

### Fire Safety Plan

Alumni Court Residence (Building #812, UWO Emergency Response Map Area M) Site and Building Plans (see Section 10 – Appendix 1 & 2)

**Building Owner:** 

King's University College

266 Epworth Avenue

London, Ontario N6A 2M3

Telephone: 519 433-3491

CITY OF LONDON
FIRE PREVENTION DIVISION
FIRE SAFETY PLANS
APPROVED

DATE JAN 20/202

# **Emergency Contact Numbers:**

| Fire Department                   | 911          |
|-----------------------------------|--------------|
| Western Special Constable Service | 519-661-3300 |
| King's Security                   | 519-521-6215 |
| Director of Physical Plant        | 519-709-4755 |
| Dean of Students                  | 519-777-3357 |
| Associate Dean of Students        | 519-282-0876 |

# **Table of Contents**

| Section 1 | Introduction  |
|-----------|---|
| Section 2 | Distribution and Alterations to Fire Safety Plan  |
|           | <ul> <li>2.1 Distribution of The Fire Safety Plan</li> <li>2.2 Alterations to The Fire Safety Plan</li> <li>2.3 Alterations to The Fire Safety Plan before Demolition or Construction</li> <li>2.4 Abbreviations</li> <li>2.5 Definitions</li> </ul>  |
| Section 3 | Audit of Building and Human Resources   |
|           | <ul> <li>3.1 Fire Department Access and Staging Areas</li> <li>3.2 General Building Characteristics</li> <li>3.3 Human Resources</li> <li>3.4 Fire Alarm System Description</li> <li>3.5 Suppression</li> <li>3.6 Shut-off Locations</li> <li>3.7 Elevators</li> <li>3.8 Emergency Power and Lighting</li> <li>3.9 Chemical Storage, SDS, Compressed Gases</li> </ul> |
| Section 4 | Information for Members of Fire Safety Organization (Supervisory staff)   |
|           | <ul> <li>4.1 Appointment and Organization of Supervisory Staff</li> <li>4.2 Incident Manager</li> <li>4.3 Responsibilities of Supervisory Staff in Fire Safety</li> <li>4.4 General Fire Procedures for All Staff</li> <li>4.5 Calling of City of London Fire Department</li> <li>4.6 Documentation</li> </ul>  |
| Section 5 | Control of Fire Hazards   |
| Section 6 | <b>Emergency Procedures for Occupants</b>   |

| Section 7 | Fire Extinguishment, | Control or | Confinement |
|-----------|----------------------|------------|-------------|
|           |                      |            |             |

- 7.1 Fire Extinguishment, Control or Confinement
- 7.2 Suggested Operation of Portable Fire Extinguishers

### **Section 8 Maintenance of Fire Protection Equipment**

- 8.1 Instructions on the Use of Fire Safety Systems and Equipment
- 8.2 Alternate Measures for Temporary Shutdown of Fire Protection Equipment or Systems
- 8.3 Duties of a Fire Watch

### **Section 9** Fire Drills and Training

- 9.1 Fire Drills
- 9.2 Training
- 9.3 Comprehensive Fire Drill Procedures
- 9.4 Fire Alarm Log

# **Section 10** Occupants Requiring Assistance

- 10.1 The Responsibility of the Person Requiring Assistance
- 10.2 Pre-Emergency Preparation for Persons Requiring Assistance

| Section 11        | Campus Map Appendix                                  | I            |
|-------------------|--|--------------|
| <b>Section 12</b> | Floor Plans –Alumni CourtAppendix                    | II           |
| Section 13        | Fire Alarm LogAppendix                               | III          |
| Section 14        | Fire Drill Report FormAppendix                       | Ш            |
| Section 15        | Construction and Demolition Fire Safety PlanAppendix | $\mathbf{V}$ |

### **INTRODUCTION**

Fire safety is an important responsibility for everyone. The consequences of an inadequate fire safety plan are especially serious for anyone involved in a group setting. Building occupants depend on the knowledge, skills and training of the **supervisory staff** in providing and maintaining a fire safe environment.

Procedures contained in a Fire Safety Plan must be designed specifically for each building. In a fire emergency, if followed properly, the procedures should reduce the risk of life safety for all occupants, visitors and staff in the building. To be effective however, a Fire Safety Plan requires the following:

- Commitment by management and supervisory staff to fire safety,
- A willingness by management to promote fire safety,
- Knowledge of the building,
- Knowledge of the fire safety protection equipment,
- A clear understanding of the procedures and how to implement them properly,
- Co-operation of supervisory staff to enhance the fire safety of occupants.

All educational facility owners, managers and administrators should have a copy of the Ontario Fire Code and the <u>Fire Protection and Prevention Act</u>, 1997.

The Fire Code is a provincial regulation made under Part IV of the <u>Fire Protection and Prevention Act</u>, 1997. The Fire Code states that the owner is responsible for carrying out "all provisions of the Code".

Owners, managers, administrators and supervisors of educational facilities should be intimately familiar with their responsibilities under the Fire Code since contravention of any provision can result in a penalty.

As required by Section 2.8 of the Fire Code, the owner of an educational facility is responsible for the preparation of a Fire Safety Plan. In most cases, the Fire Safety Plan can be prepared by an experienced building or maintenance supervisor/manager in conjunction with the manager of the facility. Buildings with elaborate emergency systems may require the assistance of a fire protection consultant. After the plan has been prepared, it must be submitted to the Chief Fire Official for approval. The fire safety plan shall be reviewed as often as necessary, but at least every 12 months, and shall be revised as necessary so that it takes into account changes in the use or other characteristics of the building or premises.

Once approved, the owner is responsible for implementing the Fire Safety Plan and training all staff in their respective duties. It is also the owner's responsibility to ensure that all visitors and staff are informed of what to do in case of fire or when the fire alarm sounds. During a fire emergency, a copy of the approved Fire Safety Plan shall be available for the responding fire department. This may be delivered by hand or, provided in a location approved by the Chief Fire Official, such as a security lock box at the main entrance to the building.

### **DISTRIBUTION AND ALTERATIONS TO THE FIRE SAFETY PLAN**

### 2.1 Distribution of the Fire Safety Plan

A copy of the Plan will be kept at the annunciator panel at the front entrance to Alumni Court and one the Western Fire Safety website.

Fire safety plans are available at https://www.kings.uwo.ca/about-kings/safe-campus/fire-safety/ for all supervisory staff, visitors and building occupants.

### 2.2 Alterations to the Fire Safety Plan

Alterations to the Fire Safety Plan can only be undertaken by the Director of Physical Plant.

