

Sustainable Engineering and the Built Environment (SSEBE)

General Laboratory Safety Policy

Ver 6.3.PG – August 27, 2012

PREAMBLE – “A message from the Director of SSEBE”

The accelerated growth of research programs at ASU/Fulton Schools, coupled with ever-increasing regulatory pressure, necessitates that we maintain and improve our safety protocols and procedures.

- As a Research I University, ASU needs to set the standards for excellence, including safety excellence. SSEBE is taking a leadership position within the University on safety issues.
- Space issues necessitate creative use and sharing of laboratories; opportunities for accidents and injuries increase as a result.

Our safety mission is to not only provide a safe lab environment for all who enter the lab, but to also prepare students for the career they have chosen, to enhance their ability to pursue it, and to provide industry with the strongly prepared workforce needed to go forward.

- Safety is an important issue in industry; graduates and new hires are expected to work and behave in a safe and environmentally responsible manner. ASU graduates will be even more highly sought after and will attract even more positive attention to our University because of their more sophisticated knowledge of working safely.
- The University environment is a most appropriate setting for students to learn the expectations of their anticipated professional life and prepare/practice. The faculty, established experts in their fields, should instill in the students a “safety first” attitude and emulate best practices in environmental safety and health.

This policy is intended to provide a means for the SSEBE Faculty and Leadership to apply fair and equitable safety rules to all of our students, graduate and undergraduate.

- Our goal is for all students to complete their studies injury-free and without serious safety incidents.
- Activities that present substantial hazards in one area may not even be a consideration in others therefore faculty and staff may interpret the rules as appropriate in each laboratory’s setting and environment.
- This policy is intended to provide a set of general rules and to empower the Faculty and the Laboratory Support Group are confronted with an individual who refuses to obey the rules.

In the event of a conflict between SSEBE policy and that of the University, ASU policy shall prevail.

Sustainable Engineering and the Built Environment (SSEBE)

General Laboratory Safety Policy

Ver 6.3.PG – August 27, 2012

Our Responsibilities

- The responsibility of SSEBE staff is to provide safety training and familiarity with potential hazards in the laboratory the student is working before any field or laboratory research begins
- The responsibility of the student is to follow all established guidelines, read safety notices/warning, follow safety protocols and ask questions before conducting any research where new chemicals, instruments or spaces are to be used.
- The responsibility of the student's faculty advisor is to promote a culture of safety and mentorship within their laboratory, serve as a role model for safety and help SSEBE staff identify and address safety issues in their laboratories

Rewards and Recognition for student showing outstanding laboratory safety

- Each semester, a SSEBE student will be selected from a pool of nominees to be awarded and recognized for their contribution to SSEBE Laboratory Safety. This will be announced on the SSEBE Web site and Academic Advising's newsletter. A certificate and prize will also be presented.

What happens when there is a laboratory safety concern?

The Faculty and Leadership of the School of Sustainable Engineering and the Built Environment (SSEBE) have adopted a policy regarding Laboratory Safety Guideline compliance. When an offense occurs, the supervising faculty and relevant staff will be contacted. The incident will be documented by the Laboratory Support Group.

The first incident will be reported to the student's academic/research advisor, and a meeting between the student, advisor, and the laboratory support group will be convened, depending on the severity of the incident. The student might be required to take additional safety training. Further non-compliance will lead to stricter measures that are at the discretion of the faculty advisor and the laboratory manager.

SSEBE Laboratory personnel reserve the right to issue verbal warnings prior to formally reporting an offense. SSEBE also reserves the right to proceed directly to removal from the lab area and termination if the offense warrants. It is to the discretion of the supervising faculty to determine the extent of the enforcement and, if necessary, the Director of SSEBE and the Dean's Office.

A student safety representative shall be appointed on a semester-to-semester basis by each lab area's PI and will work together with the SSEBE Lab Support Group to recommend safety actions as appropriate.

Read and Understood by (print name) _____

Sign Name _____

Date _____

Sustainable Engineering and the Built Environment (SSEBE)

General Laboratory Safety Policy

Ver 6.3.PG – August 27, 2012

Required Safety Training

- SSEBE Graduate students, Teaching Assistants and other University employees who will be working in SSEBE laboratories are required to attend the RISK Management-sponsored classes in Chemical Laboratory Safety, Fire Extinguisher Safety, and Hazardous Waste Management **prior** to beginning work in SSEBE laboratories. Attendance of yearly retraining sessions for Fire Extinguisher Safety and Chemical Laboratory Safety are also required. **If a student is assigned to work in a laboratory area before training has been completed, they will be allow to perform preliminary work subject to restrictions. In addition, a senior student MUST be in the laboratory whenever the new student is working up to and until they get all their training completed.**

