

A Matter of Safety

Environmental Health and Safety Newsletter

Changing of the Guard

An important change has occurred within EH&S. As of December 1, 2003, Lou Mitchell stepped down from his full-time position as Associate Director after 22 years of service to the university. Lou was in charge of our General and Fire Safety programs and did a wonderful job of ensuring that Iowa State buildings met life safety code requirements, as much as possible.

Those of you who interacted with Lou would agree that he had a passion for what he did. He used a common sense approach in dealing with difficult circumstances encountered in the performance of his job duties. The challenges he faced were numerous, but he found ways to work with clients to achieve consensus and attain the best results for the university.

Lou worked with many outside agencies, including the State Fire Marshal Office, the Iowa Department of Public Health, and the Iowa Department of Transportation.

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It really isn't necessary to say that things can be little more hazardous in the wintertime, especially if driving on icy roads or walking on snow covered sidewalks. However, winter also brings about other behavioral and physical challenges that pose additional hazards. It is important to remind everyone of special rules and precautions

that must be followed to ensure a safe home and work space.

Carbon monoxide (CO) is a clear and odorless poisonous gas that is responsible for more than 500 American deaths per year. Often called "the silent killer", carbon monoxide cannot be detected using our natural senses. Common sources of elevated CO levels are faulty furnaces, improperly maintained gas dryers, and running cars in closed garages.

People have also died from CO exposure while sitting outdoors in their cars with the engine running. The cars were parked in snow, which had blocked the exhaust pipes, resulting in fumes accumulating inside the vehicles. Be sure to clear the snow away from your exhaust pipes before starting your car if you plan on letting it run to warm up.

Carbon monoxide poisoning results in symptoms often mistaken for those of a cold or flu – headache, dizziness, weakness, nausea, vomiting, chest pain, and

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Please Release Me!

For the past year, Iowa State University Radiation Safety staff have been working with the Iowa Department of Public Health (IDPH), the Nuclear Medicine Program within the College of Veterinary Medicine, and the Avondale Veterinary Clinic in Des Moines to study radiation dose rates of cats that have undergone thyroid ablation. The purpose of this study is to reduce the number of days a cat must stay at the clinic after treatment.

Under the current IDPH release criteria, the average cat must stay about 10 days. Based on new data, the time may be reduced to as few as 3 days. Surprisingly enough, the data gathered in this study has never been collected in the United States. EH&S has asked the University of Iowa Radiation Safety Officer to peer review the results and conclusions of this study prior to our asking the IDPH for a license and regulatory change based on the new release criteria.

Links

Seasonal Safety

D.O.E. Off-Site Source Recovery Program

National Oceanographic and Atmospheric Administration

CDC Carbon Monoxide Website

Consumer Product Safety Commission

Weather Radios



Iowa State University recently received 200 National Oceanographic and Atmospheric Administration (NOAA) radios through a grant coordinated by Story County Emergency Management. These radios are part of a distribution of 900 radios to city, county and state offices, public gathering sites, community centers, licensed day care centers, medical buildings, group homes, churches, and businesses with more than 50 employees.

Radios are currently being distributed throughout campus so that buildings will receive weather alerts and warnings that occur in Story and Boone counties. Each building that has received a radio has a designated person to serve as Weather Coordinator. The coordinators recently attended a training session to learn how to operate the radios and become familiar with the notification procedures in the event of a weather emergency. To date, over 100 people have attended training.

As an all-hazards network, the system can broadcast a wide range of updates, including Amber Alerts and information regarding terrorist attacks. On campus, the radios act as an indoor warning system for the faculty, staff and students in the many interior offices and classrooms who may be unable to hear outdoor tornado sirens. The weather radio program is designed to ensure that building occupants are given adequate warning to prepare for weather-related emergencies. EH&S is working through Weather Coordinators to establish notification plans for campus buildings and to identify shelter locations in the event of a tornado.

If your building needs additional radios, or if it has not yet received a weather radio and you feel there is a need for one in your building, please contact [Angie Jewett](#) at 294-8090. Requests will be filled based on need and availability.

