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# **WAYNE STATE UNIVERSITY FIRE SAFETY MANUAL**

OFFICE OF RISK MANAGEMENT



March 2012

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## **Fire Safety Statement**

Pursuant to *University Policy 2002-7 Policy-Making by the President, University Risk Management Policy*, this Fire Safety Manual has been developed by the Office of Risk Management. It has been reviewed by the Wayne State Police Department, the Office of Environmental Health & Safety and the Office of General Counsel. Its purpose is to ensure that the University community is protected from the effects of fires and is in compliance with applicable fire codes, safety laws, basic safety and fire prevention practices.

In order to maintain our safe work environment, all employees, as well as students, must accept the continuous responsibility for safety not only for themselves, but also for co-workers and visitors. This safety manual has been promulgated to assist in achieving this goal.

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Richard J. Nork, Vice President, Treasurer  
and Chief Financial Officer  
March 2012

# **Wayne State University Fire Safety Program**

## **Purpose**

Wayne State University (WSU) is committed to creating an environment that is safe from the effects of fire for its students, employees, researchers, and guests. The purpose of this program is to establish an organizational structure to ensure the effective implementation of a comprehensive fire safety and fire prevention program. This program also applies to construction, alteration, repair, renovation, maintenance, and special events at any WSU owned/leased occupancies.

## **Scope and Application**

WSU will comply with the Michigan Fire Prevention Code, Act 207, and the Michigan State Construction Code, Act 230. All fire safety rules adopted by the State of Michigan Fire Safety Board from the National Fire Protection Association codes and standards, and the Michigan Building Code adopted from the International Building Code will also be complied with.

It will be the responsibility of the WSU Facilities Planning & Management Division to advise all contractors, as well as, internal tradespersons, that the Michigan Fire Prevention Code and adopted National Fire Protection Association codes and standards (current editions) will be the "Code of Jurisdiction" with respect to all construction, alteration, repair, renovation, maintenance, and special event programs at WSU occupancies.

The State of Michigan, Bureau of Fire Services, Department of Licensing and Regulatory Affairs will be the authority having jurisdiction with respect to all WSU owned/leased occupancies, which are defined in the Michigan Fire Prevention Code. All other WSU occupancies not under the jurisdiction of the State of Michigan, Bureau of Fire Services will fall under the jurisdiction of the Office of Risk Management.

The Office of Risk Management will develop, implement, and maintain a fire safety and fire prevention program; promote regulatory compliance with the State of Michigan Bureau of Fire Services; promote regulatory compliance SARA Title III (Michigan Firefighters Right-to-Know); designate a University Fire Safety Inspector to perform fire safety and certificate of occupancy inspections at WSU owned/leased occupancies and assist WSU departments and units with compliance issues.

The Office of Risk Management has the authority to shut down an operation, cause events to be discontinued, evacuate buildings, etc., when in its professional opinion, a severe danger to life or injury may result if action is not taken. Any of these issues, as well as, all fire safety violations and certificate of occupancy issues addressed by the State of Michigan Bureau of Fire Services and WSU Office of Risk Management that are not corrected may be forwarded to the Vice President, Finance and Business Operations for review and adjudication.

No building or portion of a building shall be occupied or used without being issued a certificate of occupancy from the Bureau of Fire Services or the Office of Risk Management. A temporary certificate of occupancy may be granted provided there are no substantial hazards that will result from occupancy.

State of Michigan laws covering false fire alarms; intentionally set fires; destruction; and malicious mischief, as well as WSU Board of Governors future adoption of City of Detroit Ordinances regarding the tampering of WSU fire protection equipment, can be enforced by the WSU Police Department.

All fire alarm, fire suppression, fire detection systems and construction drawings for new construction and renovation projects should be forwarded to the State of Michigan, Bureau of Fire Services for those occupancies which are within their jurisdiction for plan review, (E.g., classrooms, dormitories; buildings that are owned, or leased by the State of Michigan; and, places of public assemblage, i.e., libraries, auditoriums, theatres, etc.) In all other occupancies, said drawings shall be forwarded to the Office of Risk Management Fire Safety Inspector. These drawings will then be forwarded to the University's outside loss control consultant(s) by the Office of Risk Management, as required.

Renovation projects at all WSU owned/leased occupancies that do not change, add to, or affect building entrances; paths of egress; fire/smoke barrier walls; fire alarm, fire suppression, and fire detection systems; will be considered "cosmetic remodeling" and exempt from this program. Also exempt from this program are ordinary repairs and maintenance of non-fire and life safety equipment.

The Office of Risk Management Fire Safety Inspector should be contacted in

advance of construction and renovation projects to address fire and life safety issues.

### **Responsibility/Authority**

The WSU Fire Safety Program sets fire safety standards, procedures, and practices to facilitate the University's ability to conduct safe operations and to ensure regulatory compliance. The purpose of the program is to provide minimum standards to safeguard life, health, property, and public welfare by controlling and monitoring the design, construction, occupancy use, quality of materials, and maintenance of all buildings and structures of the campus.

