



Fire Safety Plan

2017

University of Saskatchewan



UNIVERSITY OF
SASKATCHEWAN

EMERGENCY NUMBERS	
Emergency Services	9-911 (from a campus telephone)
	911 (from a pay telephone or mobile telephone)
Protective Services	306-966-5555

SAFETY RESOURCES	
General Inquiries	306-966-4675
Fire Safety	306-966-1949
Spill Response	306-966-8497
Hazardous Waste Management	306-966-8497
Chemical and Environmental Safety	306-966-8495
Biosafety	306-966-8496
Radiation Safety	306-966-8491

OTHER ESSENTIAL SERVICES	
Operations and Maintenance	306-966-4700
Wellness Resources	306-966-4580

Contents

1	Purpose	3
2	Scope	3
3	Emergency Preparedness and Response	3
4	Roles and Responsibilities	3
4.1	Faculty, Staff, Students and Visitors	3
4.2	Supervisors	4
4.3	Fire Wardens	4
4.4	Protective Services	4
4.5	Safety Resources	5
4.6	Operations and Maintenance	5
4.7	Saskatoon Fire Department	6
5	Fire Protection Equipment and Life Safety Systems	6
5.1	Maintenance and Inspection	6
5.2	Fire Drills	6
6	Building Evacuation Plan	6
7	Fire Warden System	7
7.1	Introduction	7
7.2	Roles and Responsibilities	7
8	Fire Alarm Response	10
8.1	Institutional Response	10
8.2	Action in Case of Fire	10
9	Fire Prevention	11
9.1	General	11
9.2	Building Exits	12
9.3	Smoking	12
9.4	Hot Work	12
9.5	Hydrants	13
9.6	Use and Storage of Hazardous Materials	13
9.6.1	Inventory Management	13
9.6.2	Ordinary Combustibles	13

9.6.3	Flammable and Combustible Liquids	13
9.6.4	Drums	15
9.6.5	High Pressure Cylinders	15
9.6.6	Explosives	16
9.6.7	Laboratories	16
9.6.8	Disposal of Hazardous Materials.....	17
9.7	Electrical Equipment	17
9.7.1	General.....	17
9.7.2	Electrical Appliances	18
9.8	Facility Decommissioning.....	18
10	Training	19
11	Plan Review	19
12	References	20

1 Purpose

The *Fire Safety Plan* outlines measures and processes for the control of fire hazards, the orderly evacuation of university buildings in the event of a fire alarm, and the effective utilization of fire protection systems and equipment in university buildings.

2 Scope

The *Fire Safety Plan* summarizes institutional requirements on fire prevention and emergency evacuation processes in the event of a potential or real fire emergency. The *Fire Safety Plan* is intended to support college and administrative unit local emergency response plans.

The *Fire Safety Plan*, in conjunction with the *Emergency Response Plan*, aligns with civic and national fire safety requirements for fire safety plans.

The *Fire Safety Plan* applies to all faculty, staff, students and visitors to the University of Saskatchewan.

3 Emergency Preparedness and Response

The University of Saskatchewan maintains an Emergency Management Plan to guide an effective institutional response to major emergencies. The plan is based on the principles of the Canadian Emergency Management Framework, and recognized best practices in emergency management.

In concert with the institutional Emergency Management Plan, university colleges and units have *Emergency Response Plans* which provide institutional and location/activity specific response requirements for various emergency situations including for fire safety and building evacuation processes in the event of a fire emergency.

4 Roles and Responsibilities

4.1 Faculty, Staff, Students and Visitors

Faculty, staff, students and visitors are responsible to:

- Be familiar with the hazards in the workplace, and the controls, procedures and rules that must be followed to minimize risk of fire.
- Be familiar with emergency procedures and building evacuation procedures for the building(s) or area(s) they occupy.
- Know the people in their building with assigned responsibilities under the Fire Warden System (Fire Wardens, Door/Corridor Guards).
- When a fire alarm sounds for more than 10 seconds, proceed with evacuating the building in accordance with the evacuation plan.
- Follow the directions of building personnel, and emergency response personnel (university and civic) charged with coordinating the building evacuation.

