Overview

A safe environment is an integral part of our patient focused quality health care system. AHS Protective Services is responsible for Fire and Life Safety (FLS) within our facilities throughout the province.

Our mandate is to meet or exceed the guidelines and requirements of the Alberta Building and Fire Codes. A Fire Marshal and an Emergency Response Plan is mandatory for each facility and this manual is designed to provide guidance and education to designated Fire Marshal’s.

Protective Services Fire and Life Safety will provide Governance, Education and be a Resource to address and advise any fire safety concerns.
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Definitions

CHECK means a visual observation to ensure the device or system is in place and is not obviously damaged or obstructed.

CLIENT means all persons who receive or have requested health care or services from Alberta Health Services and its health care providers; the term “patient” or “resident” may also be used, subject to the health care setting.

INSPECT means physical examination to determine that the device or system will apparently perform in accordance with its intended function.

TEST means operation of device or system to ensure that it will perform in accordance with its intended function.

OWNER means a lessee, a person in charge, a person who has care and control and a person who holds out that the person has the powers and authority of Ownership or who, for the time being, exercises the powers and authority of ownership.

AUTHORITY HAVING JURISDICTION (AHJ) means a safety codes officer in the fire discipline exercising authority pursuant to designation of power and Terms of employment in accordance with the Safety Codes Act.

STAFF means all Alberta Health Services employees, members of the medical, dental, podiatry and midwifery staff, students, volunteers, and other persons acting on behalf of or in conjunction with Alberta Health Services.

SUPERVISORY STAFF means those occupants of a building who have some delegated responsibility for the fire safety of other occupants under the fire safety plan.

WATER-BASED FIRE PROTECTION SYSTEMS includes sprinkler systems, standpipes, private hydrants, hose systems, water spray fixed systems, Foam-water sprinkler systems, foam-water spray systems, and fire pumps.

FLS Fire Life Safety
FM&E Facilities Maintenance and Engineering
PS Protective Services

Saponification - Saponification takes place when alkaline mixtures such as potassium acetate, potassium citrate, or potassium carbonate are applied to burning cooking oil of fat. The alkaline mixture combined with the fatty acid create a soapy foam layer on the surface which holds in the vapors and steam and extinguishes the fire
Section 1

Introduction

- Fire Marshal Responsibilities
- Owner/Operator Responsibilities
- Employee Responsibilities
- General Fire Safety Rules
Healthcare Fire Marshal Responsibilities

Definition

As the designated site Fire Marshal, and in conjunction with the Alberta Health Services (AHS) Fire & Life Safety Program (FLS). You are responsible for the aspects of fire safety, implementation and evaluation of fire safety standards, practices and procedures in order to safeguard, as far as reasonably possible, Clients, Staff, Visitors & physical property.

The site Fire Marshal shall:

1. Act as the site contact with the FLS department, the Local Fire Service and the Province of Alberta Fire Commissioner’s Office.

2. Inspect the site buildings and grounds at six (6) month intervals.

3. Report to the applicable site department and also to the FLS department, any condition at the site that effects fire safety such as the condition of the exits, fire suppression and detection equipment etc.

4. Liaise with the FLS department when conducting investigations into unusual fire safety matters and implement the necessary remedial action.

5. Arrange for the testing of all emergency equipment to ensure continued reliable operation.

6. Maintain documentation related to all fire inspections, tests, drills, correspondence and unscheduled fire alarms and copy all documentation to the FLS department.

7. Conduct and evaluate fire drills on a monthly basis.

8. Provide feedback to Staff on a regular basis regarding the evaluation of fire drills and associated information.

9. Serve as a resource and provide basic education to Staff on:

   - Fire safety and evacuation procedures
   - Operation of the fire alarm system
   - Operation of fire suppression equipment
   - Emergency Response codes
Owner/Operator Responsibilities

It is the responsibility of owner/operator to ensure that:

1. The Emergency Response Manual is available to all staff.

2. Departmental fire safety procedures training is provided:
   - For all new and reassigned employees
   - When new equipment or procedures are introduced
   - When procedures have been revised or updated
   - When employee performance needs to be improved
   - When new area’s are occupied (after renovations or new construction)

3. Their staff is familiar with and understands all applicable fire safety procedures (including evacuation procedures).

4. Their staff are aware of the location of and understand the operation of:
   - Exits
   - Smoke doors/fire separations
   - Fire alarm pull stations (manual or key operated)
   - Fire extinguishers
   - Any other special fire suppression equipment within their work areas
   - Emergency phone numbers (specific to site)

5. Their staff is aware of any special fire hazards in their work area and understands the importance of following proper fire procedures at all times.

The Code Red E-Learning Module available on my learning link is recommended to be completed on an annual or as needed basis; it is an informative and interactive tool to provide AHS staff with supplemental learning.
Employee Responsibilities

It is the responsibility of each employee to ensure that:

1. They are familiar with and understand all the applicable fire safety procedures
2. They are aware of their responsibilities in the event of a fire emergency
3. They are familiar with the location(s) of and understand the operation of all fire safety equipment within their work area
4. Report all fire hazards immediately to their site Fire Marshal and supervisor for appropriate follow up action.
5. Know the location of
   - Exits
   - Fire alarm pull stations
   - Fire Extinguishers
   - Any special fire suppression equipment within their work areas
   - Site specific emergency phone numbers
**General Fire Safety Rules**

1. All corridors, hallways and exits must remain unobstructed and are not to be used as storage areas. (note**)

2. Access and visibility of fire extinguishers, fire hose cabinets and manual fire alarm pull stations must remain unobstructed.

3. Sprinkler heads are to remain unobstructed and all storage must be maintained at least 457 mm (18 inches) below the sprinkler head. Storage in non-sprinkler buildings/rooms must be maintained, at least 1 meter (3 feet) below ceiling.

4. Un-approved hold open devices such as wedges, are not to be used on fire doors, exit doors, laundry chutes, etc. (note***)

5. All electrical appliances (including blow-dryer, toys, etc) brought into the healthcare facility must be inspected for safety by the Facility Maintenance & Engineering (FM&E) department and the Department Supervisor/Manager before being used.

6. All electrical hazards are to be reported to the FM&E department immediately.

7. All smoking rules and regulations are to be observed.

8. Sparklers and candles are not to be used in healthcare facilities.

9. All flammable and combustible liquids must be stored in approved containers/cabinets.

10. All pressurized cylinders must be stored properly and secured.

11. Propane cylinders are never to be located inside a building.

12. All heat-producing devices must be approved for use by FM&E, site Fire Marshal. Or Property Management as applicable.

13. All approved heat producing devices (i.e. lamps, curling irons, space heaters, etc.) are to be kept away from bedding and other flammable/combustible material.

14. Your work area is to be inspected frequently and is always kept neat and orderly.

**In accordance with the Alberta Building Code 3.3.3.3.(2) "a corridor in which it may be necessary to move a patient in a bed shall be not less than 2400mm wide" and Alberta Fire Code 2.7.1.6.(1) "Means of egress shall remain in good repair and free of obstruction", it is not recommended to reduce the width of your hallway. That being said, like most of our care facilities, space is at a premium and we have a need to support safe patient centred care. Care facilities have a general acceptance that one side of the hall may be used to store portable equipment/chairs but not both and that in the event of an emergency, staff will work together to quickly clear the egress path. Storage of this type should never obstruct extinguishers, doors, fire alarm pull stations or exits.**
Wedges can in some controlled circumstances make health care practices easier for our staff. The AHS general rule is: if staff are in direct line of sight of the door and have a plan to ensure all doors are closed in an emergency, then wedges can be allowed on a limited basis. Doors that are unattended, like in a public hallway or stairways cannot be propped open. This ‘allowed practice’ is enforced through inspections and fire drills - if staff do not work together and ensure all doors are immediately closed during an emergency, they will lose the privilege for having these doors propped open.
Section 2

Emergency Codes

- Emergency Response Codes – Quick Reference Guide
- R.E.A.C.T.
- The most current information on emergency response procedures can be found at:
  - [http://insite.albertahealthservices.ca/edm.asp](http://insite.albertahealthservices.ca/edm.asp)
  - My Learning Link E-D-M
  - [http://insite.albertahealthservices.ca/Files/hr-led-edm-pint-version.pdf](http://insite.albertahealthservices.ca/Files/hr-led-edm-pint-version.pdf)
# Emergency Response Codes – Quick Reference Guide

<table>
<thead>
<tr>
<th>CODE</th>
<th>Who can activate this code?</th>
<th>Insert # to call from your site-specific plan</th>
<th>What do I need to do?</th>
</tr>
</thead>
</table>
| **CARDIAC ARREST / MEDICAL EMERGENCY** | CODE BLUE | Anyone who finds a person in cardiac arrest or seriously injured | • Check for unresponsiveness  
• Call for help  
• Call switchboard or 911  
• Start CPR if required and trained |
| **FIRE** | CODE RED | Anyone discovering a fire or smoke | R- remove from danger  
E- ensure door closed  
A- activate alarm  
C- call switchboard or 911  
T- try to extinguish | P- pull pin  
A- aim  
S- squeeze  
S- sweep |
| **VIOLENCE / AGGRESSION** | CODE WHITE | Anyone who is threatened | • All available staff respond to area |
| **HOSTAGE** | CODE PURPLE | Anyone discovering the incident | • Notify Protective Services or Police  
• Cordon off area  
• Do not enter area of hostage taking  
• Refer to dept/service plan in Emergency Response Manual |
| **MISSING PERSON** | CODE YELLOW | Manager / Designate | • Search immediate work area  
• Assist as directed by response personnel  
• Observe for suspicious activity |
| **BOMB THREAT / SUSPICIOUS PACKAGE** | CODE BLACK | Anyone who receives a bomb threat or finds a suspicious package | • Alert others  
• Record info on Bomb Threat Checklist  
• Conduct visual search  
• Report any suspicious packages |
| **SHELTER IN PLACE / AIR EXCLUSION** | CODE GREY | Administration, Facilities Maintenance & Engineering | • Stay indoors  
• Close all windows and doors  
• Be prepared to evacuate if necessary |
| **EVACUATION** | CODE GREEN | Manager / Designate Fire, Police | • Follow instructions  
• Provide assistance as required |
| **CHEMICAL SPILL / HAZARDOUS MATERIAL** | CODE BROWN | Anyone who encounters a spill. | • Stop all work  
• Contain the spill as trained  
• Remove unnecessary personnel  
• Assess if Minor or Major spill |
| **MASS CASUALTY INCIDENT** | CODE ORANGE | Admin On-call or Designate will activate Administrative fan-out | • Refer to dept/service plan in  
• Emergency Response Manual  
• Bring in AHS identification card |
Code Red – Quick Reference Guide

**R**emove those in immediate danger.

**E**nsure room and area doors are closed.

**A**ctivate the Fire Alarm.

**C**all Emergency Services Dial 911 and report the location of the fire.

**T**ry to extinguish or control the fire.

The above steps are interchangeable and do not necessarily need to be followed in order.

For additional information on Emergency Response Codes, please contact your local Fire & Life Safety Office or Emergency Disaster Management Office.
Section 3

Fire Inspections

- Conducting Inspections
- Common Hazards
- Documentation
- Monthly Inspections
- Portable Fire Extinguishers
- Fire Hoses
- Fixed Kitchen Systems
- Annual Inspections:
  - Portable Fire Extinguishers
  - Fire Hoses
  - Electrical Appliances or Equipment
  - Client Use
  - Staff Use
Section 3

Fire Inspection of the Facility

Fire inspections are essential to your overall fire prevention program, providing you with a good overview of your facility. Inspections assist in identifying potential hazards, allowing for expedient corrective action. Work with your local fire authority, and the FLS department, to ensure your facility is in compliance with applicable codes and regulations.
Conducting Inspections

Semi-Annual Building Inspections

The Healthcare Fire Marshal is required to conduct a building inspection at least twice a year as stated in the Alberta Fire Code Section 2.15. Standard approach to this inspection is by starting at the top level of your facility and making your way down, minimizing the possibility of missing something or some areas. Areas requiring inspection include, but not limited to:

- All Doors
- Exit Lights
- Corridors
- Emergency Lighting and power supply
- Fire alarm & detection system
- Sprinklers
- Standpipes
- Special fire suppression systems
- Portable fire extinguishers
- Fire Hoses
- Storage, janitor and service rooms
- Kitchens
- Laundry
- Electrical
- Flammable and combustible liquid storage
- Compressed gas storage
- Fire drills and evacuation procedures
- Fire related documents (drills, inspections) etc.
- Exterior of Facility

A copy of the report (see Section 11: Appendix “Fire Safety Inspection Report”) shall be signed by the Administrator & Healthcare Fire Marshal and a PDF copy submitted within 15 days by the person conducting the inspection to AHS Protective Services Fire & Life Safety at: AHSFireSafety@albertahealthservices.ca

This report shall be held locally on file for a minimum 2 years and provided to the local Authority Having Jurisdiction upon request.

Occasional inclusion of an external agency (usually your local fire inspector) in the inspection process adds credibility and additional expertise to the process.

