safety and Severe Weather. Training topics this past year included:

- Hearing Conservation Program
- Hot Work Program
  - Contractor Hot Work Program
- Lockout/Tagout (Energy Control)
  - Facilities Management
  - University
- MIOSHA on Campus Policy
- Office Safety
- Powered Industrial Truck (Forklifts)
- Powered Landscaping Equipment Procedures
- Respiratory Protection Plan
  - Facilities Management
- Tree Trimming and Removal Procedures

New this year, ESS audited the confined space & hearing conservation programs. Campus was surveyed for the presence of new permit required confined spaces. This two month process revealed 73 new spaces. The plan and permit were updated to make it more user friendly. In addition, the Mt. Pleasant Fire Department was contracted to provide rescue service for the university. In addition to the confined space plan, the hearing conservation program was updated with new audiometric surveys of various positions.
- Asbestos Awareness
- Bloodborne Pathogen
- Chainsaw Safety
- Cold Stress
- Consumers Energy Satellite Training
- CPR/First Aid/AED Training (including quarterly reviews)
- Emergency Preparedness/Procedures
- Emergency Coordinator Training
- Ergonomics
- General Safety
- Fire Extinguisher/Fire Safety
- Hazard Communication (Right to Know)
- Haz Mat Awareness (Part 1 & 2)
- Heat Stress
- Landscape Operations
- Lock Out/Tag Out
- New Employee Safety
- New Hire/Student/Temporary Employees
- Office Safety
- On-Line Fleet Safety
- Powered Industrial Trucks/Aerial Lifts
- Respiratory Protection/Fit Test
- Severe Weather
- Warriner Hall Emergency Procedures

The following is a brief summary of the training presented as well as a graphic view of training, by subject, over the previous years.

**Asbestos Awareness**

Asbestos Awareness training is designed to give employees knowledge on how to avoid asbestos exposure. The various types of asbestos are discussed and building materials that may contain asbestos are identified. Explanation is given on when asbestos may present a hazard and when it does not. The health effects of asbestos exposure are also explained. Asbestos awareness training was attended by 87 employees this fiscal year.
**Bloodborne Pathogen**

Since July 1, 2007, **500** individuals have attended Bloodborne Pathogen (BBP) training conducted by ESS. BBP training emphasizes how to prevent exposure explains how pathogens are contracted and identifies types of bloodborne pathogen diseases. An overview of the regulations, current trends, and statistics rounds out the training.

Depending on the audience, a hand-washing demonstration is sometimes included along with the opportunity for individuals to practice removing gloves without “exposing” themselves to simulated blood. Employees and students from the following departments were trained this last fiscal year:

- Campus Recreational Services
- Facilities Management
- Residence Life
- Psychology
- Physical Therapy
- Physicians Assistant Program
- University Center
- Audiology Program
Cold Stress Training

ESS trained employees on Cold Stress. Cold Stress training covered the effects of temperature on the human body such as frostbite and hypothermia, prevention techniques, and emergency procedures for handling cold stress victims. A total of 80 employees have been trained in January and February 2008.

Consumers Energy Satellite Training

Consumers Energy specialists conducted electrical worker safety trained for Facilities Management electricians. ESS also attended this training; which covered, to name a few topics, the following:

- Working on or near exposed energized and deenergized parts.
- Conductive materials.
- Safe approach distance.
- Personal protective equipment.

A total of 13 employees attending this training.
CPR/First Aid/AED Certification (including Quarterly Reviews)

ESS provided employees with CPR/First Aid/AED Certifications. ESS is now certified to provide the American Red Cross First Aid, Cardiopulmonary Recitation and External Defibrillator training. This training is not part of CMU sponsored activities, but offered for those individuals wishing to have the certification for personal use. A total of 38 employees are certified.

![Bar chart showing CPR/First Aid/AED Certification and Quarterly Renewal from FY 06-07 to FY 07-08]

Emergency Preparedness/Procedures

Each year, ESS trains the resident hall staff on Emergency Preparedness/Procedures. A total of 141 students were trained this year. This training is given to Desk Receptionists and Fire Marshals. The training covers the topics of Bloodborne Pathogens, Right to Know, Severe Weather, and Fire Extinguishers/Fire Safety.

![Bar chart showing Emergency Preparedness/Procedures from FY 05-06 to FY 07-08]
Emergency Coordinator Training

Two sessions were held to train emergency coordinators. Training was conducted by Jon Kujat, ESS, and Stan Dinius, CMU Chief of Police. Topics were as follows:

- Fire Drills
- Tornado Drills
- Shelter in place Drills
- NOAA Weather Radios
- Building Security Issues
  - Communication Issues
  - Message to Emergency Coordinators and Backups
  - City Watch Phone System
  - Mediated Classrooms
  - Cable TV
- Active Shooter Response
  - Suspicious Person/Activity
  - Building Floor Plans

A total of 14 Emergency Coordinators attended these trainings.