The Office of Risk Management is responsible for the overall fire safety and fire prevention programs at WSU. It is responsible for promoting fire safety regulatory compliance with the State of Michigan, Bureau of Fire Services; Michigan Occupational Health & Safety Administration; and University insurance companies. The Office of Risk Management will also serve as the custodian of all documents required by the program.

The State of Michigan, Bureau of Fire Services as well as the Office of Risk Management constitute the "authority having jurisdiction" (AHJ) of WSU owned/leased occupancies.

The AHJ has the authority to grant a certificate of occupancy, abate hazardous conditions, shut down an operation, evacuate a building, perform fire safety inspections, etc.

It is the responsibility of WSU Facilities Planning & Management Division to advise all contractors and internal tradespersons that, when a project is 50% completed, and then again at 100% completion, a fire safety certification inspection is required by the Office of Risk Management Fire Safety Inspector and the State of Michigan, Bureau of Fire Services. For projects which are not under the jurisdiction of State of Michigan, Bureau of Fire Services, only the Office of Risk Management Fire Safety Inspector should be contacted. No certificate of occupancy will be granted unless these fire safety certification inspections are performed. At the 100% inspection, all fire alarm, fire suppression, and fire detection systems should be tested in the presence of the Office of Risk Management and/or State of Michigan Fire Safety Inspectors. No fire safety certification approval will be granted without receipt of final electrical approvals.

**Any person or entity seeking to inspect any Wayne State University building should be immediately referred to the Office of Risk Management. No fire safety inspections of Wayne State University occupancies should be performed without the notification and/or approval of the Wayne State University Office of Risk Management Fire Safety Inspector.**

### **Fire Alarm Reporting**

All WSU owned facilities with a fire alarm, fire suppression, or fire detection system must send a signal to the WSU Police Department. Such systems must meet the requirements of the Michigan Fire Prevention Code and those fire safety rules adopted by the State of Michigan's Fire Safety Board from the National Fire Protection Association codes and standards. Further WSU requirements can be found at the Design and Construction Services Office of Facilities Planning & Management.



When actuated, a building's fire alarm system must activate audible and visual signals at the WSU Police Department who will respond to all fire trouble alarms and fire alarm incidents.

- ◆ Upon arrival at the facility or, during investigation of the alarm condition, the responding Police officer will determine if the Detroit Fire Department should be contacted.
- ◆ Any employee, student, visitor, etc., should contact WSU Police at 577-2222 upon discovery of a developing fire in or around WSU facilities.
- ◆ Upon actuation of the building fire alarm system, all occupants should immediately evacuate. Those persons who refuse to evacuate (including unannounced evacuation drills) could be cited by the Wayne State University Police Department.
- ◆ It is the responsibility of the WSU Police Department and/or the Detroit Fire Department to remove mobility impaired persons from areas of refuge within university facilities.
- ◆ The WSU Police Department will be in charge of any emergency condition in/around WSU facilities, unless relieved by the Detroit Fire Department supervisor.
- ◆ All evacuating personnel from a WSU facility should exit the facility, and stand well clear of same.
- ◆ No person should re-enter a WSU facility until the WSU Police Department has given permission to do so.
- ◆ No WSU facility fire alarm system should be silenced or reset, except by the WSU Police Department, Facilities Planning Management's Plant Operations

& Maintenance personnel (electricians, building engineers) or the University Fire Safety Inspector.

- ◆ When responding to any WSU facility for an emergency condition, the Police Department or Environmental Health & Safety Emergency Coordinators will have the authority to actuate a fire alarm system for evacuation purposes.

### **Emergency Evacuation Procedures**

Each University owned, or leased facility must have an emergency evacuation plan/procedure(s) specific to that location. It is the responsibility of the highest ranking individual user (i.e., dean, vice president, etc.) to develop and post such plan/procedure(s), which address the following:

- ◆ Written emergency evacuation procedures should be developed and dated, as well as any future revisions to the procedures. Copies of the procedures and all revisions should be sent to the Office of Risk Management who will review and maintain same.
- ◆ Distribute evacuation procedures to the building occupants and post throughout the building.
- ◆ Facilitate necessary training.
- ◆ Conduct a minimum number of evacuation drills as follows:

- Resident Halls = 8 per year
- All other buildings = 1 per year

Note: Written documentation of each evacuation drill conducted should be sent to the Office of Risk Management for record keeping purposes.

- ◆ Identify all persons with specific requests within facility (faculty, staff, students).
- ◆ Identify any persons who requested specific assistance and prepare a dated list with the names and work sites of these persons. This list should be provided to the Building Coordinators/Alternate Coordinators and Community Directors, and made available during an emergency.
- ◆ Clearly identify the responsibilities of building occupants in assisting persons with specific requests in evacuation.
- ◆ It is the responsibility of the Building Coordinator and Community Director to provide the responding WSU Police Department and Detroit Fire Department personnel with the list and location of persons who requested specific assistance.