Other areas required in your report are inspections conducted by outside contractors. These inspections include:

- Fire pumps
- Fire dampers
- Standpipe flow testing
- Fire alarm systems
- Kitchen systems
- Sprinkler system
- Halon systems
- Pressurization
- Liquid level measurements
- Fire extinguishers (annual)

Other areas that require documentation include:

- Fire drills and results (See Appendices for fire drill forms)
- Any fire alarms (scheduled or unscheduled) and follow-up
- Any fire hazards and/or issues/concerns identified, its investigation and outcome

Common Hazards

Common hazards to look for are any type of physical deficiencies that may create a fire and/or safety hazard to the facility and occupants. Some examples may be ensuring that:

- Fire doors close and latch as intended, without assistance;
- Door wedges are not in use
- Stairwells are clear of storage;
- Sprinkler devices in all areas are clear; no item is stored within 457 mm (18 inches) of the sprinkler heads;
- In sprinklered Bldgs Storage is not within 18 inches of the ceiling, in Non sprinklered Bldgs it is not within 1 meter.
- Smoke/heat detectors are clear of any debris;
- Fire extinguishers and fire hoses are being properly inspected;
- All hallways are clear of storage and/or obstructions;
- Proper flammable liquid storage containers/cabinets are available and are being used as required;
- Staff is aware of their fire procedures and have access to their Disaster Response Manual

Documentation

Documentation regarding fire drills and lectures should be maintained for a period of no less than three years and fire equipment maintenance & inspections (extinguishers, detection devices, sprinkler systems etc) for a period of no less than five years in conformance with the Alberta Fire Code Division C Part 2 section 2.2 and AHS Record Retention policy # 0640 & 0895 and should include:

- Semi-annual building inspections
- Fire related investigations and corrective action taken
- Fire drills and results
- Unscheduled fire alarms; causes and corrective action taken
- All inspections including, but not limited to:
  - extinguishers
  - hoses
  - condition of exits & fire/smoke doors
  - emergency lights/battery packs
  - fire pumps
  - fire dampers
  - standpipe flow testing
  - fire alarm systems
  - kitchen systems
  - sprinkler system
  - halon systems
  - pressurization
  - liquid level measurements
  - fire extinguishers
  - fire hoses

**Monthly Inspection of Portable Fire Extinguishers**
- Ensure extinguisher is in its designated location. Verify extinguisher type, location numbers and serial numbers.
- Ensure access to, and visibility of, extinguisher is **not** obstructed. If obstructed, remove obstruction immediately.
- Ensure the operating instructions on the extinguisher are legible and face forward.
- Ensure the steel pin is in place.
- Ensure the plastic seal or tamper indicator is in place.
- Ensure the pressure gauge indicator is in the "operable range"; not over or under charged.
- If the extinguisher does not have a gauge, the extinguisher must be weighed to ensure fullness, Ensure hose or nozzle is not obstructed.
- Ensure extinguisher shows **no** signs of damage (e.g. vandalism, corrosion, leakage, clogged nozzles, broken or cracked tips, etc) (see Extinguisher Maintenance).
- Sign and date the inspection tag in the appropriate location

**Monthly Inspection of Fire Hoses**
- Ensure fire hose, where applicable, is in its cabinet and is correctly coiled.
- Ensure access to, and visibility of, fire hose cabinet is **not** obstructed.
- Ensure that all connections and threaded couplings are secure (hose to valve, nozzle to hose).
- Ensure that the fire hose, where applicable, shows **no** signs of damage (e.g. vandalism, corrosion, leakage, tears, splits, etc).
- Open the hose nozzle fully, and then close fully. Once the hose nozzle has been closed, it should be opened approximately 1/8 of a turn to prevent the nozzle from “freezing” in the closed position.
- Ensure that the fire hose cabinet shows no signs of damage (e.g. cracked or broken glass, door latches securely, condition of paint, wording on door, etc).
- Remove standpipe cap and ensure there are no obstructions inside the standpipe opening.
- Sign and date inspection tag in the appropriate location.

**Self-contained Emergency Lighting Units (Battery Packs)**

Battery packs shall be tested monthly to ensure that emergency lights will function upon failure of the primary power supply.

- Depress the test button and observe whether the light comes on to test the circuitry.
- If possible, unplug the light to see if the light comes on and leave it unplugged for 20 to 30 minutes to ensure it remains lit.
- Check the area for unsafe conditions or fire hazards.
- Complete the record and document deficiencies observed.
- Ensure there are no obstructions in front of lights.

**Monthly Inspection of Fire Separation Doors**

- The door should be fully opened and then released to physically check that the closing mechanism is in good working order;
- The latch has engaged when the door is closed;
- Striker plate and hinges are secure;
- Door, frame, and weather stripping, shows no signs of damage or wear;
- Panic bar or push bar is fully functioning;
- The closing coordinator is functioning properly;
- The door is unobstructed;
- During the winter months the doors leading outside are unobstructed by snow or ice.
- Doors are not to be padlocked at any time.

**Note:** Doors should be marked to identify their location for record keeping purposes.
Monthly Inspections of Fixed Kitchen Systems

- Ensure the system covers all hazardous areas (i.e. deep fat fryers, grills, etc.)
- The manual actuators are visible and unobstructed;
- The tamper indicators or seals are intact;
- Fusible links are in place;
- Filters are clean without excessive grease buildup;
- No obvious physical damage or conditions exist that might prevent operation;
- The pressure gauge is in the operable range; and
- Sign and date the inspection tag in the appropriate location (See Appendix)

Note: Exhaust vents and ducts must be periodically inspected to ensure there is no grease accumulation (In accordance with FM&E requirements).

Annual Inspection of Portable Fire Extinguishers

All fire extinguishers in a healthcare facility shall be inspected and maintained annually by a trained person in accordance with the Alberta Fire Code. Included in the annual inspection is a thorough examination of three basic elements:

- Check mechanical parts;
- Extinguishing agent; and
- Expelling agent

Maintenance records must be kept on every fire extinguisher in the facility (See appendix)

Annual Inspection of Fire Hoses

All fire hoses in a healthcare facility shall be inspected and maintained annually by a trained person in accordance with the Alberta Fire Code.

- Unpack the hose and do a visual inspection checking for:
  - corrosion
  - mildew
  - cracks
  - cuts
  - deterioration of any kind
- Re-rack hose so the folds do not go in the same place
- Sign and date inspection tag in the appropriate location
**Note:** Hoses/Hose cabinets should be marked to identify their location to keep accurate records.

**AHS Let’s Talk – Leadership Safety Rounds**

- Are a strategic team based approach to addressing issues at a facility involving FM&E, Protective Services, Site Fire Marshal, WH&S, IP&C, Site Management and other key stakeholders.
Section 4
Fire Safety Plans

- Developing a Fire Safety Plan
- Electrical Appliances or Equipment
- Spiritual Ceremonies Involving Burning Substances
- Special Considerations
Developing a Fire Safety Plan

The fundamentals of the AHS fire safety plan listed below have been previously developed for your site and are covered in the 'Code Red' template in conjunction with all of the Emergency Disaster Management color codes, REACT and evacuation signage. The facility Fire Marshal will need to ensure that all of the following site specific information has been incorporated. If not contact your Fire and Life Safety Coordinator for further direction.

A fire safety plan shall include:

1. a) Posted fire procedures which include:
   - activating the alarm
   - notifying the fire department
   - instructing occupants on procedures to be followed when the fire alarm sounds
   - evacuating occupants in danger, including special provisions for disabled clients
   - confining, controlling and extinguishing the fire
   b) Appointment and organization of supervisory staff to carry out fire safety duties;
   c) Instructions for supervisory staff and other occupants in their responsibilities for fire safety;
   d) Diagrams showing the type, location and operation of fire emergency systems;
   e) Holding of fire drills;
   f) Control of fire hazards in the building; and
   g) Inspection and maintenance of the building facilities provided for the safety of occupants
   h) Any special plans that relate to Code Red where procedures are taking place in a healthcare area (MRI, Operation Room, etc)

2. Fire safety plans shall be reviewed annually and when renovations or construction take place to affect the plan or when change to type of client population is made.

3. Posting fire emergency procedures:
   a) A minimum of one copy of the fire emergency procedures shall be prominently posted on each floor area (Emergency Response Codes – quick reference posters and Emergency Response Binders)
   b) Fire procedures should be posted at all nursing stations and above fire alarm pull stations
   c) Should be posted in all assembly areas and high hazard areas.

4. Fire Safety plans must be acceptable to the Fire Department
Electrical Appliances or Equipment

Client Use

1. No electrical appliances other than electric razors or blow dryers may be brought into the facility and used by the client unless the FM&E Department deems the appliance safe. In these cases, the appliance or equipment must be tested by maintenance staff to ensure compliance with the appropriate Canadian Electrical Code or any other standards or regulations that may apply.

2. It is the responsibility of the FM&E Dept/Supervisor to be sure the razors and curling irons are approved by the appropriate Canadian Electrical Code and are in good working order. Any unauthorized electrical appliance or equipment shall be reported to the Fire Marshal, Patient Care Manager or Maintenance department for appropriate action.

3. If there is any doubt about the condition of the appliance or equipment, contact maintenance.

4. High wattage and high temperature appliances are prohibited. These include irons, kettles, coffee pots, popcorn makers, hot plates, etc.

5. The facility will not be responsible for lost, stolen or damaged equipment.

6. Butane appliances are not authorized for use in healthcare facilities.
Use of Portable Space Heaters in AHS premises is not permitted

In light of recent snowfalls and colder temperatures, Facilities Maintenance and Engineering, Protective Services- Fire and Life Safety along with Property Management would like to take this opportunity to remind staff of the rules regarding portable space heaters in the workplace. A growing number of portable space heaters are being brought into work spaces by staff who find their interior work space temperature uncomfortably cool. Staff are advised that the use of portable electric heaters is not generally permitted in AHS space, and will only be approved as a last resort to help provide additional heat. Statistics indicate that approximately 8% of all fires and 46% of fire-related deaths are caused by portable space heaters. In addition, units with improperly covered heating elements pose a potential risk of serious burns.

In the event there is insufficient heat in sections of your premises, please follow the following course of action:

1 - Report any HVAC (Heating, Ventilation, and Air Conditioning) issues to your site FM&E Department through the approved methods. If no site contact is present at your location, Property Management can be reached via their on-line web form (or local Zone work order/service request) All requests and or complaints can then be properly addressed by either the FM&E Dept, the Landlord and or/ Property Management.

*Before any alternate heating source will be considered, step 1 has to have been taken. No exceptions.

2 - If there no resolution to a heating issue, AHS Capital Management (FM&E) will consider approving the usage of an alternate heating source, when:
   a - written supervisor/manager approval for the need of a means of additional heat has been received.
   b – the alternate heating sources being brought into AHS sites has been inspected by Capital Management FM&E and has met all of the following criteria.

To be approved, all alternate heating sources must meet and adhere to the following criteria:

- Such devices are used only in nonsleeping staff and employee areas.
- Be a radiant heater with heating elements that do not exceed 100 degrees Celsius (212 degrees Fahrenheit). We recommend a 200 watt limit.
- Have approved CSA and UL (Underwriters Laboratories) stickers.
- Be equipped with automatic shut-off features and proper heating element guards.
- Be placed on a clear/level non-flammable surface.
- Not be placed under or in furniture (i.e. desks, tables, chairs or closets.
- Be in full view, maintaining a 3 feet (1-meter) clearance from any combustible materials. (Space heaters placed too close to combustible materials are the leading cause of space heater fires.)
- Have no fans or moving parts.
• Be turned off anytime staff are not present in the room. (Never leave a space heater on and unattended.)
• Be plugged directly into a wall or cubicle electrical outlet.
• Not plugged into any extension cords, power bars etc.)

**Landlord’s governance of leased space overrules any AHS directive regarding space heaters**

AHS Capital Management (Protective Services and FM&E) retains the right to remove any space heater, anytime, including units that may have been granted prior approval. Unapproved units may be removed without notice or compensation to the program or individual.

Extreme caution must be taken with space heaters that are plugged into circuits serving other office equipment. This may cause circuit breaker failure due to the high amount of electrical energy being drawn on the circuit by the equipment. In addition, please note that space heaters may create false temperature readings at thermostats near their location. These false readings may cause other areas to cool in temperature.

If you have any questions or concerns, please contact your Zone Capital Management:
Facility Maintenance and Engineering Manager
AHS Property Manager or Protective Services Fire and Life Safety Specialist

**Staff Use**

1. No electrical appliances or equipment, including radios and television sets, may be brought into the healthcare facility unless approval is granted by the appropriate department head. In these cases, the appliance or equipment must be inspected by the maintenance staff to ensure it complies with the appropriate Canadian Electrical code or any other standards set out by the FLS department and/or Maintenance department.

2. The use of high wattage and high temperature appliances is restricted. These devices are only to be used in areas that have been inspected and approved by the Fire Marshal and maintenance staff.

3. The facility will not be responsible for lost, stolen or damaged staff equipment.

4. Butane appliances are not authorized in healthcare facilities.

5. Halogen lighting is not authorized in healthcare facilities.
Spiritual Ceremonies Involving Burning Substances

In order to provide the opportunity for clients and their families to experience the support of their culture in ritual and prayer, spiritual ceremonies involving burning substances may be conducted in a healthcare facility.

Spiritual ceremonies involving burning substances will be conducted in appropriate patient care areas and other designated locations, in keeping with appropriate religious or cultural ritual and tradition.

1. Spiritual ceremonies involving burning substances will be allowed in private patient rooms, quiet rooms and other designated areas.
2. Request for ceremonies will be directed to the Patient Care Manager. The supervisory staff shall be informed of the ceremony taking place.
3. The patient care unit shall contact maintenance and Protective Services prior to the ceremony taking place and inform them:
   - That a spiritual ceremony involving burning a substance has been requested
   - Give the specific location that the ceremony will take place
   - Provide a time range when the ceremony will start and finish
4. Any fire detection devices that are in the immediate area must be turned off/by-passed by the maintenance staff prior to the ceremony taking place.
5. When the ceremony is completed the patient care unit staff must contact maintenance, so that fire detection devices can be turned on again.

The following protocol applies to Ceremonies involving burning substances celebrated in the Chapel, any inpatient room or any other area protected by a smoke detector:

1. The Patient Care Manager notifies Protective Services of the planned ceremony at least 30 minutes in advance of the planned Ceremony.
2. The Protective Services Officer or FM&E attends the location and determines the smoke detector device number, room number and area description. Site specific protocol is then followed to bypass, remove and/or disable the device(s).
3. Once the device has been disabled, Protective Services or FM&E notifies the Patient Care Manager. The Patient Care Manager ensures the room is continually monitored while the device is disabled.
4. Upon completion of the Ceremony, the Patient Care Manager advises Maintenance, who is responsible for ensuring the device(s) are reactivated.
5. Once reactivation is complete, the Patient Care Manager will be notified by Protective Services or FM&E.
Considerations during Spiritual Ceremonies

1. No open flame is to be utilized in any area where oxygen is in use, and all combustible/flammable medication shall also be removed from the immediate area of the ceremony. The substance shall be ignited carefully in a well ventilated area. Oxygen shall be shut off in the immediate area where the burning substance is in use.

2. Nursing staff, the family and the ceremonial leader shall ensure all ashes and unburned materials are properly disposed of, and shall check client’s bedding to ensure no smoldering embers are present.

3. An attempt will be made to confine the smoke to the room so that it does not extend into other areas of the facility.

4. Unit staff is to ensure a fire extinguisher is readily available and easily accessible.

5. Unit Managers must take into consideration, prior to approval, any acute affects the ceremonial smoke may have on nearby clients.
Section 5

Conducting & Evaluating Fire Drills

- Overview
- Fire Drill Frequency
- Fire Drill Process
- Fire Drill Procedure
- Reporting
Overview

Fire drills may be one of your best training tools and should be treated as a learning experience for all involved. If personnel are nervous or unsure of the proper procedure, walk them through the procedure and then debrief (in a positive manner) them on any shortcomings. Debriefing all involved staff can immediately address any questions or concerns. A standardized fire drill form has been provided in the appendices. This will enable you to have a record of the staff and the area where the drill was conducted.

Having the fire department present in the evaluation of the fire drills adds an element of formality to the drill process; staffs have a tendency to take the drill more seriously and will recognize the fire department as the professionals dealing with fire safety. When the fire department does attend the fire drills it also will give them a better perspective of what to expect from staff during a fire situation and also provides them with building familiarity.

