Service

Quality

Knowledge

Environmental Health and Safety

2011 Annual Report

IOWA STATE UNIVERSITY
EH&S Safety Policy

Iowa State University

Environmental Health and Safety Statement

Iowa State University strives to be a model for environmental, health and safety excellence in teaching, research, extension, and the management of its facilities. In pursuit of this goal, appropriate policies and procedures must be developed and followed to ensure this community operates in an environment free from recognized hazards. Faculty, staff and students are responsible for compliance with established policies and are encouraged to enculturate practices that ensure safety, protect health and minimize the institution's impact on the environment.

As an institution of higher learning, Iowa State University

- fosters an understanding of and a responsibility for the environment;
- encourages individuals to be knowledgeable about environmental, health and safety issues that affect their discipline;
- shares examples of superior environmental health and safety performance with peer institutions, the State of Iowa and the local community.

As a responsible steward of facilities and the environment, Iowa State University

- strives to provide and maintain safe working environments that minimize the risk of injury or illness to employees, students and the public;
- continuously improves operations, with the goal of meeting or exceeding required and applicable environmental, health and safety regulations, rules, policies, or voluntary standards;
- employs innovative strategies of waste minimization and pollution prevention to reduce the use of toxic substances, promote reuse, and encourage the purchase of renewable, recyclable and recycled materials.

The intent of this statement is to promote environmental stewardship, protect health, and encourage safe work practices within the Iowa State University community. The cooperative efforts of the campus community to remain mindful of these goals will ensure that Iowa State University continues to be a great place to live, work and learn.

Dr. Steven Leath
President

The Department of Environmental Health and Safety at Iowa State University provides oversight and technical consultation on all environmental, health and safety employees, students and the visiting public.
Thank you for taking time to review the Department of Environmental Health and Safety (EH&S) Annual Report. This document is not meant to be a comprehensive overview of all EH&S activities, but rather an overview of activities in our core service areas. We hope you find this report informative and helpful in understanding many of the diverse daily activities taking place in EH&S to maintain regulatory compliance, promote safety, facilitate research, and ensure that Iowa State University remains an excellent place to learn, teach, research, and work.

If there were to be a theme for this report, it would be “focusing on core services in challenging economic times.” Like many other campus units, our budgets have continued a downward trend. This has resulted in a greater emphasis on providing timely, quality core services while committing fewer resources to “nice to do” activities. To those who rely on our core services, we hope this has been a seamless transition. To those who were used to the services we have had to scale back or change to cost recovery, we are sensitive to the challenges this has created and vow to continue to creatively find ways to minimize the impact to your operations.

As we look toward the remaining months of 2012, please be assured that we are mindful of our core values of service, quality and knowledge as we work to make our department more accessible. Today you are benefiting from an upgraded EH&S website, greater EH&S database integration, and continued engagement of our campus clients to ensure our efforts align with their challenges and needs.

Your environmental, health, and safety partners.
2011 saw the need for increased laboratory and equipment inspections in addition to increased building investigations for health issues.

**EH&S** tests laboratory equipment in order to ensure it runs properly and safely, protecting individuals and millions of dollars of research. Iowa State University has over 1600 laboratories. EH&S increased lab inspection services over 10 percent in 2011.

Fume hood inspections rose 17 percent as more research on campus required additional fume hoods. Hoods are tested for adequate airflow, turbulence, alarm operation, lighting function, and sash movement. EH&S staff educate lab workers on safe fume hood use and how to conduct quality lab inspections in their labs.

EH&S industrial hygienists investigate concerns in campus buildings. Mold investigations were up 22 percent in 2011.

EH&S’s asbestos group managed 150 demolition and renovation projects in 2011.

**Testing** a meter reading for a sound levels.

**EH&S** conducts surveys in labs to help ensure safe work environments.
New research space increased EH&S services to support leading edge biosafety level 3 research.

Biosafety lab inspections and equipment testing help create a safer environment for laboratory personnel.