Ergonomics

In looking at the injuries that occur most frequently with CMU employees, a large majority can be attributed to ergonomic concerns. Having said this, ergonomics training was conducted for 170 employees. Ergonomics training consists of recognizing ergonomic hazards, the signs and symptoms of Musculoskeletal Disorders (MSDs), what to do to control risk factors at work, and how to practice good ergonomics off the job.

![Ergonomics Chart]

<table>
<thead>
<tr>
<th></th>
<th>FY 06-07</th>
<th>FY 07-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ergonomics</td>
<td>97</td>
<td>170</td>
</tr>
</tbody>
</table>
Fire Extinguisher/Fire Safety

Since July 1, 2007, 510 employees have attended fire extinguisher training. This training continues to be one of the more popular training sessions, as attendees are given the opportunity to put out a “live” fire. Fire training includes a classroom portion, which includes an overview of the regulations, some basic fire facts, home safety tips, the anatomy of a fire extinguisher, and the different types of fire extinguishers, and what each type is designed for.

Employees and students from the following departments attended Fire Extinguisher training:

- Residence Life
- Human Resources
- Business & Finance
- Dining Services
- Communication Disorders
- Facilities Management

General Safety

New this year, ESS trained a total of 69 employees on General Safety. Training covered all aspects of ladder safety, slips/trips and falls, good housekeeping practices, color coding as it pertains to caution and safety warnings/hazards, and employee responsibilities as written in MIOSHA Part I. General Provisions.
Hazard Communication (Right to Know)

Hazard Communication (Right to Know) training was conducted for 243 employees and students. Of that number, many were student employees who took advantage of the convenient on-line training module. The on-line module continues to allow both students and departments the flexibility to work around class and work schedules while still providing necessary training.

![Bar chart showing Hazard Communication training from FY 00-08](image)

Haz Mat Awareness (PT 1 & PT 2): First Responder Awareness Level

New this year, ESS has trained a total of 16 employees. This 8-hour training was conducted in 2-hour sessions. Employees were trained on how to recognize hazardous materials incident in order to notify authorized responders; employees trained to his level have an understanding of hazardous materials, identification, and the need for additional resources when necessary.

Heat Stress

ESS trained employees on Heat Stress. Heat Stress training covered the effects of temperature on the human body and temperature related physical emergencies such as heat cramps, heat stress and heat exhaustion, prevention techniques, ergonomics, and personal protective equipment. Heat Stress training was attended by 116 employees.

![Bar chart showing Heat Stress training](image)
Landscape Operations

ESS, in collaboration with Landscape Operations trained 2 employees on chainsaw safety. Discussion included the proper use of chainsaw operation and proper personal protective equipment.

Lock out/Tagout

This fiscal year 99 employees from Facilities Management received Lockout/Tagout training. Employees are trained in what lockout/tagout is, the proper use of locks and tags, the proper sequence of equipment lockout, the lockout/tagout regulations, group lockout and removal of lockout/tagout devices.
New Employee Safety Orientation

New Employee Safety Orientation training was attended by 18 new employees this fiscal year. This training includes an overview of several safety topics, including bloodborne pathogens, hazard communication, fire safety and emergency plans. Employees are sent a letter of invitation with dates of training listed and are encouraged to attend.

New Hire/Student/Temporary Employees

The New Hire/Student/Temporary Employee training was developed at the request of the Joint Health & Safety Committee (JHSC). The JHSC felt that student employees and temporary employees were not receiving adequate safety training prior to their assignments. As a result, ESS developed and conducted full day training sessions covering fire safety, hazard communication, personal protective equipment, ergonomics, workers’ compensation, lock out/tag out, severe weather and asbestos awareness. A total of 189 new hire/student/temporary employees attended these sessions.
Office Safety

New this year, ESS trained a total of 43 graduate students on office safety. Topics included fire safety, proper and appropriate use of fire extinguishers, severe weather emergencies, and ergonomics.

On Line Fleet Safety

On-Line Driver Safety training continues to be utilized by the Volunteer Center for training students who have volunteered to drive for various events. 216 individuals completed the on-line training and submitted finished quizzes to ESS.