Frequency of Drills

One Full drill, per standalone building, per month, in Group “B” occupancies which includes but is not limited to:
Psychiatric Hospitals
Hospitals
Infirmaries
Nursing Homes
Convalescent Homes

One Full drill per year on buildings which are Group “C” or “D” occupancies and less than 6 storeys which include but are not limited to
Offices
Medical Offices
Dormitories
Dental Offices

Two Full drills per year on buildings 6 storeys’ or more which are Group “C” or “D” occupancies as noted above.

One Fire drill per quarter (3 month period) for all Laboratories

Fire Drills – all AHS owned and operated facilities, AHS managed facilities and leased facilities shall perform fire drills in accordance with the Alberta Fire Code and AHS fire safety program. Fire drills shall be performed according to the following frequency:
- Facilities with overnight stays (i.e., hospitals, long term care facilities) and /or have day patients/residents/ clients who are unable to self rescue are required to do a monthly fire drill. These drills are to be rotated between days, nights and weekends so that all staff have an opportunity to participate throughout the year. Monthly fire drills should be a combination of ‘full’ and ‘silent’ drills. Of these Drills one must be a full drill.
• Offices, health centers and facilities without overnight stays and who have clients and staff who are able to self rescue, are required to do an annual ‘full’ fire drill and two ‘full’ fire drill for buildings 6 storey’s or more.

• It is the expectation that each major unit/department/area within a care facility should receive at a minimum TWO fire drills per year.

• Fire drills shall be conducted during the normal working hours in non-shift work facilities.

• Fire drills shall be rotated between shifts of facilities that have more than one shift.

• Unplanned fire alarms (actual, false or system maintenance) do not meet the requirements of a fire drill (as there is no assessment of the staffs initial emergency response/ REACT). We do recommend unplanned fire alarms be used as learning and education opportunities whenever possible. We do recommend the coordination of facility monthly alarm system testing and ‘full’ fire drills (to minimize impact on patient care).

In AHS acute facilities where we have a designated Fire Marshal, they are to ensure drills are completed as required and have a copy of the fire drill report submitted to the Capital Management Fire Safety Team. Reports can be emailed to AHSFireSafety@albertahealthservices.ca

In AHS leased facilities without designated Fire Marshals, it is the responsibility of the facility owner to perform the annual fire drill(s). Private owners do not submit the drill report to AHS but are responsible to the local authority having jurisdiction. Fire drill requirements are part of the lease agreement as per the fire code and tracked through property management/real estate in each zone.

AHS Protective Services ROVING PATROLS
Duties and Responsibilities:

• Protective Services Roving Patrol Officers have been requested to support the provincial fire safety program in community and rural facilities where there is not a 24/7 security presence

• When requested by the facility, officers will support by periodically performing off hour (evening and weekend) silent fire drills. Although it must be noted that these drills are supplemental to the facility fire drill schedule, they are designed to exceed the minimum drill requirements and provide education/ emergency response drills to staff that are regularly missed due to the shifts they work.

• Protective Services Rovers will also make note of (or address) obvious safety concerns. We have a motto of ‘never pass a safety hazard’ and try to minimize hazards when they are found.
Prior to drills, PS Rover Officers will introduce themselves to the facility fire marshal and coordinate drills together. The Officer will submit the drill form and leave a copy (whenever possible) at the site.

**Fire Drill Reporting**

- Complete the AHS Fire Drill Report Template, ensuring all staff have signed. A blank copy of the drill report is available in the appendices to this manual.
- A copy of each drill needs to be submitted to the Fire Safety Team Administrator by forwarding a PDF copy of the fire drill report by email to the Capital Management Fire Safety Team.
- Reports can be emailed to AHSFireSafety@albertahealthservices.ca Please ensure the email subject line includes the location and facility where the drill was conducted.
- Original fire drill report hard copies need to be held locally for a minimum two years and be provided upon request to the local Authority Having Jurisdiction.
- Contact the Fire and Life Safety Team for assistance as needed.

**Unsatisfactory Fire Drills**

An Unsatisfactory drill is not to be deemed a Failure; it simply indicates that more training is required in that particular area of the facility to bring the Staff up to the required standard set by Alberta Health Services. In the case of an unsatisfactory drill, the following procedures shall happen:

- Fire and Life Safety Personnel will contact the Supervisor named on the Drill form as the “Person in Charge of the Area Contact Info” and review the comments and information about the drill.
- Person in charge of the area with the Unsatisfactory drill shall ensure personnel have a chance to review the Code Red Module on AHS mylearninglink: mylearninglink
  - Sign In
  - Click on Courses and registration
  - Search for Code Red in search box
  - Click on Register
- If further training is required after all staff have completed the Code Red module, the Person in charge may contact F&LS Specialists for specific training for their staff.
- A follow up drill shall be conducted of the same area and staff within 30 days.
Conducting Fire Drills - Process

Conducting fire drills should be determined in consultation with the Capital Management Fire Safety team, taking into consideration:

- The occupancy and specific hazards
- Safety equipment within the building
- The number of occupants to participate

Contact your local fire authority and the alarm monitoring company and inform them of the date, time and location of the drill(s). This may be best accomplished by telephone or email. The fire department requires the following information:

- Start time of drill
- Name and location of unit involved
- Response location prior to the drill
- End time of drill

Contact key facility staff and inform them of the date, time and location of the drill(s). (The person in charge of the facility, maintenance staff, switchboard and security).

There are two ways of conducting fire drills, Full and Silent. Both formats require planning and preparation.

Ways of conducting fire drills:

- When drills are conducted between 2100 – 0600 hours, a silent drill (the fire alarm system is NOT activated) should be conducted to ensure patients and clients are not disturbed. Of note; a Full drill during normal work hours is still required during each month
- Silent fire drills for sensitive areas (e.g. Lab services, Operating Rooms, Intensive Care Areas and Administrative Areas) should be considered unless coordinated with staff to not interrupt medical procedures.
- The department head can be made aware of the time and location prior to the drill. If they choose to inform staff, it is recommended that staff are not advised of the exact date and time.
- Using a small portable red beacon or strobe light to simulate a fire situation is very effective. Place the beacon in the scheduled location to inform the staff that a fire drill is taking place. Provide as much information about the simulated fire as possible.

Observe staff reaction and building functions (e.g. overhead paging, closing of fire doors, fire bells, etc)

- After conducting a number of drills in your facility, you will notice a pattern of deficiencies that is shared by most areas. These may include:
- Reluctance to activate the fire alarm
- Failure to bring an extinguisher to the scene and simulate fighting the fire
- Closing all doors in the immediate area
These deficiencies can be determined by proper documentation and comments of every drill conducted (attached fire drill form). This information can provide some insight into the areas needing additional education or practice that must be covered in the training process of staff to improve their performance and safety of their area.

Information that should be documented during fire drills is as follows:

- Date and time of drill
- Location of the drill
- Name of person in charge of the area
- Log of staff names attending the drill
- Who conducted the drill
- Were the fire procedures followed?
- Did the building systems function as intended under fire conditions?
- Was the Alarm monitoring company notified of the drill?
- Was the Fire Department contacted prior to the drill?
- Did the Fire Department attend the drill?
- Concerns and any follow-up that is required

Transferring of clients during fire drill situations is not required. However, upon request, a more comprehensive exercise can be developed to involve physical evacuation of a mock client or other fire related scenarios.
Fire Drill Procedure

Purpose
This procedure provides guidelines for conducting fire drills. Preparation, execution and debriefing are considered. Silent fire drills shall be conducted at night or when it would otherwise be too disruptive to conduct a standard fire drill. The P.A. system and fire alarm pull stations shall not be used during a silent/partial fire drill.

Procedure

Preparation
a. The Fire Marshal or designate shall create a schedule of fire drills in a given month, quarter and year. The schedule shall be forwarded to Facilities Management, Protective Services Management, Alarm Monitoring Operators and Security Shift Team Leaders.
b. The Fire Marshal or designate shall contact the Patient Care Manager or other appropriate supervisor for the area in which the drill will be conducted and share information regarding the drill time and location. Our recommendation is that date and time of drills are not shared with frontline staff.
c. Prior to the fire drill the Fire Drill Conductor should survey the area to be drilled and familiarize themselves with the locations of fire extinguishers, hose cabinets, pull stations and fire/zone/smoke doors. Halon, kitchen systems and other potential hazards should be identified and appropriate measures shall be taken during the course of the drill not to activate these.
d. In critical areas such as the Emergency Department, the Charge Nurse should be contacted prior to the drill to ensure that the fire drill will not impact client care.

Conducting Full Fire Drills
a. Contact the facilities management, (outside Alarm monitoring agency when applicable) and verify the times of all scheduled drills.
b. If the area being drilled requested prior notification, call the person in charge and inform them that the drill is about to proceed.
c. Contact the Facilities Staff Member on duty (who is responsible for resetting the pull stations) and verify the times of all scheduled drills, and arrange for a meeting time and place immediately prior to the drills.
d. Contact the facilities management immediately before each drill to ensure they are prepared.
e. Attend the drill location (with the Facilities Staff Member on duty) and activate the fire simulator light in an obvious (to Staff) location.
f. Observe Staff reaction (see observations in point four below) and complete the “Fire Drill Checklist”.
g. Debrief and review drill with staff (see debriefing in point 5 below). Ensure that the attendance sheet is completed.
h. Have Staff locate and obtain the Fire Safety / Emergency Response Manual.
i. When complete:
   ▪ Ensure the extinguishers brought to the scene are replaced.
   ▪ Have facilities management reset activated pull station(s),detectors
   ▪ Advise facilities management to reset the system and call the “All Clear”.
j. Ensure the systems are reset and the facilities management is ready prior to conducting the next drill.
k. A Security Occurrence Report shall be completed.
I. The Fire Marshal or designate shall provide feedback to the Patient Care Manager or other appropriate management and the FLS department.

Method for Silent Drills:

a. Conducting a silent drill can be just as effective as a full Fire Drill. Conduct it as a Question and Answer period. Silent drills do not impact patient care; staff can be questioned in small or large groups in the area being drilled at any time of the day or week with the goal being to capture 100% of staff.

b. As an example. Fire Marshal asks: You have discovered a fire, what would you do? (Theory). Allow the participants to verbalize what they think they should do in a Code Red Situation. Look for how they R.E.A.C.T. Did they discuss all the proper solutions? Did they get all the key points in REACT? Have they verbalized the location of a pull station? Do they know where the nearest fire extinguisher is located? Do they know where they will need to evacuate too if the Code Red develops into a Code Green scenario? Do they know where to go to obtain additional information on the Emergency Codes? While talking about different codes ask them a question on one. E.g. Code Grey. Are they familiar with it?

c. Use the fire extinguisher question as an opportunity to verbalize P.A.S.S. and to physically show an extinguisher from their area. Do they know how to use an extinguisher?

d. Use the Emergency Response Code question’s to see if they know where the Emergency Response Manual is located. Do they know? Do they know what color it is? You can use this opportunity to direct them to the AHS Insite page online at; AHS Emergency Disaster Management followed by searching the appropriate facility under AHS Emergency Response Plans Have the staff ever looked up there response plans? Etc.

Observations

a. Were all the steps of R.E.A.C.T. followed?

b. Were all persons not assigned fire duty removed to a safe location (e.g. behind closed doors)?

c. Were all room doors closed (and windows, if applicable)?

d. Were all obstructions removed from corridors?

e. Was the fire alarm (pull station) activated?

f. Was the Alarm Monitoring Company notified?

g. Did the building systems operate as intended?

h. Did staff know the locations of fire hose cabinets, extinguishers, smoke/fire doors and the Fire Safety / Disaster Response Manual?
Debriefing

Have staff locate and refer to the Code Red section of the Emergency Response Manual or the Hospital Fire Safety Procedures Manual. Review the following points with Staff immediately following each drill:

a. **R.E.A.C.T**

   - **R** Remove those in immediate danger.
   - **E** Ensure room doors are closed.
   - **A** Activate the fire alarm.
   - **C** Call xxx and report the location of the fire.
   - **T** Try to extinguish or control the fire.

b. **Classes of Fire**

   - **Class A Fire**: Ordinary combustibles such as grass, wood, paper, cloth, mattresses, etc.
     - *Memory tip* = “A” for anything that leaves an ash
   - **Class B Fire**: Flammable liquids such as cooking fats, grease, paint, oil, anesthetics, etc.
     - *Memory tip* = “B” for boiling liquids
   - **Class C Fire**: Energized electrical equipment such as electrical motors, switches, medical equipment, machines etc.
     - *Memory tip* = “C” for electrical ‘current’
   - **Class K Fire**: Flammable cooking media such as grease and oils used in cooking.
     - *Memory tip* = “K” for Kitchen

c. **Portable Fire Extinguishers**

   How to use extinguishers (keyword = PASS):
   - **P** pull the pin
   - **A** aim at the base of the fire
   - **S** squeeze the handle
   - **S** sweep back and forth

   **Types of Extinguishers:**

   - **Pressurized Water**: Water; use on Class A fires only
     - Range: 9m-12m
   - **Carbon Dioxide**: Carbon Dioxide (CO2); use on class B fires or class C fires
     - Range: 1m – 1.5m.
   - **Dry Chemical**: Dry chemical; use on Class A, Class B or Class C fires; Range: 2m to 5m.
   - **Wet Chemical**: Wet Chemical; use on Class K fires;
     - Range: 2m-5m (works in conjunction with Kitchen Fitted System).

**Operation of Extinguishers:**

- Was a fire extinguisher brought to the scene?
- Was staff able to identify the classes of fire?
- Was staff able to identify the types of extinguishers in their work area?
- Was staff able to explain how to use the extinguisher?
d. **Microwaves**
   Advise staff to review proper use of microwaves (see the Code Red Section of the Disaster Response Manual).

e. **Current Census**
   (On Nursing Units) was staff aware of the current patient census?

f. **Evacuation**
   Was staff aware of the order of evacuation, the four (4) phases of evacuation, evacuation routes? Use the Code Red manuals color-coded zone maps to explain evacuation procedures.
Section 6

Legislation & Codes

- Alberta Safety Codes Act
- Alberta Fire Code 2006
Alberta Safety Codes Act

Application of Act (Excerpt)

2(1) This Act applies to fire protection and applies to the design, manufacture, construction, installation, operation and maintenance of
   (a) buildings,
   (b) electrical systems,
   (c) elevating devices,
   (d) gas systems,
   (e) plumbing and private sewage disposal systems, and
   (f) pressure equipment.

The Alberta Fire Code and the Alberta Building Code are regulations under the authority of the Alberta Safety Codes Act.

Alberta Fire Code 2006

Section 2.15. Homes and Hospitals

2.15.1.1. Inspection

1) The person in charge of a building classified as a Group B, Division 2 occupancy shall appoint a fire marshal.