- Do not re-enter a building where a fire alarm has sounded until directed to do so by emergency response personnel.
- Report fire safety or other concerns to a supervisor and/or to Safety Resources.

4.2 Supervisors

Supervisors are responsible to:

- Ensure workplaces are regularly inspected for fire safety and other occupational health and safety hazards and that identified hazards are appropriately controlled.
- Be familiar with emergency and evacuation procedures for the building(s) or area(s) they occupy.
- Ensure faculty, staff and students under their supervision understand the hazards (fire and other hazards) in their work area, and receive appropriate training on hazard controls, work, and procedures including for emergencies.
- When a fire alarm sounds for more than 10 seconds, support the safe evacuation of the building in accordance with the evacuation plan for the building and/or areas occupied.
- Report fire safety or other concerns to Safety Resources.

4.3 Fire Wardens

In accordance with the Fire Warden System, designated personnel within each building shall be charged with coordinating and controlling the safe evacuation of persons within the building when a fire alarm is initiated. Specific roles and responsibilities of Fire Wardens are outlined in Fire Warden System.

4.4 Protective Services

Protective Services is responsible to:

- Support the development and implementation of programs supporting emergency preparedness and response.
- Respond to emergencies on campus.
- Coordinate emergency measures services response.
- Assist with building evacuations.
- Control access to emergency areas.
- Assist with crowd control.
- Liaise with Saskatoon Fire Department (SFD).
- Assist in the investigation into fires, fire alarms and other emergency events.

4.5 Safety Resources

Safety Resources is responsible to:

- Support the development and implementation of programs supporting fire safety and emergency preparedness and response.
- Support response to fire alarms and other emergencies on campus as needed.
- Provide consultation and advice to the campus community and contractors on fire safety.
- Assist in the development of building evacuation plans for all occupied buildings on campus.
- Provide training on fire safety, building evacuation, and emergency preparedness and response.
- Provide fire extinguisher training.
- Test and maintain fire extinguishers in university buildings.
- Coordinate annual fire (building evacuation) drills in all alarmed buildings on campus.
- Issue hot work permits.
- Conduct fire safety inspections.
- Investigate fires and false fire alarms on campus.
- Support fire safety regulatory and code compliance.
- Liaise with Saskatoon Fire Department (SFD).

4.6 Operations and Maintenance

The Operations and Maintenance Division (O&M) is responsible to:

- Monitor fire alarm systems on campus.
- Respond to fire alarms.
- Silence fire alarms and reset building annunciator panels and main fire alarm panels, as directed by emergency response personnel.
- Maintain buildings, building infrastructure.
- Maintain and test as appropriate fire protection equipment and life safety systems.
- Support fire drills as required by Safety Resources.
- Support fire investigation of fires and false alarms on campus.
- Support fire safety regulatory and code compliance.

4.7 Saskatoon Fire Department

Saskatoon Fire Department (SFD) will respond to fire alarms and other emergencies at the University of Saskatchewan. SFD has overall authority over emergency response measures for fires on campus. Protective Services, Safety Resources, and Facilities shall provide guidance and assistance to SFD as required.

In coordination with Safety Resources, SFD also conducts routine inspections of university buildings for compliance with fire safety codes and applicable regulations. SFD also provides advice to the university on fire safety.

5 Fire Protection Equipment and Life Safety Systems

5.1 Maintenance and Inspection

Fire protection equipment and life safety systems (e.g. emergency power, emergency lighting, smoke alarms, fire alarm systems, sprinkler systems, fire extinguishers) in University of Saskatchewan buildings vary depending on the era of the buildings, use and occupancy type.

Building fire protection equipment and life safety systems shall be installed, inspected, maintained, and tested in accordance with manufacturer requirements, the National Building Code, the National Fire Code, civic bylaws, and applicable regulations. Records of all fire protection equipment and life safety systems, technical information and drawings, inspections, maintenance and testing shall be maintained by the University through Facilities.

