

Appendix F

Activity Hazard Document Template

1. General Information

Title:

Location of Work:

Date of Preparation:

Department:

Activity Supervisor (name of person having authority to designate operators of experiment):

Preparation Signatures:

Principal Investigator:

2. Description of Activity

Provide a brief summary of the work and a complete description of activities to be performed. Include details of unique equipment or materials and special application of standard equipment or materials. Include experimental parameters, such as quantities of chemicals used and stored, gas pressures, operating temperatures, voltages, current, etc. Describe energy sources (electrical, pressure, gravitational, chemical, thermal, etc.). Describe the temporal aspects of the work (continuous or periodic, around the clock, etc.).

3. Identification of Hazards

In accordance with sound safety management principles, a comprehensive hazard identification and hazard analysis must be performed to identify the potential hazards associated with the activity. This must include identification of catastrophic failure modes, critical parts failure, fire and explosion hazards, and seismic concerns. The relationship of the identified hazards and their potential effects on the experimenter, proximate personnel, the public, property, and the environment must be analyzed.

4. Mitigation of Hazards

Describe in detail the controls necessary to mitigate the identified hazards. Controls may include, but are not necessarily limited to, engineering controls (interlocks, special ventilation systems, fire detection and suppression systems), personal protection and other safety equipment (gloves, face shields, aprons, eyewash/safety shower, etc.), and administrative controls (lockout/tagout and other special operating procedures, distance or time constraints, special training, etc.).

5. Hazardous Material Handling

Describe all hazardous materials involved. Include quantities used, as well as storage, handling, segregation of incompatibles, and labeling requirements. Describe the process for communicating information on the Material Safety Data Sheets (MSDSs). Describe how the MSDSs are maintained.

6. Hazardous Waste

Identify hazardous waste generated by the activity and disposal criteria. Determine the accumulation area for waste generated under this AHD.

7. Emergency Procedures

Provide procedures designed to respond to emergencies that may be associated with the activities described above. Issues to consider may include:

- Potential to ignite or fuel a fire
- Special fire extinguishers or unique fire prevention measures
- Special emergency shutdown procedures
- Impact of a sudden power failure
- Emergency escape plan
- Hazardous material spill/release response (control, containment, and training) procedures
- Emergency equipment inspection protocol and schedules

8. Maintenance

Consider inspection and maintenance procedures for materials, equipment, and components identified in Section 3 as critical parts or components that can lead to a catastrophic failure.

9. Authorized Users and Training

Provide a list of the authorized users and a list of required training courses prerequisite to becoming an authorized user. Include a matrix that documents users, training requirements, training completion dates, refresher training dates, etc. Include a user signature line (with date) for each user to sign, confirming their understanding of and conformance with the AHD.