Storm Spotter Training Offered

KCCI NewsChannel 8 meteorologist, Jason Parkin will be the featured presenter at a basic storm spotter training sponsored by EH&S on campus, February 17, 2004, from 7:00 – 9:00 p.m. The training will offer basic information on severe weather dangers including lightning and tornadoes and is encouraged for any departments that have people working outdoors. Whether you work on a sports field, farm or are a campus groundskeeper, this class could be life saving.

Interested individuals should contact EH&S at 294-2193 or [Karla Godfrey](#) to register for the training.

Coming Soon to a Lab Near You: Laboratory Inspection Program

Iowa State University has been inspected by numerous regulatory agencies over the past year. Some of the inspections have gone well, while others...well, let's just say they have pointed out some room for university improvement.

In addition to fallout from these inspections, new homeland security directives and several laboratory accidents have made it clear that broad initiatives are needed to address weaknesses in emergency response and day-to-day laboratory operations.

Laboratory inspections have been a part of the Chemical Hygiene Plan since 1991, and many departments now routinely complete voluntary safety inspections of their spaces. A copy of the latest [Laboratory Safety Survey Inspection Form](#) can be found on our website.

EH&S plans to continue to assist departments who request our services with Chemical Hygiene Plan requirements and laboratory inspections, as well as increasing visits to campus laboratories to help departments identify compliance needs. EH&S will provide more details on these visits in the coming months.

In the meantime, EH&S personnel will be visiting individual departments and contacting Chemical Hygiene Officers to refine our list of existing laboratories across campus and to identify emergency contacts for those labs.

EH&S requests **immediate** departmental assistance with:

- gaining access to laboratory spaces within each department and building so that the spaces can be evaluated in terms of laboratory type (no inspections at this time)
- identifying emergency contacts for each laboratory

Laboratory identification and emergency contact information are among the first steps in a more robust Chemical Hygiene Program for the university. If you have questions about this program or would like to schedule an inspection for your laboratory, please contact Rich McColley (294-9561) or Scott Bonney (294-6309).

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confusion. People who are sleeping often die from CO poisoning before ever experiencing the symptoms.

To prevent losing a loved one to dangerous CO levels in your house, consider installing several carbon monoxide detectors (available at most hardware and general merchandise stores). The detectors should be placed near the sources of exhaust fumes (gas furnaces, heaters, water heaters, and dryers), as well as near bedrooms and living spaces. There are many accounts of families saved by a carbon monoxide alarm and many more stories of families that could have been saved if they had a monitor.

A good source of further information on carbon monoxide can be found at the [Centers for Disease Control and Prevention](#) and the [Consumer Product Safety Commission](#) websites.

Frostbite and hypothermia are common conditions requiring medical attention during the winter months. It is crucial to protect the body from excessive exposure to cold conditions to prevent hypothermia (lowering of the body’s core temperature to dangerous levels). Every year, nearly 1,000 people die due to hypothermia. To

prevent hypothermia, dress in layers of light clothing, rather than bulky, heavy clothes, and make sure that your hands, feet and head are well protected.

If you’re planning to be outside in cold weather for an extended period of time, take the proper precautions to help prevent frostbite. Frostbite is injury caused by the actual freezing of tissue. Minimize the amount of exposed skin, especially ears, nose, fingers, and toes, which are the areas most susceptible to frostbite. If exposed skin develops a burning sensation, immediately move indoors and warm the area. Do not rub the skin or place it under hot water. You may place the area under lukewarm water to ease the pain. If you lose feeling or blisters develop, **seek immediate medical attention.**

If your clothing or shoes get wet, it is important to seek shelter immediately to give the wet articles time to dry. It is imperative to keep your skin dry; wet skin freezes more rapidly.

More information on dressing for severe weather is available on the [EH&S website](#).

Candles and open flames are generally not allowed in

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EPA Continues to Inspect Colleges and Universities

Although it has been nearly two years since EPA Region VII began a focused effort to inspect colleges and universities, the agency has shown no signs of backing down from this enforcement initiative. In this short period of time, 14 colleges have been inspected in Iowa alone. The other Region VII states (Kansas, Missouri and Nebraska) have reported similar enforcement activity. According to Jim Aycock of EPA Region VII, “The college and university sector continues to hold our attention. Inspections and subsequent or reinspections in this sector can occur at any time.”