Suggested changes can come from anyone within the King's community or from the City of London Fire Department. These suggestions should be made in writing to the Director of Physical Plant.

The Director of Physical Plant will consult with the City of London Fire Department before any changes to the Fire Safety Plan are finalized.

Once changes have been agreed the Director of Physical Plant will modify and distribute copies of the revised Plan as detailed in 2.1.

# 2.3 Alterations to the Fire Safety Plan before Demolition or Construction

Before demolition or construction, including hot surface applications, commences in or on the building or premises, the fire safety plan shall be revised and implemented to incorporate temporary alternative measures for the fire safety of the occupants during the demolition or construction, and temporary procedures to control fire hazards associated with the demolition or construction, including procedures to mitigate risks to adjacent buildings.

The temporary construction and demolition fire safety plan found in Appendix V must be filled out and implemented prior to construction or demolition projects commencing.

#### 2.4 Abbreviations

### **Buildings**

DLH Dante Lenardon Hall
LH Elizabeth Labatt Hall
CCL Cardinal Carter Library

AC Alumni Court
TH Townhouse
FB Faculty Buildir

FB Faculty Building
BH Broughdale Hall
STA St. Thomas Aquinas

#### 2.5 Definitions

**Alarm Signal:** an audible signal transmitted throughout a zone or zones or throughout a building to advise occupants that a fire emergency exists.

**Alert Signal:** an audible signal to advise designated persons of a fire emergency.

**Approved:** means approved by the Chief Fire Official.

**Check:** means visual observation to ensure the device or system is in place and is not obviously damaged or obstructed.

Chief Fire Official: the assistant to the Fire Marshal who is the Municipal Fire Chief or a member or members of the fire department appointed by the Municipal Fire Chief under Subsection 1.1.8. (of the Ontario Fire Code) or a person appointed by the Fire Marshal under Subsection 1.1.8.

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

**Owner:** any person, firm or corporation having control over any portion of the building or property under consideration and includes the persons in the building or property.

**Single Stage Fire Alarm System:** a fire alarm system designed so that activation of any alarm-initiating device (i.e. manual pull station, smoke or heat detector, etc.) will cause a general evacuation alarm signal to sound on all audible signal appliances throughout the building.

**Supervisory Staff:** those occupants of a building who have some delegated responsibility for the fire safety of other occupants under the Fire Safety Plan and may include the fire department where the fire department agrees to accept these responsibilities

**Test:** means the operation of a device or system to ensure that it will perform in accordance with its intended operation or function.

# **AUDIT OF BUILDING AND HUMAN RESOURCES**

### 3.1 Fire Department Access and Staging Areas

Fire Department access to the Alumni Court Residence is on the North side of Epworth Avenue through the parking gates with the designation P1. The entrance to P1 is just East of Meadowdown Drive.

The designated fire route is along the West side of the parking lot and then East to the front of Alumni Court.

The area immediately in front of Alumni Court is a designated fire route and can be used for staging of fire fighting equipment and personnel.

### 3.2 General Building Characteristics

Alumni Court was constructed in 1990 and is of non-combustible construction. The building has three levels which are all used for student residence rooms together with ancillary space for study rooms, storage, lounges, laundry and utility uses.

Enclosed stairwells are located at the East, Centre and West of the building. These lead directly to an outside exit.

The main entrance from the parking lot is into the centre level. There are no other entrances into the building.

#### 3.3 Human Resources

During term there are approximately 120 students in residence in Alumni Court. Supervision of student activities is by Residence Assistants who are available on call. The offices of the Associate Dean of Students, Residence Managers and the Office Coordinator for Residence and Campus Life are part of the Alumni Court Building. King's International Offices are part of the Alumni Court Building, as well.

The normal office hours for non-resident occupants of Alumni Court are:

| Residence Office Hours     | Monday – Friday      | 9:00 a.m. to 4:30 p.m. |
|----------------------------|----------------------|------------------------|
| Assistant Resident Manager | Wednesday – Saturday | 9:00 p.m. to 4:00 a.m. |
| International Office Hours | Monday – Friday      | 9:00 a.m. to 4:30 p.m. |

There is a Residence Information Desk situated at the main entrance of Alumni Court. This is in operation during the following hours:

Security Guard 7 days per week 11:00 p.m. to 7:00 a.m. Student 7 days per week 2:00 p.m. to 11:00 p.m.

Physical Plant staff perform housekeeping and maintenance duties in Alumni Court throughout the week. These staff members will be organized as detailed below in section 4.

### 3.4 Fire Alarm System Description

The fire alarm system is a Mircom Model FA-108KDS. The fire panel is located in the boiler/electrical room at the West end of the basement (lower) level. An annunciator Panel is located on the West wall of the main entrance. The fire panel is monitored 24 hours per day by a 3<sup>rd</sup> party monitoring company who will dispatch London Fire Department in the event of an alarm signal.

The Alumni Court fire alarm system is a single stage fire alarm system and activation of any alarm initiating device (i.e. manual pull station, smoke or heat detector, etc.) will cause a general evacuation alarm signal to sound alarm bells throughout the building.

The general evacuation alarm signal in Alumni Court is a continuous bell.

# 3.5 Suppression

Storage rooms in the basement (lower) level and room AC419 of Alumni court are sprinklered with a wet pipe system. Flow through the sprinkler system will activate the alarm system as described above in section 3.4.

ABC fire extinguishers are mounted throughout the building on all floors.

There is a fire hydrant to the building is at the North end of the parking lot opposite the building main entrance.

#### 3.6 Shut-off Locations

### Natural gas

Shut-off is outside the #210 offices just West of the main building entrance.

### Sprinkler System

Shut off is in the Boiler Room #110 at the West end of the basement (lower) level.

### City Water

Shut-off is in the Boiler Room #110 at the West end of the basement (lower) level.

### Electrical Power

Shut-off is in the electrical room #111 at the West end of the basement (lower) level.

#### 3.7 Elevators

There is one elevator in the building. It is not a firefighter elevator. The elevator should not be used by occupants in the event of a fire emergency.

### 3.8 Emergency power and lighting

Emergency lighting is provided throughout the building and covers all corridors and exits.

# 3.9 Chemical storage, SDS and Compressed Gases

Small quantities of cleaning compounds may be present in janitorial areas. SDS sheets for all chemicals used on the King's Campus are available in room W055 in the Wemple building.

# <u>INFORMATION FOR MEMBERS OF THE FIRE SAFETY ORGANIZATION</u> (Supervisory Staff)

### 4.1 Appointment and Organization of Supervisory Staff

In the context of this Fire Safety Plan, Supervisory Staff are those who have some delegated responsibility for the fire safety of building occupants.