2) A fire marshal appointed under Sentence (1) shall, at least every 6 months, inspect the building and all related buildings for fire hazards and provide a written report to the person in charge indicating
   a) the condition of the exits, fire extinguishers and fire alarm equipment, and
   b) any other conditions relative to fire safety in the building or related buildings

3) The person in charge shall forward a copy of the report referred to in Sentence (2) to the authority having jurisdiction.


1. Part 10 lays the foundation for hot work, compressed gas storage and other items that extend beyond the AFC and ABC.
   Part 7 lays the foundation for the Emergency Response Plan and Evacuation requirements


Section 7
Principles of Fire

- Principles of Fire
- Classes of Fire
- Stages of Fire
- Fire Detection Devices
- Fire Extinguishers – Operation
  - P.A.S.S.
  - Limitations
  - When to fight a fire
  - When not to fight a fire
1. **Principles of Fire**

   In order to understand how fire extinguishers work, you first need to know a little bit about combustion.

   **The Fire Tetrahedron**

   The combustion reaction can be characterized by four components: the fuel, the oxidizing agent, the heat, and the uninhibited chemical chain reaction. These four components have been classically symbolized by a four-sided solid geometric form called a tetrahedron. Fires can be prevented or suppressed by controlling or removing one or more of the sides of the tetrahedron.

   ![Fire Tetrahedron Diagram]

   **Fuel.** A fuel is any substance that can undergo combustion. The majority of fuels encountered are organic, which simply means that they are carbon-based and may contain other elements such as hydrogen, oxygen, and nitrogen in varying ratios. Examples of organic fuels include wood, plastics, gasoline, alcohol, and natural gas. Inorganic fuels contain no carbon and include combustible metals, such as magnesium or sodium. All matter can exist in one of three phases: solid, liquid, or gas.

   **Oxidizing Agent.** In most fire situations, the oxidizing agent is the oxygen in the earth's atmosphere. Fire can occur in the absence of atmospheric oxygen, when fuels are mixed with chemical oxidizers. Many chemical oxidizers contain readily released oxygen.

   **Heat.** The heat component of the tetrahedron represents heat energy above the minimum level necessary to release fuel vapors and cause ignition.

   **Uninhibited Chemical Chain Reaction.** Combustion is a complex set of chemical reactions that result in the rapid oxidation of a fuel, producing heat, light, and a variety of chemical by-products. Slow oxidation, such as rust or the yellowing of newspaper, produces heat so slowly that combustion does not occur. Self-sustained combustion occurs when sufficient excess heat from the exothermic reaction radiates back to the fuel to produce vapors and cause ignition in the absence of the original ignition source.

   Fire safety, at its most basic, is based upon the principle of keeping fuel sources and ignition sources separate.
2. Classes of Fire

The classes of fire are derived from the types of combustibles consumed in each and the type of extinguishing agent required to put each out. Remember the elements necessary to start a fire: heat, fuel and oxygen. In order to extinguish a fire, one or more of these elements must be either removed or rendered ineffective. It is suggested each class of fire, the corresponding symbol and the extinguishing agent be memorized.

Class A Fires
Symbol: Green triangle
Combustible (fuel): Ordinary combustibles such as grass, wood, paper, cloth, mattresses, etc. (rule of thumb = anything that leaves an ash)
Extinguishing Agent: Water or all-purpose powder
Action: Quenching or drowning. The temperature of the burning material is reduced (cooled) below the point required to sustain a fire. Water is more effective against this type of fire; but other agents may be employed as well.

Class B Fires
Symbol: Red square
Combustible (fuel): Flammable liquids such as cooking fats, grease, paint, oil, anaesthetics, etc.
Extinguishing Agent: Dry chemical or Carbon Dioxide (CO2).
Action: Smothering (cutting-off the oxygen supply) to extinguish the fire.

Class C Fires
Symbol: Blue circle
Combustible (fuel): Energized electrical equipment such as electrical motors, switches, medical equipment, machines, etc.
Extinguishing Agent: Carbon Dioxide or dry chemical compound (non-conductive materials).
Action: Smothering (cutting-off the oxygen supply) to extinguish the fire.
Note: For an electrical fire, you should isolate the power supply prior to fighting the fire; then you are left with a Class "A" or "B" fire.

Class K Fires
Symbol: Frying Pan
Combustible Fuel: Combustible cooking media
Extinguishing Agent: Potassium Carbonate/Water
Action: Saponification
3. **Stages of Fire**

**Incipient Stage**
The incipient or first stage of a fire is one of the most deceptive because there is no visible smoke or flame. No appreciable heat can be detected however, particles of combustion will rise. These tiny particles have true mass, but like air, are not visible. The rate of development of these particles ranges from a few minutes to a few hours depending on the material involved and the rate of temperature increase.

**Smouldering Stage**
The second stage is the smouldering or smoky stage, which occurs as the fire develops and smoke is formed. Smoke is now visible, although no flame or high heat is present.

**Flame (Free-burn) Stage**
The third stage is the occurrence of flame or the ignition stage. Infrared energy is radiating from the fire site and some decrease of smoke will take place as the heat dramatically increases.

**Heat Stage**
The fourth stage is the heat or full conflagration stage and may take place simultaneously with, or just seconds after, the flame stage. During this stage the flame rises, smoke billows and toxic gases may be released.

The importance of these stages should not be overlooked, especially when investigating "an odour of something burning" or notification of a "smoky condition".

**Fire Detection Devices**

**Smoke Detectors**
There are two types of smoke detectors. Ionization and/or photoelectric. At the incipient stage, the detector activates the fire alarm system upon detecting the invisible products of combustion.

Over 70% of fires tend to be of the flaming type, more suited to an ionization smoke alarm. However, that leaves an additional 30% of fires which are the smoldering type, which are more suited to a photoelectric smoke alarm.

Since the type of fire likely to occur in any specific environment is impossible to accurately predict, it is recommended that a dual technology, a detector containing both ionization and photoelectric abilities is utilized.
Heat Detectors

- **Fixed Temperature**: activates the fire alarm system upon detecting fire at a predetermined temperature.
- **Rate-of-Rise**: activates the fire alarm system upon detecting a rapid rise in temperature.
- **Rate-of-Rise/Fixed Temperature**: activates the fire alarm system if either of the conditions above noted condition is met.
- **Sprinkler System**: Flame or heat will cause the sprinkler system to activate. Water is contained in the pipes by a heat sensitive seal or fusible link at the sprinkler head. Heat will cause the seal to break; allowing for the flow of water. Only the heads directly affected by the heat will discharge.

### Relationship of Stages to Detectors

<table>
<thead>
<tr>
<th>Stages of Fire</th>
<th>Detection Device</th>
</tr>
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<tbody>
<tr>
<td>Incipient stage</td>
<td>Smoke detector</td>
</tr>
<tr>
<td>Smouldering stage</td>
<td>Smoke detector</td>
</tr>
<tr>
<td>Flame &amp; Heat stage</td>
<td>Heat detector/Sprinkler</td>
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Fire Extinguishers

**Types**
The following types of portable fire extinguishers maybe available with-in your building:

**Pressurized Water (Type A)**
- **Ingredients**: Water
- **Use on**: Class A fires only (ordinary combustibles)
- **Range**: 9m to 12m

**Carbon Dioxide (Type B, C)**
- **Ingredients**: Carbon Dioxide (CO₂)
- **Use on**: Class B fires (flammable liquids), or
  - Class C fires (energized electrical equipment)
- **Range**: 1m to 1.5m

**Dry Chemical (Type A, B, C)**
- **Ingredients**: Dry Chemical
- **Use on**: Class A fires (ordinary combustibles),
  - Class B fires (flammable liquids), or
  - Class C fires (energized electrical equipment)
- **Range**: 2m to 5m
Wet Chemical (Type K)
Ingredients: Potassium Carbonate/Water
Use on: Class K fires (kitchens - combustible cooking media)
Range: 2m to 5m

Fire Extinguishers - Operation

P.A.S.S.
The key word P.A.S.S. is an acronym for the operation of portable extinguishers (except for the pump-tank model):

P. Pull the pin: give the pin a half (1/2) twist in order to break the seal and then pull.
A. Aim low: aim the extinguisher nozzle at the base of the flames.
S. Squeeze the handle: this releases the extinguishing agent.
S. Sweep from side to side: sweep back and forth with the extinguisher aimed at the base of the fire until the fire is put out.
   Watch the fire area. If the fire breaks out again, repeat the process.

Limitations
A portable fire extinguisher, when properly used, can save lives and property by putting out or containing a small fire, until the Fire Department arrives.

Portable fire extinguishers are not designed to fight a large or spreading fire. Even against small fires, they are useful under only the right conditions:

When to Fight a Fire
Fight a fire only if all of the following conditions are met:
- Everyone has been removed from the area
- The fire is small and is confined to the immediate area of origin (e.g. waste-paper basket, cushion, small appliance, etc).
- The fire is small and not rapidly growing
- The fire has not or is not developing a lot of smoke
- You can fight the fire with your back to a safe escape route.
- You are familiar with the use of Portable Fire Extinguishers
- Your fire extinguisher is:
  - Within easy reach
  - Rated for the type of fire you are fighting
  - Large enough to fight the fire
  - Is in good working order, and
  - Is fully charged

If you have the slightest doubt about whether or not to fight the fire - DON'T. Instead, close the door, and leave the area.

When not to Fight a Fire
Never fight a fire if even one of the following is true:
- The fire has spread beyond the immediate area of origin
- The fire is bigger than you; it is already a large fire
- The fire could spread and block your escape route
- The fire is growing rapidly
- The fire has developed or is developing a lot of smoke
- You have not been trained in the use of the extinguisher
- You are in doubt that:
  - The extinguisher is designed for the type of fire at hand
  - The extinguisher is large enough to fight the fire
  - You are able to extinguish the fire

It would be reckless to fight a fire with an extinguisher in any one of these cases. Instead leave immediately, close off the area and leave the fire fighting to the Fire Department.
Section 8

Contractor Safety

- Contractor Safety
- Site Rules for Contractors (Hospital Site Rules)

For the most current information on Contractor Safety refer to the Workplace Health and Safety site at:

http://insite.albertahealthservices.ca/whs.asp
Contractors working in any facility should be provided with an orientation to the site and your safety/security procedures. The orientation, which is usually part of the project contract should include, but does not have to be limited to:

Safety, Fire/Security Related Telephone Numbers

Project Supervisor

Job Site Safety Meetings

**Emergencies**
- Emergency Codes
- Emergency Facilities
- Fire
- Injuries
- Spills
- Personal Protective Equipment

**Safe Work Practices**
- Permits (which includes Hot Work Permits)
- Tagging
- Designated transportation routes
- Protection of adjacent spaces
- Contractors\Contractor Booklet .doc
  - Blinds
  - Lock Out
  - Patient/Client area(s) procedures
  - Scaffolding

**General Rules**
- Tools
- Environmental Services
- Drugs and Alcohol
- Smoking
- Prohibited Commodities
- Signs
- Traffic Rules
- Asbestos Containing Material
- Confidentiality
- Criminal Record Checks

WHMIS (Workplace Hazardous Materials Information System) and access to the location.
Site Rules for Contractors

A handout provided by the AHS Project Manager, such as a contractor booklet or site rules, outlining key information from the orientation is a good practice. This demonstrates due diligence and allows the contractor to review your policy and procedures whenever necessary. A site map may be included.

Here is a sample.

HOSPITAL SITE RULES

1. WORK PERMITS ARE REQUIRED FOR THIS FACILITY. Permits and I.D. tags may be obtained from facilities maintenance department I.D. TAGS TO BE WORN AT ALL TIMES. All contractors are to sign at the facilities maintenance department.

2. All contractors must follow workers’ compensation rules and maintain appropriate workers’ compensation coverage.

3. Steel-toed safety boots shall be worn at all times.

4. Close and lock all doors behind you that were previously closed and locked.

5. Park vehicles in service areas near buildings only when loading or unloading material. At all other times park in the designated parking stalls. Lock parked vehicles when left unattended.

6. Fire extinguisher must be available in work area at all times.

7. When working in a client care unit, you must report in at nursing station and notify the unit staff of your presence, and what you will be working on.

8. Must maintain fire separation between construction zone and any occupied space.

9. All employees shall sign in at the control room when working in the power plant and laundry building.

10. Use of existing service (power, water, air, etc.), shall be approved by the maintenance personnel.

11. Maintain visual control of and closely monitor use and location of all tools, equipment and materials at all times when work is in progress. All tools and equipment must be regularly inspected and meet safety standards and approved for use within the facility. Tools and equipment shall not be left unattended at any time without being shut off and properly secured. Should a loss or theft occur, report to the unit staff, security services, and the facilities management (or designate).

12. Do not dispose of any sharp objects (i.e. hacksaw blades, razor, and knives) in garbage cans. Dispose of these, off site, or in designated disposal containers.
13. Do not lay wire out on floors in client care areas - use wire racks.

14. Work causing smoke or dust will require the shutdown of the fire alarm system for that area. Contact the facilities management department for scheduling.

15. Must follow site rules for infection control and air quality as per AHS Infection Protection and Control guidelines and CSA Standards Z317.13-07 for infection control during construction, renovation, and maintenance of health care facilities.

16. All open order excavation must be inspected by the facilities management department.

17. Flashing safety lights shall be required where barriers remain overnight.

18. Hours of work shall be 7:30 a.m. to 4:30 p.m., Monday to Friday. For emergency and weekend call-outs after hours contact the maintenance manager.

19. Report any injuries during regular hours to xxx-xxxx or ext. xxxx.

20. Firearms are forbidden on all hospital property.

21. Emergency procedures if an emergency occurs (e.g. fire, accident, etc.) The following procedure should be followed:
   - Phone ext. xxxx
   - Give your name and location
   - State the problem

22. All healthcare buildings and site are designated as non-smoking. This includes smoking in vehicles parked on hospital property.

23. Fire Watch (See Appendix)

24. Site issued Hot Work permits which conform to AFC Section 5.2 & 5.6 MUST be obtained BEFORE starting any hot work jobs.
HOT WORK PROCEDURES
Ref: Alberta Fire Code

The following protocols shall apply to hot works involving open flames or producing heat or sparks including, without being limited to: cutting, welding, soldering, brazing, grinding, adhesive bonding, thermal spraying and thawing pipes.

1. Hot work shall be performed only by personnel trained in the safe use of equipment in conformance with the Alberta Fire Code.

2. Hot work equipment shall be maintained in good operating condition.

3. Hot work equipment shall be examined for leaks or defects prior to each use.

4. Leaks or defects found in hot work equipment shall be repaired prior to use.

5. Hot work shall be carried out in an area free of combustibles and flammable contents, with walls, ceilings and floors of non combustible construction or lined with non combustible materials.