Inspection statistics are not a cause for panic, but they are a firm reminder of our obligation to comply with federal environmental regulations. The beginning of a new year, and a new semester, is a good time to review chemical waste management practices in your work areas. If you are following waste management rules,

an EPA inspection of your area could be over in as little as 30 seconds, requiring you to only answer a few simple questions.

The basic requirements are that everyone managing chemical waste has been trained, all waste containers must be properly labeled, and all wastes must be placed in a suitable Satellite Accumulation Area (SAA) pending removal by EH&S. In addition, it helps to keep your lab clean and in good order. Nothing raises a red flag faster during an inspection than clutter. It is also a good idea to go through chemical inventories and request removal of old and unwanted materials by EH&S.

The EPA has made it clear that they are serious about enforcing hazardous waste regulations at colleges and universities. With a little preparation, we can show the EPA that we’re serious about compliance.

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Effective Safety Meetings: Make a Plan!

I have recently received numerous requests for information on leading effective meetings in which safety is a main component. Taking the time to plan such a meeting, and remembering to include a few key items, can sometimes mean the difference between success and failure. Follow these tips to plan and run a successful safety meeting in your work area, office, laboratory, or shop.

Clear purpose

Determine the purpose of your meeting. Are you communicating a new safety requirement? Are you gathering information about procedures? Are you problem-solving a commonly-repeated mistake? Don't forget to communicate the purpose to the attendees prior to the meeting.

PPT (People, Place, Time)

People: Think about who needs to be in attendance in order to accomplish the purpose of your meeting. No one likes to be asked to a meeting in which they are not needed, and no one likes to be left out of a meeting if they have a stake in the decisions that will be made. Ask questions like: would it be beneficial for your supervisor to be in attendance to show support for your efforts? Who needs to attend in order for us to be successful?

Place: Select a quiet place appropriate for participants. It's best if the location will allow everyone to see each other clearly, especially if decisions will be made or reactions will be gauged.

Time: Check with people in advance to see that all key people can indeed attend. Let the attendees know the time frame of the meeting.

Agenda

Once you have determined the time and location and invited the appropriate people, it's vital to the success of your meeting to plan the content. Be sure to include what will be discussed, why it will be discussed, and what is to be achieved from the discussion. It's also necessary to consider who will be attending: do all attendees know each other, or are introductions appropriate? Remember, if decisions will be made or problems solved, it's important to create an environment for all participants to feel comfortable. One way to initiate this is to be sure everyone knows each other and the roles people have in the group. In addition to discussion topics, also include the starting and ending times of the meeting, which can be helpful in keeping everyone on track.

Prepare materials

Prepare any materials or information needed for discussion and have copies for all participants. Examples may include procedures, expectations, calendars, etc. Remember, if you'll be asking for behavioral changes at the meeting, be prepared with documentation outlining exactly what your expectations are. It is appropriate for you to have a record of attendance. To do this, prepare an attendance sheet listing topics discussed, the date, location, and time of the session.

The day of the meeting

Arrive early at the meeting location to make sure the room is comfortable and that you will not be interrupted

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ment of Labor, and the Ames Fire Department, just to name a few. His interactions with these agencies were critical for Iowa State, since over 70 new buildings and major additions were constructed, and 9 demolished, during his tenure. The review of these facilities for life safety codes and the associated negotiations to achieve compliance would test anyone's mettle. Lou was always up to the task and able to maintain exemplary professionalism.

Lou has relocated to the Denver, CO, area with his family to pursue other interests. However, EH&S has retained Lou's services, at 1/3 time, for at least another 12 months to assist in special projects. You can continue to reach him via his [university email address](#) until further notice.

EH&S has reorganized the General and Fire Safety programs, and reallocated staff and duties in an effort to continue to provide quality service in these areas. The new division of General Safety and Emergency Response Preparedness has been formed and is managed by Ken Kerns. Ken can be reached at 294-0746. Please do not hesitate to [contact Ken](#) regarding any issues previously handled by Lou.

Thank you for your patience and understanding as we work through these changes to serve you better.

