

**NEVADA SYSTEM OF HIGHER EDUCATION
PROCEDURES AND GUIDELINES MANUAL**

CHAPTER 10

RISK MANAGEMENT AND SAFETY

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SAFETY

Section 1. Environmental Health and Safety

Pursuant to Board policy, Title 4, Chapter 10, the authority for the development, implementation, compliance monitoring, and administration of Environmental Health and Safety (EH&S) programs is delegated to the President of each NSHE institution. In its authority to establish EH&S programs the following provisions concerning employees, supervisors, and training records must be followed.

1. Institutionally established policies and procedures concerning EH&S programs must be made available to all employees through an appropriately distributed publication or posted on the institution's Web site. These policies and procedures shall meet or exceed NSHE standards.
2. Supervisors, including laboratory directors and/or principal health and safety investigators, shall:
 - a. Provide for the safety needs of their respective units/departments such as engineering controls, training, personal protective equipment, corrective actions necessary for addressing items identified as non-compliant in safety inspections or audits;
 - b. Conduct periodic safety performance evaluations of employees and students according to established institutional policies and procedures; and
 - c. Ensure the appropriate safety training of all employees.
3. All employees shall participate in the safety and job specific training programs as required by his or her position.
4. Each NSHE institution shall maintain safety training records that record the employee attendance at all safety training activities. These records shall be open to inspection by regulatory inspectors and NSHE employees, including EH&S and human resources personnel.

(Added 2/09)

Section 2. Risk Management

1. Risk management is a part of System Administration with responsibility to provide sound risk management programs and services to the NSHE.

2. Objective and Scope. While the primary responsibility for risk management functions are maintained at the institutional level, the System through the Vice Chancellor of Finance and Administration is responsible to ensure adherence by the institutions to national standards for risk management programs. The goals of risk management are to: 1) protect the health and provide for the safety of the NSHE students and employees, 2) protect the public from injury or damage incidental to the operations of the NSHE, 3) protect the NSHE's assets and its environment, and 4) protect the reputation of the NSHE. To achieve these goals, risk management will consider all types of risks, including but not limited to natural, environmental, compliance, and safety risks. The realization of these overall objectives involves:
 - a. Providing for the safety of students, employees, and the public;
 - b. Protecting NSHE's property and its environment;
 - c. Reducing NSHE's legal liability;
 - d. Monitoring compliance with environmental and safety regulations at each institution;
 - e. Purchasing insurance when necessary and administering NSHE's property, inland and ocean marine, liability and workers' compensation insurance programs;
 - f. Monitoring the implementation of a business continuity plan at each institution;
 - g. Monitoring the implementation of an emergency plan at each institution;
 - h. Investigating, adjusting, and settling insured property, inland and ocean marine, liability and workers' compensation insurance claims whether insured or subject to deductibles, self insured retentions or that are self insured; and
 - i. Proposing funding when warranted by demonstrated need, and in conjunction with funds provided by the state or institution for risk management, environmental health and safety, (other than public safety and group health and accident coverage) programs at NSHE institutions.
3. Authority and Responsibility. Risk management activities shall be overseen by the Chancellor's Office. Risk management activities shall be guided by the principles provided in this section. Each President shall be responsible for the implementation of a risk management program at his or her respective institution.
4. Risk Management Principles. Risk management within System Administration and at the institutions shall be guided by the following principles in order to ensure administrative efficiency, the cost-effective use of resources, a sound organizational plan, and cooperation among the member institutions:
 - a. Programs of insurance, self-insurance, contractual risk transfer, risk avoidance, loss prevention, and claims remediation shall be implemented to reduce NSHE's costs to the lowest reasonable level while avoiding exposing the NSHE to unreasonable financial risk.