6. When it's not practicable to undertake hot work in an area described above, combustible and flammable materials within a 15M distance from the hot work shall be protected against ignition.

7. A fire watch shall be provided during the hot work and for a period not less than 60 mins after completion.

8. A final inspection shall be conducted 4h after completion of hot work.

9. Ensure openings in walls, floors or ceilings are covered or closed to prevent the passage of sparks.

10. Any combustible and flammable material, dust or residue shall be removed from the area or protected against ignition by use of non combustible materials.

11. Combustible materials or building surfaces that cannot be removed or protected against ignition shall be thoroughly wetted where hot work is done.

12. The exposed areas shall be examined for ignition of combustible materials by personnel equipped with and trained in the use of fire extinguishing equipment.

13. At least one portable fire extinguisher shall be provided in the hot work area.
Before initiating Hot Work determine if there is a safer way to complete the job

This Hot Work Permit is required for any temporary operation involving open flames or producing heat or sparks, including but not limited to, cutting, welding, soldering, brazing, grinding, burning, use of powder actuated tools, air gouging, riveting, drilling, chipping, adhesive bonding, thermal spraying, use of hot surfaces or heating devices, use of combustion engines and thawing pipes.

<table>
<thead>
<tr>
<th>Hot Work Permits Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERMIT REQUESTED BY</td>
</tr>
<tr>
<td>FACILITY</td>
</tr>
<tr>
<td>LOCATION OF WORK</td>
</tr>
</tbody>
</table>

**TYPE OF HOT WORK:**
- Welding/Soldering/Brazing
- Grinding/Cutting
- Other (specify): Heat gun applications
- Roofing
- Work affecting alarm systems
- Burning
- Drilling/Riveting
- Air Gouging

**Required precautions checklist:**
- FLRA completed (attach to Hot Work Permit)
- Fire suppression sprinklers, fire hoses and/or fire extinguishers are available and operable (minimum of 2 fire extinguishers - must not be taken from those assigned to that area of the facility)
- Hot Work equipment is operable and in good repair
- All workers involved in the hot work and/or fire watch have been trained to use hot work and/or fire suppression equipment

**Requirements within 15 metres (50 ft) of Hot Work area:**
- Floors swept to remove any combustible debris
- Flammable/combustible material removed from the area (if possible) or covered using fire resistant material
- Cracks/holes/voids in floors, walls and ceilings (including ductwork) are covered or plugged
- Combustible floors covered with fire resistant material

**Requirements for Hot Work on walls, ceilings or roofs:**
- Construction is non-combustible and has no combustible covering or insulation
- Flammables/combustibles on the other side of walls, ceilings or roofs are removed from the area

**Atmospheric Testing Results:**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Permissible Level</th>
<th>Results</th>
<th>Time (24 hr HH:MM)</th>
<th>Taken by (print name)</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxygen</td>
<td>19.5% - 23%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEL</td>
<td>Less than 10%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Alarm System:**
- Is an alarm being disabled?  
- Yes ☐ | No ☐  
- Time (24 hr HH:MM) ☐  
- BY WHOM ☐

- Have internal/external emergency services been notified of the alarm system being disabled?  
- Yes ☐ | No ☐  
- Time (24 hr HH:MM) ☐  
- BY WHOM ☐

- Has alarm been re-enabled?  
- Yes ☐ | No ☐  
- Time (24 hr HH:MM) ☐  
- BY WHOM ☐

- # of alarm caps/covers sent out  
- # of alarm caps/covers returned

<table>
<thead>
<tr>
<th>TIME HOT WORK STARTED (24 HR HH:MM)</th>
<th>TIME HOT WORK FINISHED (24 HR HH:MM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERMIT EXPIRES:</td>
<td></td>
</tr>
<tr>
<td>DATE (YYYY-MM-DD)</td>
<td>TIME (24 HR HH:MM)</td>
</tr>
</tbody>
</table>

**Hot Work Authorization:**

I verify that the above location has been examined, the precautions checked on the Requirements checklists have been taken to prevent fire and permission is authorized for this work.

SUPERVISOR/DESIGNATE’S NAME  
SUPERVISOR/DESIGNATE’S SIGNATURE
### FIRE WATCH PROCEDURES

1. The person/s performing the Fire Watch must have a designated supervisor available and shall:
   a) Be identified to Maintenance and Protective Services, providing phone numbers for immediate contact.
   b) Be easily identifiable to building occupants by uniform or clothing
   c) Be familiar with the operation of fire and life safety systems in the building.
   d) Be able, and capable, of promptly notifying emergency agencies and occupants of an incident.

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1 Alberta Fire Code section 2.8.2.8. Shutdown of Fire Alarm Systems and section 6.1 Fire Protection Equipment
e) Have, as a minimum, RADIO contact between each other using established emergency communications protocol. It is preferable to have a cell phone available.

f) Maintain a chronological, written log of activities on site for AHS, for the duration of the Fire Watch.

2. The Fire Watch shall be in attendance at all times when Fire Protection Systems are out of service, and have sufficient staff to patrol all areas of the building involved, using the following as minimum guidelines:

a) Non residential buildings; during normal business open hours; every 30 minutes, other times every 60 minutes.

b) Buildings with sleeping accommodation, including hospitals, Fire Watch must be continuously on site:
   i) Between 2100-0800 hrs. every 15 minutes
   ii) Between 0800-2100 hrs. every 30 minutes

3. The Fire Watch shall have an acceptable method of alerting building occupants, making them and AHS aware of what it will be (e.g. Air Horn etc.)

4. All building occupants shall be notified of Fire Protection System shut downs or equipment out of service
Section 9
Staff Training

- Annual Fire Training
- **Annual Code Red Module** Lectures with Films and Demonstrations
- New Employee Orientation
- In-service or Departmental Training
- Lecture Preparation
- My Learning Link
  - Objectives
  - Lesson Plan
  - Instructor’s Checklist
  - Miscellaneous Tips & Techniques
  - Mistakes to Avoid
  - Feedback survey
Annual Fire Training

Fire safety training should be conducted annually and should include the following:

Healthcare Fire Safety
- R.E.A.C.T. Procedure including the importance of closing doors
- Evacuation procedures
- Classes of fire
- Portable fire extinguisher use and the locations of fire extinguishers.
- Types of fire extinguishers
- P.A.S.S. (acronym for using a portable fire extinguisher);
- Common fire hazards
- Location of high hazard areas (e.g. Lab, Maintenance, flammable storage)
- Fire alarm system operation
- Fire department notification
- Completion of the online Code Red E-Learning Module
- Mylearninglink

Response Teams
- Protective Services
- Maintenance
- Fire marshal
- Fire Department
- Departmental Staff
- Supervisor
- Switchboard

Home Fire Safety
- Cooking fires
- Smoke alarms
- Escape plans
- Barbecue safety re: propane appliance
- Electrical hazards
- Space heaters
- Smoking/proper disposal/ashtrays
- Children playing with matches/lighters
- Home fire extinguisher (type, size, placement, use)
- Fire detector (battery replacement)
- Stop drop and roll
- Camping/tent safety re: camp fires/refueling/cooking
- Storage of combustibles/flammables
- Fireplace safety
- Lint traps in dryers
- Fire prevention films

When planning annual fire training, it is important to vary your training from the previous year. Completion of the online Code Red module is the primary education for all AHS staff. Some additional examples of annual fire training are:

**Lectures with Films and Demonstrations**

Lectures are an effective and inexpensive way to train your staff. Keep in mind that fire lectures can be quite boring so you must find a way to stimulate the staff. Time can be restricted; generally one hour is sufficient for the amount of material you should cover.

Time permitting, it is a good idea to include home fire safety (i.e. cooking fires, changing batteries in smoke detectors, placement of smoke detectors, escape plans for the home, what type and size of fire extinguisher and where it should be located, home heating hazards, seasonal fire safety tips, Christmas, Halloween, Winter, Summer, camping and open pit fires, does everybody in the home know the local fire department’s phone in case of an emergency).

Fire prevention videos can be purchased through a number of safety organizations but they can be quite expensive. An alternative is your local fire authority - In some areas they will lend out films free of charge. Contact your Fire and Life Safety Coordinator for additional resources.
New Employee Orientation

- New staff in your facility should be trained in fire safety as soon as possible. The staff member should also be encouraged to read the Emergency Response Manual and complete the online Code Red E-Learning Module within the first month of employment.

Links http://mylearninglink.albertahealthservices.ca/elearning/bins/index.asp
Links http://insite.albertahealthservices.ca/1881.asp

In-service or Departmental Training

This training is particularly important for special hazard areas of your facility, for example: Laboratories, Pharmacies, Intensive Care Units, Maintenance areas and kitchens. Fire Marshals should be providing any required specialized training required for these areas (e.g. activating fitted fire suppression systems, chemical hazards, evacuation difficulties and maintenance procedures that could be high risk). Training for these staff members will be a little different than that of normal patient care areas.

A benefit of this type of training is that you train a specific audience and can tailor the content that applies to them.

Many resources are available from the fire and life safety team; please contact your zone specialist. If do have need to prepare a lecture, the following section has tips and recommendations which can help you.

Lecture Preparation

Steps in Training Program Design

1. Define the need
   - overall goal
   - who needs to be trained
   - analysis of competency requirements

2. Define learning objectives, what you want the trainee to know or be able to do at the conclusion of the training session

3. Define testing objectives, how will you measure whether you have achieved your learning objectives

4. Develop a lesson plan

5. Prepare your material

6. Pilot your program and revise
7. Deliver training

8. Continuous improvement; be prepared to evaluate and change your program each time you deliver it, using your feedback surveys.

9. Location, class size and scheduling of training session

10. Use a room large enough to accommodate your class

11. Ensure all instructional materials are in the room before you begin (e.g. overheads, laptops, markers, flip charts, etc)

12. Schedule overhead projectors, etc. Test to ensure they are working properly, before the class begins.

13. Consider conducting your training sessions at or near a relevant work site/area

14. Class size can be very important. Try to avoid large groups. The larger the group, the less individual participation you’ll be able to achieve. Keep the group to a workable size.

15. The length and scheduling of the training session will vary depending on a number of variables. Try to allow as much time as possible, in particular when the course material is new. Most training sessions will require from 30 minutes to 1 hour, including a 15-20 minute question period.

Objectives

- State what the trainee should be able to do – PERFORMANCE
- State conditions under which they should be able to perform – CONDITIONS
- Indicate how well the trainee must perform to be SATISFIED
- Should be SMART:
  - SPECIFIC
  - MEASURABLE
  - ACHIEVABLE
  - REALISTIC
  - TIMELY
Lesson Plan

A lesson plan is a roadmap. It is the plan you follow in order to achieve your learning objectives. For each learning objective, ask the following questions:

- Who?
- What?
- Why?
- When?
- Where?
- How?

The answers are your lesson plan.

Your introduction should contain:

- Ice breaker (joke, cartoon, etc)
- Opener (introduce yourself, welcome everyone)
- Objectives/expectations (explain why the training and what the staff will get out of it)

It should be:

- Non-threatening
- Fast paced
- Audience specific
- Fun/humorous

Your conclusion should contain:

- Summary
- Evaluation (Feedback surveys to be handed in at the end of the class.
- Link to introduction
- Plan for implementation
- Opportunity for closure

It should be:

- Motivational
- Power packed
- Personal
- Polished
Instructor’s Checklist

Plan for sessions well in advance, document the following:

- Date(s)
- Location(s)
- Number of trainees per session

At least two weeks before the sessions, ensure that you have:

- Student lists or attendance forms
- Fully prepared training materials
- Your personal master copy of all materials (and have a back up master copy)
- Your slides and/or overhead transparencies are in order
- Where applicable, back-up diskettes of any materials/information that may be on computer (hard drive) or flash stick/memory stick.
- Order audio visual equipment
- Sufficient classroom supplies
- Sufficient instructional supplies
- Arrange for access to training rooms
Miscellaneous Tips & Techniques

- Prepare your own summary of any videos you plan to use. This will ensure you have mastered lesson content related to the video, enabling you to respond quickly and accurately to questions that may arise. Don’t be caught off guard trying to remember a key point or sequence of events in the video.
- Make your training session content relevant to day to day operations and duties of the participants. Make sure you understand how content of the lesson applies to work practices.
- Know the logic of the sequence of your training session, and key points to be emphasized during each segment.
- Ensure you are totally familiar with all the course content and instructional objectives and techniques. Consider doing a practice run through in front of one or more peers who can provide feedback. Also consider videotaping your practice presentation; you may be surprised at your good and bad teaching practices.
- Review previous material.
- Use memorable words, experiences and concepts that make strong impressions.
- Use content with near term usefulness and immediate, practical applicability.
- Stress self diagnosis of learning needs.
- Use summary materials.
- Stress participatory techniques that tap experiences, relevant stories.
- Proceed gradually from simple concepts and procedures to more difficult ones.
- Provide clear instructions.
- Tie learning to prior knowledge, current abilities and skills.
- Provide frequent opportunities for practice.
- Provide strong sensory signals (lighting, volume).
- Minimize distractions.
- Be supportive.
- Ask questions more frequently than you give answers.
- Provide clear written/verbal instructions for all activities.
Mistakes to Avoid:

- Don’t “ad lib” the beginning of the training session; be well prepared; set out objectives, etc.
- Don’t get “technical” right away, ease into the training material, show simple concepts first, etc.
- Do not apologize about your knowledge, ability, and visuals. Go forward, be positive, and stick to the training material.
- Don’t give out handouts while you’re speaking. Wait until the shuffle of paper is over before commencing. Try to give out handouts beforehand or during breaks.
- Don’t try to answer a question you do not know the answer to. Take note: and say you will get back to them with the correct answer.
Section 10

References

- Internet Website References
- Alberta Fire Code Quick References
Internet Website References

www.afca.ab.ca Alberta Fire Chiefs Association

www.cafc.ca Canadian Association of Fire Chiefs

www.employment.alberta.ca/SFW/307.html Occupational Health & Safety

www.fire-find.com Connections to numerous fire prevention sites

www.csa.ca Canadian Standards Association

www.nfpa.org National Fire Protection

www.municipalaffairs.alberta.ca Alberta Municipal Affairs

www.aema.alberta.ca Alberta Emergency Management Agency

www.albertafire.com Alberta Fire Safety Association

www.fire standata Alberta Fire Standata

http://mylearninglink.albertahealthservices.ca/elearning/bins/index.asp My Learning Link

http://insite.albertahealthservices.ca/edm.asp Emergency Disaster Management

http://insite.albertahealthservices.ca/3730.asp Annual Continuing Education

http://cnntlenel01.capitalhealth.ca/fire_index.html Fire Life Safety Portal
Alberta Fire Code Quick References

Your responsibilities as identified in the Alberta Fire Code (2006)

Division C Article 2.2.1.1. Unless otherwise specified, the owner or the owner’s authorized agent shall be responsible for carrying out the provisions of this Code.