The following positions have this responsibility in the event of a fire or evacuation of Alumni Court:

Associate Dean of Students All Residence Managers All Security personnel All Custodians Director of Physical Plant Maintenance Manager All Maintenance Staff

# 4.2 Incident Manager

Alumni Court is in use 7 days per week and 24 hours per day, therefore the individual who is available to take the role of Incident Manager will change.

In the event of a fire in Alumni Court, the role of Incident Manager will be taken in the following order:

Security Guard Maintenance Manager Director of Physical Plant Associate Dean of Students Residence Manager

The Incident Manager shall:

- Read and understand the approved Fire Safety plan.
- Be in charge of implementing the approved Fire Safety Plan.
- Know where appropriate fire exit routes are located.
- Participate in at least one fire drill every year.

- Know the audible fire alarms.
- Regularly check the building for hazards and problems with fire safety equipment. These are to be reported immediately to the Director of Physical Plant.
- During an evacuation will direct the activities of Supervisory staff as outlined in section 4.3 below.
- During an evacuation will act as first point of contact for the City of London Fire Department, Western Special Constable Service, City of London Police or other agencies.
- Will only silence the alarm in consultation with the Fire Department.

### 4.3 Responsibilities of Supervisory Staff in Fire Safety.

The primary role of supervisory staff during a fire or building evacuation is to assist building occupants in safely leaving the building and assembling at the designated location.

Unless they have been specifically trained, Supervisory Staff are not to take part in fire fighting activities

The Alumni Court alarm system is monitored by a 3<sup>rd</sup> party monitoring company. After calling the City of London Fire Department, the 3<sup>rd</sup> party monitoring company will notify King's Security and Western Special Constable Service of the alarm. Security will notify other Physical Plant personnel by radio/cell phone of the nature and location of the incident. The alarm may not be silenced until authorized to do so by the Fire Department.

Actions to be taken by Supervisory Staff under the direction of the Incident Manager are:

- Report to the Incident Manager at the building.
- Do not enter building.
- Assist the building occupants to evacuate the building.
- Keep people away from the building.
- Make sure the fire route to the building is clear.
- Keep people away from any fire fighting activities and/or equipment.
- Move those evacuated from the building to the meeting point. The meeting point for Broughdale Hall is parking lot P6.
- Assist the Incident Manager in doing a head count of those evacuated from the building. Report any missing or unaccounted persons to the Incident Manager.
- Following a head count at the meeting point, move those evacuated indoors to a safe location, such as Wemple Cafeteria.

- Call for first aid assistance for those in need.
- Ensure that no-one re-enters the building until the City of London Fire Department have said it is safe to do so.

#### 4.4 General Fire Procedures for all Staff

Any staff members in the building at the time of the alarm should evacuate immediately and proceed to the meeting area. The meeting area for Alumni Court is the South East corner of the parking lot P1, adjacent to the crosswalk.

Any staff members in other buildings should remain where they are unless specifically requested to provide assistance.

Any staff members who are trained in first aid should report to the Incident Manager at the meeting point and provide first aid as required.

### 4.5 Calling the City of London Fire Department

The alarm panel at Alumni Court is monitored by a 3<sup>rd</sup> party monitoring company. The 3<sup>rd</sup> party monitoring company will contact the City of London Fire Department. Anyone hearing the alarm should contact Security immediately.

#### 4.6 Documentation

All fire alarms and fire alarm tests must be documented even if the alarm proves to be false.

It is the responsibility of Security to ensure that the fire alarm log (see Appendix IV) is completely filled out.

Once the Fire Alarm Log has been completed, Security will pass it to the Director of Physical Plant for signature.

Completed Fire Alarm Logs will be kept in a binder in the Security Office, KC104.

### **CONTROL OF FIRE HAZARDS**

The building will be checked daily for fire hazards. These checks will be conducted by the Supervisory Staff listed in Section 4.1.

It is the responsibility of all building occupants to promptly report fire safety problems and hazards.

The following fire hazards will be checked

- Housekeeping standard at a high level of cleanliness.
- Combustible material to be stored in appropriate areas.
- Fire doors not propped open.
- Defective electrical wiring and appliances.
- This is a non-smoking building and will be strictly enforced.
- Exhaust hoods clean.
- Fire exits and escape routes unobstructed.
- Exterior exits clear of snow accumulation, when necessary.
- Fire safety equipment accessible and unobstructed.

### **EMERGENCY PROCEDURES FOR OCCUPANTS**

Emergency procedures signage will be affixed to the wall at all fire alarm pull stations and at all elevators.

It is mandatory to evacuate the building whenever the fire alarm (continuous bell) sounds. Do not use elevators.

Upon discovery of a fire:

- Leave the fire area immediately and close all doors.
- Activate the fire alarm at the nearest manual pull station.
- Call Fire Department 911.
- Leave the building via the nearest exit.
- Do not use elevator.

Upon hearing the fire alarm:

- Leave the building via the nearest exit.
- Close all doors behind you.
- Do not use elevator.

It is important that you remain calm during an evacuation. If you encounter smoke use an alternate exit.

# FIRE EXTINGUISHMENT, CONTROL OR CONFINEMENT

### 7.1 Fire Extinguishment, Control or Confinement

In the event a small fire cannot be extinguished with the use of a portable fire extinguisher or the smoke presents a hazard for the operator, the door to the area should be closed to confine and contain the fire. Leave the fire area. Ensure that the Fire Alarm System has been activated and that the London Fire Department has been notified prior to an attempt to extinguish the fire. Only those persons who are trained and familiar with extinguisher operation may attempt to fight the fire.

### 7.2 Suggested Operation of Portable Fire Extinguishers

Remember the acronym P.A.S.S.

- P Pull the safety pin
- A Aim the nozzle
- S Squeeze the trigger handle
- S Sweep from side to side (watch for fire restarting)

Never re-hang extinguishers after use. Ensure they are properly recharged by a person that is qualified to service portable fire extinguishers and that a replacement extinguisher is provided.

Keep extinguishers in a visible area without obstructions around them.

