

BURN NOTICE: KEEP THE HEAT AWAY!

2019 MHEC MPP LOSS CONTROL WORKSHOP

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Objectives

Discuss strategies for implementing and/or improving the following key programs for higher education facilities:

- Contractor Management
- Hot Work Management
- Fire Protection Impairment Management

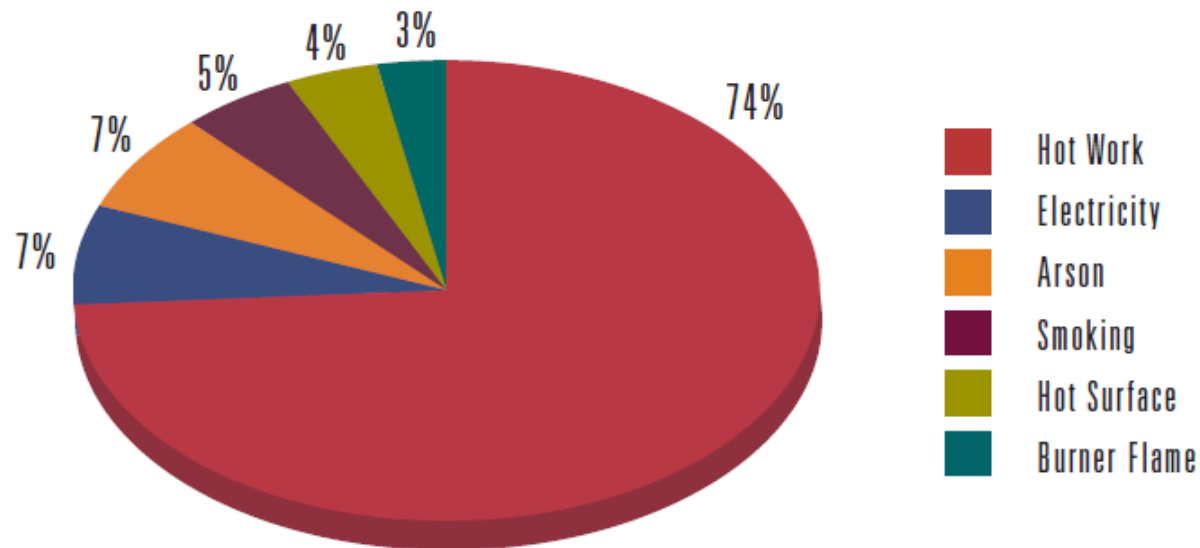
Contractor Management

- Use of contractors continues to increase
- Fires and other property losses involving contractors is at higher education facilities is trending up
- Remember that contractors are *allowed* to work in your facilities
- Over the past 10 years, contractors have been responsible for 30% of the number of fires and 55% of the amount of fire loss*

*FMDS 10-4

Contractor Management Fire Statistics

Leading Ignition Sources Controlled by Contractors at the Time of the Loss



Source: FM Global clients

As this chart shows, hot work is a serious concern, made more so by contractors.

Contractor Management

Key areas of the Contractor Management Policy:

- Assign who is responsible to oversee the contractors for each job
- Require contractors are up to date on their health and safety training
- Contractor Job *Orientation*
- Contractor Employee *Certification*
- Disciplinary Protocol

Contractor Management

Which department/supervisor is providing oversight of the contractor?

- Engineering
- Maintenance
- EHS
- Campus Facilities
- Athletics
- Food Service
- Residential Life

Contractor Management

Contractor Orientation

- Performed prior to every job
- Scope and limitations of the work
- Review of general contractor requirements
- Emergency procedures
- Termination and Contractor employee expulsion
- Access and area restrictions
- Daily Sign On Procedure and Contractor Liaison
- Hazardous work review
- List of contractor's employees and verification of Contractor Employee Certification

Contractor Management

Contractor Employee Certification

- Individual Certification
- Verifies each individual is familiar with campus safety and other requirements
- Certification that allows that individual to work on your campus
- Expires after one year

Contractor Management

Contractor Employee Certification

Confirms the individual is familiar with the campus policies such as:

- Hot Work
- Fire Protection Impairments
- Hazardous Work
- Confine Space
- Lock Out/Tag Out
- Fall Protection
- Arc Flash

Contractor Management

Contractor Employee Certification Example

ABC College Contractor Certification Check Sheet

ABC College expects all contractors' compliance with OSHA, State & Local Laws and regulations including ABC College safety standards pertinent to the job and expertise provided. This includes all the contractor's

Procedural Training:

- ☐ Contractors will receive general procedural training regarding any known hazards and or special procedures that will affect the work being performed.
- ☐ ABC College facilities personnel or the department area manager will provide specific information relating to the work site and specific safety concerns.
- ☐ The contractor will notify ABC College before work is initiated regarding any safety or exposure concerns they may introduce to the facility.

Safety & Permitting:

- ☐ Supplied tools, lifting devices and other trade related devices are to have proper guarding and are in good operating condition.
- ☐ Lock out/Tag Out – LOTO procedures shall be maintained while performing work on any machinery with potential for start-up or release of energy.
- ☐ Hot Work Permit procedures will be following for any welding, cutting, brazing or any other task that creates sparks or involves flames. Permit will be issued by ABC College.