Article 6.1.1.3. Before tests, repairs or alterations are made to fire protection installations, including sprinkler, standpipe, fire alarm and detection systems, A procedure of notification shall be established and the procedure shall include notifying the fire department and the building occupants where necessary for safety in the event of a fire emergency.

Division C Article 2.2.1.2. A written record shall be kept of all tests, inspections, maintenance or operational procedures for a period of two years after they are made, and the record shall be made available upon Request to the Authority Having Jurisdiction.

Fire Safety Maintenance Requirements

Daily

(1) Fire Alarm System – CHECK AC power lamp. AFC ref. #6.3.1.2.

(2) Central Alarm and Control Facility – CHECK to ensure that no trouble is indicated. AFC ref. # 6.3.1.2.

(3) Fire Pump Rooms – CHECK temperature during cold weather. AFC ref. # 6.4.1.1.

(4) Fire Protection Water Tanks – CHECK tank heating equipment, enclosure and water temperature during heating season in systems without low temperature alarms. AFC ref. # 6.4.1.1.

(5) Exit Signs – CHECK to ensure they are in clean and legible condition. AFC ref. # 2.7.3.1.

(6) Fire Doors – CHECK doors in fire separation to ensure they remain closed. AFC ref. # 2.2.2.4.(1)

(7) Exit Lights – CHECK to ensure they are illuminated and in good repair. AFC ref. # 2.7.3.1.(2)

(8) Torches, Regulators and Welding Equipment – CHECK for leakage or defects. AFC ref. # 5.2.2.2.
Weekly Requirements

(1) Fire Pump – CHECK fuel and oil level. AFC ref. # 6.4.1.1.

(2) Fire Pump – CHECK water level in reservoirs. AFC ref. # 6.4.1.1.

(3) Fire Pump – INSPECT and operate. AFC ref. # 6.4.1.1.

(4) Sprinkler System – CHECK that the control valves are open. AFC ref. # 6.4.1.1.

(5) Dry Pipe Sprinkler System – CHECK pressure gauge to ensure that air pressure is being maintained. AFC ref. # 6.4.1.1.

(6) Fire Protection Water Tanks – CHECK tank heating equipment, enclosure and water temperature during heating season in systems with low temperature alarms. AFC ref. # 6.4.1.1.

(7) Emergency Generator System – CHECK all components under at least 50% of the rated load for 30 minutes as per CAN/CSA documents. AFC ref. # 6.5.1.1.

(8) Hoods, Filters and Ducts in Ventilation Systems – CHECK for accumulation of combustible deposits and clean as required. AFC ref. # 2.6.1.3.

Monthly Requirements * These articles require written records. (Division C 2.2.1.2.)

(1) Fire Alarm System – TEST system and check all components on emergency power supply including standby power batteries. AFC ref. # 6.3.1.2.*

(2) Voice Communication System – TEST the system. AFC ref. # 6.3.1.2.*

(3) Water Based Fire Protection Systems – INSPECT all control valve tamper switches. AFC ref. # 6.4.1.1.

(4) Fire Protection Water Tanks – INSPECT the water level in tanks not equipped with supervised water level alarms connected to a constantly attended location. AFC ref. # 6.4.1.1.

(5) Portable Fire Extinguishers – INSPECT and sign tag. AFC ref. # 6.2.1.1.*

(6) Exit Doors – TEST all doors forming part of a means of egress to ensure they are operable. AFC ref. # 2.7.2.1.

(7) Emergency Lighting Systems – INSPECT and TEST batteries, units and lamps. AFC ref. # 6.5.1.6.

(8) Fire Doors – OPEARATE all doors in fire separations. AFC ref. # 2.2.2.4.(3)

(9) Fire Alarm Drills – CONDUCT drills for supervisory staff in day care and health care facilities. AFC ref. # 2.8.3.2.*
Every Three Months * These articles require written records. (Division C 2.2.1.2.)

(1) All Fire Emergency Systems in High Buildings as defined by Subsection 3.2.6. Of the Building Code – TEST. AFC ref. # 7.2.1.1.*

(2) Sprinkler Alarm Devices – INSPECT to verify that they are free of physical damage. AFC ref. # 6.4.1.1.

(3) Water Based Fire Protection Systems – TEST all system water flow alarm devices. AFC ref. # 6.4.1.1.*

(4) Water Based Fire Protection Systems – TEST all preaction/deluge valves. AFC ref. # 6.4.1.1.*

(5) Water Based Fire Protection Systems – TEST all dry pipe valves/quick-opening devices. AFC ref. # 6.4.1.1.*

(6) Fire Department Connections – INSPECT. AFC ref. # 6.4.1.1.

(7) Main Drain – TEST the main drain of at least one system downstream of a device that has the sole water supply through a backflow preventer and/or pressure reducing valves. AFC ref. # 6.4.1.1.*

(8) Fire Protection Tanks – INSPECT the water level in tanks equipped with supervised water level alarms that are connected to a constantly attended location. AFC ref. # 6.4.1.1.

(9) CLEAN – hoods, grease removal devices, fans and ducts on commercial equipment used in deep fat cooking, charbroiling or similar cooking operations. AFC ref. # 2.6.1.9.*

Every Six Months * These articles require written records. (Division C 2.2.1.2.)

(1) Fire Protection Systems – TEST supervisory control valves. AFC ref. # 6.4.1.1.*

(2) Special Fire Suppression Systems – TEST, INSPECT and MAINTAIN systems as per the appropriate NFPA code. AFC ref. # 6.6.1.1.

(3) Commercial Cooking Equipment Suppression System – INSPECT and Maintain. AFC ref. # 2.6.1.9.*

(4) CLEAN hoods, grease removal devices, fans and ducts on commercial cooking equipment. AFC ref. # 2.6.1.9.*

(5) Emergency Generator Sets – CHECK and clean crankcase, breathers, governors and linkages. AFC ref. # 6.5.1.1.

(6) Fire Alarm Drills – CONDUCT in schools attended by children, three times in both spring and fall terms. AFC ref. # 2.8.3.2.*
(7) Fire Alarm Drill – CONDUCT for supervisory staff in all high-rise buildings.
   
   AFC ref. # 2.8.3.2.*

Annually * These articles require written records. (Division C 2.2.1.2.)

(1) Fire Alarm System – CONDUCT a test of the system by qualified personnel acceptable to the AHJ. AFC ref. # 6.3.1.2.

(2) Voice Communication System – CONDUCT a test of the system by qualified personnel acceptable to the AHJ. AFC ref. # 6.3.1.4.

(3) Water-Based Fire Protection System – INSPECT, TEST, OPERATE and MAINTAIN components of each system as required by the appropriate NFPA or CAN/ULC document referenced in the AFC. AFC ref. # 6.4.1.1.

(4) Fire Pump – CONDUCT a flow test. AFC ref. # 6.4.1.1.

(5) Water-Based Fire Protection System Riser – TEST the main drain of each riser to determine whether there has been a change in the condition of the water supply piping and control valves. AFC ref. # 6.4.1.1.

(6) Hydrants – INSPECT and flow test all private hydrants. AFC ref. # 6.4.1.1.

(7) Standpipe Hose – INSPECT and re-rack. AFC ref. # 6.4.1.1.

(8) Fire Extinguishers – CONDUCT maintenance procedures by qualified personnel acceptable to the AHJ. AFC ref. # 6.2.1.1.

(9) Electromagnetic Door Locks – TEST to ensure they work properly. AFC ref. # 2.7.2.1.*

(10) Sliding Doors – TEST sliding doors that are required to swing on their vertical axis in the direction of egress when pressure is applied. AFC ref. # 2.7.2.1.*

(11) Revolving Doors – TEST safety features. AFC ref. # 2.7.2.1.*

(12) Mechanical Air Conditioning and Ventilation Systems – OPERATE disconnect switches. AFC ref. # 2.6.1.6.

(13) Fire Dampers and Fire Stop Flaps – INSPECT. AFC ref. # 2.2.2.4.

(14) Sprinkler Heads – INSPECT supply of spare sprinkler heads and replace as required. AFC ref. # 6.4.1.1.

(15) Generators – CONDUCT general engine and generator maintenance. CONDUCT engine tune ups including fuel replacement as per CAN/CSA documents. AFC ref. # 6.5.1.1.*

(16) Chimneys, Flues and Flue Pipes – INSPECT. AFC ref. # 2.6.1.4.
(17) Chimney Spark Arrestors – INSPECT and CLEAN. AFC ref. # 2.6.2.3.

(18) Fire Alarm Drills – CONDUCT for supervisory staff in buildings with fire alarm systems. AFC ref. # 2.8.3.2.*

(19) Exhaust and make up air system – TEST and MAINTAIN system initiating devices (i.e. carbon monoxide detector) in enclosed parkades. AFC ref. # 2.6.1.6*

**Every Two Years**

(1) Fire Protection Water Tanks – CHECK steel tanks for corrosion. AFC ref. # 6.4.1.1.

(2) Fire Protection Water Tanks – INSPECT all tanks, connected to non-potable water supply for sediment. AFC ref. # 6.4.1.1.

(3) Emergency generators – CHECK valve adjustments and torque heads for generator engines as per CAN/CSA documents. AFC ref. # 6.5.1.1.

(4) Pressurization Systems – TEST systems in high buildings as defined by Subsection 3.2.6. of the Building Code. AFC ref. # 7.3.2.2.

**Every Three Years**

(1) Dry Pipe Sprinkler Systems – TEST the dry pipe valve with the control valve fully open and the quick-opening device, if provided, in service. AFC ref. # 6.4.1.1.

(2) Emergency Generator – CLEAN and service injector nozzles and check valve adjustments for diesel engine as per CAN/CSA documents. AFC ref. # 6.5.1.1.

**Every Five Years** * These articles require written records. (Division C 2.2.1.2.)

(1) Sprinkler System – TEST extra-high temperature sprinkler heads as per NPFA document. AFC ref. # 6.4.1.1.*

(2) Standpipe System – Flow TEST systems. AFC ref. # 6.4.1.1.*

(3) Standpipe System – Hydrostatically TEST system. AFC ref. # 6.4.1.1.*

(4) Standpipe system – TEST pressure control and pressure reducing valves. AFC ref. # 6.4.1.1.*

(5) Standpipe System – TEST standpipe hose. AFC ref. # 6.4.1.1.*

(6) Water Based Fire Protection Systems – TEST all gauges. AFC ref. # 6.4.1.1.*

(7) Private Hydrant – Flow TEST exposed and underground piping. AFC ref. # 6.4.1.1.*

(8) Fire Extinguishers – Hydrostatically TEST carbon dioxide and water type extinguishers. AFC ref. # 6.2.1.1.*
(9) Water Based Fire Protection System – INSPECT fire protection water tank for corrosion. AFC ref. # 6.4.1.1.

(10) Emergency Generator – CHECK insulation of generator windings as per CAN/CSA documents. AFC ref. # 6.5.1.1.

**Every Six Years**

(1) Fire Extinguishers – REPLACE the extinguishing agent in dry chemical fire extinguishers. AFC ref. # 6.2.1.1.

**Every Twelve Years**

(1) Fire Extinguishers – Hydrostatically TEST dry chemical and vaporizing liquid fire extinguishers. AFC ref. # 6.2.1.1.*

**Every Twenty Years**

(1) Sprinkler System – TEST fast response sprinkler heads. AFC ref. # 6.4.1.1.

**As Required** * These articles require written records. (Division C 2.2.1.2.)

(1) Fire Department Access – ENSURE streets, yards and private roadways that are provided for fire department access are kept clear. AFC ref. # 2.5.1.3.

(2) Dry Pipe Sprinkler Systems – TEST the dry pipe valve with the control valve fully open and the quick-opening device, if provided, in service. AFC ref. # 6.4.1.1.

(3) Spray Booths – CLEAN residue in walls, ceilings, floors, etc. from spray booths. AFC ref. # 5.4.5.2.

(4) Means of Egress – CHECK exterior passageways and exterior exit stairs and ensure they are maintained free of snow, ice and obstructions. AFC ref. # 2.7.1.7.

(5) Smoke Control Equipment – MAINTAIN equipment in a manner that ensures satisfactory operation. AFC ref. # 7.3.1.1.

(6) Sprinkler System – INSPECT auxiliary drains. AFC ref. # 6.4.1.1.

(7) Fire Doors – CHECK doors in fire separations to ensure they are closed. AFC ref. # 2.2.2.4.

(8) Dust Producing Operations – CLEAN any combustible dust-producing operations. AFC ref. # 5.3.1.2.

(9) Dry-powder Finishing Operations – VACUUM, clean and dust any dry-powder finishing operations. AFC ref. # 5.4.5.2.

(10) Industrial Ovens – INSPECT clean and maintain all industrial ovens and associated ductwork. AFC ref. # 5.4.1.2.
(11) CHECK lint traps in laundry equipment. AFC ref. # 2.4.1.4.

NOTE: Whenever a defect or deficiency is discovered in any fire safety equipment as a result of these maintenance requirements, CORRECTIVE ACTION must be taken IMMEDIATELY by the owner or the owner’s authorized agent.

Emergency Planning

The building owner is responsible for preparing a fire safety plan, acceptable to the Fire Marshal, and appointing supervisory staff to carry out the same in all public assembly buildings, care or detention buildings, all buildings equipped with a fire alarm, demolition and construction sites, storage areas, areas where flammable liquids or combustible liquids are stored or handled and areas where hazardous processes or operations occur.

Section 2.8 of the Alberta Fire Code must be referred to in order to get the exact regulations as it applies to your building.

SECTION 2.8
Subsection 2.8.1. General

2.8.1. The requirements of this Section apply to every building containing a Group A or Group B occupancy, and to every building required by the Building Code to have a fire alarm system.

2.8.1.2.(1) Supervisory staff shall be trained in the fire emergency procedures as described in the fire safety plan before they are given any responsibility for fire safety.

A.2.8.1.2.(1) …Except in hospitals and nursing homes, it is not necessary that the supervisory staff be in the building on a continuous basis, but they shall be available to fulfill their obligations as described in the fire safety plan on notification of a fire emergency…

Subsection 2.8.2. Fire Safety Plan

2.8.2.1.(1) A fire safety plan acceptable to the Fire Marshal which includes the following measures shall be prepared in buildings regulated by Article 2.8.1.1.:

(a) the emergency procedures to be used in case of fire including:
   i) sounding the fire alarm,
   ii) notifying the fire department,
   iii) instructing occupants on procedures to be followed when the fire alarm sounds,
   iv) evacuating occupants, including special provisions for persons requiring assistance,
   v) confining, controlling and extinguishing the fire.