5.2 Fire Drills

Fire drills shall be carried out at a frequency not greater than every 12 months for all university buildings equipped with fire alarm systems. Fire drills shall be coordinated by Safety Resources in collaboration and consultation with the colleges, administrative units, O&M, Protective Services and SFD. Safety Resources shall maintain records of all fire drills.

6 Building Evacuation Plan

As an integral part of local emergency plans, all occupied buildings at the University of Saskatchewan shall have a plan in place for the orderly evacuation of the building in the event of a fire alarm, or other emergency.

Building evacuation plans shall include the following information:

- Names and contact information for building personnel (Fire Wardens) supporting building evacuation.
- Roles and responsibilities for building personnel supporting building evacuation.
- Procedures to follow in the event of a fire.
- Procedures for the orderly evacuation of the building including provisions for safely evacuating persons with special needs.
- Training of fire safety and evacuation procedures.
- Building diagrams showing fire extinguishers, fire alarm pull stations, exits, evacuation routes and marshalling areas.

- Frequency of fire drills.

Safety Resources, in collaboration with Protective Services, shall assist colleges and administrative units with the development, implementation, and maintenance of building evacuation plans. Safety Resources together with Protective Services shall maintain copies of all local emergency response plans for the university.

Building evacuation plans shall be posted in their respective building and/or be available through the college/division website or intranet site. A floor plan indicating locations of exits from applicable floors and marshaling area locations shall be posted in a prominent location on each floor of every building. A list of the names of Fire Wardens for the building should also be displayed with the floor plans of each floor on local occupational health and safety bulletin boards.

Local emergency plans and building evacuation plans shall be reviewed by each college/division at regular intervals not greater than 12 months to ensure the plans remain current.

7 Fire Warden System

7.1 Introduction

All occupied buildings at the university shall have an organized Fire Warden System to control the evacuation of persons during a fire, or other emergency. Under the Fire Warden System, designated university employees within a building are charged with supporting the safe and orderly evacuation of the building in the event of a fire alarm or other emergency. A typical Fire Warden System will include the following positions:

- Chief Fire Warden
- Deputy Chief Fire Warden
- Floor Wardens and Assistant Floor Wardens
- Door and Corridor Guards

7.2 Roles and Responsibilities

Chief Fire Warden

The Chief Building Warden is responsible for: recruiting all Wardens and Guards; coordinating local and institutional training; performing specific emergency response procedures during an emergency situation; and, maintaining records associated with the Local Emergency Response Plan and the Building Evacuation Plan. Any alterations or changes to these records shall be forwarded to Safety Resources.

If the Chief Building Warden is absent then the Deputy Building Warden shall act as the Chief Building Warden. If both the Chief Building Warden and Deputy Building Warden are going to be absent, individuals must be assigned to fill the positions.

IN AN EVACUATION EMERGENCY:

- Go immediately to the building annunciator panel to determine the location of the emergency.
- Put on emergency response arm band, if possible.
- Supervise the orderly evacuation of personnel, students and visitors from the building.
- Notify Protective Services and Saskatoon Fire Department (SFD) of any special hazards in the building or area.
- When evacuation is complete, receive verbal reports from all Wardens and Guards regarding the accounting of personnel.
- When authorized by SFD, Protective Services or Safety Resources, or when the alarm is turned off, notify Floor Wardens in the marshalling areas that the building is safe to re-occupy.
- **EVACUATION DRILLS** – participate in evacuation drills; help to identify shortfalls and provide guidance to personnel on improvements.

Deputy Chief Fire Warden

The Deputy Building Warden is responsible to assist the Chief Building Warden with: recruiting all Wardens and Guards; coordinating local and institutional training; performing specific emergency response procedures during an emergency situation; and, maintaining records associated with the Local Emergency Response Plan and the Building Evacuation Plan.

The Deputy Building Warden shall act as the Chief Building Warden in his/her absence. If both the Chief Building Warden and Deputy Building Warden are going to be absent, individuals must be assigned to fill the positions.

