

FIRE PREVENTION PROGRAM

Boise State University 2008

PURPOSE

The purpose of the Fire Prevention Program is to establish guidance to protect Boise State University faculty, staff, students, and visitors from injury or loss of life and resources from fire.

The Boise State University Fire Prevention Program emphasizes fire prevention and strives to achieve this by complying with State adopted codes and consensus standards and through the establishment of sound work practices. The University is committed to a comprehensive Fire Prevention Program to prevent the loss of life and minimize resource loss which may occur when fire strikes.

This program applies to all facilities owned, leased or occupied by Boise State University and applies to faculty, staff, students, visitors, vendors, and contractors while on University property.

OBJECTIVES

Prevent fire-related incidents on Boise State University and satellite campus facilities.

Ensure sound fire prevention and fire safety practices are observed.

Provide technical expertise relevant to the development and implementation of evacuation plans.

RESPONSIBILITIES

Within Administrative Policy 6802c, University management states their commitment to promote, provide and maintain healthful, safe conditions and practices for all campus employees, students and visitors. Specifically, the policy states that the University will strive to maintain compliance with relevant statutes and standards of regulatory authorities pertaining to environmental health and safety; ensure that environmental protection, safety and accident prevention are integral parts of planning, operations and activities; and promote awareness and application of safe work practices through education, job training and implementation of environmental health and safety programs. To assist the University in complying with this commitment, the Environmental Health and Safety (EHS) office develops specific occupational health and safety programs to interface with regulatory agencies and to provide technical consultation to University management.

Managers and Supervisors should:

- Plan and execute all activities in a manner that promotes compliance with University Fire Prevention Program.
- Ensure that all employees receive adequate direction and training for the safe performance of their work and that the work is performed without undue risk as relates to fire prevention and safety.
- Ensure that work areas are regularly inspected for sound fire prevention practices and fire hazards.
- Require those who do business with the University to perform their work in a manner that protects the University from unnecessary environmental and safety risks including fire safety risks.

Employees should:

- Implement fire safe work practices and comply with all environmental health and safety rules and procedures established for their work areas.
- Familiarize themselves with the locations of fire alarms, fire extinguishers and evacuation routes in the areas they occupy.
- Promptly report fire hazards, unsafe equipment and fire safety violations to their immediate supervisor or Campus Environmental Health and Safety.

AUDITS

Environmental Health and Safety staff members and/or the Idaho Division of Building Safety conduct periodic fire and safety audits. The purpose of these assessments are to identify fire and safety deficiencies which may unnecessarily endanger faculty, staff, students, visitors and university resources.

FIRE PROTECTION GUIDELINES

Ensure access to fire protection equipment (fire extinguishers and pull stations) is free and clear.

Use of open flame(s) is generally not permitted on campus. Events and activities desiring to use open flames on campus must coordinate the use through Risk Management and Insurance and the Environmental Health and Safety office.

No activity involving open flames which may cause smoke or fire or which may trigger detection or suppression systems to activate in any building is permitted.

Smoking is not permitted in any University owned or leased facility.

Tampering or vandalism of any fire protection or emergency devices (fire alarms, emergency exits, emergency lights, exit doors, exit lights, sprinklers, detectors, post indicator valves, etc.) should be reported immediately to campus security.

Safe evacuation routes must be maintained at all times. Corridors and stairways are not to be used for storage. Maintain stairways, exits and corridors free of obstructions and do not block or obstruct fire doors.

Extension cords and multi plug adapters (power taps) without built-in surge protection should not be used. Homemade extension cords are not permitted. Never use extension cords that do not have a ground prong.

Never overload electrical circuits and avoid the use of long or multiple extension cords.

Defective electrical equipment such as frayed cords, loose connections and overheating equipment must be removed from service and the item repaired or replaced.

COMBUSTIBLE and FLAMMABLE STORAGE

Combustible materials (paper, cardboard, wood, etc.) and flammable materials (gases, oils, solvents) should be kept to a minimum (i.e. daily use requirements), and stored in appropriate containers and locations.

Combustible storage should be orderly and maintained two (2)-feet from the ceiling and not less than eighteen (18)-inches below sprinkler head deflectors.

Combustible or flammable storage is not permitted in boiler rooms, mechanical rooms, electrical rooms or elevator rooms.

HOUSEKEEPING

Adequate housekeeping is necessary to insure accumulations of combustible waste materials are controlled so that a fast developing fire, rapid spread of smoke, or an explosion will not occur. Effective housekeeping eliminates many workplace hazards and is a basic part of accident and fire prevention.

HOT WORK

Hot work operations include any welding, cutting, grinding or any other activity involving open flames, sparks or other ignition sources, which may cause smoke or fire or which may trigger detection/suppression systems. Individuals engaged in hot work operations must take all reasonable and prudent precautions to prevent a fire situation from developing.