- b. Risks may be assumed if, taking into consideration the probability of loss and the amount of potential loss, the risk would not significantly impair the financial position of NSHE. This risk assessment shall include an assessment of the importance to the NSHE of the objectives of the program or action creating the risk, as well as whether risks are minimized through contract, private insurance or coverage from the State of Nevada Tort Claims Fund.
- c. Risks shall be insured whenever the potential loss would pose a significant financial risk to NSHE and insurance is available at a cost that compared to the risk is financially sound, or where insurance is required by law or contract.
- d. Programs shall be implemented based on the best interests of the NSHE as a whole, after giving appropriate consideration to the interests of all institutions and departments that will be affected.
- e. Funding for self-insured retentions, deductibles and self-insured exposures between different types of exposures may be pooled when it is in the financial interest of NSHE to do so. Deductibles and self insured retentions shall be fully funded.
- f. Premiums, deductibles, and self-insured retentions may be established for each institution based on the institution's exposures, insured values, loss experience, and adequacy of its loss prevention program.
- g. Insurance shall be purchased through a source (agent, broker, or insurance company) that is in the best interest of NSHE. When purchasing insurance products, preference will be given to Nevada based companies pursuant to Title 4, Chapter 10.
- h. Risk management and environmental health and safety goals shall be established annually, jointly by the institutions and risk management. The cost of performing each function as it relates to such goals shall be calculated by the institution on a basis agreed upon by the institution and the Chancellor's Office. Each institution shall provide to the Chancellor's Office periodic summary reports as necessary and an annual report of its risk management and environmental health and safety performance. Institutional results will be judged solely on changes in that institution's results from previous years. The annual report shall include the following information:
 - i. Identification of variances and the reasons for variances from the institution's annual goals and cost projections;
 - ii. Identification of any of the institution's safety and environmental violations and consent decrees; and
 - iii. Identification of corrective actions that have been taken and their impact where variances or violations have been identified.

(Added 2/09)

Section 3. Asbestos Management

1. It is the intent of the NSHE to ensure safe and healthy learning, research, work, entertainment and student living environments for faculty, staff, students and visitors. Therefore, NSHE institutions must employ effective asbestos management practices. In keeping with that philosophy NSHE member institutions will develop and implement an Asbestos Management Program customized for each institution.
2. This section establishes the essential requirements that must be included in each institutional asbestos management program while providing opportunity for each institution to establish protocols and management practices that best suit its needs and its administrative structure.
3. Asbestos Management Plan: Each NSHE campus will have an asbestos management plan to manage and control asbestos containing building materials in a responsible manner. It is recommended that a person qualified under the Asbestos Hazard Emergency Response Act (AHERA) be on staff or on contract to each NSHE institution for the purposes of performing inspection, management, sampling or project planning of activities involving asbestos containing building materials or those building materials suspected of containing asbestos.
4. AHERA – Compliant Building Survey: Each NSHE campus should have a comprehensive AHERA-compliant building survey to determine the location, quantity and condition of asbestos containing building materials. In lieu of a comprehensive survey, an AHERA compliant project survey must be performed. Survey report information shall be made available to the institutional community. Additionally, all work performed shall be in compliance with National Emission Standard Hazardous Air Pollutants (NESHAP) and OSHA standards.
5. Awareness Training: Each NSHE campus that has asbestos containing building materials in place shall provide awareness training for its employees who in the course of their activities may disturb Asbestos Containing Material, come in contact with or work in areas that contain intact or disturbed asbestos. Contractors should be able to show proof of training for any of their staff entering the building.
6. Employee Worker Training: Each NSHE campus that requires employees to work with or maintain asbestos containing building materials shall provide training and personal protective equipment appropriate to the work being performed.
7. Record Keeping: Each campus that has asbestos containing building materials in place shall maintain records, including but not limited to:
 - a. Employee exposure, both personal and area monitoring exposure data;
 - b. All materials used in building construction and renovation, both Asbestos Containing Materials and Non-Asbestos Containing Materials; and
 - c. Abatement reports such as certifications, sampling and clearance data.

8. Contractor Requirements: Each NSHE campus that has a contractor removing or remediating asbestos will require from the contractor
 - a. A Contractor's Pollution Liability policy with a pollution transportation endorsement. The minimum limits will be \$1,000,000 per occurrence and \$1,000,000 aggregate.
 - b. Proof or certification that all contractor employees working on site are AHERA trained.

(Added 3/07)

Section 4. "Hot Work" Protocols

1. Definitions and Scope

- a. For the purposes of this section, "hot work" is defined as any temporary operation involving open flames or producing heat and/or sparks. This includes, but is not limited to, grinding, cutting, brazing, soldering, thawing frozen pipes by torch, torch applied roofing, and welding.
- b. The provisions under this section apply to all personnel on an NSHE campus who are involved with construction and maintenance activities and/or who may be involved in "hot work" activities.
- c. Contractors doing hot work must have an equivalent hot work permit program.
- d. The provisions under this section do not apply to normal or routine supervised activities in classrooms, laboratories and academic vocational shops that are designed and equipped for hot work operations.
- e. The authorized fire code official may require operational or construction permits in addition to the hot work permits to comply with county or local fire regulations. These permits may impose additional limitations or restrictions on the hot work operation.