IN AN EVACUATION EMERGENCY:

- Go immediately to the building annunciator panel to determine the location of the emergency.
- Put on your emergency response arm band if possible.
- Remain at the entrance by the annunciator panel to direct Protective Services and SFPS to the location of the alarm.
- Assist the Chief Building Warden as necessary.
- Communicate with Wardens and Guards to provide information on the alarm situation.
- **EVACUATION DRILLS** – participate in evacuation drills; help to identify shortfalls and provide guidance to personnel on improvements.

Floor Wardens and Assistant Floor Wardens

IN AN EVACUATION EMERGENCY:

- Take appropriate action to help ensure the safety of those in the area for which you are assigned.
- Notify the Chief Building Warden and SFD of any special hazards in the area.
- Assist or seek assistance for individuals that are injured.
- Direct personnel in their designated area(s) to evacuate the building through pre-determined exits to the marshalling area(s).

- Assistant Wardens or other individuals may be assigned to assist persons with special needs to exit the building. If a person with special needs cannot easily be guided out of the building, the person should be moved to a safe place (a stairwell if possible) until rescue personnel arrive.
- Systematically search designated area(s), including washrooms and elevators to ensure that all personnel are out and that all doors are closed, not locked.
- Report to the Chief Building Warden on the state of their area(s). Report on any individuals with special needs that are still in the building.
- At the marshalling area, confirm with Assistant Floor Wardens the safe evacuation of personnel from the designated area(s).
- Assist the Chief and/or Deputy Building Warden as directed.
- **EVACUATION DRILLS** – participate in evacuation drills; help to identify shortfalls and provide suggestions to Chief and Deputy Warden on possible improvements.

Door/Corridor Guards

IN AN EVACUATION EMERGENCY:

- Immediately proceed to their designated door, corridor or building link to be guarded.
- Direct personnel exiting through their door/corridor/link to the designated marshalling area.
- Keep the area around the door clear for emergency response personnel.
- Prevent individuals from re-entry into the building or individuals attempting to enter the building via corridors or building links.
- When authorized by the Chief Building Warden, or when the alarm is turned off, permit people to re-occupy to the building.
- Assist the Chief, Deputy Chief Building Warden and Floor Wardens as directed.
- **EVACUATION DRILLS** – participate in evacuation drills; help to identify shortfalls and provide guidance to personnel on possible improvements.

ALL FACULTY, STAFF, STUDENTS & VISITORS

IN AN EVACUATION EMERGENCY:

- Whenever the fire alarm sounds for more than 10 seconds, immediately proceed with evacuating the building in accordance with the evacuation plan; always use the closest exit and most direct route.
- Refer to building postings for specific evacuation routes and go to designated emergency marshalling area.
- Follow the directions of building personnel, and emergency response personnel (university and municipal) charged with coordinating and executing the building evacuation. University emergency response Wardens and Guards try to wear bright yellow arm bands.
- Do not re-enter a building where a fire alarm has sounded until directed to do so by emergency response personnel.
- **EVACUATION DRILLS** – participate in evacuation drills
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8 Fire Alarm Response

8.1 Institutional Response

When a fire alarm is initiated:

- The building in alarm is to be evacuated in accordance with the local evacuation plan.
- Upon receipt of the alarm (via the campus central monitoring system), Facilities issues an “all call” announcement on the radio system of the fire alarm and building in alarm.
- SFD, Protective Services, Safety Resources and Facilities - Electrical are called to respond to the building in alarm.

Facilities electrical personnel are responsible for clearing and resetting the alarm once alarm conditions (false or real) have been resolved.

8.2 Action in Case of Fire

In the event of a fire, the following general steps are to be followed. Additional procedures may be incorporated into local emergency plans commensurate with building type, activities, and identified hazards.

Step 1: Assess the Severity of the Fire

- Activate the nearest fire alarm (fire alarm pull station).
- If you can do so safely, extinguish the fire using an appropriate fire extinguisher.
- If the fire is too large, or cannot be extinguished, or if you feel uncomfortable attempting to extinguish the fire, commence with evacuating the building.

Step 2: Evacuate the Building

Occupants **must** evacuate a building when a fire alarm sounds for more than 10 seconds continuously.