The following guidelines are provided to assist in the development of emergency evacuation procedures, but each highest ranking individual user, or designated individual should develop a procedure specific to their building.

- ◆ Appoint floor monitors for each floor in the building. The number of floor monitors will vary from floor to floor. However, there should be a monitor assigned to each exit on each floor. The minimum number of monitors will vary depending on the size of the building.
- ◆ Inform floor monitors of their responsibilities as follows:
  - Learn the location of fire alarm pull stations, fire exits and in-house telephones on the assigned floor.

- Direct building occupants to the nearest exit in the event of an emergency.
  - Remain at the designated exit until all occupants of the floor have evacuated.
  - Check all areas of the assigned floor to ensure that all occupants have evacuated.
  - Assist any persons with specific requests to the designated “area(s) of refuge”.
  - Report to the pre-determined assembly area(s) and inform the Building Coordinator and Community Director of the location of any persons who requested specific assistance and assist in taking a head count.
  - Be prepared to provide the roster of persons with specific requests to the responding emergency agency (Police Department, Fire Department, etc.).
- ◆ From the emergency evacuation floor sign for the building, identify the pre-determined location(s) that occupants are to go to in the event it is necessary to evacuate the building. This is identified as the “assembly area” on the floor sign.
  - ◆ Identify the area(s) that occupants are to go in the event of other emergency situations (e.g. tornado, severe weather, civil unrest, etc.). This can also be found on the emergency evacuation sign for the building.
  - ◆ From the emergency evacuation sign for the building, identify the “area(s) of refuge” to be used for persons with specific requests. Note this is usually a room of fire rated construction, or an enclosed emergency exit stairwell.

All WSU owned/leased assembly occupancies, as defined by the Michigan Fire Prevention Code, should have the occupant load posted within each room/area. Assembly occupancies should have emergency evacuation drawings posted on each floor.

*Note: It is the responsibility of the University Fire Safety Inspector, in conjunction with the Facilities Planning and Management Division, to incorporate “professionally designed” emergency evacuation signs at WSU owned/leased assembly occupancies.*

### Building Occupant Responsibilities

When a fire alarm is sounded at any WSU owned/leased facility, **everyone should immediately leave the building** in an orderly manner by means of the nearest exit. Under no circumstances are any personnel (excluding the Police Department, Environmental Health and Safety, Detroit Fire Department) to remain in the building. Wayne State University Police Department has the authority to issue citations for those refusing to evacuate. Evacuation of the building should include:

- ◆ Close the office, classroom, and lab door as you leave.
- ◆ Leave the building via the nearest available exit. Always know a secondary means of egress to use in the event your first choice is unattainable.
- ◆ Use the stairwells to evacuate (**do not use elevators**). Once in the stairwell, check to see that the door closed, and proceed down to the level of exit discharge.

- ◆ If the facility is of a high rise occupancy (75' or 7 stories above grade) evacuation procedures are annunciated by the fire alarm system as follows: evacuate fire floors; two floors above; one floor below.
- ◆ Do not re-enter any facility until advised by the Police Department.
- ◆ Pre-determined facility occupants who are assigned responsibility for evacuation of a particular floor, shall assist persons with specific requests into the **area of refuge** after all persons on that floor have evacuated.
- ◆ All persons who requested specific assistance that are above the level of exit discharge, shall be placed in an “**area of refuge**” i.e., a fire rated construction room, or enclosed emergency exit stairwell.
- ◆ Unless department/facilities has special evacuation equipment, i.e. emergency evacuation wheelchair, the responsibility for removal of persons with specific requests rests with the WSU Police Department, or the Detroit Fire Department.

### **Identification of Essential or Critical Processes**

All chemical, medical, and scientific laboratories at WSU owned/leased facilities should comply with the Michigan Fire Prevention Code and the fire safety rules adopted by the State of Michigan Fire Safety Board from the National Fire Protection Association codes and standards; Michigan Occupational Safety & Health Administration; and policies/procedures enacted by the WSU Office of Environmental Health & Safety, which can be found at [www.oehs.wayne.edu](http://www.oehs.wayne.edu).

The Office of Environmental Health & Safety will perform audits and inspections of all laboratories, which conduct essential, or critical processes that are hazardous to life safety. Consult with the Office of Environmental Health & Safety for the following applicable procedures: Chemical Hygiene Plan, Bloodborne Infectious Disease Exposure Control Plan, Emergency Contingency Plan, Radiation Control/Health Physics Plan, and Lockout Tag Out Plan.