Hot Work Fire Protection and Prevention Guidance:

A. Cutting or welding shall be permitted only in areas that are or have been made fire safe. Within the confines of a building or specifically designated facility or area, cutting and welding should preferably be done in a specific area designed for such work, such as a maintenance shop or a detached outside location. Such areas should be of non-combustible and nonflammable contents, and suitably segregated from adjacent areas. When work cannot be moved practically, as in most construction work, the area shall be made safe by removing combustibles or protecting combustibles from ignition areas.

B. The basic precautions for fire prevention in welding or cutting work are: if the object to be welded or cut cannot be readily moved, all movable fire hazards in the vicinity shall be taken to a safe place; if the object to be welded or cut cannot be moved and if all the fire hazards cannot be removed, then guards shall be used to confine the heat, sparks, and slag, and to protect the immovable fire hazards; or if the requirements stated above cannot be followed, then welding and cutting shall not be performed.

C. Whenever there are floor openings or cracks in the flooring that cannot be closed, precautions shall be taken so that no readily combustible materials on the floor below will be exposed to sparks which might drop through the floor. The same precautions shall be observed with regard to cracks or holes in walls, open doorways, and open or broken windows.

D. Suitable fire extinguishing equipment shall be maintained in a state of readiness for instant use. Such equipment may consist of pails of water, buckets of sand, hose, or portable extinguishers depending upon the nature and quantity of the combustible material exposed.

E. Fire watches shall be required whenever welding or cutting is performed in locations where other than a minor fire might develop, if any of the following conditions exist: appreciable combustible material, in building construction or contents, closer than thirty-five (35) feet to the point of operation; wall or floor openings within a thirty-five (35) foot radius expose combustible material in adjacent areas including concealed spaces in walls or floors; appreciable combustibles are more than thirty-five (35) feet away but are easily ignited by sparks; combustible materials are adjacent to the opposite side of metal partitions, walls, ceilings, or roofs and are likely to be ignited by conduction or radiation.

F. Fire watches shall have fire extinguishers equipment readily available and be trained in its use. They shall be familiar with facilities for sounding an alarm in the event of a fire. They shall watch for fires in all exposed areas, try to extinguish them only when obviously within the capacity of the equipment available, or otherwise sound the alarm. A fire watch shall be maintained for at least a one-half (1/2) hour after completion of welding or cutting operations to detect and extinguish possible smoldering fires.

G. Before cutting or welding, the individual responsible for authorizing cutting and welding procedures shall inspect the area.

H. Where combustible materials such as paper clippings, wood shavings or textile fibers are on the floor, the floor shall be swept clean for a radius of thirty-five (35) feet. Combustible floors shall be kept wet, covered with damp sand, or protected by fire-resistant shields. Where floors have been wet down, personnel operating arc welding and cutting equipment shall be protected from possible shock.

I. Cutting or welding shall not be permitted in the following areas or situations: in areas not authorized by management; in sprinklered buildings while such protection is impaired; in the presence of explosive atmospheres (mixtures of flammable gases, vapors, liquids, or dusts with air), or explosive atmospheres that may develop inside uncleaned or improperly prepared tanks or equipment which have previously contained such materials, or that may develop in areas with an accumulation of combustible dusts; or in areas near the storage of large quantities of exposed, readily ignitable materials, such as bulk sulfur, baled paper, or cotton.

J. Where practicable, all combustibles shall be relocated at least thirty-five (35) feet from the work site. Where relocation is impossible, combustibles shall be protected with a flameproof cover or otherwise shielded with metal or fireproof curtains. Edges of covers at the floor should be tight to prevent sparks from going under them. This precaution is also important at overlaps where several covers are used to protect a large pile.

K. Ducts and conveyor systems that might carry sparks to distant combustibles shall be suitably protected or shut down.

L. Where cutting or welding is done near walls, partitions, ceiling, or roof of combustible construction, fire resistant shields or guards shall be provided to prevent ignition.

M. If welding is to be done on a metal wall, partition, ceiling, or roof, precautions shall be taken to prevent ignition of combustibles on the other side, due to conduction or radiation, preferably by relocation of combustibles. Where combustibles are not relocated, a fire watch on the opposite side from the work shall be provided, to prevent ignition.

N. Welding shall not be attempted on a metal partition, wall, ceiling, or roof having a combustible covering nor on walls or partitions of combustible sandwich-type panel construction.

O. Cutting or welding on pipes or other metal in contact with combustible walls, partitions, ceilings, or roofs shall not be undertaken if the work is close enough to cause ignition by conduction.