- Notify individuals in the area that a fire has occurred.
- If possible, electrical equipment should be turned off and doors closed (but not locked) during the evacuation.
- The Chief Fire Warden, Floor Wardens and Door Guards will direct the general evacuation as quickly as possible in a safe and controlled manner to the designated marshaling area(s).
- Instructors are responsible for the orderly evacuation of students in their class during an evacuation.
- Do not use elevators during a fire evacuation. Any persons in an elevator at the time of a fire alarm shall exit the elevator at the next floor, and follow the instructions of the Floor Warden to exit the building.

- If there is a special needs person(s) requiring assistance, notify the Chief Fire Warden or a Floor Warden. One or two individuals should be assigned to assist the special needs person(s) to evacuate or to stay with them in a safe place until SFD arrives. ***Do not leave special needs person(s) alone.***

Step 3: Call Protective Services

- Call 9-911 from a campus telephone, or 911 from a mobile telephone. Call Protective Services at 306-966-5555.
- Be prepared to provide the following information:
 - The nature of the fire (if known)
 - The exact location including the building, room number and closest entrance
 - Your name and the phone number at which you can be reached

Step 4: Building Re-Entry

No person is to re-enter the building following a fire alarm until permission has been given by SFD, Protective Services, the Chief Fire Warden or a Safety Resources representative.

Step 5: Report the Incident

Complete a university incident report using the Safety Resources online incident reporting system, www.usask.ca/safetyresources/. Based on the nature of the incident, Safety Resources will provide direction as to who should complete an incident report.

9 Fire Prevention

9.1 General

Faculty, staff and students shall adhere to the requirements of the National Fire Code of Canada and applicable provincial and federal regulations pertaining to fire safety. This includes, but is not limited to,

- Building design and occupancy and fire emergency systems
- Storage (indoor and outdoor) of hazardous materials
- The use and storage of flammable and combustible liquids
- Hazardous processes and operations
- Fire protection equipment

For information or assistance on fire safety and associated code/regulatory requirements, please contact Facilities at 306-966-4700, or Safety Resources at 306-966-4675.

9.2 Building Exits

All exit doors, ramps, corridors, passageways, stairs, and fire escapes shall be clearly marked, kept clear and unobstructed at all times. No posters, signs, screens, mirrors, or any other object may be placed on an exit door.

In any building no person shall close, fasten or allow to be fastened any exit or entrance doors, or any other door used for an emergency except with an approved moveable lock or bolt which may be easily opened from the inside without the aid of a key or similar device. The method of operation must be obvious even in darkness.

9.3 Smoking

In accordance with the University of Saskatchewan *Smoking Policy*, smoking is prohibited in all university buildings, parts of buildings, enclosed spaces, leased spaces, university owned or leased vehicles and outdoor seating areas that are part of a restaurant or licensed facility.

Smoking is also prohibited at Griffiths Stadium except in designated areas. Smoking is prohibited within a ten meter perimeter of any university building or ventilation air intake and other outdoor areas where posted.

Smoking is strictly prohibited in outdoor areas that are specified for storage of flammable and combustible liquids and/or hazardous chemicals.

This policy applies to all university staff, faculty, students and visitors.

9.4 Hot Work

Hot work is any work process or operation involving open flames or producing heat or sparks including, but not limited to:

- Welding (gas or arc)
- Cutting using an oxy-acetylene torch or spark-producing means such as a grinder
- Grinding
- Brazing and soldering
- Thawing
- Torch-applied roofing or other membranes
- Use of open flame heaters in buildings
- Hot tar operations

In accordance with the *Contractor Hot Work Policy* and supporting procedures, a Hot Work Permit shall be obtained by university personnel or contractors prior to performing any hot work on university property. The Facilities trades group adhere to a similar hot work permit system.

For further information on Hot Work Permits, or assistance with obtaining a Hot Work Permit, contact Safety Resources at 306-966-4675.

9.5 Hydrants

Fire hydrants on campus shall be kept clear and unobstructed at all times. No parking shall be vehicle permitted within 3 m of any hydrant.