(b) the appointment and organization of designated supervisory staff to carry out fire safety duties,

(c) the training of supervisory staff and other occupants in their responsibilities for fire safety,

(d) documents, including diagrams, showing the type, location and operations of the building fire emergency systems,

(e) the holding of fire drills,

(f) the control of fire hazards in the building, and
(g) the inspection and maintenance of building facilities provided for the safety of occupants.

2.8.2.1.(2) The fire safety plan shall be reviewed at intervals not greater than 12 months to ensure that it takes account of change in the use and other characteristics of the building.

2.8.2.2.(1) A sufficient number of supervisory staff shall be on duty in care or detention occupancies to perform the tasks outlined in the fire safety plan.

2.8.2.3.(1) In Group 1, Division 1 assembly occupancies containing more than 60 occupants, there shall be at least one supervisory staff member on duty in the building to perform the tasks outlined in the fire safety plan whenever the building is open.

2.8.2.4.(1) In buildings within the scope of Subsection 3.2.6. of Division B of the Alberta Building Code, the fire safety plan shall, in addition to the requirements of Sentence

2.8.2.1.(1), include:

(a) the training of supervisory staff in the use of the voice communication system,
(b) the procedures for use of elevators,
(c) the action to be taken by supervisory staff in initiating any smoke control or other fire emergency systems installed in a building in the event of fire until the fire department arrives,
(d) the instructions to the supervisory staff and fire department for the operation of the systems referred to in Clause (c), and
(e) the procedures established to facilitate fire department access to the building and fire location within the building.

2.8.2.5.(1) The fire safety plan shall be kept in the building for reference by the fire department, supervisory staff and other personnel.

2.8.2.5.(2) The fire safety plan for a building within the scope of Subsection 3.2.6. of Division B of the Alberta Building Code 2006 shall be kept at the central alarm and control facility.

2.8.2.6.(1) A copy of the fire emergency procedures and other duties for supervisory staff as laid down in the fire safety plan, shall be given to all supervisory staff.

2.8.2.7.(1) At least one copy of the fire emergency procedures shall be prominently posted on each floor area.
Section 11

Appendices

- Fire Safety Inspection Checklist
- Interface Fire Threat Assessment Tool
- Fire Drill Planning
- Fire & Life Safety Education
- Fire Watch Information
- Portable Fire Extinguisher Checklist
- Fire Drill Report
### AHS FIRE SAFETY INSPECTION CHECKLIST

**Date** | **Time** | **Location** | **Facility Administration Contact Info/Phone (Follow-up)**
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#### Part A - DOORS

1. Do the exit doors in the means of egress open in the direction of travel? ABC 3.4.6.11.(1)
   - N/A  Yes  No

2. Are the exits unobstructed? AFC 2.1.7.6.
   - N/A  Yes  No

3. Do the hardware & doors release and open easily? ABC 3.4.6.15.(1)
   - N/A  Yes  No

4. Do the automatic self-closers operate properly? ABC 3.1.8.11.
   - N/A  Yes  No

5. Are fire doors held open with approved devices only? AFC 2.2.2.4.
   - N/A  Yes  No

6. Are all doors in the means of egress and fire separation doors tested monthly to ensure they operate properly? AFC 2.7.2.1.
   - N/A  Yes  No

#### Part B - EXIT LIGHTS

1. Do all exit signs operate continuously and are they adequate in both number and location? ABC 3.4.5.1.(3)(a)(b)(4)
   - N/A  Yes  No

2. Are exit signs connected to or are illuminated by emergency lighting? ABC 3.4.5.1.4(b)
   - N/A  Yes  No

#### Part C - CORRIDORS

1. Are the corridors unobstructed at all times? AFC 2.7.1.6.
   - N/A  Yes  No

2. Are all fire dampers inspected as required? AFC 2.2.2.4.
   - N/A  Yes  No

3. Are holes in fire separations repaired immediately with approved fire resistant materials? AFC 2.2.1.2.(1)
   - N/A  Yes  No

4. Is the glass and assembly in fire separations fire rated? ABC 3.1.8.14.(2)
   - N/A  Yes  No

5. Have smoke barrier doors been provided between smoke control zones and are these doors equipped with self closers and latching devices? ABC 3.1.8.12.(1)
   - N/A  Yes  No

6. Are the openings between double doors weather-stripped to prevent the passage of heat and smoke? ABC 3.3.3.5.(6)
   - N/A  Yes  No

#### Part D - EMERGENCY LIGHTING AND POWER SUPPLY as per Can/CSA 282

1. Is the generator tested on a monthly basis as required by Can/CSA 282?
   - N/A  Yes  No

2. Has the generator been load tested within the past 12 months as required?
   - N/A  Yes  No

3. Has the generator fuel supply been replaced within the past 12 months as required?
   - N/A  Yes  No

4. Are the self-contained emergency lighting units tested monthly and drain tested annually? AFC 6.5.1.6.(2)
   - N/A  Yes  No

5. Is the Fuel level in the Storage tank checked as required?
   - N/A  Yes  No
### Part E - FIRE ALARM & DETECTION SYSTEM

1. Are the fire alarm manual pull stations unobstructed?

2. Is correct fire alarm system zoning indicated on or at the fire alarm annunciators? ABC 3.2.4.8.(2)

3. Has the fire alarm system been inspected and tested in conformance with the standard for “Inspection and Testing of Fire Alarm Systems” (ULC-S536-M)?

4. Are keys required for re-setting the system available to fire department and other supervisory personnel? AFC 2.8.1.3.

5. Is the fire alarm system monitored by an approved agency? ABC 3.2.4.7.(6)

### Part F - SPRINKLERS

1. Are all sprinkler heads free of obstructions and not painted or covered? AFC 6.4.1.1.

2. Are all sprinkler control and zone valves open and marked?

3. Is the main sprinkler control valve electrically supervised so that at trouble signal will sound when the valve is closed? ABC 3.2.4.9.(2)(a)

4. Is sprinkler protection provided to all sections of the building, including additions and renovations?

5. Is the system tested and inspected annually as required? AFC 2.2.1.2.

6. Are all control valves (not located behind locked doors) locked in the open position?

### Part G – STANDPIPES (if installed) As per NFPA 25

1. Are hose nozzles left in the closed position?

2. Are hose cabinets clearly marked and directions for operation clearly visible?

3. Are hose cabinets free of obstructions?

4. Are systems flushed every 5 years and hose re-racked annually ensuring the folds in the hose are in different locations?

5. Are inspections and tests recorded and tags signed?

6. Have the standpipes been flushed and/or pressure tested as required?

### Part H - SPECIAL FIRE SUPPRESSION SYSTEMS

1. Have the fixed extinguishing systems been inspected by qualified personnel every 6 months as required? Has the inspection tag been signed?

2. Are the remote activation devices free of obstructions and visible?

3. Is each system inspected monthly as per the manufacturer’s instructions? Tag signed?

4. Are the fusible links (where used) free of grease and residue?

5. Has a wet chemical portable fire extinguisher (K Class) been provided in conjunction with each wet chemical extinguishing system?

6. Are all discharge heads secure and unobstructed?
## Part I - PORTABLE FIRE EXTINGUISHERS

2. Are all extinguishers maintained on an annual basis by approved agencies? AFC 6.2.1.1.  
3. Are fire extinguishers appropriately classified for the hazard they are protecting? NFPA 10

## Part J - STORAGE, JANITOR AND SERVICE ROOMS

1. Are all doors equipped with functioning automatic self-closing and latching devices?  
2. Are rooms kept neat and tidy?  
3. Are all fire separations in good condition without breaches?  
4. Are storage heights within limitations? (18”/457mm sprinklered 36”/914mm non sprinklered) AFC3.2.2.4.(2)(4)

## Part K - KITCHENS

1. Is all cooking equipment located under a canopy and protected by an approved extinguishing system? ABC 3.3.1.2.(2)  
2. Are all filters, ducts and exhaust fans free of accumulated grease and dust? AFC 2.1.6.9.(3)  
3. Has the entire venting system been cleaned from the cooking surface to the fan assembly by qualified personnel as required? AFC 2.1.6.9.(3)

## Part L - LAUNDRY

1. Are all doors between the laundry room and the rest of the building kept closed and fitted with self-closing and latching devices?  
2. Is all equipment free from accumulations of combustible lint, dust, and cleaned on a regular basis? AFC 2.4.1.4.(1)  
3. Has all the vent piping been inspected on a regular basis for the accumulation of dust and lint?  
4. Are all laundry chute closures functioning as designed?

## Part M – SMOKING

1. Is smoking currently allowed on the property?  
2. Is the smoking area located where it does not contribute to a fire or explosion hazard? AFC 2.4.2  
3. Has AHS Management approved the locations for smoking?  
4. Are proper ashtrays provided in the Smoking Area?  
5. Are metal containers with self closing lids into which ashtrays can be emptied readily available to all areas where smoking is permitted?
**Part N - ELECTRICAL**

1. Is extension cord usage kept to a minimum, used only for temporary power supply and, sized according to the requirements of the appliance? AFC 2.4.7.1.(1)
   - N/A     Yes     No

2. Are patient owned electrical appliances checked for safety by hospital staff prior to use in the hospital?
   - N/A     Yes     No

**Part O - FLAMMABLE AND COMBUSTIBLE LIQUID STORAGE**

1. Are all flammable and combustible liquids stored only in approved storage cabinets or flammable liquid storage rooms? AFC 4.2.6.2.(1)
   - N/A     Yes     No

2. Are flammable liquids decanted only in approved locations?
   - N/A     Yes     No

3. Is proper grounding provided and used at all decanting locations?

4. Are flammable liquid storage rooms free of normal combustible storage, oxidizers and corrosives?

5. Does the flammable liquid storage have the proper wiring, venting, and dike?

**Part P - COMPRESSED GAS STORAGE**

1. Are all compressed gases stored in approved locations?
   - N/A     Yes     No

2. Are all cylinders secured in the upright position? AFC 3.1.2.4.(2)
   - N/A     Yes     No

3. Are oxygen cylinders stored in rooms other than that which is used for flammable gases?
   - N/A     Yes     No

4. Is this storage room free of all combustible storage? ABC 3.3.5.13.(4)(g)
   - N/A     Yes     No

5. Is storage room provided only with explosion-proof wiring?
   - N/A     Yes     No

**NOTE:**
A negative answer to any of the foregoing items indicates an unsatisfactory condition which shall be rectified in conformance with the Alberta Fire Code. In the space below, indicate the steps taken to correct all deficiencies noted in any of the reports. Additional Notes may need to be attached.

**Example:**
*Part R-2 maintenance has been informed to properly store compressed gas cylinders - issue rectified at time of inspection — note: attach photos if issue persists or is difficult to explain.*

**Comments:**

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This report shall be held locally on file for a minimum 2 years and provided to the local Authority Having Jurisdiction upon request. A PDF copy shall be submitted within 15 days by the person conducting the Inspection to AHS Protective Services Fire & Life Safety at: AHSFireSafety@albertahealthservices.ca

For more information: Contact your local Protective Services Office or designated Fire & Life Safety Specialist

Hospital Administrator
Name________________ Signature ____________ Phone________________

Person(s) conducting inspection
Name________________ Signature ____________ Phone________________

Person(s) conducting inspection
Name________________ Signature ____________ Phone________________

Date inspection performed
__________________________________________

Comments:
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Interface Fire Threat Assessment

City: ____________________________

Site: ____________________________

Date: ____________________________

Inspection Completed by:

Print: ______________ Sign: ____________

Please complete the Interface Fire Threat Assessment form each Calendar Year during January – 15 March and forward a copy to AHSFireSafety@albertahealthservices.ca

(Time Frame Subject to Change Due to Environmental Concerns)
SCOPE
The Interface Fire (wildfire, grass fire, etc.) Threat Assessment will use the Firesmart SRD tool to quickly identify prioritized, targeted AHS facilities that may be impacted by this year’s dry weather conditions.

PURPOSE
The purpose of a wildfire threat facility risk assessment is to:

- Identify facilities that have an increased risk of being affected
- Highlight preventative actions that could be taken to reduce the threat
- Update Code Grey and Green Emergency Response Plans (for Extreme and High Risk sites)
- Cue Business Continuity Management (BCM) activities related to Code Grey and Green activations.

TARGET/PRIORITY SITES
Almost all of the communities identified as Firesmart Communities (those at greatest risk) by Alberta Government’s Sustainable Resource Development (SRD) ministry are located in the North of the Province; therefore, the prioritized target facilities for the assessment will be:

1. Rural Acute Care facilities in the North zone
2. Rural Acute Care facilities in other zones

(At this time, we are focusing on acute care sites, but if zones want to use the tool for other facilities, please do so. EDM will assist with other assessments once these prioritized rural acute care sites have been assessed.)

PROCESS
The Firesmart SRD tool, (suitably amended) in Appendix A, will be used as an interim tool for site assessments. Zone EDM Managers will liaise with Community and Rural facility leads to ensure that assessments are undertaken by site facility managers (where they exist) and by Zone Corporate Real Estate staff (where site facility managers do not exist). Emergency / Disaster Management (EDM) will assist with the completion of assessments as required. The focus of this assessment is on the hospital facility as we are focusing on staff and client safety first. All other ‘out-buildings’ would be captured in the last question of the assessment. You may want to use the assessment tool on any large out-buildings for your own review.

On receipt of the completed tool, The Fire Safety Team will liaise with appropriate content experts - AHS facilities, Protective Services, BCM and EMS staff - to provide a series of recommendations that could be taken to reduce the threat.

Since a whole community is at potential risk from wildfire, subsequent evacuation plans will need to identify a recovery location external to the immediate community. Please review your Code Green plans to assure an ‘out of community’ evacuation location is designated in addition to your primary evacuation location (in-community).
DELIVERABLES
For each site, the deliverables will be:

1. A completed Interface Fire Threat Assessment
2. A list of mitigation recommendations

Mitigation recommendations will be provided to the Site and Facility personnel for action. If major costs are associated with a recommendation, please consult your Capital Management Leadership team to find a solution, as there may be alternate more economical measures that could lessen the risk. Some recommendations may be cost prohibitive, so alternate actions may be taken or the risk may be accepted by leadership.

TIMELINES
Due to the impending summer season and the increased likelihood of wildfires, the following timelines are relevant:

- March 15 – Completion of all Interface Fire Threat Assessments (Zone EDM Managers, Facility Managers and/or Corporate Real Estate Managers)
- April 15 – Completion of review and updates to Code Grey and Code Green Plans (for those sites determined to be “Extreme or High Risk). Please send to your Fire & Life Safety Specialist for review once updated. For sites determined to be of “Moderate or Low Risk”, please update your code grey and green plans as soon as you can.

