

# **VAIL Safety and Operations**

(Version 2.0 – December 5, 2011)

Safety is the number one priority in the Volkswagen Automotive Innovation Lab (VAIL). No project, no matter how important, is worth a physical injury.

The following paragraphs list the safety and operational policies that must be followed by all lab users. Instructions from building management need to be followed at all times. The building management should be contacted for further information or if further clarification is required.

## **1. Emergency Procedures**

- All lab users must familiarize themselves with the location and use of safety equipment:
  - First aid kit
  - Safety shower
  - Small spill kit
  - Fire extinguisher
  - Fire alarm
  - Evacuation route including emergency assembly point (EAP)
- VAIL EAP: On Oak Rd, outside main entrance.
- VAIL building alarm: All persons proceed to the VAIL EAP to check in.
- Multiple building alarm: All persons proceed to the VAIL EAP to check in. If safe to do so, all persons proceed to their respective home department EAP.
- Earthquake: If possible, cover should be taken under a table / bench away from windows and tall / heavy objects. The building should be evacuated after the shaking stops.
- Registered lab users assist their visitors in case of an emergency.

## **2. Accidents and Incidents**

- Emergency: 9-911 must be called immediately to get help.
- Injury: Medical attention must be sought immediately and the building management should be notified as well as the respective supervisor / principal investigator. An SU-17 Accident, Incident, or Exposure Report has to be completed within reasonable time. It can be found at: <http://www.stanford.edu/dept/EHS/prod/general/su17.html>
- Suspicious activity: 9-911 should be called to report activity.
- Spill assistance: EH&S (650) 725-9999 must be called.
- Repair & maintenance: Call Work Control (650) 723-2281, identify location as “Zone B, Quad 14, Building 590”. Also inform building management.
- Concerns & suggestions: The building management should be contacted.

### 3. Alarm System and Building Security

The building is equipped with an alarm system that is operated by timer and card readers (instructions are distributed to VAIL users directly).

If an alarm is triggered, the security service company, California Security, will call the premises at 650-498-8247 (VAIL lounge phone) to determine the situation. If the phone is answered, the person answering will be asked for name, phone number, what they are wearing and notified to wait outside the facility for a deputy that will be dispatched. **Do not move away from the premises after such an incident until Stanford Public Safety arrives.**

### 4. Lab User Registration and Building Access

- Every person that performs work on machines or vehicles needs to be registered and approved by the building management.
- All lab users must complete the shop safety class taught at the Product Realization Lab (PRL) before using the facilities. Safety classes can be scheduled at <http://webshop.stanford.edu>.
- All lab users must complete all necessary STARS training units before using the facilities. Training units can be scheduled at: <http://axess.stanford.edu> >> STARS >> My Training Needs >> Training Needs Assessment. (see also appendix for details)
- The building management will assist to determine the individual level of training that is required.
- Personal keys or access codes must not be given to anyone else (also not to other lab users).
- Non-approved persons must not work on machines or vehicles at VAIL.
- All visitors must be escorted by registered lab users.
- Only the lounge may be used as an unattended waiting area.
- Overnight stay in building or on premises is not permitted.
- Outside doors need to be locked at all times.
- Garage doors / gates need to be attended while open.
- Building management may withdraw privileges of lab users if necessary.

### 5. Building Operations

- All spaces are shared facilities. Permanent offices may not be established.
- Permanent storage of items is to be limited to a minimum.
- Private vehicles must not be parked on premises.
- All facilities need to be cleaned and maintained by its users.
- All food / beverages in the lounge refrigerators need to be labeled with owner's name and storage date. The building management reserves the right to discard any items in the refrigerators.

- Chemicals or non-food items are not permitted in the lounge refrigerators.
- Reservations for conference room and seminar room need to be scheduled through the Stanford Calendar System (<http://webmail.stanford.edu>, reservation requests need to be sent to building management by email).
- Special closures, block outs, openings of the building or parts of it need to be registered, announced, and observed.
- Building management may grant exemptions from these rules

## 6. General Use of Equipment

- “Equipment” refers to tools, machines, processes, materials, vehicles, and other if applicable. “Use” refers to work, operation, application, handling, etc.
- Equipment is generally owned and maintained by the respective labs.
- All equipment to be used at VAIL must be registered and approved by the building management.
- The building management will decide for which equipment Standard Operating Procedures (SOP) need to be provided by the respective users.
- The Department of Environmental Health & Safety (EH&S) reviews all SOPs.
- All applicable safety precautions need to be taken when using any kind of equipment.
- All applicable SOPs need to be reviewed before using any kind of equipment.
- Working alone is not permitted. Lab users should check in with one another.
- Working when impaired is not permitted. This includes times when being too tired, stressed, or otherwise inhibited from exercising appropriate caution.
- Special rules apply to hazardous equipment (see below).
- Building management may withdraw prior approval of equipment if necessary.