9.6 Use and Storage of Hazardous Materials

9.6.1 Inventory Management

The *Saskatchewan Occupational Health and Safety Regulations* require that an employer develop and maintain an up-to-date list of all substances (chemical, biohazardous, nuclear) that may be hazardous (or of concern) to the health and safety of workers at the place of employment and that this list be made available for inspections or emergency situations as well as to the workers for their use. This inventory must also identify Workplace Hazardous Materials Information System (WHMIS) controlled products.

Inventories should be reviewed at least annually (or more frequently, if hazards dictate) to confirm inventories and to determine if substances have expired, or are no longer being actively used. Contact the Waste Management Facility at 306-966-8497 for the collection and disposal of hazardous materials

9.6.2 Ordinary Combustibles

Ordinary combustibles shall:

- Be stored in approved storage areas.
- Not be piled in exit corridors, passageways or stairwells leading to exits.
- Not be piled in front of fire alarm boxes, hose cabinets, or any pieces for firefighting equipment.
- Not be piled in such a manner as to block from view any alarm box, firefighting equipment or exit doors.
- Waste, particularly oily rags, is not permitted to accumulate in closets or hallways, as it is often combustible.

9.6.3 Flammable and Combustible Liquids

Supervisors and department heads are responsible for ensuring that all persons working with flammable and combustible liquids are:

- Trained in the WHMIS 2015 and have the Safety Data Sheets for all products they are handling available to them at in the work area.
- Trained in safe work practices for handling the materials.
- Know the location of firefighting equipment and emergency pullstations in the area.

- Know the location of spill kits in the area
- Know how to find and use the PPE required for the flammable and combustible liquids they are using.
- Know the location of all exits in their area and the procedures to follow in case of fire or other emergency.

Maximum quantities of flammable and combustible liquids that can be stored or handled will vary according to the area and type of substance that is being stored and used. In general:

- Flammable and combustible liquids are divided in categories based on the specific flash point and boiling point of the liquid. This will determine the requirements for handling and storage for each liquid
- Flammable and combustible liquids used and stored indoors must be kept in an approved, closed container and stored in a flammable cabinet or approved storage room.
- Flammable and combustible liquids used and stored outdoors must be kept in an approved storage tank.
- Flammable cabinets, tanks, drums and storage rooms must meet the standards of the National Fire Code (NFC) and National Building Code (NBC) based on the type of material being stored.
- Open containers must not be used for handling small quantities of flammable and combustible liquids inside a building.
- Flammable and combustible liquids shall not be stored in stairwells, corridors, aisles or passageways leading to exits.

Labelling of containers used for flammable and combustible liquids shall be visible and consistent with the following guidelines:

- Labels must be distinctly marked and in contrast to any other printed matter on the label.
- Shall indicate that the material is flammable
- Shall indicate that it should be kept away from heat, sparks and open flames
- Shall indicate that it should be kept closed when not in use.
- Labeling should also include date of receipt and expiry date prior to placing the container into storage.
- Whenever possible, labelling should follow the guidelines for shipping and workplace labels identified in WHMIS 2015.

Smoking is not allowed in areas specified for storage of flammable liquids or hazardous chemicals.

Material shall not be piled in such a manner as to obstruct the effective operation of any automatic extinguishing system installed for protection of a flammable liquid or hazardous chemical storage.

Chemicals and hazardous materials that may become dangerous from prolonged storage must be purchased in limited quantities and disposed of at the termination of shelf life.

When research involving hazardous or potentially hazardous chemicals is conducted, labels showing the name of the contents, date of issue and date of expiry are required to identify the containers.

Fume Hoods and storage cupboards in laboratories are not to be used for storage of leftover chemicals or other flammable materials.

Supervisors are to inspect their areas of responsibility frequently for fire and safety hazards, and to ensure hazardous chemicals are not accumulating. Supervisors should watch for chemical surpluses, which result from finished research projects.

9.6.4 Drums

Drum storage of flammable liquids shall be so located as to reduce the spread of fire to other materials in storage. Areas used for drum storage must be kept free of ordinary combustibles and open flame.