# MAINTENANCE OF FIRE PROTECTION EQUIPMENT

# 8.1 Fire Safety Systems and Equipment

<u>General</u> <u>Responsibility</u>

| Doors in fire separations shall be <b>checked</b> as frequently as necessary to ensure that they remain closed.  | Security |
|--|----------|
| Exit signs shall be clearly visible and maintained in a clean and legible condition.                             | Security |
| Internally illuminated exit signs shall be kept clearly illuminated at all times, when the building is occupied. | Security |

# **Monthly**

| Doors in fire separations shall be <b>inspected</b> monthly for | Maintenance |
|---|-------------|
| proper operation.   |             |

# **Yearly**

| Fire dampers and fire-stop flaps shall be <b>inspected</b> annually, or based on a schedule via contractor acceptable to the Chief Fire Official.                    | Contractor |
|--|------------|
| Every chimney, flue and flue pipe shall be <b>inspected</b> annually and cleaned as often as necessary to keep them free from accumulations of combustible deposits. | Contractor |
| Disconnect switches for mechanical air-conditioning and ventilating systems shall be <b>inspected</b> annually to establish that the system can be shut down.        | Contractor |

# **Portable Fire Extinguishers**

<u>Responsibility</u>

| Each portable extinguisher shall have a tag securely attached to it showing the maintenance or recharge date, the servicing agency and the signature of the person who performed the service.                    | Contractor |
|--|------------|
| A permanent record containing the maintenance date, the examiner's name and a description of any work or hydrostatic <b>testing</b> carried out shall be prepared and maintained for each portable extinguisher. | Contractor |
| All extinguishers shall be recharged after use or as indicated by an inspection or when performing maintenance. When recharging is performed, the recommendations of the manufacturer shall be followed.         | Contractor |

# **Monthly**

| Portable extinguishers shall be <b>inspected</b> monthly. | Maintenance |
|---|-------------|
|   |             |

# **Yearly**

| Extinguishers shall be subject to maintenance not more than one year apart or when specifically indicated by an inspection.  | Contractor |
|--|------------|
| Maintenance procedures shall include a thorough examination of the three basic elements of an extinguisher:  a) mechanical parts b) extinguishing agent c) expelling means | Contractor |

<u>5 Years</u> <u>Responsibility</u>

|   | Contractor |
|---|------------|
| Every five years, pressurized water and carbon dioxide fire |            |
| extinguishers shall be hydrostatically <b>tested</b> .      |            |

# 6 Years

| Every six years, stored pressure extinguishers that require a 12   | Contractor |
|--|------------|
| year hydrostatic <b>test</b> shall be emptied and subjected to the |            |
| applicable maintenance procedures.                                 |            |
|  |            |

### Fire Alarm

# General

| Fire alarm and voice communication system components shall be kept unobstructed.             | Security |
|--|----------|
| Fire alarm shall be kept unobstructed.   | Security |
| Fire alarm system power supply disconnect switches shall be locked on in an approved manner. | Security |

# **Daily**

| The following daily checks shall be conducted if a fault is established, appropriate corrective action shall be taken.  | Security |
|---|----------|
| <ul><li>a) Check the principle and remote trouble lights for trouble indication;</li><li>b) Inspection of the AC power-on light shall be done to ensure its normal operation.</li></ul> |          |

**Monthly** Responsibility

| Every n  | Maintenance  |  |  |  |  |  |  |
|----------|--|--|--|--|--|--|--|
| backup   | backup power and if a fault is established, appropriate corrective |  |  |  |  |  |  |
| action s | action shall be taken:   |  |  |  |  |  |  |
|          |  |  |  |  |  |  |  |
| a)       | one manual fire alarm initiating device shall be                   |  |  |  |  |  |  |
|          | operated, on a rotating basis, and shall initiate an alarm         |  |  |  |  |  |  |
|          | condition;   |  |  |  |  |  |  |
| b)       | function of all signal devices shall be ensured;                   |  |  |  |  |  |  |
| c)       | the annunciator panel shall be checked to ensure                   |  |  |  |  |  |  |
|          | correct annunciation;  |  |  |  |  |  |  |
| d)       | d) intended function of the audible and visual trouble             |  |  |  |  |  |  |
|          | signals shall be ensured;  |  |  |  |  |  |  |
| e)       | fire alarm batteries shall be checked to ensure that:              |  |  |  |  |  |  |
|          |  |  |  |  |  |  |  |
|          | i) terminals are clean and lubricated where                        |  |  |  |  |  |  |
|          | necessary;   |  |  |  |  |  |  |
|          | ii) terminal clamps are clean and tight;                           |  |  |  |  |  |  |
|          | iii) electrolyte level and specific gravity, where                 |  |  |  |  |  |  |
|          | applicable, meet manufacturer's specifications.                    |  |  |  |  |  |  |
|          |  |  |  |  |  |  |  |

# **Yearly**

| Yearly <b>tests</b> conducted by a certified alarm contractor as       | Contractor |
|--|------------|
| required by The Ontario Fire Code, Section 1.1.5.3. <b>Tests</b> shall |            |
| be in conformance with CAN/ULC S536, "Inspection and                   |            |
| Testing of Fire Alarm Systems".  |            |
|  |            |

# **Standpipe Systems**

**Monthly** Responsibility

| Hose cabinets shall be <b>inspected</b> monthly to ensure that the | Maintenance |
|--|-------------|
| hose and equipment are in the proper position and appear to        |             |
| be operable.   |             |
|  |             |

# **Yearly**

| Plugs or caps on Fire Department connections shall be removed annually and the threads <b>inspected</b> for wear, rust or obstruction. Re-secure plugs or caps, wrench tight. | Contractor |
|---|------------|
| If plugs or caps are missing, examine the Fire Department connections for obstructions, back flush if necessary, and replace plugs or caps.                                   | Contractor |
| Hose valves shall be <b>inspected</b> annually to ensure that they are tight and that there is no water leakage into the hose.  | Contractor |
| Standpipe hose shall be removed and re-racked annually and after use. Any worn gaskets in the couplings, at the hose valve and at the nozzle shall be replaced.               | Contractor |

# **Smoke/Carbon Monoxide Alarms**

# **Yearly**

| Carbon monoxide alarms shall be maintained in operating             | Maintenance |
|---|-------------|
| condition. (For example, ensuring cleaning of alarm, properly       |             |
| installed, installation of fresh batteries and testing of alarm     |             |
| function.)  |             |
| Smoke alarms shall be maintained in operating condition. (For       | Maintenance |
| example, ensuring cleaning of alarm and smoke chamber,              |             |
| proper installation, installation of fresh batteries and testing of |             |
| alarm function.)  |             |

# **Emergency Lighting System**

**<u>Daily</u>** Responsibility

| Check pilot lights for indication of proper operation. | Security |  |
|--|----------|--|
|  |          |  |