With respect to fire safety the following general requirements should be adhered to:

1. Shut down any experiments, procedures, etc. that should not be left unattended, in the event of an emergency.
2. Ensure that all burners, furnaces, open flame devices, etc., are placed on a non-combustible surface and that same is clear from combustible materials and never left unattended.
3. Emergency procedure plans should be posted on the back of each door. This plan should state what to do and who to contact in the event of an emergency. It should also provide a route of travel to exits so occupants evacuate the building in a safe, orderly, and timely manner. Assistance in developing emergency procedure plans can be obtained from the Office of Risk Management's Fire Safety Inspector.
4. Chemicals should be dispensed within laboratory fume hoods only. Fume hoods are not to be used for storage.
5. In an emergency, all electrical equipment should be disconnected at the main breaker (electrical panel) by the building engineer. When maintenance is to be performed on an electrically powered machinery item, contact the Office of Environmental Health & Safety for Lock Out Tag Out requirements.

6. Any laboratory, which stores and/or uses peroxides or peroxide forming chemicals should inform the Office of Environmental Health & Safety. Special precautions must be taken when using peroxides due to its explosive nature and sensitivity to shock, friction, sparks and heat.
7. Any laboratory which stores and/or uses combustible metals should inform the Office of Environmental Health & Safety and the Office of Risk Management Fire Safety Inspector. Arrangements for Class D fire extinguishers shall be through the Office of Risk Management Fire Safety Inspector.
8. All laboratories should maintain a chemical inventory as required by Sara Title III, (Michigan Firefighters Right-to-Know), Emergency Planning and Community Right to Know Act.

### **Identification of Hazardous Materials**

All chemical, medical, and scientific laboratories at WSU owned/leased facilities should comply with the Michigan Fire Prevention Code and the fire safety rules adopted by the State of Michigan Fire Safety Board from the National Fire Protection Association codes and standards; Michigan Occupational Safety & Health Administration; and policies/procedures enacted by the WSU Office of Environmental Health & Safety, which can be found at [www.oehs.wayne.edu](http://www.oehs.wayne.edu).

It is the responsibility of the Office of Environmental Health & Safety in conjunction with the Principal Investigator to identify all hazardous materials within WSU laboratories. Identification of any hazardous materials by the Office of Environmental



Health & Safety will allow WSU to remain compliant with SARA Title III Act (Michigan Firefighters Right-to-Know).

The following fire safety general requirements with respect to hazardous materials including flammable/combustible chemicals/liquids should be adhered to:

1. Chemicals (volatile and toxic) should be dispensed within laboratory fume hoods only. **Fume hoods are not to be used for storage.**
2. Safe and proper procedures should be adhered to for use of chemical fume hoods, and they should be kept closed when not in use.
3. Chemical inventory lists should be placed on the exterior side of storage cabinets, refrigerators/freezers, etc. Inventory list should include the date chemicals were received and the date to be discarded. Consult with the Office of Environmental Health & Safety for further information.
4. All chemicals should be properly labeled, tagged for disposal and those which are flammable, should be stored in flammable liquid cabinets or flammable liquid (explosion proof) refrigerator and freezers.
5. Flammable/combustible chemicals should be kept in original containers, safety cans, or placed in approved containers. Consult with the Science Storeroom for specific information regarding storage cabinets and safety cans.
6. No more than 60 gallons of flammable and combustible chemicals should be stored in flammable liquid storage cabinets in any laboratory not protected by an automatic fire suppression/fire sprinkler system.
7. Incompatible materials should be separated to prevent accidental contact with one another. Contact the Office of Environmental Health & Safety to

determine which chemicals are incompatible.

8. Flammable and combustible chemical storage rooms should comply with the Michigan Fire Prevention Code and requirements set forth by the Office of Risk Management.

### **Holiday Decorations**

In order to maintain fire safety during holiday seasons, the following requirements shall be adhered to with respect to owned/leased occupancies:

1. No natural tree, wreath, roping or similar decorations shall be used in any building.
2. The following materials may not be used for decorations as they are inherently combustible: bamboo, cedar trees or branches, corn stalks or shucks, cotton or confetti, dry moss or leaves, flammable powders or liquids, hay or straw (loose or baled), paper streamers, plastic sheeting or pellets, sawdust, tumbleweeds, wood bark or shavings.
3. Tree decorations must be of a noncombustible type material such as metal, glass, etc.
4. Artificial trees/plants labeled as flame retardant by the manufacturer are permitted.
5. No thin or fragile decorations made of combustible materials shall be used for artistic, or decorative enhancement that could produce a quick or fast burning fire.
6. The use of open flame devices, i.e. candles, for lighting or decorative enhancement is prohibited.
7. Artificial trees/plants and decorations shall be located so as to not obstruct

exits, corridors, aisle ways, and emergency light units.

8. No decorations shall be placed on fire sprinkler heads or piping.
9. Electric light sets (if permitted by highest ranking individual user) shall bear the Underwriter Laboratories or Factory Mutual certification seal.
10. No more than 3 sets of electric lights should be plugged into an extension cord, which bears the Underwriter Laboratories or Factory Mutual certification seal.

### **Electrical Safety**

WSU in all matters of electrical safety will comply with the National Electrical Code, National Fire Protection Association Standard #70. In all matters of construction, alteration, repair, renovation, maintenance, and special event programs within WSU owned/leased facilities, the current edition of the National Electrical Code will be the code of jurisdiction.