In addition to the threat assessment, Code Grey and Green ERP update, a review of your facility’s Business Continuity Plans (as they relate to Code Grey and Code Green) should follow this work. If your site has not yet started on BCP planning, EDM will work with you in the near future to begin this process.
### APPENDIX A

## INTERFACE FIRE THREAT ASSESSMENT TOOL

<table>
<thead>
<tr>
<th>Important Factors</th>
<th>Characteristics of Material</th>
<th>Point Rating</th>
<th>Your Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>What kind of roofing material do you have?</td>
<td>Metal, clay tile, asphalt shingle, asphalt roof or ULC-rated shakes</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unrated wood shakes</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>How clean is your roof?</td>
<td>No needles, leaves or other combustible materials</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A scattering of needles and leaves</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clogged gutters and extensive leaves</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>What is the building’s exterior made of?</td>
<td>Non-combustible material stucco, metal-siding or brick</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Logs or heavy timbers</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wood, vinyl siding or wood shakes</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Are your eaves and vents closed-up and screened?</td>
<td>Closed eaves and vents with 3 mm of wire mesh</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Closed eaves and vents with no mesh</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Open eaves and vents</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Have you screened-in the underside of balcony, deck, or porches?</td>
<td>Decks, balconies and porches are screened or sheathed with fire-resistant materials</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Decks, balconies and porches are screened or sheathed with combustible materials</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Decks, balconies and porches are not screened or sheathed</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>How fire-resistant are your windows and doors?</td>
<td>Tempered glass in all doors/windows</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
| | Double-pane glass:  
* Small/medium  
* Large | 1 | |
| | Single-pane glass:  
* Small/Medium  
* Large | 2 | |
<p>| Are bulk Oxygen, Diesel and Propane tanks clear of vegetation/combustible materials and at least 10 metres away from your own and other buildings? | More than 10 metres away from any building | 0 | |
| | Less than 10 metres away from any building | 6 | |
| Is your building set back from the edge of a slope? | Building is located at the bottom or lower portion of a hill | 0 | |</p>
<table>
<thead>
<tr>
<th>Important Factors</th>
<th>Characteristics of Material</th>
<th>Point Rating</th>
<th>Your Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building is located on the mid-to upper portion or crest of a hill</td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>What type of forest surrounds your building, and how far away is it?</td>
<td>Deciduous trees (poplar, birch) within 10 metres of buildings</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Deciduous trees 10-30 metres from buildings</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mixed wood (poplar/birch &amp; spruce/pine) within 10 metres of buildings</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mixed wood 10-30 metres from buildings</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conifers (spruce, pine or fir) within 10 metres of buildings</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Separated</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Continuous</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conifers (spruce, pine or fir) within 10-30 metres of buildings</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Separated</td>
<td>30</td>
<td></td>
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<tr>
<td></td>
<td>• Continuous</td>
<td></td>
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<tr>
<td>What kind of surface vegetation grows in the areas around your buildings?</td>
<td>Well-watered lawn or non-combustible landscaping material</td>
<td>0</td>
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<tr>
<td></td>
<td>Uncut wild grass or shrubs</td>
<td>30</td>
<td></td>
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<tr>
<td></td>
<td>• Within 10 metres of buildings</td>
<td>5</td>
<td></td>
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<tr>
<td></td>
<td>• Within 10-30 metres of buildings</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dead and downed woody material within 10 metres of building</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Scattered</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Abundant</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dead and downed woody material within 10-30 metres of building</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Scattered</td>
<td>30</td>
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<tr>
<td></td>
<td>• Abundant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there abundant underbrush and ladder fuels in the surrounding forest?</td>
<td>None within 10-30 metres</td>
<td>0</td>
<td></td>
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<tr>
<td></td>
<td>Scattered within 10-30 metres of buildings</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Abundant within 10-30 metres of buildings</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Are there &quot;out-buildings&quot; on the immediate property?</td>
<td>More than 10 metres away from the facility?</td>
<td>0</td>
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<tr>
<td></td>
<td>Less than 10 metres away from the facility?</td>
<td>3</td>
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<tr>
<td>The wildfire Hazard Level for your building is:</td>
<td></td>
<td></td>
<td>Total Score</td>
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<tr>
<td>□ Low &lt; 24 points □ Moderate 24-33 points</td>
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<tr>
<td>□ High 33-38 points □ Extreme &gt; 38 points</td>
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Other Considerations:

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<tr>
<th>Important Factors</th>
<th>Yes</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td>Does your facility have an updated emergency fire and evacuation plan (that considers a community evacuation)?</td>
<td></td>
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<tr>
<td>Does your facility have an “automated” HVAC system?</td>
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<tr>
<td>Is there someone on site 24/7 that is trained to implement a code grey (external air handling shut down) if needed?</td>
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<tr>
<td>Does your code grey plan specifically outline “who” makes the decision to activate the code and what is this person's role (site administrator, charge nurse, fire department, MOH…)?</td>
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<tr>
<td>If “Yes”, role:</td>
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<tr>
<td>Does your facility have stand-alone or portable CO2 monitors (not attached to the air handling system)?</td>
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<tr>
<td>Do off-site smoking areas have cigarette butt collectors and are they emptied regularly? (Not AHS responsibility, but a fire hazard none the less)</td>
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<tr>
<td>Are overhead power lines clear of vegetation and at least a tree’s length away from nearby forest?</td>
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<tr>
<td>Do you have necessary fire suppression equipment (shovels, rakes, buckets, hoses, etc.) easily accessible?</td>
<td></td>
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<tr>
<td>Do you have an adequate and accessible on-site water supply in case of fire?</td>
<td></td>
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<tr>
<td>Are burn barrels screened and at least 10 metres from combustibles and buildings?</td>
<td></td>
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<tr>
<td>Do you have adequate access and egress to/from your property for emergency response vehicles? (more than one road in and out of site)</td>
<td></td>
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<tr>
<td>Are emergency fire services within a 10 minute drive from your building?</td>
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<tr>
<td>Do you have adequate insurance on your building and property?</td>
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</tbody>
</table>
Fire Drill Planning Checklist

Location________________________ Date ____________ Time_________________

Address ______________________________________________________________

- Monitor Company_______________ System ID ____________ Password ____________
- Fire Dept Dispatch _______________________________________________________
- Contact Unit PCM________________________________________________________
- Contact Receiving Unit PCM ______________________________________________
- Contact Site Administrator_________________________________________________
- Contact Site Electrician/ Alarm Tech________________________________________
- Contact Protective Services Site Manager___________________________________
- Contact Protective Services Dispatch________________________________________
- Contact Switchboard ______________________________________________________
- Facility Fire Marshal____________________ Phone #________________________

NOTES
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
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__________________________________________________________________________
__________________________________________________________________________

Page | 87
FIRE AND LIFE SAFETY EDUCATION PROGRAM

**Topic -** Emergency Preparedness Response Codes + Fire Safety In-service

- EMERGENCY CODES and CODE RESPONSE
- REACT
- EVACUATION PHASES
- RESPONSE TO OTHER AREAS
- EVACUATION DESTINATIONS
- PULL STATION and EXTINGUISHER LOCATIONS
- EXTINGUISHER USE (P.A.S.S.)
- ANNUNCIATOR PANELS
- FIRE DRILLS
- HOME SAFETY - EXTINGUISHERS AND DETECTORS

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</tbody>
</table>

INSTRUCTOR: _______________ DATE: __________ TIME: __________.

LOCATION: _______________ Department: _______________.
Fire Watch Requirements in AHS Facilities

Date: __________ Time Issued: ______ Building______________
Address: ____________________________
Notice Issued to: ____________________ Ph. No. ______________
Signature__________________________

Any Disabled peoples in the building requiring assistance? Yes ___ No ___

FIRE PROTECTION SYSTEM SHUTDOWN

1. Where Fire Protection Systems are out of service, the building shall be provided with an acceptable Fire Watch. This is for all occupants and all areas of the building left unprotected by the shutdown, until the fire Alarm system or sprinkler system has been returned to service.

2. Fire Protection Systems shall be repaired or replaced by an acceptable service company and returned to service as soon as possible. Many acceptable 24 hour service companies are available.

3. AHS Facility Maintenance and the Company monitoring the Fire Alarm MUST be notified when a Fire Protection System is out of service also when it is repaired and returned to service.

4. The Local Fire Department and the Company monitoring the Fire Alarm MUST be notified when a Fire Protection System is out of service.

5. Check all exit doors, magnetic locks on exit doors, and also magnetic hold open devices on separation doors, are not allowed to be operating when a Fire Alarm is out of service.

6. High hazard occupancies may have to keep a Fire Watch AND cease operations until repairs are completed.

7. THIS NOTICE must be visibly posted in the main entrance to the building; as well as notices posted at access points including elevators and stairs, when Protection Systems are out of service for an extended period of time.

FIRE WATCH PROCEDURES

1. The person/s performing the Fire Watch must have a designated supervisor and shall:
   a) Be identified to Maintenance and Protective Services, providing phone numbers for immediate contact.
   b) Be easily identifiable to building occupants by uniform or clothing
   c) Be familiar with the operation of fire and life safety systems in the building.
   d) Be able, and capable, of promptly notifying emergency agencies and occupants of an incident.
   e) Have RADIO contact between each other using established emergency communications protocol.
   f) It is preferable to have a Cell Phone Available.
   g) Maintain a chronological, written log of activities on site for AHS, for the duration of the Fire Watch.

2. The Fire Watch shall be in attendance at all times when Fire Protection Systems are out of service, and have sufficient staff to patrol all areas of the building involved, using the following as a minimum:
   a) Non residential buildings; during normal business open hours; every 30 minutes, other times every 60 minutes. Buildings with sleeping accommodation, including hospitals, Fire Watch must be continuously on site:
      i. Between 2100-0800 hrs. every 15 minutes
      ii. Between 0800-2100 hrs. every 30 minutes

3. The Fire Watch shall have an acceptable method of alerting building occupants, making them and AHS aware of what it will be (EG, Air Horn etc.)

4. All building occupants shall be notified of Fire Protection System shut downs or equipment out of service

REF: Alberta Fire Code sentence 6.1.1.4.(1) Protection during shut down – When any portion of a fire protection system is temporarily shut down, alternative measures shall be taken to ensure that protection is maintained.
PORTABLE FIRE EXTINGUISHERS INSPECTION CHECKLIST (Example)

Unit / Department_________________________ Year__________

<table>
<thead>
<tr>
<th>Extinguisher Location</th>
<th>Extinguisher Type</th>
<th>Serial #</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room ## 3433</td>
<td>2.5 PW</td>
<td>1</td>
<td></td>
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<tr>
<td>Room # 3434</td>
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<td>Room # 3415</td>
<td>10 Th ABC</td>
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<td>Room # 3424</td>
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<tr>
<td>Room ## 3101</td>
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<tr>
<td>Room # 3115</td>
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<tr>
<td>Room # 3125</td>
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<tr>
<td>Kitchen</td>
<td>10 lb ABC</td>
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<td>Room ## 3201</td>
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<td>Room # 3214</td>
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<td>Room ## 3221</td>
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PORTABLE FIRE EXTINGUISHERS INSPECTION CHECKLIST

Unit / Department_________________________ Year________

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<th>Serial #</th>
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<th>Feb</th>
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</tr>
</thead>
</table>
# Fire Drill Report

- **Date**
- **Time**
- **Facility:**
- **Location of Drill:**
- **Follow-up – Person in Charge of Area - Contact Info & Phone #**

## Staff Response
- Satisfactory
- Unsatisfactory
- Evacuation Time (If part of Drill) ________________

## Performance

<table>
<thead>
<tr>
<th>Performance</th>
<th>Timeline</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>R- remove those in immediate danger</td>
<td>Drill Initiated</td>
<td></td>
</tr>
<tr>
<td>E- ensure all doors are closed</td>
<td>Fire Alarm Activated</td>
<td></td>
</tr>
<tr>
<td>A- activate the fire alarm</td>
<td>Staff Reported Fire</td>
<td></td>
</tr>
<tr>
<td>C- call emergency services (dial 911)</td>
<td>Security Arrived</td>
<td></td>
</tr>
<tr>
<td>T- try to extinguisher or control fire</td>
<td>Code Red Overhead Paged</td>
<td></td>
</tr>
</tbody>
</table>

## Fire Extinguisher Use

<table>
<thead>
<tr>
<th>Extinguisher Use</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>P- pull the safety pin</td>
<td></td>
</tr>
<tr>
<td>A- aim at base of the fire</td>
<td></td>
</tr>
<tr>
<td>S- squeeze handle and lever</td>
<td></td>
</tr>
<tr>
<td>S- sweep from side to side</td>
<td></td>
</tr>
</tbody>
</table>

## Persons Discovering the Fire

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did Staff Call Out CODE RED?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doors Closed in immediate area?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corridors Cleared?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clients Accounted For?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistance Sent to? Received From?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relay Chain Used? Proper Technique</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extinguisher brought to the scene?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Questions for Debrief

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location of Pull Stations?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annunciator Panel Checked? Purpose?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location and Use of Fire Extinguishers?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location of Emergency Response Manual?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evacuation Destination Known?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Comments

____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

## Person Performing Drill
- Name ____________________________
- Phone ____________________________

## Attendance Log

<table>
<thead>
<tr>
<th>Print Name</th>
<th>Signature</th>
<th>Print Name</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>16.</td>
<td>2.</td>
<td>17.</td>
</tr>
<tr>
<td>3.</td>
<td>18.</td>
<td>4.</td>
<td>19.</td>
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<td>5.</td>
<td>20.</td>
<td>6.</td>
<td>21.</td>
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<td>7.</td>
<td>22.</td>
<td>8.</td>
<td>23.</td>
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<td>9.</td>
<td>24.</td>
<td>10.</td>
<td>25.</td>
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<tr>
<td>11.</td>
<td>26.</td>
<td>12.</td>
<td>27.</td>
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<tr>
<td>15.</td>
<td>30.</td>
<td></td>
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</table>
# Revision/Update

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision/Update</th>
<th>Type Of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>March, 2011</td>
<td>Fire Marshal Manual Version 2.0</td>
<td>The entire manual has been reviewed and updated Replaces FMM version 1.x</td>
</tr>
<tr>
<td>July, 2011</td>
<td>Fire Marshal Manual Version 2.1</td>
<td>Updated Forms, Contact info and Fire Drill &amp; Inspection Reporting</td>
</tr>
<tr>
<td>September, 2013</td>
<td>Fire Marshal Manual Version 3.0</td>
<td>Updated Forms, Reporting info and fire drill procedures</td>
</tr>
</tbody>
</table>
Acknowledgements

Alberta Health Services - Fire & Life Safety
Alberta Health Services - Emergency Disaster Management
Alberta Emergency Management Agency
Alberta Municipal Affairs - Office of the Chief Fire Administrator
City Of Calgary Fire Rescue Services
City Of Edmonton Fire Rescue Services
City Of St. Albert Fire Services
Strathcona County Emergency Services
Greater Edmonton Healthcare Fire Marshal Association

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