# **Monthly**

| Batteries shall be <b>inspected</b> monthly and maintained as per manufacturer's specifications.  | Maintenance |
|---|-------------|
| Ensure that battery surface is clean and dry.   | Maintenance |
| Ensure that terminal connections are clean, free of corrosion and lubricated.   | Maintenance |
| Ensure that the terminal clamps are clean and tight as per manufacturer's specifications.   | Maintenance |
| Emergency lighting equipment shall be <b>tested</b> monthly to ensure that the emergency lighting will function upon failure of the primary power supply. | Maintenance |

# **Yearly**

| Emergency lighting equipment shall be <b>tested</b> annually to ensure that the units will provide emergency lighting for a duration equal to the design criteria under simulated power failure conditions.         | Contractor |
|---|------------|
| After completion, the charging conditions for voltage and current and the recovery period will be <b>tested</b> annually to ensure that he charging system is in accordance with the manufacturer's specifications. | Contractor |

# 8.2 Alternate Measures for Temporary Shutdown of Fire Protection Equipment or System.

Occasionally Fire Protection Systems or Equipment must be shutdown or is not operational. Alternative measures may also be requested by the Fire Department. In this event the following steps are to be taken:

- Notify the Director of Physical Plant of the impairment.
- The Director of Physical Plant is responsible for advising building occupants of the impairment.
- The Director of Physical Plant is responsible for arranging alternative measures. These will usually include a Fire Watch. The Fire Watch will be situated in the building and will have a means of alerting occupants of a problem and also a means of communicating to summon help.
- Where the impairment involves an unoccupied building the Fire Watch may be limited to an hourly inspection.
- Notify the fire department non-emergency number 519-661-5615
- Once the system is fully operational the Director of Physical Plant is to be notified and advise fire department.

### 8.3 Duties of a Fire Watch

- Notify building occupants of the impairment by use of King's College service disruption notice.
- Notify building occupants of the alternative warning and notification system e.g. use of bull horn and siren.
- Inspect all vacant rooms in the building at least once every hour. It is not necessary to inspect occupied rooms but the occupants must be instructed how to report a problem.
- The Fire Watch must receive instruction on their duties under this plan.
- The Fire Watch will keep a log of actions taken and rooms inspected.

### FIRE DRILLS AND TRAINING

### Fire Drill

### 9.1 Purpose

The purpose of the fire drill is to ensure that the staff and building occupants are fully familiar with emergency evacuation procedures as detailed in the Fire Safety Plan. This will result in an orderly evacuation with efficient use of exit facilities in the event of a fire emergency. A fire drill is a tool that can be used to train employees who have supervisory duties, expose building occupants to fire evacuation procedures, identify concerns that affect the occupants' ability to evacuate, and increase the general fire safety awareness among building occupants.

### 9.2 Fire Drill Planning

The conducting of fire evacuation drills, in residence buildings such as Alumni Court, is arranged and supervised by the Residence Management in coordination with the Physical Plant department, UWO Fire safety and King's Security. Fire drills will be held at least annually in this building to ensure efficient execution of the Emergency Procedures. Fire drill records are required to be retained for a period of one year.

# 9.3 Comprehensive Fire Drill Procedures

- Contact the 3<sup>rd</sup> party monitoring company and the London Fire Department and notify them of the date and time of the fire drill.
- Activate the Fire Alarm System (ie: pull manual pull station).
- Verify that emergency systems operate as required:
  - o fire alarm pull station and audible fire alarm devices
  - o annunciator indicated the correct fire alarm zone of alarm origin
  - o Magnetic locks operated as intended upon fire alarm system activation
  - o Fire alarm system reset correctly
- Supervisory staff will carry out their assigned duties:
  - o Report to the Incident Manager at the building.
  - The Incident Manager will designate an individual to go to Epworth Avenue to direct the City of London Fire Department to the building.
  - Assist the building occupants to evacuate the building.
  - o Keep people away from the building.
  - o Make sure the fire route to the building is clear.

- Move those evacuated from the building to the meeting point. The meeting point for Alumni Court is the South East corner of the parking lot P1, adjacent to the crosswalk.
- Ensure that no-one re-enters the building until the incident Manager is indicates the Fire Evacuation Drill is complete.
- Determine degree of participation of the building occupants:
  - o Occupants immediately leave building via the nearest exit.
  - Occupants closed and locked doors upon leaving.
  - Occupants moved to a safe area away from the building. The meeting point for Alumni Court is the South East corner of the parking lot P1, adjacent to the crosswalk.
  - o Occupants did not attempt to re-enter building until instructed.
- Document outcomes, concerns, and corrective measures using the King's College Fire Drill Report Form-Appendix IIII)

### 9.4 Training

The Associate Dean of Students will arrange for training of all Residence Staff on their duties under the Fire Safety Plan. This training will take place annually and will be documented.

The Director of Physical Plant will arrange for training of all Custodians and Maintenance Staff on their duties under the Fire Safety Plan. This training will take place annually and will be documented.

The Security Supervisor will train all Security Staff on their duties under the Fire Safety Plan. This training will take place annually and will be documented.

The Maintenance Coordinator or the Building Services Technician will take part in all training sessions. In particular they will assist in training other Supervisory Staff on the components of the Fire Safety System and on the method of resetting the system after an alarm.

### OCCUPANTS REQUIRING ASSISTANCE

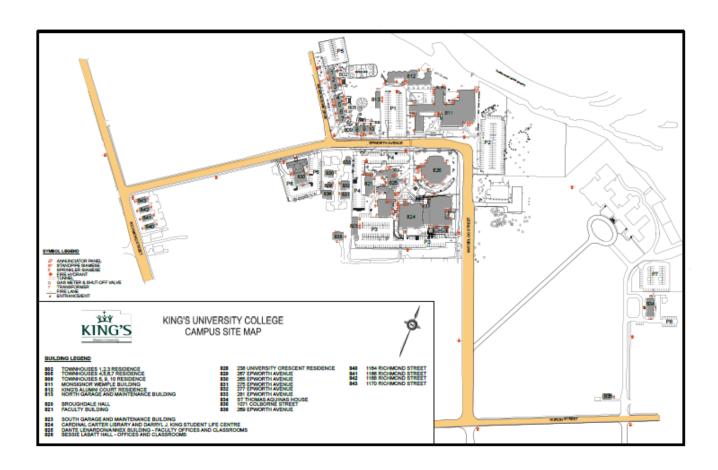
## 10.1 The Responsibility of the Person Requiring Assistance

In an emergency situation, it is critical that you are clear about your needs during an evacuation and that these needs have been conveyed to your instructors, other staff, Human Resources (if you are a staff or faculty member). As well during weekends and after hours, you should notify security of your location. If you need assistance in an emergency call 911.