The following requirements shall be adhered to with respect to general electrical safety issues:

1. Departments and units should report all electrical installations, repairs, and maintenance of energized electrical equipment to the Facilities Planning & Management Service Center.
2. Ensure that electrical equipment, appliances, cords, and adapters are in good condition; used as designed and recommended by the manufacturer; and, bear the Underwriter Laboratories or Factory Mutual certification seal.
3. Do not use extension cords as permanent wiring for electrical appliances. Contact the Facilities Planning & Management Service Center to request installation of electrical outlets.

### **Power Strips/Surge Protectors**

1. Do not overload electrical outlets. Ensure that electrical surge protectors/suppressors for the appropriate equipment are used.
2. Use only surge protectors that have a built-in circuit breaker.
3. Electrical surge protectors should bear the Underwriter Laboratories or Factory Mutual certification seal.
4. Do not plug one surge protector into another surge protector.
5. Electrical equipment with frayed wires shall be disconnected and repaired immediately by contacting the Facilities Planning & Management Service Center.

### **Space Heaters**

Space heaters are prohibited within WSU buildings. Refer to the Administration Policy and Procedures Manual, Section 2.2.1.

### **Open Flames and Candles**

The definition of an open flame for this category constitutes any lighting or heat-generating device which produces a flame that is not protected. Some examples are wax candles, tiki lamps, oil lamps, torches, etc. Open flame devices are strictly prohibited within WSU facilities. Authorization must be requested from the Office of Risk Management Fire Safety Inspector for candle use in theatrical events. Authorization should be requested from University Housing Authority for candle use in religious ceremonies within University Housing.

The following requirements shall be adhered to with respect to candle fire safety:

1. Candles shall be placed on a non-combustible, flat surface.
2. Candle flames must be protected so that readily combustible materials such as drapes, curtains, clothes, wall coverings, etc. do not come in contact with flame.
3. Candles shall not be left unattended while burning.
4. Candles shall be doused with water prior to disposal.

### Heat Producing Appliances

If permitted by the highest-ranking individual user of a facility, coffee makers, hot plates, toaster ovens, microwave ovens, etc. shall bear the Underwriter Laboratories or Factory Mutual certification seal.

Heat producing appliances must be placed on a non-combustible surface and kept 18" away from combustible items; i.e. paper and cloth.

All heat producing appliances should be plugged into electrical surge suppressors.

## **WAYNE STATE UNIVERSITY HOT WORK PROGRAM**

### Purpose

The University Fire Safety Manual was developed to prevent the loss of life and property. The purpose of the Hot Work Program section of the Fire Safety Manual is to minimize the effects of loss caused by fire or explosion during the operation of hot work equipment.

### Scope and Application

No hot work activity shall be conducted at any WSU facility until a hot work permit has been issued. All hot work activities covered under this program that are

performed without the use of a WSU permit shall be stopped by the Authorized Hot Work Representative or the Office of Risk Management Fire Safety Inspector and the equipment will be placed out of service and/or removed from WSU property.

The principal hazard associated with portable hot work equipment is that of an ignition source in and around WSU facilities.

Hot Work is defined as any temporary maintenance, renovation, or construction by operation of a gas or electrically powered equipment, which produces flames, sparks, or heat that is sufficient to start a fire or ignite combustible materials.

Some examples of ignition sources are: open flame or torch, brazing or soldering, metals being welded or cut, molten slag or metal from work, sparks from work, dropped hot rivets.

The Office of Risk Management Fire Safety Inspector will grant permit-issuing authority to Authorized Hot Work Representatives within the university. Maintenance contractors (excluding capital projects or major construction) who have been awarded work at WSU will be issued permits directly by the Office of Risk Management Fire Safety Inspector.

The University's construction project specifications shall mandate that the awarded contractor for all capital projects shall provide evidence of their company's hot work permit program. Design and Construction Service's, Facilities, Planning and Management shall have responsibility for collecting these documents.

The WSU hot work permit program shall provide for the introduction of safety features and safety equipment as well as a pre-inspection of the area prior to any type of hot work activity being performed. The Office of Environmental Health & Safety in conjunction with Office of Risk Management will provide training to Authorized Hot Work Representatives who will issue permits to operators of hot work equipment.

An individual within the College of Liberal Arts & Science, College of Engineering, College of Education, College of Fine, Performing & Communication Arts, and Facilities Planning and Management who have been properly trained by the Office of Environmental Health & Safety and the Office of Risk Management in accordance with Michigan Occupational Health & Safety Association 29 CFR 1910 and the National Fire Protection Association 51B, on the safety aspects of cutting and

welding hazards, shall be designated in writing and authorized by (Office of Risk Management) to inspect hot work activity sites and issue permits. Those individuals will be titled "Authorized Hot Work Representatives".