## 7. Hazardous Equipment

- The building management classifies equipment as “hazardous”.
- Written Standard Operating Procedures (SOP) must be established for all hazardous equipment.
- The following equipment will generally be classified as “hazardous”:
  - power tools
  - welding of any kind
  - heavy equipment
  - acids or caustic liquids
  - chemical gases or vapors
  - injurious light and / or heat radiation
  - work that generates excessive noise
- The following protective measures must be taken when using hazardous equipment (see SOPs for details):
  - ANSI Standard Z87.1-compliant safety glasses
  - Leather-upper, closed-toed shoes

- For certain processes, additional safety measures may be necessary:
  - Face shield (specific danger of flying objects)
  - Earplugs (noise levels above 85 dB(A))
  - Long-sleeved, Fire Resistant Clothing (when welding or casting)
  - Welding mask (when welding)
- Those who use hazardous equipment need to inform:
  - everyone working in the same room (noisy work and simulator rooms)
  - everyone working in an adjacent work bay
  - everyone working within a radius of 15 feetof the hazardous situation and provide the same protective measures.

## 8. Building Management

The building management should be contacted for all further questions if further clarification is required:

### General Building Issues

Facilities Manager: Eduardo Morales, (650) 723-8328, eduardo.morales@stanford.edu

Facilities Manager SoE: Chris Crismon, (650) 575-2739, ccrismon@stanford.edu

### Workshop Safety and Equipment

Workshop Associate Director: Craig Milroy, (650) 723-2179, milroy@stanford.edu

Workshop Teaching Assistant: Nick Streets, nstreets@stanford.edu

### General Questions and Logistics

CARS Executive Director: Sven Beiker, (650) 714 -0536, beiker@stanford.edu

CARS Program Administrator: Adele Tanaka, (650) 736-1504, adelet@stanford.edu

## 9. Appendix I: Safety Training

### Required Safety Training

#### **General Safety & Emergency Preparedness EHS-4200**

*General Safety & Emergency Preparedness* covers practices and procedures for preventing employee injury or illness from potential workplace hazards. Appropriate for all employees and students in administrative and other work environments.

Prerequisites: None

Web-Based Training

#### **Electrical Safety EHS-2800**

*Electrical Safety* is a 30-minute introductory course on electrical safety that covers general precautions regarding the use and care of electrical equipment. The course also addresses issues with facility wiring, and considerations regarding research systems design.

TO REQUEST TRAINING, contact EH&S at 725-1472.

Do not register in STARS.

#### **PRL Machine Shop Safety Class**

This course is designed to give users a general idea of the types of hazards one might encounter in the shop and inform them of the proper procedures in the unlikely event of an accident. The class lasts about one hour and twenty minutes. Attendance is strictly limited to ten students. If you already have ANSI standard Z87.1-compliant safety glasses, please bring them; if not, glasses will be available for loan or purchase.

### Recommended Safety Training (mandatory if applicable)

#### **Compressed Gas Safety EHS-2200**

*Compressed Gas Safety* covers the general safety procedures for the proper use, storage, and handling of compressed gases.

Web-Based Training

#### **Fire Extinguisher Use EHS-3700**

*Fire Extinguisher Use* gives hands-on experience using a portable fire extinguisher. Learn about the types of fire extinguishers and how to use them; general fire safety topics will also be covered.

#### **Laboratory Ergonomics EHS-4800**

*Laboratory Ergonomics* is for employees and students who perform repetitive tasks such as microscope use, pipetting, and miscellaneous hand tool use. Provides tips on:

- Equipment setup
- Postures
- Healthy work practices
- Manual lifting techniques

#### **First Aid**

First Aid will include advanced techniques for providing aid to persons in accidents. It consists of a series of simple medical techniques that an individual can be trained to perform with minimal equipment

#### **CPR/AED**

CPR is an emergency first aid procedure for a victim of cardiac arrest. Participants will learn how to help victims of heart attacks and accidents, and also learn the Heimlich maneuver to aid choking victims. AED (Automated External Defibrillator) training (use and maintenance of equipment).

## 10. Appendix II: Safety Training and Registration

### Online Safety Training and Stanford ID

A Stanford University Network ID (SUNet ID) is necessary to register for the Stanford Training And Registration System (STARS). Most of the required and recommended training are accessible through STARS.

SUNet ID can be obtained at: <https://sunetid.stanford.edu/main/SUNetIdApp/CreateApp>

The basic level should suffice for the STARS training that is required at VAIL.

A Stanford faculty or staff needs to approve the SUNet ID. The sponsoring lab (CHIME, DDL, SAIL, SSCP...) will assist with the approval.

In order to get approved for access to VAIL proof of training must be presented. A print-out from STARS and written confirmation from PRL will suffice.