- The method of dispensing liquids from a drum shall be by means of an approved hand-operated pump. Approved hand-operated pumps are safer than faucets because the hazards of leakage are reduced.
- All drums shall be appropriately grounded.
- Smoking is prohibited in drum storage areas.

9.6.5 High Pressure Cylinders

High pressure cylinders, whether or not they contain flammable or explosive gasses, are potentially dangerous. Rupture or sudden discharge can make these cylinders extremely dangerous.

- Cylinders shall be stored with the valve end up and handled according to directions recommended by the manufacturer or distributor.
- In transporting cylinders of a compressed gas, a trussed handcart should be used.
- Never move two cylinders at the same time unless they are securely bound together. Never roll a cylinder on its bottom or handle a cylinder by the valve. Prevent jostling and bouncing as much as possible.
- One person should not handle large cylinders of chlorine or hydrogen sulfide; assistance should be obtained.
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- Immediately after they are positioned for use, cylinders will be clamped tightly in place with an approved clamp. They must remain securely clamped until the working head is removed and safety cap replaced.

Further information on compressed gas cylinders is provided in the document, *Compressed Gas Cylinder Safe Handling, Use and Storage*.

9.6.6 Explosives

- Explosives shall be stored in an approved location.
- Rooms used for the storage of explosives must be clearly marked, as to the type of explosives.
- Explosives must not be stored with flammable liquids, volatile liquids or other combustible substances.
- Detonators must be stored in metal containers separate from bulk explosives.
- Smoking is prohibited in explosive storage areas.

9.6.7 Laboratories

The following are general guidelines for the safe storage of chemicals in laboratories:

- Do not store chemicals alphabetically.
- Adhere to manufacturer recommendations for the storage of chemicals.
- Flammable or combustible liquids, toxic chemicals, explosive chemicals, oxidizing agents, corrosive chemicals, water-sensitive chemicals, and compressed gases should be segregated from each other.
- Volatile liquids must be kept away from heat sources, sunlight, and electric switches.
- Keep health toxins and other especially dangerous items under added security.
- Chemicals must be stored in such a way that they will not mix with each other if a container leaks or breaks.
- Individual containers shall not exceed 5 litres capacity.
- Not more than a total of 20 litres of a flammable liquid's flash point (FP) <37C and >20C) will be maintained on a bench in a laboratory unless stored in an approved storage cabinet. There shall not be more than 0.5 litres of extremely flammable chemicals in a laboratory which have an FP of <20C and a boiling point >20C.
- Glass bottles of flammable liquids, oxidizing agents and acids should be stored with spill control large enough to contain the entire volume in event of breakage.
- Chemicals containing inhibiting agents and corrosive chemicals, and vessels having vent caps or other means of control over possible internal deterioration, are to be accessible for daily inspection and should be inspected daily by laboratory personnel.
- Flammable liquids shall be carried in a safety can, or in the case of reagent grade chemicals, the bottles should be protected by a "carrier".

- Glass bottles of hazardous product shall not be carried by their necks with one hand. This will help prevent breaking them on the table edges or other dangerous corners in a laboratory
- A bottle carrier should be used when moving bottles of acids, alkalis, and solvents as it guards against breakage and retains the liquid if breakage occurs. The bottles are much easier to handle in carriers.
- If exact handling and storage information is not available when a shipment or new or unfamiliar chemicals is received, the manufacturer should be requested to furnish SDS and their recommendations before any employee proceeds with their use.

Further information on laboratory safety is provided in the university's *Laboratory Safety Manual*.

9.6.8 Disposal of Hazardous Materials

Hazardous waste generated through research, academic or other activities on campus shall be collected and disposed of in accordance with the university's *Hazardous Waste Disposal Standard*.

9.7 Electrical Equipment

9.7.1 General

The following are the general electrical safety requirements at the University of Saskatchewan.