The Authorized Hot Work Representatives shall have the responsibility to ensure that the university's hot work procedures are adhered to within their respective colleges and departments. If there is any violation, the Authorized Hot Work Representatives shall have the authority to stop the hot work activity and place the equipment out of service and/or removed from WSU property with assistance of WSU Police Department. The following shall apply to all hot work activities performed on WSU

property, including such activities performed in “Designated Areas” (maintenance shop areas) of WSU facilities. “Designated Areas” are those that meet the requirements of National Fire Protection Association 51B.

State of Michigan, Bureau of Fire Services

- ◆ Shall have jurisdictional authority over the university in compliance issues dealing with fire safety.

Office of Risk Management

- ◆ Has the overall responsibility of ensuring compliance with the WSU Hot Work Policy and Procedures Program.
- ◆ Provides oversight and guidance in the implementation of the program.

Office of Environmental Health & Safety/Office of Risk Management

- ◆ Will jointly be responsible for ensuring that Authorized Hot Work Representatives are trained in inspecting sites for hazardous conditions; proper use of gas and electrically powered hot work equipment; issuing of permits.

Dean of the College of Liberal Arts & Science, College of Engineering, College of

Education, College of Fine, Performing & Communication Arts, Associate Vice

President for Facilities Planning and Management

- ◆ Shall have, respectively, the overall responsibility for ensuring that all "Designated Areas", and cutting/welding personnel are provided with the needed equipment and resources to conduct operations safely.



- ◆ Will appoint an individual(s) to serve as the Authorized Hot Work Representative(s) from their respective areas and ensure that they receive appropriate training. Notification of the individual(s) appointed shall be reported to the Office of Risk Management Fire Safety Inspector.
- ◆ Provide that the appointed Authorized Hot Work Representative(s) will coordinate and issue all hot work permits and perform on-site inspection of all "Designated Areas."

Directors of Design & Construction Services and Plant Operations & Maintenance,  
Facilities Planning and Management

- ◆ Shall have the responsibility of overseeing compliance with the university's construction project specifications with respect to all capital projects.
- ◆ Will maintain a copy of the hot works policy, procedures and permits of the general construction contractor for each project awarded. Any safety violations noted shall be forwarded to the Design & Construction Services Director, the Associate Vice President for Facilities Planning and Management and the Office of Risk Management.
- ◆ Shall notify the Office of Risk Management Fire Safety Inspector of any maintenance contractor (excluding capital projects or major construction) who will be performing hot work activities at WSU so that the Inspector can inspect the work site and issue hot work permits to the maintenance contractor.
- ◆ Shall ensure that hot work permits issued are placed on the hot work equipment. It is the responsibility of the maintenance contractor to provide the needed equipment and resources to conduct safe operations.

- ◆ Shall forward copies of certificates of insurance, confined space entry policy and lock out/tag out policy for all maintenance contractors to the Office of Risk Management.
- ◆ Shall coordinate all hot work activity and issue hot work permits for all trades and departments within the Facilities Planning and Management Division. The appointed Authorized Hot Work Representative will issue permits and conduct on-site inspections of all "Designated Areas."

#### Authorized Hot Work Representative

- ◆ Shall, in conjunction with the Office of Risk Management Fire Safety Inspector and the hot work operator, ensure that all equipment used in the operation is in good working condition; that an appropriate class of fire extinguisher is on hand; that the permit is posted to the site on the hot work equipment.
- ◆ Shall maintain a safe area throughout the operation, and if at any time during the operation a hazardous condition is noted will ensure that the operation is immediately ceased until the hazard is abated.
- ◆ Shall fully brief hot work operators on the hazards involved; fire reporting procedures, and building emergency evacuation procedures, with the assistance of the Office of Risk Management Fire Safety Inspector.

#### Hot Work Equipment Operator

- ◆ It is the responsibility of affected university personnel and maintenance contractor personnel to provide or obtain personal protective equipment. The required personal protective equipment is dictated by the type of work to be performed and the hazards present during the work. Any questions/concerns regarding personal

protective equipment should be directed to the Office of Environmental Health & Safety.

#### Procedures for Permits

- 1) All hot work permits for operations by university personnel shall be issued by Office of Risk Management Fire Safety Inspector or an Authorized Hot Work Representatives. Hot work permits for maintenance contractors shall be issued by Office of Risk Management Fire Safety Inspector.
- 2) Hot work activities shall be permitted in "Designated Areas", after an on-site inspection by the Authorized Hot Work Representatives or Office of Risk Management Fire Safety Inspector.
- 3) The hot work permit shall be issued in three parts: Part one (hard copy) shall be maintained at the site attached to each piece of gas or electric powered equipment. The second part (white) shall be kept by the Authorized Hot Work Representatives, and the third part (yellow) shall be forwarded to the Office of Risk Management Fire Safety Inspector after issuance.
- 4) Copies of hot work permits forwarded to Office of Risk Management shall be entered in a Hot Work Log.
- 5) Upon completion of the hot work activities the operator shall sign part one of the permit verifying that the work area is fire safe. The permit shall be forwarded to Office of Risk Management Fire Safety Inspector after completion of work.
- 6) Hot work permits shall be valid for the time period noted on the form. Valid time periods are:

Daily: Valid from 7a-5p. If the hot work activities extends to another shift or overtime to complete an "emergency situation", the Authorized Hot Work Representatives shall have the discretion to extend time period.