P. Management shall recognize its responsibility for the safe usage of cutting and welding equipment on its property, and: based on fire potentials of facilities, establish areas for cutting and welding, in other areas; designate an individual responsible for authorizing cutting and welding operations in areas not specifically designed for such processes; insist that cutters or welders and their supervisors are suitably trained in the safe operation of their equipment and the safe use of the process; and advise all contractors about flammable materials or hazardous conditions of which they may not be aware.

Q. The supervisor:

i. Shall be responsible for the safe handling of the cutting or welding equipment and the safe use of the cutting and welding process.

ii. Shall determine the combustible materials and hazardous areas present or likely to be present in the work location.

iii. Shall protect combustibles from ignition.

iv. Shall see that authorizations from the proper management representative are secured.

- v. Shall determine that the cutter or welder secures his approval that conditions are safe before going ahead.
- vi. Shall determine that fire protection and extinguishing equipment are properly located at the site.
- vii. Where fire watches are required, shall see that they are available at the site.

R. Before welding, cutting, or heating is commenced on any surface covered by a preservative coating whose flammability is not known, a test shall be made by a competent person to determine its flammability. Preservative coatings shall be considered to be highly flammable when scrapings burn with extreme rapidity.

S. Precautions shall be taken to prevent ignition of highly flammable hardened preservative coatings. When coatings are determined to be highly flammable, they shall be stripped from the area to be heated to prevent ignition.

T. In enclosed spaces, all surfaces covered with toxic preservatives shall be stripped of all toxic coatings for a distance of at least four (4) inches from the area of heat application, or the employees shall be protected by airline respirators, meeting the requirements specified in this section for this type of work.

U. The preservative coatings shall be removed a sufficient distance from the area to be heated to ensure that the temperature of the unstripped metal will not be appreciably raised. Artificial cooling of the metal surrounding the heating area may be used to limit the size of the area required to be cleaned.

FIRE EXTINGUISHER INSPECTION AND MAINTENANCE

Fire extinguisher inspections assure that all extinguishers are fully charged and operable. This is accomplished by seeing that it is visible and accessible in its designated place, that all Operating instructions are legible, that it has not been tampered with, and that there is no obvious physical damage or condition to prevent operation.

Extinguishers are inspected monthly, or at more frequent intervals when circumstances require. Facilities Operations and Maintenance personnel conduct the monthly fire extinguisher quick check, and record this on the tag attached to the fire extinguisher. All fire extinguisher inspection and maintenance is performed by or coordinated through Facilities Operations and Maintenance.

Extinguishers removed from service for any reason must be replaced by an extinguisher having the same classification and rating.

Each extinguisher will have a tag or label attached that indicates the month and year maintenance was performed.

Fire extinguisher usage must be reported to the Campus Environmental Health and Safety Office, 426-3303 or 426-1482 and the extinguisher must be replaced with a fully charged unit.

NATURAL GAS LEAKS

For fire/explosion safety and prevention, natural gas suppliers add a distinctive-smelling chemical called methyl mercaptan to natural gas. This distinctive odor (rotten cabbage or sulfur-type odor) allows detection of the slightest amount of natural gas in the air and take the appropriate safety precautions. If you smell natural gas and suspect a gas leak, open the room windows if possible and evacuate immediately to a safe area prior to using a telephone or radio to report the leak. From a safe location, call 911 for emergency assistance anytime day or night to report a natural gas odor.

Do not attempt to correct the problem yourself. Do not concern yourself with appliances or equipment. Leave the area immediately using the nearest exit. Verbally notify other building occupants to evacuate.

Do not turn any electrical switches on or off, do not activate the fire alarm system or take any actions that might cause sparks or static electricity – only trained and qualified fire department safety or University officials may make the decision to activate a building's fire alarm system in any emergency involving natural gas in the vicinity.

If persons with disabilities cannot safely evacuate the building, assist them to the nearest stairwell away from the emergency area. Alert emergency response personnel of their location.

Professional emergency responders should be responsible to sweep any building or facility to ensure all occupants have been evacuated.

Once outside, move away from the building at least 200 feet or as far away as possible as directed by emergency responders or University officials. Keep walkways clear for emergency response vehicles. Do not return to an evacuated building unless authorized to do so by professional emergency response personnel.

For minor natural gas leaks during normal business hours contact the Facilities Operations and Maintenance work order desk at 426-1409; if after hours, the call will be forwarded to Campus Security and Police Services for 24 hour per day response action.

EMERGENCY EVACUATION DRILLS

Emergency evacuation drills are conducted in university facilities on a periodic basis as required by the International Fire Code and Idaho General Safety and Health Standards. The purpose of these drills are to prepare occupants for an orderly evacuation in case of fire or other emergency. Drills are used to familiarize occupants with evacuation procedures, location of emergency exits and the sound of the audio alert tones. Drills may also identify alarm system deficiencies, inadequate evacuation planning and procedures, and additional training and equipment requirements.