- All electrical fixtures and equipment used in any building shall be subject to the provisions of the Canadian Electrical Code.
- Only University Facilities qualified electrical personnel are permitted to carry out modifications or to connect or disconnect any electrical circuit or device not of a manual plug-in nature.
- Personnel observing unsafe conditions of any electrical apparatus, such as the tripping of circuit breakers, damaged cords, etc., will immediately report such conditions to Facilities or Safety Resources.
- Explosion-proof electrical equipment shall be installed and used in areas where flammable vapors present an explosion hazard.
- Extension cords shall not be used as permanent extensions of building electrical services. Extension cords must not be concealed under rugs, or run through walls, partitions, doorways or windows. Extension cords must not be spliced, tied in knots, draped over pipes, or wrapped around metal fixtures.

Further information on electrical safety is provided in the university's *Electrical Safety Guide*.

9.7.2 Electrical Appliances

All electrical appliances will bear an approval label from the Canadian Standards Association, Underwriters Laboratories or other recognized authority.

- Refrigerators – Only explosion-proof refrigerators will be used in laboratories or other areas for the storage of flammable or volatile liquids. Any such refrigerator shall be connected directly to the wall or floor receptacle. No extension cords are permitted.
- Hot Plates, Coffee Makers, Electric Kettles, etc. – The appliances will be mounted on a firm surface, and protected by flammable resistant boards. The appliances shall be away from sinks unless a ground fault protector is installed. The service cord should be unplugged if left unattended.
- Heavy Appliances – All heavy appliances must be connected and checked by Facilities before being used.
- Emergency Lighting – Emergency lighting should be provided in stairways, floors, and corridors below grade level, exit corridors, lecture and other theaters, public auditoriums, machine rooms and other areas where power failure will create a hazard to life or affect the operation of essential services.
- Outlets – Multiple use of one outlet for office equipment by means of a multiple plug adaptor or similar device should be avoided. A circuit protected power bar should be used.

9.8 Facility Decommissioning

Facility decommissioning of spaces on campus is required when:

- The individual (faculty, staff, students, visitors) is no longer working in the space(s);
- The individual is leaving the university;
- The individual is ceasing to use hazardous materials in the space(s);
- The individual is relocating instruments or equipment that pose hazards, or that have been used for research, academics, storage or other activities involving hazardous materials;
- The individual is cancelling a university issued biosafety and/or nuclear substance permit(s);
- The individual is cancelling a license, permit or certification granted by a federal or provincial regulatory body;
- The individual is relocating to another space on campus; or
- The space is being renovated, or is to be demolished.

The processes and minimum requirements for the decommissioning of spaces at the University of Saskatchewan are specified in the university's *Facility Decommissioning Standard*.

10 Training

University faculty and staff shall receive the following training as applicable:

- University general safety orientation.
- Work specific safety orientation provided by the department/unit.
- Supervisor safety orientation.
- Workplace Hazardous Material Information System (WHMIS) training.
- Laboratory Safety.
- Biosafety.
- Radiation Safety.
- Transportation of Dangerous Goods.
- Fire Extinguisher training.
- Emergency response plan training.

Safety Resources offers occupational health and safety training to the campus community. For further information on available training, contact Safety Resources at 306-966-4675.

11 Plan Review

The Fire Safety Plan shall be reviewed by Safety Resources at least once every 12 months. The plan may, however, be reviewed by Safety Resources at any time, to correct errors or to make procedural changes.

12 References

- *Emergency Management Plan*, University of Saskatchewan.
- *Local Emergency Response Plan Template*, University of Saskatchewan.
- *National Building Code of Canada*, Government of Canada.
- *National Fire Code of Canada*, Government of Canada.
- *Fire Safety Plan*, Fire Prevention and Investigation Division, Saskatoon.
- *Smoking Policy*, University of Saskatchewan.
- *Contractor Hot Work Policy*, University of Saskatchewan.
- *Compressed Gas Cylinder Safe Handling, Use and Storage*, University of Saskatchewan.
- *Laboratory Safety Manual*, University of Saskatchewan.
- *Hazardous Waste Disposal Standard*, University of Saskatchewan.
- *Electrical Safety Guide*, University of Saskatchewan.
- *Facility Decommissioning Standard*, University of Saskatchewan.