Extended: Valid for a period up to 6 mos. College of Liberal Arts & Science, College of Engineering, College of Fine, Performing & Communication Arts shall be issued permit by their respective Authorized Hot Work Representatives who shall have the responsibility to re-inspect site and re-issue permits at the end of that time period.

Maintenance contractors shall be issued permits by Office of Risk Management Fire Safety Inspector valid for length of time to complete job or any time therein. The Office of Risk Management Fire Safety inspector shall perform periodic visits to the work site to ensure compliance with safety requirement.

7) Authorized Hot Work Representatives and Office of Risk Management Fire Safety Inspector along with the hot work operator/supervisor **shall conduct a safety inspection of the work area prior to issuance of permit.** Such inspections will incorporate lock out/tag out concerns, confined space entry concern, atmosphere testing (gas) concerns, etc. and shall comply with WSU Policy and Procedures. All concerns with respect to atmosphere testing shall be forwarded to Office of Environmental Health & Safety.

### **Torchiere Halogen Lamps**

The United States Consumer Product Safety Commission as well as the National Fire Protection Association have advised that the torchiere style (halogen) lamps pose a serious fire safety hazard due in part to their design as well as the fact that

temperatures from halogen bulbs can reach 1200° F. For this reason, torchiere style halogen lamps are prohibited within WSU buildings.

### **Pyrotechnics**

The following applies to all pyrotechnic displays (before a proximate audience on University-owned property), as well as, the National Fire Protection Association Fire Prevention Code (Standard I) with amendments which have been adopted by State of Michigan Fire Safety Board, as well as all the National Fire Protection Association Standards referenced therein.

No pyrotechnic display should be conducted until a permit is obtained as outlined in Michigan Law, 1931 PA 328, as amended.

The issuing of a permit will be in accordance with all rules and procedures set forth by the State of Michigan State Police, and State of Michigan, Bureau of Fire Services.

The individual handling the pyrotechnics must be a licensed handler of the material to be used and is responsible for the proper storage, handling, transportation, use and disposal of the materials (as required by Michigan State Police, Bureau of Fire Services), and provide proof of insurance as stated in the WSU Administrative Policy and Procedures Manual.

### **Pyrotechnic Permit Procedures**

A written request must be submitted to the Office of Risk Management Fire Safety Inspector **at least 4 weeks prior to the event**. Include with the request, the permit;

type of display; type and amount of materials to be used; current certification by a recognized agency; proof of insurance and the method of transportation and storage.

Approvals for pyrotechnic displays will be granted by the WSU Office of Risk Management, Police Department and Office of Environmental Health and Safety.

A walk-through and a representative demonstration of the pyrotechnic display must be given to the satisfaction of the Office of Risk Management Fire Safety Inspector, the Police Department, and the Office of Environmental Health and Safety before the display is approved.

The host of the display/event must provide a "fire watch" (the assignment of a person or persons to an area for the express purpose of notifying the WSU Department of Public Safety and/or building occupants of an emergency; preventing a fire from occurring; extinguishing small fires; protecting the public from fire or life safety dangers) for the length of the time that the material is handled.

Precautions taken by the pyrotechnic representative are the minimum amount of safety precautions, and does not overrule any safety precautions enacted by the WSU Office of Risk Management, the Police Department, or the Office of Environmental Health and Safety.

### **Special Events**

Any type of public assemblage, which is devoted to entertainment and festival affairs that is not a normal occurrence in the day to day environment of a university community, and that is planned in or on WSU building, structures and property is classified as a "special event". The special events will require review by the Office of

Risk Management's Fire Safety Inspector to address fire and life safety hazards associated with same. Some examples of special events are concerts, exhibits, fairs, carnivals, tents, etc.

Special events will require the approval of the Office of Risk Management Fire Safety Inspector and events must comply with National Fire Protection Association Fire Prevention Code (Standard I), with amendments adopted by State of Michigan Fire Safety Board, as well as all National Fire Protection Association Standards referenced therein.

### Procedures

A written request must be submitted to the Office of Risk Management Fire Safety Inspector at least 4 weeks prior to the event. Include with the request, the permit (if required); type of event; products and materials to be used; credentials of event sponsors, organizers, vendors, etc; proof of insurance (as stated in the WSU Administrative Policy & Procedures Manual); and method of transportation, storage, safety and security for the event.

Approvals for special events may require the approval of the WSU Police Department and the Office of Environmental Health & Safety. A walk through and/or demonstration of the special event should be given to the satisfaction of the Office of Risk Management Fire Safety Inspector, the Police Department, and the Office of Environmental Health & Safety before the event is approved.