Newsletter Editorial Board

Managing Editor – Anita T. Nimitz (atnimitz@iastate.edu) Production Editor – Sherry Berghefer (slbergh@iastate.edu) Assistant Production Editor – Rajean Birkestrand (rjbirke@iastate.edu)

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campus buildings. Birthday and decorative candles have previously been the cause of fires on campus and represent a violation of fire codes.

There are many people who enjoy the aroma of scented candles. Although this may be personally pleasing to some, consideration must be given to coworkers who may develop serious breathing conditions from the contaminants placed in the air. The bottom line is that if a flame is involved, it may not be used in campus buildings.

Space heaters are not allowed in the labs, offices or shops. There is an exception: if your space has an inadequate heat supply, a space heater will be allowed if it is permanently

mounted and the electrical supply is hard-wired.

Propane or gas-fired space heaters are only allowed in external buildings such as shops, barns, and outbuildings if there are adequate air exchanges. They do pose a greater risk of fire, so special precautions must be followed. The heaters should only be used when attended, and they must be kept away from any combustible materials. Using gas space heaters may lead to elevated, and possibly lethal, carbon monoxide levels, therefore a carbon monoxide detector should always be used in conjunction with the gas heater.

Slips and falls are responsible

for many missed workdays in the wintertime. We often forget how dangerous sidewalks become when icy. At Iowa State University, the accident rate nearly triples during the winter months because of the icy conditions.

No matter how well the snow and ice are removed from streets and sidewalks, employees will encounter some slippery surfaces when walking outdoors in the winter. It is important to be continually aware of the dangers and to walk safely on icy and slippery surfaces. Precautions that can be taken to reduce the rate of accidents are located on the [EH&S website](#).

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by activity around you. Post signs letting others know about the meeting, if necessary. (Remember to arrange the chairs so everyone can face each other. A semicircle works well.) Select a place for people to sign in. I recommend completing sign-in prior to the beginning of the meeting, versus passing around a sign-in sheet during the meeting, which can be disruptive.

During the meeting

- Greet participants and make them feel welcome.
- Start on time. End on time.
- Review the agenda and set priorities for the meeting. Then, follow the agenda!
- Lead discussions and encourage participation to get all points of view and ideas. As a leader of the meeting, be a role model by listening and showing interest, appreciation and confidence in participants.
- Keep the focus on the meeting agenda.
- Summarize decisions or agreements at the close of the meeting. Thank the participants for attending and participating.

After the meeting

Write up and distribute minutes within three days. Quick action reinforces the importance of the topics discussed and the value of people's time. Be sure to follow up on questions or concerns raised in the meeting.

Remember, the time and effort you invest up front will pay off in the effectiveness of your meeting, which adds to your own credibility and the importance of implementing safety within your work environment.

(Karin's Korner is written by Karin Schoen, Training Coordinator. A special thanks to David Ballard of Facilities, Planning & Management for his contributions to this article.)

Iowa State as the Example

In an effort to assist the Iowa Department of Public Health (IDPH), as well as many Iowa educational institutions, Radiation Safety staff collected plutonium beryllium sources during the early fall for shipment to Los Alamos National Laboratory (LANL) as part of the U.S. Department of Energy's [Off-Site Source Recovery Program \(OSR\)](#). In December, Iowa's sources were the first sources transferred to LANL's new recovery facility. The model of cooperation between the IDPH, LANL and Iowa State University is being used as the example for other recovery efforts around the country.

FAA Audit

On November 19th, 2003, the Federal Aviation Administration (FAA) audited Iowa State's Hazardous Materials Shipping Program. The FAA is a U.S. Department of Transportation (D.O.T.) agency and oversees transport of hazardous materials via air routes. The agent representing the FAA had the full authority to identify violations and issue citations and fines for noncompliance. The good news: Iowa State received no violations. The bad news: the FAA's scrutiny of this area will continue to intensify due to the large number of hazardous materials compliance problems found throughout the United States.

The auditor emphasized that the FAA has identified colleges and universities as groups that typically have not been complying with D.O.T. regulations. Essentially, Iowa State has been put on notice that those

who do not comply **will** be subject to severe penalties, including potential imprisonment. In addition, Iowa State University, as a whole, could lose its hazardous materials shipping privileges. This would significantly impact research activities because researchers would be unable to send diagnostic specimens, chemicals or samples.