### 10.2 Pre-Emergency Preparation for Persons Requiring Assistance

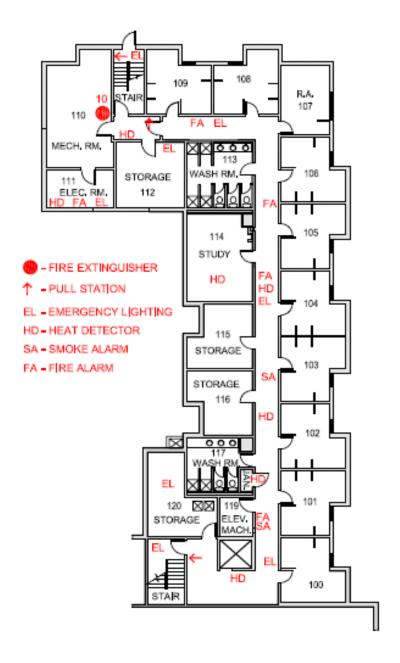
- Be familiar with the buildings, exits, and location of telephones.
- Speak to instructors and other staff about your evacuation needs
- Know the safest method of assistance you may require
- Should you have communication difficulties and if you use a wheelchair or scooter, place a sign on your chair with instructions
- Carry a cell phone, loud whistle or similar device you can operate. (Note: Due to the structure of the buildings, some cell phones do not work in some locations of the building). Know the Security phone number (519 521-6215) in the event you need to alert people of your location if you become trapped. In a life-threatening situation, if you have any problems contacting Security, call 911 and advise them of the situation and your exact location
- While attending class, position yourself near a doorway for easier exit. Do not block the doorway

# **Appendix I-Campus Map**

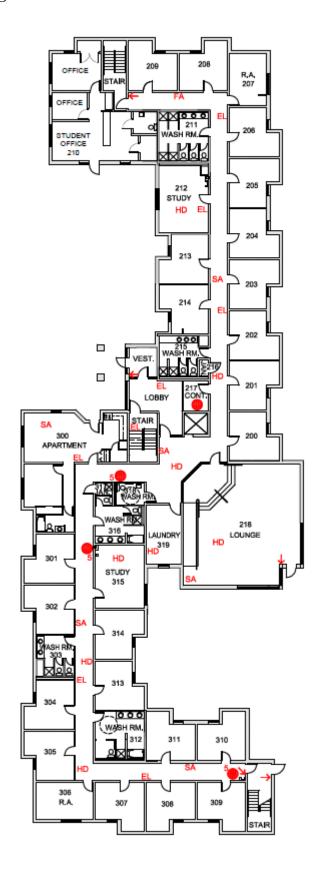


# Appendix II- Floor Plans -Alumni Court

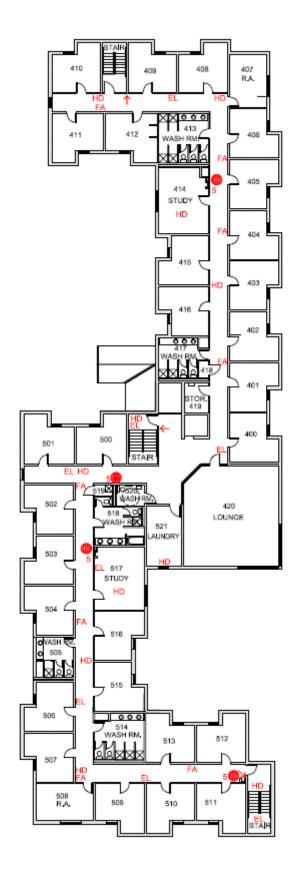
# King's Alumni Court Residence -First Floor



King's Alumni Court Residence-Second Floor



King's Alumni Court Residence -Third Floor



# **Appendix III- Fire Alarm Log**



# **FIRE ALARM LOG**

| Month:                         | Day:            |                | Year:           |         | Time: |
|--------------------------------|-----------------|----------------|-----------------|---------|-------|
| On duty receptionist / securit | y guard:        |                |                 |         |       |
| Fire department called:        | YES             | <i>NO</i> □ By | whom:           |         |       |
| Building location:             |                 |                |                 |         |       |
| Specific location:             |                 |                |                 |         |       |
| Cause of alarm:                | ACTUAL FIRE     |                | FALS            | E ALARM |       |
| Evacuation completed succes    | sfully:         | YES            | NO 🗆            |         |       |
| List below Physical Plant emp  | loyees respondi | ng to alarm:   |                 |         |       |
|                                |                 |                |                 |         |       |
| Problems encountered:          | YES 🗌           | NO 🗆           | If YES, list be | low:    |       |
|                                |                 |                |                 |         |       |
|                                |                 |                |                 |         |       |
| Alarm reset by:                |                 |                | Authorized by:  |         |       |
| If not, list actions taken:    |                 |                |                 |         |       |
| Additional comments:           |                 |                |                 |         |       |
|                                |                 |                |                 |         |       |
|                                |                 |                |                 |         |       |
| Report filed by (PRINT):       |                 |                | Signature:      |         |       |
| Director of Physical Plant (PR | INT):           |                | Signature:      |         |       |
|                                |                 |                |                 |         |       |

# **Appendix IIII- Fire Drill Report Form**



Western University · Canada King's College Fire Drill Report

| Type Of Fire Drill:   |                       |             | Date of F                       | ire Drill:        |       |     |     |    |
|---|-----------------------|-------------|---------------------------------|-------------------|-------|-----|-----|----|
| Building Name:  |                       |             | Building Number/Identification: |                   |       |     |     |    |
| Time Started:   | Ended:                |             | Flow Tim                        | ie:               | Tota  | l:  |     |    |
| Evaluation  |                       |             |                                 |                   |       |     | Yes | No |
| Did the occupants in  | mmediately begin ev   | acuating w  | hen the bu                      | uilding alarm sou | unded | ?   |     |    |
| Did the supervisory staff encounter handicapped person(s) and provide assistance? |                       |             |                                 |                   |       |     |     |    |
| Were doors closed   | to contain smoke and  | d fire?     |                                 |                   |       |     |     |    |
| Did all occupants ev  | acuate the building?  | )           |                                 |                   |       |     |     |    |
| Did all occupants re  | main outside the bui  | lding to wa | it for furth                    | ner instruction b | efore |     |     |    |
| reentering?   |                       |             |                                 |                   |       |     |     |    |
| Are supervisory staf  | f knowledgeable in t  | heir assign | ed duties?                      |                   |       |     |     |    |
| Was the drill condu   | cted in an orderly ma | anner?      |                                 |                   |       |     |     |    |
| Drill Rating:   | Excellent             | Good        |                                 | Poor              |       | Fai | led |    |
| Additional Commer   | nts:                  |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
|   |                       |             |                                 |                   |       |     |     |    |
| Date:   |                       |             | Complete                        | ed By:            |       |     |     |    |