The event sponsor, organizer, or vendor must provide all required fire safety certifications of product and materials to the Office of Risk Management Fire Safety Inspector.

Precautions taken by event sponsors, organizer, or vendor shall be considered the minimum amount of safety precautions and shall not overrule any safety precautions enacted by the WSU Office of Risk Management, the Police Department, or the Office of Environmental Health & Safety.

### **Emergency Evacuation Drills**

In order for emergency evacuation plans/procedures of WSU facilities to work effectively and efficiently in the removal of building occupants during the event of a fire emergency, it is critical that WSU comply with the Michigan Fire Prevention Code, Act 207, Section 19, and State of Michigan Office of Fire Safety Bulletin #2 (8/98) regarding Fire & Tornado Drills.

This policy requires that all WSU owned dormitories shall have a minimum of 8 fire drills during each school year, as well as, keeping a record of the drills. These drills shall be conducted for the purpose of preventing fires and related hazards as well as preparing building occupants to exit such facilities during an emergency condition.

University Housing is responsible for scheduling and documenting such drills within dormitories. Emergency Evacuation drill notification should be made by University Housing to the Office of Risk Management and the Police Department. Records of all fire drills should be forwarded to the Office of Risk Management Fire Safety Inspector.



### **Fire Alarm Testing Reports**

To comply with National Fire Protection Association Fire Prevention Code (Standard I) with amendments adopted by the State of Michigan Fire Safety Board, as well as, all National Fire Protection Association Standards referenced therein, the University shall document all fire alarm, fire detection, and fire suppression testing of these systems which are to be performed at all WSU owned/leased occupancies.

Such tests will be performed by University Facilities Planning and Management personnel and/or approved fire protection vendors to comply with above codes and standards. When tests of fire alarm, fire detection, and fire suppression systems are conducted, the report document shall be forwarded to the Office of Risk Management Fire Safety Inspector. The WSU Police Department is to be notified beforehand of every system test which they record. This report document shall be forwarded to the Office of Risk Management Fire Safety Inspector.

All problems or deficiencies noted in these report documents will be forwarded by the Fire Safety Inspector to the appropriate department supervisor (FP&M or Police) for **corrective action**. All report documents (including corrective action documentation) will be maintained by the Office of Risk Management to satisfy fire code and insurance company requirements.

### **Life Safety Equipment Inspections**

To comply with National Fire Protection Association Fire Prevention Code (Standard I) with amendments adopted by the State of Michigan Fire Safety Board, as well as, all National Fire Protection Association Standards referenced therein, the University

shall document all inspections and testing of life safety equipment at all WSU owned occupancies.

Life Safety equipment is defined as fire extinguishers, exit signs, emergency lighting units, and associated peripherals. The Office of Risk Management Fire Safety Inspector will administer the inspection program of life safety equipment and maintain report documents to satisfy fire code and insurance company requirements.

A "quick check" inspection of life safety equipment will be performed by the Office of Risk Management personnel following a regimented time schedule. Such inspections will be documented and certain issues of maintenance of equipment will be forwarded to appropriate Facilities Planning and Management personnel for corrective action.

A "quick check" inspection is defined as an inspection to determine if life safety equipment is available and will operate; verify equipment is in its designated place and has not been actuated and/or tampered with; there are no obvious physical impairments or condition to prevent its operation; and, actuating "test" buttons to determine operation of equipment.

In all matters of issues related to "missing" life safety equipment, the Fire Safety Inspector will recommend the required and/or appropriate equipment for occupancy and use to Facilities Planning and Management or university department affected.

### **Impaired/Out of Service Fire Protection Systems**

All fire alarm, fire detection, and fire suppression systems at WSU owned occupancies, which are impaired and/or taken out of service, must be reported to the Office of Risk Management Fire Safety Inspector. This policy also applies to those leased locations where WSU provides insurance coverage.

An Impairment is defined as the closing of any fire sprinkler control valve to facilitate a repair, renovation or replacement of the fire suppression system. Also included in this definition is the draining of a fire sprinkler riser, as well as, the closing of "special fire protection valves" (halon, carbon dioxide, FM-200, and wet chemical extinguishment agents).

An out of service fire protection system shall be defined as a complete loss of electrical power to a building; complete shut down of system (fire alarm and fire detection) due to repair, renovation, or replacement; fire incident within a building.

Fire suppression systems that are impaired and/or taken out of service at a university building shall be done in accordance with the university's insurance company requirements, which the Fire Safety Inspector will administer.

When a fire alarm or fire detection systems are taken out of service at university buildings, a "fire watch" (the assignment of a person or persons to an area or building for the express purpose of notifying WSU Police Department and/or building occupants of an emergency; preventing a fire from occurring; extinguishing small fires; protecting the public from fire or life safety dangers) for the length of time that the system(s) are out of service and the building is open to public entry, should be initiated.

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