Powered Industrial Trucks/Aerial Lifts

ESS conducted Powered Industrial Truck and Aerial Lift training for 63 employees in April of 2008. Twenty-six aerial lift operator permits, and 13 fork-lift operator permits were issued to employees.
Respiratory Protection/Fit Test

During fiscal year 07/08, ESS trained 75 Facilities Management employees on respiratory protection. Annual training is a requirement for employees who are required to wear respiratory protection during the course of their job. Included in this training is an overview of the regulations and identification of the various types of respiratory protection. Proper storage of the respirator and cartridges is also discussed.

Employees are required to have a physical and pass a Pulmonary Function Test prior to wearing a respirator. Once these steps have been accomplished and training has taken place, they receive fitting instructions and demonstrations on how the respirator should be worn. During fit testing, using irritant smoke, each employee is walked through a series of exercises while wearing their respirators to assure a good face seal, and also to assure the employee is familiar with adjusting the respirator on his/her own.
Severe Weather Training

Severe Weather training was attended by 159 individuals this past year. This training generally takes place in the spring when the likelihood of severe weather increases. Weather conditions such as lightning, flooding, tornados and heavy rain are discussed. Employees and/or student attendees are trained in recognizing conditions that could lead to severe weather situations, what to look for in a shelter area, what to avoid in a shelter area, as well as the importance of seeking shelter during a storm. Shelter locations on campus are also identified.

Warriner Hall Emergency Procedures

New this year, ESS trained a total 25 employees who work in Warriner Hall, on emergency procedures such as severe weather, fire safety and security. Jeff Pickler of CMU Police and our own Jon Kujat performed this training.
VI. ACCIDENT/PROPERTY DAMAGE INVESTIGATIONS

ESS reviews all employee accident reports. Since July 1, 2007, approximately 181 employee accident reports have been submitted to our office which is down from last year’s report by 56. Reports are monitored for possible safety issues that may be present, and also to identify potential trends. If deemed necessary, investigative action is taken. When appropriate, ESS follows up with supervisors to assure the proper personal protective equipment (PPE) is available and being used.
This year, Facilities Management employees accounted for approximately 47% of the accidents reported, followed closely by Dining Services with 43%. This is to be expected, due to the nature of the work performed by these departments. Contusions and Sprains/Stains tied for the number one reported injury, accounting for 54% of the incidents reported. This was followed by lacerations 24%, other 8% and burns 7%.

ESS also conducts investigations into student/visitor incidents/accidents on campus. This includes, but is not limited to collecting information through photographs, interviewing witnesses and, if possible, the injured. If it appears there is a safety hazard present, appropriate actions are taken to correct the hazard.

This fiscal year, we followed up on 37 separate incidents/accidents involving students, employees, and visitors.

ACCIDENTS/INCIDENTS REVIEWED

INJURIES BY TYPE

VII. CONCERNS/COMPLAINTS INVESTIGATIONS
All staff members, faculty members, students and visitors to campus are encouraged to bring any safety concerns to the attention of ESS. All concerns are investigated by ESS or passed on to the appropriate person(s) for handling.

A. Indoor Air Quality

Indoor Air Quality remains one of the main areas of concern that is reported to ESS. Examples of some of the air quality assessments conducted this past year include:

- Brooks Hall
- Rose – Racquet Ball
- Rose Arena
- Woldt IT
- Health Professions Building
- Sweeney Hall
- Ronan Hall - Arsenic
- Rowe Hall
- Satellite Energy Facility – Electro Magnetic Frequency
- Anspach
- Wightman
- Warriner 308
- Moore Hall
- Foust

In addition to the above investigations, ESS was called out on numerous occasions to investigate strange “odors” in buildings.

B. Safety Concerns

This year, ESS investigated 37 concerns. These concerns ranged from electro magnetic field studies to moldy building materials, as well as asbestos and lead concerns. Examples of safety concerns conducted this year include the following buildings.

- Bovee University Center
- Dow - Explosion
- East Complex
- Fabiano Hall
- Finch
- Grawn
- Kelly Shorts
- Powers
- Rose
- Satellite Energy Facility
- Sloan
- Warriner

VIII. PLAYGROUND INSPECTIONS

ESS has continued to conduct playground inspections twice a year. Inspections are done to assure a safe play environment for children who live and play on campus. Items looked for in an
inspection may include loose or raised bolts, missing protective coverings on bolt heads, sharp edges on play equipment, damaged play equipment, placement of equipment in relationship to trees, structures etc. If an area of concern is found, a picture is taken and submitted with a work order, and a full report is issued to Landscape Operations, Risk Management & Insurance and Residence Life.

IX. MATERIAL SAFETY DATA SHEET (MSDS) MANAGEMENT

ESS continues to maintain MSDS for all hazardous products used on campus. A database is kept of all products and the departments that house the chemicals.