2. Responsibilities

- a. Department Chairperson/Director: The ultimate responsibility and authority for the hot work permit program rests with the Chairperson or Director of the department issuing the hot work permit.
- b. Supervisors, Principal Investigators, Project Leaders: Individuals who have a supervisory responsibility shall play a key role in the hot work permit program. They have responsibility for:
 - i. Ensuring that their subordinates are trained and understand the applicable provisions of the program;
 - ii. Ensuring that their subordinates fulfill all requirements before any hot work is performed, including:
 - a.) Ensuring that the Fire/Life Safety Department is contacted;
 - b.) Ensuring that, where installed, the building fire alarm system is in working order; and

- c.) Ensuring that, where installed, the building fire sprinkler system is operational.
 - iii. Completing and approving each hot work permit issued; and
 - iv. Ensuring that properly trained fire watches are assigned when necessary.
- c. Individuals Performing Hot Work are responsible for:
 - i. Receiving training on the hot work permit program and their responsibilities;
 - ii. Obtaining written approval from the supervisor for the hot work;
 - iii. Ensuring that conditions are safe before commencing the hot work;
 - iv. Being prepared to contact their supervisors should conditions change or warrant reassessment during the hot work project;
 - v. Using appropriate personal protective equipment while performing hot work (welding helmets, gloves, jackets, etc.); and
 - vi. Completing the appropriate section(s) of the hot work permit.
- d. Persons charged with fire-watch are responsible for:
 - i. Receiving training on the hot work permit program and their responsibilities;
 - ii. Being aware of the inherent hazards involved in the hot work;
 - iii. Ensuring that safe conditions are maintained during the hot work;
 - iv. Ensuring that appropriate fire extinguishers are readily available and in good working order;
 - v. Knowing how to report a fire or other emergency situation;
 - vi. Maintaining the watch for at least 30 minutes after the work is completed;
 - vii. Using the appropriate personal protective equipment;
 - viii. Completing the appropriate section of the hot work permit; and
 - ix. Returning the completed hot work permit to their supervisor.
- e. Facilities Management must recognize its responsibility for safe usage of welding, cutting and other spark or flame producing equipment on campus property and is responsible for:
 - i. Establishing designated areas for welding, cutting, brazing, torch soldering and grinding operation where the potential fire danger is limited. At the Facilities Management Department's discretion, hot work conducted in these areas may occur under a general hot work permit that is reissued on a regular basis.
 - ii. Establishing procedures for hot work in other areas;
 - iii. Designating at least one trained individual responsible for authorizing hot work permits in areas not specifically designated for hot work;
 - iv. Requiring employees performing hot work and their supervisors to be suitably trained in the safe operation of the equipment; and
 - v. Advising all contractors about flammable materials or hazardous conditions in areas where they will be working.
- f. Facilities supervisors and Project Managers are responsible for:
 - i. Maintaining cutting or welding equipment in safe operating condition;
 - ii. Issuing hot work permits for any cutting, welding, brazing, torch soldering, grinding or open flame, heat or spark producing operations outside of the designated area(s);
 - iii. Ensuring the precautions listed on the Hot Work Permit are understood and followed by the individual performing the hot work;