EMERGENCY EVACUATION PROCEDURES

To help prepare building occupants for required evacuations, University department heads, managers and supervisors at all levels shall ensure that personnel under their administrative control are aware of and observe the following procedures:

A. DIAL 911 FOR BOISE CITY OR ADA COUNTY EMERGENCY RESPONSE SERVICES – The first person to discover a fire or emergency situation is responsible for calling 911 for assistance. Be calm and carefully give all information requested. In case of fire, activate the nearest fire pull station immediately and call 911.

B. ALWAYS EVACUATE IMMEDIATELY - When an emergency evacuation is ordered or when audio or visual alarms are activated, all persons are required to evacuate the premises immediately. All faculty and staff must help direct students and visitors to also obey evacuation orders. All University employees are responsible to know the location of exits and be able to identify their building's evacuation route(s) in an emergency. All alarms must be treated as warning of an actual emergency. Do not take time to go to lockers or offices for personal possessions. Designated Building Coordinators (refer to BSU Policy 6816-C) shall ensure, to the extent practicable, that their building's site-specific Emergency Action/Fire Prevention Plan (refer to section II below) is followed and that the evacuation of the facility proceeds until campus and community emergency personnel arrive.

C. EXIT QUICKLY IN A SAFE AND ORDERLY MANNER USING APPROPRIATE EVACUATION ROUTES. DO NOT USE ELEVATORS - Exit the building using the nearest marked exit and posted

evacuation route. Proceed to the designated Rescue Area Location identified in the building's Emergency Action/Fire Prevention Plan. If possible and safe, turn off laboratory gases, exhaust fans and close doors/windows as you exit. If smoke is present, stay close to the floor as you exit. Obey the directions of emergency response personnel or the Building Coordinator who will be wearing a red armband.

D. PERSONS REQUIRING EVACUATION ASSISTANCE - Be alert to the presence of persons requiring evacuation assistance and help to get them out of the building or to the designated Rescue Area(s) identified in the building's Emergency Action/Fire Prevention Plan and shown on the evacuation route map(s) posted in the building. Notify emergency personnel immediately upon their arrival of the exact location of any persons who may be waiting in Rescue Areas.

E. GATHER AT SAFE ASSEMBLY LOCATIONS - Once outside, proceed to the Safe Assembly Locations shown on the evacuation route maps posted in the building or as directed by emergency response personnel. Do not return to an evacuated building unless directed by University officials or emergency response personnel.

SITE-SPECIFIC EMERGENCY ACTION/FIRE PREVENTION PLANS

The University's Building Coordinator Policy (BSU 6816-C) provides for the appointment of Building Administrators and Building Coordinators who shall assist the Campus Environmental Health and Safety Office to develop and maintain individual, site-specific Emergency Action/Fire Prevention Plans for each campus building. In addition to addressing the functional uses and particular design of each University building and its surroundings, the plans shall specify at least the following:

- Rescue Area Locations for persons requiring evacuation assistance and Safe Assembly Locations.
- Prominently displayed emergency evacuation route maps.
- Location of emergency pull alarms and fire fighting equipment.
- Location and approximate quantities of biohazardous materials, volatile and other hazardous chemicals, processes or system.
- Instructions on practice drills; and
- Other special building evacuation procedures as necessary or if different than those listed above.

EMERGENCY EVACUATION PROCEDURES

As soon as the alarm sounds, physically impaired individuals should proceed to an enclosed stairwell landing if possible. If an enclosed stairwell is not available, they should go into a room just off the hallway or corridor and close the door. Once inside the room, they should open a window (if possible) and drape some cloth article outside as a signal that someone is waiting for help. On the way to the "safe area," a physically impaired person should ask a non-impaired person for aid in notifying response personnel of the impaired person's location in the building. If no one is around to assist the impaired person, he/she should use a telephone (or any other available means) to notify the Campus Police of his/her location. In some cases, trying to leave may pose more danger to the impaired than taking advantage of the protection offered by their location.

Sight-impaired but mobile persons should wait out the rush of traffic until they can use the nearest exit at their own pace.

Hearing-impaired but mobile persons may be unaware of the need to evacuate, and should be calmly advised that an emergency evacuation is in progress. They should use the nearest exit to leave the building.

Mobility-impaired persons should be assisted, if necessary, to the nearest exit or enclosed stairwell landing; staying out of the rush of traffic. To reduce the risk of personal injury, attempts to carry mobility-impaired persons are discouraged and should not be attempted by other than trained personnel.

It should be noted that rendering assistance to the physically impaired by anyone should only be provided if such assistance does not place a person in personal danger.

Please contact the Campus Environmental Health and Safety Office at 426-1482 or 426-3303 for more information on the Fire Prevention Program.