# **Appendix V- Construction and Demolition Fire Safety Plan**



Fire Safety Plan

| # |  |  |
|---|--|--|
|   | Building Name:                         |  |
|   | <b>Building Identification Number:</b> |  |
|   | Building Address:                      |  |
|   |  |  |

**Building Owner:** King's University College

266 Epworth Avenue

London, Ontario N6A 2M3 Telephone: 519-433-3491

### **Emergency Contact Numbers:**

| Fire Department                   | 911          |
|-----------------------------------|--------------|
| Fire Department Non-Emergency     | 519-661-5615 |
| Western Special Constable Service | 519-661-3300 |
| King's Security                   | 519-521-6215 |
| Director of Physical Plant        | 519-709-4755 |

# **Purpose:**

Before demolition or construction, including hot surface applications, commences in or on the building or premises, the fire safety plan shall be revised and implemented to incorporate:

- (a) temporary alternative measures for the fire safety of the occupants during the demolition or construction, and
- (b) temporary procedures to control fire hazards associated with the demolition or construction, including procedures to mitigate risks to adjacent buildings.

#### **Instructions:**

Fill out all tables contained in this document prior to construction or demolition (pages 1, 2, 3, 4, 5, 8, 9, 10, 11). Any parts of this plan which do not apply may be marked NA-not applicable

### **Contact Names and Phone Numbers:**

| General Contractor:            |  |
|--------------------------------|--|
| Telephone:                     |  |
|                                |  |
| Project Manager:               |  |
| Telephone:                     |  |
|                                |  |
| Site Supervisor:               |  |
| <b>Telephone:</b>              |  |
|                                |  |
| King's College Representative: |  |
| Telephone:                     |  |

# **Project Summary:**

| Describe the proposed project including: nature of work (demolition, alteration and/or construction), changes occurring to an existing building, number of project phases, project timeline, hours of work, number of workers, expected start/end date etc. Indicate where a copy of this fire safety plan will be kept on- |
|---|
| site.   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |

# Fire Hazards:

| Identify potential fire hazards in and around the job site (e.g. propane, acetylene, flammable liquids, hot surface applications etc). Describe measures for |
|--|
| controlling the fire hazards.  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

### **Fire Emergency Procedures for Occupants:**

Emergency procedures signage will be affixed to the wall at all fire alarm pull stations and at all elevators.

It is mandatory to evacuate the building whenever the fire alarm (continuous bell) sounds. Do not use elevators.

### Upon discovery of a fire:

- Leave the fire area immediately and close all doors.
- Activate the fire alarm at the nearest manual pull station.
- Call Fire Department 911.
- Leave the building via the nearest exit.
- Do not use elevator.
- Call King's College Security-519 521 6215

### Upon hearing the fire alarm:

- Leave the building via the nearest exit, proceed to meeting area.
- Close all doors behind you.
- Do not use elevator.
- Do not re-enter building until instructed to do so

It is important that you remain calm during an evacuation. If you encounter smoke use an alternate exit.

| Meeting Area Location: |  |
|------------------------|--|
|------------------------|--|

## Fire Prevention and Preparedness:

- Be alert around electrical equipment. When electrical equipment is not working properly or if it gives off an unusual odor often the first sign of a problem that could cause a fire disconnect the equipment and the notify site supervisor.
- Promptly replace any electrical cord that is cracked or has a broken connection.
- When using extension cords, protect them from damage: do not put them across doorways or any place where they will be stepped on or chafed. Check the amperage load specified by the manufacturer or the "listing laboratory", and do not exceed it.

- Keep all heat-producing appliances away from the wall and away from anything that might burn. Follow manufacturer's specifications for clearances on certified heating equipment.
- Housekeeping standards to be kept at a high level of cleanliness. Keep storage areas, stairway landings and other out-of-way locations free of waste paper, cardboard, dirty rags and other material that could fuel a fire.
- Combustible material to be stored in appropriate areas. Move accumulations of construction refuse to a safe location.
- Report fire hazards immediately to the site supervisor.
- Fire doors shall not be propped open. Fire exits and escape routes shall be unobstructed.
- This is a non-smoking campus and will be strictly enforced.
- Fire safety equipment shall be accessible and unobstructed. Know the location and types of fire extinguishers at the job site.
- Know the location of two exits closest to your work area.
- Know where the nearest fire alarm pull station is located.
- Know the emergency procedures outlined in this fire safety plan.

### **Portable Fire Extinguishers:**

Portable fire extinguishers shall be conspicuously located where they are readily accessible and immediately available in the event of fire.

- A fire extinguisher shall be located within 30 feet of:
  - a) where hot work operations are carried out
  - b) the storage or usage of flammable liquid or gases
  - c) storage of combustibles
  - d) fuel-fired equipment is used

# **Suggested Operation of Portable Fire Extinguishers:**

Remember the acronym P.A.S.S.

- P Pull the safety pin
- A Aim the nozzle
- S Squeeze the trigger handle
- S Sweep from side to side (watch for fire restarting)

Never re-hang extinguishers after use. Ensure they are properly recharged by a person that is qualified to service portable fire extinguishers and that a replacement extinguisher is provided.

Keep extinguishers in a visible area without obstructions around them.

### **Protection of Adjacent Facilities:**

Protection shall be provided for adjacent buildings and facilities that would be exposed to fire originating from areas undergoing construction, alteration or demolition operations.

| dicate the methods and materials that will be used to protect adjacent buildings d facilities from fire. |
|--|
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

# **Means of Egress:**

Means of egress (access to exit and exit) must be maintained of all occupied areas affected during construction, alteration or demolition.

| When this is not possible, describe an alternative plan; e.g. use of alternative |
|--|
| exit.  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

# **Fire Protection Systems:**

The fire protection system(s) in the building shall remain operational throughout the construction, alteration or demolition operation.