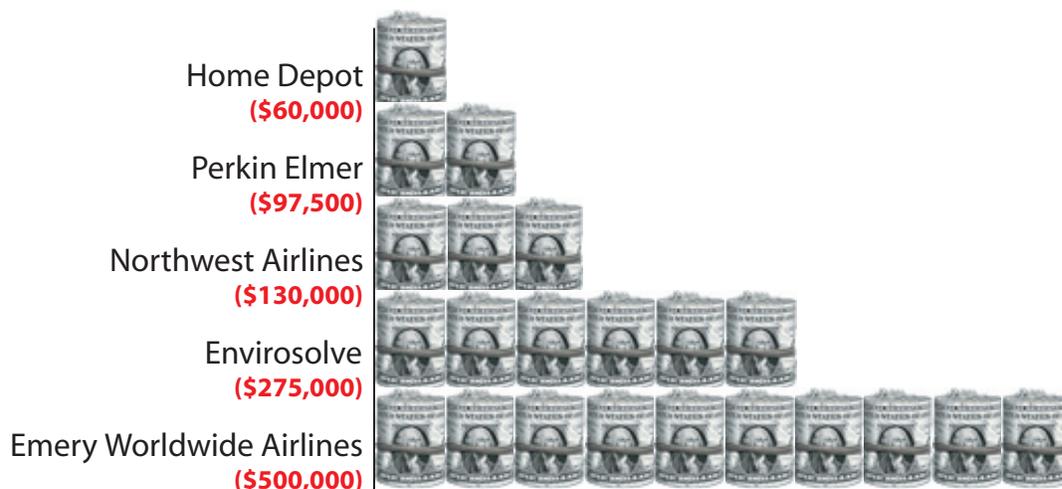
To help Iowa State avoid serious penalties and the loss of shipping privileges, we must all ensure that the following guidelines are met.

- **Follow university procedures**
Before mailing chemicals, laboratory products or equipment that contain hazardous materials, contact EH&S to determine if they are regulated by the D.O.T. If regulated, follow the procedures for mailing hazardous materials found in the

[Hazardous Materials Shipping Guide.](#)

- **Training**
Ensure that all personnel who help ship hazardous materials (package the material, deliver to Postal and Parcel Services, make address labels, etc.) are properly trained. This training is available through EH&S and must be received **prior to** mailing regulated materials. Individuals who may need training include professors, researchers, students, secretaries, etc.
- **Proper packaging**
Purchase approved packaging matched to the materials being mailed. EH&S will assist with package selection and will ensure that all required labels and markings are placed on the outside of the box.

Recent Penalties Levied for Improper Mailing of Hazardous Materials



Support for Regulatory Permits – USDA, CDC, FDA

In recent years, public regulatory concerns have focused increasingly on biological terrorism prevention and on genetically modified organisms. In order to proactively address these concerns, EH&S has hired Dr. Beryl Packer to provide support for investigators on regulatory requirements involving permits, including all research activity regulated by the USDA, the CDC, and the FDA. Beryl is available to assist people in getting information to determine whether they need a permit, what type of permit is needed, and to help expedite the permit application process for Select Biological Agents (all other regulated plants, microorganisms, viruses, animals, or material of human origin), and for any research involving recombinant DNA.

A centralized database is being created for all permits held on campus. The purpose is to assemble basic permit information for administrative use when the Office for Research Compliance or the Office of University Relations must respond quickly to questions about regulated research activities, or respond to inquiries from auditors and inspectors in a timely and informed manner.

This information will be used as a support service to help remind investigators about report deadlines and permit expiration dates in an effort help avoid permit violations, citations and fines.

In addition, as regulatory oversight increases, and more public and media scrutiny of regulated activities becomes the norm, it is essential that we have a centralized record of these very important research activities. This record will protect investigators and the university by assuring quick and accurate responses when inquiries or claims are made involving current or past research.

Permit guidelines and updates will be published on the [EH&S website](#) and in various communications, to help investigators keep up to date on current regulations.

Dr. Packer is available to help track applications, to contact regulatory agencies about any questions personnel may have, and to provide ongoing support related to permits and regulations.