Laboratory Information pertaining to all SSEBE laboratories:

- Appropriate Personal Protective Equipment (PPE) must be worn at all times while in the laboratory. PPE will be specified by the Laboratory Support Group and by the advising faculty. This may include, but is not restricted to, closed-toe shoes, safety glasses/goggles, face shields, gloves, and aprons. At a minimum, closed-toe shoes and safety glasses are required in every SSEBE laboratory at all times.
- Inappropriate behavior that could endanger the safety of anyone or impact productivity of on-going research is not permitted in any SSEBE laboratory. Professional behavior is necessary to minimize the chance of accidents happening.
- As stated in University Policy ACD 804, smoking is not allowed in or within 20 feet of the entrance of any university building – including laboratories.
- ASU has very strict policies regarding the unlawful use, possession, production, manufacturing, and distribution of alcohol, other drugs, and controlled substances on campus. This is described in SSM 106-03: Alcohol and Other Drugs on Campus. Any SSEBE employee or student who violates the Drug-Free Workplace policy will be subject to prosecution and punishment by the civil authorities as well as to disciplinary procedures by the university, which will result in the immediate termination of employment and sanctions in reference to continued participation in the graduate program at ASU.
- Open food and drink containers are strictly prohibited in all SSEBE laboratories and will be reported as a mandatory first offense – no exception.
- Working alone in SSEBE laboratories after normal ASU working hours of 8:00 AM to 5:00 PM, Monday-Friday must first be approved by the SSEBE Laboratory Support Group prior to beginning the work. Please refer to the official SSEBE After-Hours Operations and Policy Form. The ASU Tempe campus is currently developing a formal policy addressing this issue which we will adopt as standard policy once approved and implemented.
- Within SSEBE, there are ISAAC access doors. Some will automatically unlock between 7am and 5pm. These ISAAC doors are located throughout Engineering Center, ISTB2, and ISTB4. These doors must not be propped open for any reason. An activated ISAAC Suncard is required to enter these areas after the hours mentioned above. In addition, all other locked doors must not be propped open for any reason. Persons not having keys to laboratories or buildings should not be in those areas after hours.
- Unwanted equipment must be decontaminated (if necessary) and disposed of properly (ASU salvage, recycle or scrap).

Sustainable Engineering and the Built Environment (SSEBE)

General Laboratory Safety Policy

Ver 6.3.PG – August 27, 2012

- Laboratory housekeeping is the responsibility of all students, faculty and staff working in the laboratories. Failure to clean up your mess may result in being reported as a first offense.

No unauthorized personnel should be allowed entrance to any SSEBE lab unless given prior express permission. Visitors must be accompanied by an SSEBE staff employee or faculty member at all times.

Laboratory information pertaining to all SSEBE Chemical Laboratories:

- Material Safety Data Sheets (physical or digital) must be available in the laboratory for each chemical used or stored in the laboratory.
- All chemicals must be properly and clearly labeled with the International Union of Pure and Applied Chemistry (IUPAC) name. For example, "water" must be written and not the chemical formula H₂O.
- Unwanted or used chemicals MUST be correctly labeled and tagged for waste disposal. Risk Management must be contacted for hazardous waste pickup. Absolutely no chemicals are to be placed in the trash, down the sink, left behind, or moved ('dumped') anywhere else, (i.e. other laboratories or rooftops). The link to Risk Management's Hazardous Waste request is: www.asu.edu/provost/riskmgmt/hazwaste.htm
- The SSEBE Laboratory Support Group must give prior approval for any chemical brought into a SSEBE laboratory that is not on the current chemical inventory. An accompanying material safety data sheet (MSDS) must be included in the lab MSDS binder.
- No broken or contaminated glass, syringes or equipment are to be put in the trash. Unwanted equipment must be decontaminated (if necessary) and disposed of properly. Laboratory users must provide appropriate containers for glass, syringes, sharps, etc.

ISTB2 Laboratories

- No one may use any test equipment until they have been trained. Teaching assistants must be trained in the proper use of Lab equipment and safety procedures before their lab classes.

Warehouse RSS3 (SAE, Solar Car, Electric Car, ASCE)

- Keep flammable materials, flammable liquids, and charging batteries away from welding, soldering, grinding, and any other activities that create sparks or flames.
- Battery charging must be done outside the building. Do not leave charging batteries unattended.
- Store flammable liquids in the flame cabinet when not in use. Any violation of this policy may result in the flame cabinet being locked. If this occurs, students will need to contact the Lab Manager to get the cabinet unlocked.

These guidelines MUST be followed in order to work within SSEBE Laboratories!