X. HAZARDOUS MATERIAL SPILLS

ESS responded to and abated 3 hazardous material spills. These spills occurred in:

- Dow – Mercury Release
- Dow – Chemical Reaction
- IET – Mercury Release

XI. MOTORIZED UTILITY VEHICLES

ESS authored a Motorized Utility Vehicle Policy in 2008. It is in the final approval phase I with senior officers as of this writing.

XII. SAFETY COMMITTEES

ESS continues to be involved in two safety committees for the University; the Campus Environmental, Health and Safety Committee (CEHSC), and the Joint Health and Safety Committee (JHSC). These committees meet throughout the year to address safety concerns on campus.

XIII. WEB PAGE

For 2007/2008 ESS continued to provide updated content for the web page (www.ess.cmich.edu) maintained by Financial Information Systems. This continues to be a valuable tool to campus for many years. Many items on the web page have proven to be very helpful to the web page user. A partial listing of items on the web page is provided below.

- Fire Safety Page
- Tornado Safety
- University Written Health & Safety Plans
- Training Descriptions and Schedule
- Video Library
- Committee Minutes and Members
- Floor Plans, with Designated Tornado Shelters
- MSDS Links
- Annual Reports
- Hazardous Waste Submission Form
- CHIP Ergonomics Services
• Various Forms and Checklists
• Monthly Newsletters

XIV. FIRE SUPPRESSION AND NOTIFICATION INSPECTIONS

Fire alarm testing took place for Residence Halls in August 2007 December 2007 and May 2008. State buildings on campus had fire alarms tested in August 2007. ESS is responsible for scheduling testing dates and coordinating them with building coordinators, and assisting Facilities Management Electricians in the fire alarm testing.

Two times a year, ESS conducts the Fire Department Connection Inspections.

XV. SAFETY HOTLINE

As part of our effort to reach out to the campus community, ESS continues to monitor the SAFETY HOTLINE which was developed three years ago as a way for individuals to bring safety concerns to our attention. The Hotline can be reached by dialing 8080 from any on-campus phone. Individuals may remain anonymous if they wish, but are asked to leave a detailed description of their concern. Each concern is documented and all concerns are followed up on.

XVI. REGULATORY INSPECTIONS

In October 2007, MIOSHA inspected Brooks Hall as a result of an employee safety and health complaint. A MIOSHA Inspector toured Brooks Hall and later returned to collect air samples. A report was generated by MIOSHA on January 2008. As a result of this inspection, no citations were issued.

In 2007 the Michigan Department of Environmental Quality (MDEQ) conducted three separate regulatory compliance inspections.

• In August the MDEQ conducted an inspection of the University’s Hazardous Waste Program and Storage facility. Upon receiving the formal inspection report from the MDEQ, only minor violations were noted and remediated. No citations were issued.

• In September the MDEQ conducted an inspection of the Underground Storage Tanks (UST) located at the Motor Pool. A report was generated by the MDEQ in September, noting deficiencies that were addressed immediately and as a result no citations were issued.

• In April of 2008 the MDEQ conducted an inspection of the Underground Storage Tank (UST) located at Grounds South. A report was generated by the MDEQ in September, noting deficiencies that were addressed immediately and as a result no citations were issued.

• In September 2007, ESS conducted an off campus investigation for recognized environmental conditions at the Biological Research Station located on Beaver Island. ESS inspected the entire Research Station Campus as well as the newly acquired Boat House located on Whiskey Point on the Island. Upon completion of the inspection concerns were noted and addressed immediately.
In December 2007, the Leaking Underground Storage Tank (LUST) site located at the Satellite Energy Facility was officially closed. The closure report was sent to the MDEQ, after an ESS review of the report to ensure that the University agreed to the content. In April of 2008, three of the monitoring wells used to verify the cleanliness of the site were abandoned.

In June 2008, ESS conducted off campus investigations for recognized environmental conditions at twelve Public Broadcasting Station transmission towers/microwave relay stations, to inspect the towers’ cooling system and backup generator fuel sources, and any other condition on site that may be a reason of concern. Upon the completion of the inspections only a few concerns were noted, and addressed by Public Broadcasting.

XVII. GOALS for 2008–2009

Goals for 2008-2009 have not been determined as of this writing.

XVIII. EXECUTIVE SUMMARY

Environmental & Safety Services, now in its ninth year, continues to strive to make CMU the safest it can be. Some of the highlights for fiscal year 2007-2008 include:

- 2,886 individuals trained on 23 separate topics.
- 181 employee accident reports were reviewed.
- 14 indoor air quality investigations were completed.