Investigators should fax copies of all USDA, CDC or FDA permits, along with any permit requirements (containment; restrictions on shipping, growing or sharing materials regulated by permit; required reports and deadlines; etc.) to Dr. Packer (294-9357) as soon as a permit or letter of approval is received. Investigators who have not filed existing permits with EH&S should do so as soon as possible. If you have questions or concerns about USDA, CDC, or FDA permits or regulations, contact [Beryl Packer](#) at 294-6366.

Regulatory News

- The USDA-APHIS-PPQ division requires all transport permits to remain active as long as investigators possess the materials covered by the permit, or anything derived from those materials. The APHIS-BRS and APHIS-VS divisions do not have this requirement after the material is received, unless the permit covers Select Biological Agents.
- USDA-APHIS-PPQ – As of January 1, 2004, investigators with active permits from this division can **no longer** transport plant materials, plant pests or pathogens on their person, by auto, or in personal luggage across state lines or into the country. Transport **must be** via bonded carriers. This regulation was scheduled to go into effect November 1, but was postponed until January. The BRS and VS divisions do not have this restriction. However the Federal Aviation Administration (FAA) now inspects travelers and luggage. Any biological agent may be considered a potential agent for bioterrorism. Persons carrying biological materials will be detained and investigated. The material may be confiscated.
- University investigators shipping materials to others in the U.S. are required to contact EH&S and must obtain a copy of the receiver's permit prior to shipment. This is Iowa State's assurance that the recipient is approved to receive the material. A copy must be forwarded to EH&S.
- The FAA is placing emphasis on the review of international shipments into the United States. Iowa State University will be held responsible for any regulated materials shipped into the U.S. by Iowa State researchers traveling abroad. If the materials are not properly permitted and packaged, the researcher and the university will be subject to citations, fines and any other applicable penalties.

Online Storm Water Survey Available

Do you know the difference between storm and sanitary sewers? Where does storm water go? What is the most environmentally friendly way to wash your car? As part of Iowa State University's new Storm Water Permit, EH&S will be gathering information about the level of awareness of storm water-related issues on campus and within the campus community.

Please take a few minutes to complete [this survey](#). The results will help EH&S measure the effectiveness of the university's storm water education and outreach efforts. Our goal is to increase awareness of storm water issues, minimize our impact on local waterways, and protect Iowa's natural resources. Your participation in this survey will help Iowa State achieve its goals and is sincerely appreciated.

Please contact [Bill Diesslin](#) at 294-2105 if you have questions about the survey or storm water issues at Iowa State.

New Laboratory Equipment Disposal Form

University Surplus must know the safety status of laboratory equipment before handling or selling it. The concern lies in the possibility that equipment may be contaminated with dangerous materials. This could pose a safety issue for Surplus personnel handling or transporting the equipment, other departments who receive the equipment, or members of the public who purchase the equipment. A [Laboratory Equipment Disposal Form](#) has been created to address this issue.

Before Surplus personnel can handle and transport items from laboratories, the items must be cleaned by the releasing department and cleared by EH&S. Appropriate cleaning procedure information can be found on the reverse side of the Laboratory Equipment Disposal Form. If approved for release by EH&S, the item will be tagged with a blue Laboratory Equipment Release Tag.

If you have any questions about items that are included or excluded, please contact [Alan White](#) at 294-9364.

Core Values

EH&S recently completed the process of writing core values for our department. The purpose of listing these values was to identify the types of behaviors that will guide us in accomplishing our mission. Our core values should reflect the values of all employees, and put forth the type of image we, as a unit, want others to see.

Core Values

EH&S accomplishes its mission by committing its efforts and resources according to the following core values.

Service: We are a service-oriented department, committed to professionalism through friendly and helpful interactions.

Quality: We strive to provide quality and timely service.

Knowledge: We seek to continually expand our knowledge in order to provide accurate and relevant information.

Mission

The Department of Environmental Health and Safety at Iowa State University provides oversight and technical consultation on all environmental, health and safety issues, with the goal of providing and ensuring a safe and healthful environment for employees, students and the visiting public.

Laboratory Equipment Release Tag

Reviewed and released by
EH&S personnel:

Signature: _____

Date: _____

Suitable for Public Sale: _____

Departmental Transfer *ONLY*: _____