This checklist is for conducting lab orientation. The checklist is administered by the laboratory lead or designated alternate, face to face, for each researcher before the researcher may perform work in a CAES laboratory. The orientation includes a walk-through that demonstrates how to perform some tasks.

Section A applies to all labs, including general labs such as the AVL (Applied Visualization Laboratory). Section B is applicable to hazardous materials labs only.

Section A.

- **Key Personnel and Notifications:** Laboratory lead, Center for Advanced Energy Studies (CAES) safety officer (CSO), Research Operations lead (ROL), Idaho State University ES&H and Radiological Safety Departments, Idaho State University Public Safety, and where contact information is posted.

- **Laboratory Normal Hours and Need to Work Off-Hours:**
  - Building Hours: 8:00 am–5:00 pm
  - Laboratory normal working hours: 8:00 am–5:00 pm
  - **Working off-hours must be approved by the principal investigator (PI), lab lead, AND the CSO, or their designated alternates.** This approval is recorded on CAES-LAB-041, “CAES Off-Hour Laboratory Access.” For MaCS, off-hours work is subject to the instrument lead, lab lead, and CSO approval and is tracked on the MaCS schedule in FOM.
  - Laboratory working hours for mentoring work (example: using instruments) are from 8:00 am–4:30 pm.

- **Emergencies:**
  - Location of fire alarms
  - Oxygen monitor alarm
  - Location of fire extinguishers
  - Location of first-aid kit
  - Location of shower and eye wash
  - CAES physical address (postings)
  - Evacuation plan
    - Exits and meeting area
    - Roles of floor monitors and building coordinators
  - Lockdown plan
Laboratory Orientation Checklist

**Stop Work Policy**: Any person in CAES has the authority to initiate a stop work. All persons at CAES must comply with a stop work regardless of the initiator.

**RESPONSIBILITIES:**
- Initiate a stop work when potentially unsafe or adverse to quality conditions are identified.
- Honor timeout or stop work declaration made by any person in CAES.
- Refer to CAES-SAF-003 “CAES Stop Work Authority.”

**Training Completion**: Responsibility of PI to ensure completion of CAES and project-specific training; responsibility of the Lab Lead to verify completion of appropriate training prior to approving unescorted lab access.

**Unescorted Lab Access:**
- To obtain unescorted access to the laboratory, you must:
  1. Complete the appropriate training.
  2. Complete a facility walkthrough with the CSO or designated alternate.
  3. Complete a lab walkthrough with the lab lead or designated alternate.

  **NOTE**: Depending on experience level, additional mentoring may be required.
- Personnel who have not completed the above requirements must be escorted by a person qualified for unescorted access.

**Escort Responsibilities:**
- Accompany persons not qualified for unescorted access in the laboratory at all times. If the escort leaves the laboratory, escort responsibilities must be transferred to another qualified escort OR the unqualified person must leave the laboratory.
- Ensure the escorted person is dressed according to the CAES Lab Dress Code (see Section B).
- Ensure the escorted person is aware of and follows the CAES General Lab Rules (see Section B).
- Assist the escorted person in the case of emergency evacuation or response.
- Make the escorted person aware of existing projects and co-located laboratory hazards and activities.
- Do not allow personnel to use your CAES badge to access lab areas for which they are not qualified.

**Section B.**

**Lab Rules**
- No eating, drinking, gum, mints, Chapstick, tobacco products, etc., are permitted in the labs.
- No food or drink may be stored in the lab refrigerators.
- General Lab supplies provided by CAES are **NOT** to be removed from the labs. General Lab Supplies are to be stored in the general lab drawers or cabinets and **NOT** in project specific drawers.
- Researchers may use drawers and cabinets in the lab for storage of project-specific supplies. Label drawers containing project specific supplies.
Laboratory Orientation Checklist

- Do not remove supplies from project specific drawers and cabinets without prior approval from the researcher/project to whom the supplies belong.

**Dress Code for CAES Labs**

Researchers must wear:

- Foot protection, at a minimum, must consist of closed-toed shoes covering the top and sides of the foot. Sandals and open-toed shoes are prohibited. Additional foot protection including steel-toe shoes, leather, or slip-resistant shoes may be required.
- Long pants reaching to the ankles, no capris.
- **NO** headphones.

- **Personal Protective Equipment**: General required PPE and project-specific; best practices such as not touching things, not touching face, changing gloves, etc.

- **Instrument Log and Usage Logbook**

- **Labeling Samples**: All containers containing solid/liquid/gas chemicals—including water—must be labeled with the researcher’s name, date, chemical/sample name, and concentration or composition.

**Ordering Chemicals**:

- CAES Chemical Management Plan
- The CAES CSO manages the chemical inventory. CSO approval is required prior to ordering or transferring chemicals into or out of CAES.
- Stock chemicals must be labeled with the chemical inventory number, date received, owner initials, and date the bottle was opened.
- If chemicals are stored in a secondary container, label both sides of the secondary container with the chemical name, inventory number, date received, owner initials, and the date that the bottle was created.

- **Medical Isotopes**: Notify CAES CSO if you have been administered a medical isotope.

**Radiological Labs**

- **Required personal protective equipment (PPE)**

  **Material Receipt, Removal, and Accountability**:

  - Appropriate use and storage; inventory and chain-of-custody.
  - Authorized User manages inventory and storage of radiological materials.
  - ISU personnel are responsible for receipt and shipment of radiological materials into and out of CAES.

- **Dosimeter Use and Storage**: When dosimetry is required, and location to attach on-person; dosimeter storage location.

  **NOTE**: Dosimeters issued by INL are not to be used at CAES. Use only ISU issued dosimetry.
Laboratory Orientation Checklist

- **Rad Surveys and Decontamination**: Who can perform, how to perform, and how to document.

- **Waste Management**: Discuss what rad waste is; rad waste containers; and who can remove waste.

- **Egress**: Where to egress; when and how to frisk.

- **Signage**: Discuss what each sign means and what actions may need to be taken.

- **Hours for Rad Work**: Radiological sample movement must be before 4:00 pm.

- **Personnel Contamination Monitor (PCM)**: Who can perform daily checks, how to perform and how to document. Daily checks must be completed prior to starting radiological work each day.

- **How to verify that daily checks have been completed**.

- **Applicable Radiation Safety Procedures**: Discuss each applicable permit and confirm researchers understand them. Emphasize both normal and what to do if off-normal conditions occur.

- **Using and Checking Survey Equipment**: Demonstrate how to use survey and PCM equipment and perform instrument checks as necessary.

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Signature

Lab Lead Name:

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Signature

After the lab orientation and the walk-through is complete as documented by signatures above, provide electronic copies to the lab user, laboratory lead, CSO, and PI AND store a hard copy in the Laboratory Manual.