- iv. Informing outside contractors and service personnel of the expectations of this policy; and
 - v. Verifying that contractor personnel have the necessary hot work permits required for their work.
3. "Hot Work" Procedures
- a. Hot Work Permit Forms
The hot work permit form included under subsection 5 must be utilized.
 - b. Several tasks must be performed before hot work begins. These include, but are not limited to:
 - i. Check equipment to be used;
 - ii. Inspect the hot work area to identify any fire hazards;
 - iii. Remove all flammable or combustible materials within a thirty five-foot radius of the hot work;
 - iv. Properly shield combustibles that cannot be removed from the area with non-combustible blankets or other non-combustible materials;
 - v. Seal all cracks and openings through which hot sparks or slag may enter. As an alternate means, a fire resistant shield may be used to block the openings;
 - vi. Sweep floor of all loose combustible debris;
 - vii. Place non-combustible or flame resistant screens so as to protect personnel in adjacent work areas from heat, flames, radiant energy and welding splatter;
 - viii. Protect conveyer systems that may carry sparks of slag to other parts of the building;
 - ix. Mark the area so as to warn nearby personnel of the danger;
 - x. Cover sprinkler heads directly above the hot work area with wet rags or other non-combustible materials so they will not be triggered during the work;
 - xi. Cover smoke detectors located in close proximity of the work area; and
 - xii. Check to determine if an additional operational or construction permit is required from the local fire official. In addition confirm compliance with all limitations and restrictions imposed by this permit.
 - c. During Hot Work, additional precautions that must be taken:
 - i. Appropriate fire extinguishing equipment shall be maintained in close proximity to the hot work for its entire duration, plus at least 30 minutes thereafter;
 - ii. Combustible floors shall be kept wet during the hot work;
 - iii. Store acetylene and other fuel cylinders in a secure and upright position; and
 - iv. Place hoses so that they will not be crushed or damaged.
 - d. After Hot Work, the following precautions must be taken:
 - i. Maintain the fire watch for at least 30 minutes following the completion of the hot work. If circumstances require, fire watches shall be maintained for periods longer than 30 minutes;
 - ii. Keep fire-extinguishing equipment readily accessible in the area until the firewatch is secured;
 - iii. Remove any covers from sprinkler heads immediately upon completion of the hot work;
 - iv. Remove covers from any smoke detectors immediately upon completion of the hot work; and

- v. Complete the appropriate section(s) of the hot work permit and return the completed form to the supervisor.
- e. Prohibited Hot Work Locations: Hot work activities are prohibited in the following locations:
- i. Areas equipped with sprinkler systems that are out of order;
 - ii. Areas, including those with confined spaces, where atmospheres of explosive gases, vapors, or dusts exist or could accumulate;
 - iii. On metal walls, ceilings or roofs built of composite, combustible, and sandwich-type panel construction or having combustible coverings;
 - iv. On or near containers where flammable liquids, solids or vapors may be present; and
 - v. On pipes that are in contact with combustible walls, ceilings, roofs or partitions where heat by conduction can cause ignition.

4. "Hot Work" Record Keeping

- a. Hot Work permits shall be returned to the issuing supervisor for record retention. Records of hot work permits should be maintained for one calendar year from the date of completion, unless otherwise advised by counsel. Hot work permits on record should be reviewed for program improvement or modification purposes prior to disposal.
- b. Training: Copies of records of all program related training shall be maintained in the department personnel files. Copies of training records should be sent to the EH&S Department.

5. Hot Work Permit Form

RECOMMENDED PRECAUTIONS

Before signing this card authorizing the job, the person responsible for Hot Work Safety should inspect the proposed work area and check (✓) below the precautions taken.

- Fire Sprinklers in service.
- Cutting and welding equipment is in good repair. (Same for brazing, etc.)

Precautions within 35 ft (10 m) of work

- Floor swept clean of combustibles.
- Combustible floors wet down or covered with damp sand, welding drop cloths, or metal shields.
- Flammable liquids removed; other combustibles protected with welding drop cloths or shields.
- All wall and floor covering covered.
- Welding drop cloths suspended beneath work

Work of walls or ceilings

- Construction is noncombustible and without combustible covering or insulation.
- Combustibles moved away from other side of wall.

Work on enclosed equipment

- Enclosed equipment cleaned of all combustibles.
- Containers purged of flammable liquids.

Fire Watch

- Fire watch will be provided during and for 30 minutes after work.
- A person responsible for fire watch is supplied with extinguishers and/or hose.
- Fire watch is trained in use of this equipment and in sounding alarm.

Hot Work Permit

Date _____
Bldg. _____ Floor _____

Nature of Job _____

The above location has been examined.
The precautions checked (✓) on
reverse of card have been taken to
prevent fire. Permission is granted for
this work.

Signed: _____

Permit Expires: Date _____
Time _____

Time _____ Time _____
Started _____ Finished _____

Final checkup

Work area and all adjacent areas to
which sparks and heat might have
spread (such as floors above and below
and on opposite side of walls) were
inspected for at least 30 minutes after
the work was completed and found fire
safe.

Signed _____

After signing, return permit to person
responsible for Hot Work safety to file
for review by Risk Management and
Insurance Company.