| When this is not possible, describe which parts or zo   | nes of the fire alarm or    |  |  |
|---|-----------------------------|--|--|
| sprinkler system is to be temporarily shut down.  |                             |  |  |
|   |                             |  |  |
|   |                             |  |  |
|   |                             |  |  |
|   |                             |  |  |
|   |                             |  |  |
|   |                             |  |  |
|   |                             |  |  |
| The following alternative measures shall be taken to  | ensure protection is        |  |  |
| The following alternative incapates shall be taken to   | ensure protection is        |  |  |
| maintained.   | •                           |  |  |
| maintained.   | -                           |  |  |
| maintained.  Measure:   | Indicate yes if applicable: |  |  |
| maintained.  Measure: fire watch shall be established   | -                           |  |  |
| maintained.  Measure:  fire watch shall be established emergency hose lines shall be in place   | -                           |  |  |
| maintained.  Measure: fire watch shall be established   | -                           |  |  |
| maintained.  Measure:  fire watch shall be established emergency hose lines shall be in place   | -                           |  |  |
| maintained.  Measure:  fire watch shall be established emergency hose lines shall be in place portable fire extinguishers shall be in place   | -                           |  |  |
| maintained.  Measure:  fire watch shall be established emergency hose lines shall be in place portable fire extinguishers shall be in place temporary standpipe system shall be in place with   | -                           |  |  |
| maintained.  Measure:  fire watch shall be established emergency hose lines shall be in place portable fire extinguishers shall be in place temporary standpipe system shall be in place with fire department connections   | -                           |  |  |
| maintained.  Measure:  fire watch shall be established emergency hose lines shall be in place portable fire extinguishers shall be in place temporary standpipe system shall be in place with fire department connections temporary fire department connection shall be | -                           |  |  |

# **Preventing False Alarms:**

Activation of the fire alarm system during construction is typically caused by welding fumes, painting fumes, drywall dust and damage to fire alarm wiring and devices.

| Describe how false fire alarms can be prevented at the work site. For example:      |
|---|
| Smoke detectors in the work area will be bagged to keep dust from entering the      |
| device. Bags will be removed at the end of each shift. Fire watch will be in effect |
| while detectors are bagged.   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |
|   |

#### **Fire Watch Procedures:**

In the event of a temporary shut-down of the fire alarm system or where activities require the interruption of any fire detection, suppression or alarm system component, the site supervisor will:

- Assign a Fire Watch person(s).
- Notify the fire department, fire alarm monitoring company, and King's College Security that the fire protection systems are off-line and again when normal operation resumes.
- Notify all occupants in the building of which fire protection systems are out of order and that a Fire Watch has been instituted until the system is back in service by posting King's College service disruption notice and signage notices at entrances, throughout the common areas of the building, stairwells and elevators.

#### **Duties of Fire Watch Personnel:**

- Notify building occupants of the alternative warning and notification system; e.g. use of bull horn and siren.
- Inspect all vacant rooms in the building at least once every hour. It is not necessary to inspect occupied rooms but the occupants must be instructed how to report a problem.
- The Fire Watch must receive instruction on their duties under this plan.
- The Fire Watch will keep a log of actions taken and rooms inspected.
- Keep a diligent watch for smoke or fire in affected areas.

#### **Hot Work:**

This part shall apply to hot work uses or produces flames, sparks, or heat that would act as an ignition source for any flammable or combustible material; (e.g. brazing, cutting, welding).

#### **Hot Work Fire Prevention Measures:**

- Hot work shall be performed only by trained personnel.
- At least one portable fire extinguisher shall be located in the hot work area.

- Hot work equipment shall be examined for leaks or defects prior to each use. Defects shall be repaired prior to use.
- Combustible and flammable material within a 50 foot distance from the hot work shall be protected against ignition.
- A fire watch shall be provided during the hot work and for a period of not less than 60 minutes after its completion.
- A final inspection of the hot work area shall be conducted hourly for 4 hours after completion of work.
- Openings in walls, floors or ceilings shall be covered to prevent the passage of sparks into adjacent areas.
- All valves shall be closed and gas lines bled when compressed gas is not in use.
- Electric hot work equipment shall be de-energized when not in use.

### **Hot Surface Applications**

### **Purpose:**

This Section applies to hot surface applications, in or on buildings that use open flame torches, bitumen kettles or other heat-producing devices.

### **Exposed combustible materials:**

If there is a possibility of sparks, flames or heat igniting combustible materials as a result of hot surface applications:

- Combustibles within 5 m of the hot surface application shall be protected against ignition.
- Openings in roofs, parapets or other **building** structures within 5 m of hot surface applications shall be covered or closed to prevent the passage of sparks or flames to adjacent areas. If it is not possible to cover or close openings, combustibles in the area exposed by the opening shall be protected against ignition.

### **Open flame torches:**

An open flame torch shall only be applied to materials intended for hot surface applications and shall not directly expose:

- Combustible materials, such as wood roof decks, cant strips, insulation and flashing.
- Voids, holes and skylights in the roof or roof deck.
- Gas lines and electrical cables.

#### **Bitumen Kettles:**

Bitumen kettles shall:

- Not be located in a **building** or on a roof of a **building**.
- Not be located in a fire access route.
- Not be located within 3 m of a building exit or means of egress.
- Be provided with metal lids that are close-fitting and constructed of steel having a thickness of not less than No. 14 sheet metal gauge (2 mm).
- Be maintained free of excessive residue.

### When in operation shall:

- be level, with most of the weight off the tires and legs.
- not be heated above 260°C.
- be kept clear of combustible debris or materials.
- be under constant supervision by a person who is knowledgeable of operations and hazards and trained in the use of portable extinguishers.

After each daily use, mops that have been used for spreading bitumen shall be kept in a safe location:

- at least 3 m away from **buildings**.
- isolated from other combustibles.

#### Firewatch:

A firewatch shall be provided whenever an open flame torch or other ignition source is used for hot surface applications in or on a **building** and shall include:

- any area where combustible materials used in **building** construction or contents are located within 5 m of persons using an open flame torch or other ignition source,
- any area of the **building** exposed as a result of unprotected roof or wall openings located within 5 m of persons using an open flame torch or other ignition source.
- any area where combustibles on the underside of roofs or the opposite side of walls might be ignited as a result of persons using an open flame torch or other ignition source.
- If a firewatch is required, the areas shall be toured by firewatch personnel at least once each hour.

- Facilities shall be provided to enable the firewatch personnel to ensure that a fire warning is sounded to notify occupants, and communicate with the fire department.
- The firewatch personnel shall be equipped with portable illumination and protective equipment.
- A firewatch shall be conducted from the beginning of a hot surface application until at least 3 hours after the application ceases, or at least 2 hours after the application ceases if a hand-held thermal scanner is used to assist in detecting hidden hot spots.

### **Portable Extinguishers**

Portable extinguishers with a minimum rating of 4A:40B:C shall be:

- located within 6 m of persons using an open flame torch or other ignition source, and
- readily available to all other persons in the area of hot surface applications and firewatch personnel.
- Portable extinguishers with a minimum rating of 4A:40B:C shall be located no further than 7.6 m and no closer than 1.5 m from a bitumen kettle.