Contractor Management

Contractor Employee Certification Example

☐

Fall Protection must be worn in any man lift or other lift aid and in any unprotected area 4 ft. above the lower platform or within 6 ft. of a leading edge.

☐

Confined space entry procedure will be followed for any inspection or work performed in permit required confined spaces.

☐

MSDS are required and will be presented before any hazardous materials are introduced to the facility.

☐

Arc Flash Protection and proper PPE procedures will be followed when performing work on energized electrical equipment

☐

Fire safety – Proper fire safety practices are to be followed. Use of chemicals, creating dust and other explosive or flammable work must be approved by ABC College.

☐

Contractors must follow ABC College's Smoking Policy. No smoking allowed inside or on roofs of buildings.

☐

Fire Protection Impairment procedures will be followed for any work impairments to the automatic sprinkler systems, water supplies, or alarms. Permit will be issued by ABC College.

Job/Service Supplied: _____

Contractor Company: _____

Print Individual Name: _____ Date: _____

Signature: _____

ABC College Name: _____ Date: _____

Signature: _____

Contractor Certifications are valid for up 1 year.

Contractor Management

Conclusions

1. Oversight of Contractors
2. Contractor's employees should be certified to work on your campus
3. Contracts should reflect this protocol along with disciplinary actions

Contractor Management Loss Examples



Contractor Management Loss Examples



Contractor Management Loss Examples



Contractor Management Loss Examples



Hot work Programs

Control over the hot work processes is vital.

- It is understood that within large educational settings many departments may have the responsibility for performing hot work or controlling contractors which perform hot work within the facilities.
- It is vital that a formalized program be developed that works within the parameters of the operations and allows for issuing hot work permits.
- It is recommended that a single entity within the operations controls and provides training to any additional entities within the school that will issue permits and oversees the program.

Hot Work Programs

Critical Issues related to the development of an effective hot work program:

- All persons that will issue a hot work permit should be provided with proper training to evaluate the site of the work and consider all potential sources of ignition and combustibles. Critical is the ability to determine the area which must be maintained free from combustibles.
- Hot work programs should include the following points, additional evaluations by staff, consultants or insurance safety specialists may be required to identify all potential sources of concern.
- Hot work should not be attempted till proper evaluation by trained staff has been completed and approval for the process to continue.
- A policy must have a clear and concise process to follow including a means to contact the department or person responsible for providing the Hot Work review and permit for Hot Work.
- **This process and contact information should be part of any contractor agreements, training and readily visible in locations where contractors sign into the operations.**

Hot work Programs

Critical Issues (cont.)

- Provisions in educational institutions should also include for afterhours hot work reviews and permitting.
- In departments which perform frequent hot work, plumbing shops, it is advisable to train additional staff in this department to issue permits. These staff should be trained annually and spot checks of the process, and work sites completed with an audit of completed tags. Please see NFPA 51B for these duties.
- In discussions prior to construction, where entire buildings, are controlled in construction by a general contractor, decisions should be made as to who is responsible for hot work safety. In general terms contractors should have a written hot work Program and be required to issue permits taking all responsibility for the program. The program should be randomly checked and audited for compliance with program requirements and contractual agreements.

Hot work Programs

- **Conclusion:**

- Educational campuses are unique in that they may have one to more than 100 buildings on their campus this makes management of a Hot Work Program difficult.
- With many campuses also including multiple departments requiring use of Hot Work Tags plus new construction control can soon be lost.
- It is important that there is one department that has ultimate control over the program and decides who can issue permits and if so what process will be instituted.
- There is a need for common training and education for the issuers of the hot work permits to ensure all precautions are covered and all permits meet the same high standards for fire and life safety.

Fire Protection Impairment Program

The program is intended to safeguard investments in fixed fire protection by verifying fixed fire protection system outages are:

- Limited to the smallest area possible
- Limited to the shortest duration possible
- Accompanied by appropriate precautions

Fire Protection Impairments (What is an Impairment)

Fire protection impairment is the shutdown of any fixed fire protection system including:

- Automatic sprinklers
- Underground fire mains
- Fire hydrants
- Fire pumps
- Fire protection water storage tanks, cisterns, or reservoirs
- Public water systems supplying fire hydrants or fire systems
- Special fire extinguishing systems (e.g. foam, carbon dioxide, FM200, dry chemical, or wet chemical)
- Fire alarm systems

Fire Protection Impairment

Management of the impairment is critical to the success of the program. Again as with the other programs the coordination with all departments involved is difficult but must be functional and well thought-out. While the departments which identify, repair and report the impairment are important without including the affected Education Departments an exposure to loss may develop.

As with Inspection, Testing and Maintenance Programs there will likely be multiple departments involved with this program to detect, monitor and repair the impairment. These would include:

- Risk Management and/or Environmental Safety and Health Department
- Facilities Management and Maintenance
- Public Safety and Security
- Construction or Construction Management Department
- Educational Department Heads

Fire Protection Impairment Program

Conclusion:

- Protect your investment in fixed fire protection systems. Adopt and implement the Zurich Fire
- Protection Impairment program; limit the number, extent, and duration of impairments; apply appropriate precautions during impairments; and notify Zurich of all impairments.

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