Promoting Emergency Preparedness

The Automated External Defibrillator (AED) program continues to grow as more campus departments prepare for possible emergencies. Fifty-four AEDs are now on campus. EH&S also coordinates CPR, First Aid and AED training.

Requests for Automated External Defibrillators

EH&S hosts annual Storm Spotter Training in partnership with the National Weather Service. This training meets one of the community preparedness guidelines for the StormReady® University designation.
While the university community stays productive in leading research and day-to-day operational support activities, EH&S is behind the scenes ensuring the campus is environmentally safe, healthy, and compliant with state and federal regulatory agencies. Our efficient waste pickup and disposal services limits university costs for the management and disposal of hazardous waste.

- Resource Conservation and Recovery (RCRA) – RCRA programs include hazardous waste compliance, management and recycling. In 2011, over 17,300 containers of chemical and radiological waste were collected during 2141 campus pickups.

- The Environmental Protection Agency (EPA) inspected the Main Campus in 2011. Several violations were identified in laboratories and support spaces, specifically for open and unlabeled containers. EH&S works with ISU staff to correct violations and prevent reoccurrence.

- Several significant mercury spills occurred on campus in 2011. A mercury abatement contractor completed major cleanups in Sweeney and Gilman Hall, while EH&S staff conducted clearance monitoring. EH&S responded to several other small cleanups. Total cost for mercury abatement and disposal in 2011 is expected to exceed $50,000.

Laboratories are safer due to EH&S removing radioactive materials and other wastes. In 2011 services to remove radioactive wastes increased 47 percent.

Waste disposal costs in 2011 reached a 5 year peak of $110,542, up over $25,000 from each of the previous 2 years, and topping the previous high of $109,949 in 2008.

Waste Management handled the following in 2011:
- Chemicals: 16,774 packages
- Rad: 602 packages
- Incinerator: 238,930 lbs.
- Lamps: 46,229 bulbs
- Ballasts: 25,397 lbs.
Serving the Radiological Community

Radiological Services Increased

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Serving the Radiological Community continues to be a valuable core service to ISU researchers.

Our work supports 85 PIs and 235 lab staff approved to use radioactive materials, x-ray devices and sealed sources in research and teaching.

In 2011 the need for radiation safety services increased.

Serving the Vet Med Research Community

EH&S serves the animal research community through the disposal of pathological waste.

In 2011 the volume of pathological waste disposed at the Veterinary Medicine Incinerator increased dramatically.

EH&S staff has provided this service for over 23 years – a critical service supporting ongoing and expanding research.
Demonstrating Fire Safety

At Campus Fire Safety Week, EH&S and the Ames Fire Department collaborated to demonstrate correct extinguisher use to over 500 students and employees.

Fire extinguisher inspections and repaired maintenance remained high: In 2011 EH&S once again conducted over 40,000 fire extinguisher inspections. EH&S improved efficiency and quality of service by implementing an improved extinguisher maintenance system.

Each year our fire program specialists inspect, test, and service over 4,500 fire extinguishers across the university campus. Fire extinguishers are inspected on a monthly basis to meet State Fire Marshall inspection program requirements.
To meet the growing request for online courses, the EH&S training program developed eleven additional online courses. Our instructors provided over 400 classroom hours of training. Completion of online safety training increased by 23 percent in 2011, a number that supports EH&S efforts to build a culture of safety at Iowa State University.

Partnering in Outreach Services
Exercise, Preparedness, and Environmental Resources and Training

ExPERT continues to partner with ISU Extension’s Center for Industrial Research and Service (CIRAS) to provide professional services to businesses in Iowa with environmental, health and safety needs.

Some of those services include:
- Ergonomic evaluations
- HAZWOPER refresher training
- Hazardous Materials Management for Manufacturers courses

ExPERT also assists state and local agencies and businesses throughout Iowa with health and safety consultation and training, including respirator training and emergency response exercise design and support.