Fire Extinguishers Standard

1.0 PURPOSE

SaskPower is committed to maintaining a workplace in which safety is part of everything we do. One expression of our commitment to safety is the SaskPower Fire Extinguisher Standard. This standard supports the Emergency Response Planning Policy and specifies the requirements for fire extinguishers at SaskPower locations and in SaskPower vehicles.

2.0 DEFINITIONS

2.1 Fire Classes

Class A fire - a fire that involves ordinary combustible solid materials such as wood, cloth, paper, plastics or asphalt.

Class B fire - a fire that involves gases, grease, and flammable combustible liquids such as gasoline, kerosene, alcohol, and lubricating oils and greases.

Class C fire - a fire that involves circuits of electrical equipment or fires near such equipment such as electrical motors, switch boxes, junction boxes, transformers, and energized or live wires.

2.2 Fire Extinguisher Inspection

An inspection constitutes a "Quick Check" to ensure that a fire extinguisher is readily available and fully operational. It is intended to provide reasonable assurance that the extinguisher is fully charged and available for use.

2.3 Fire Extinguisher Maintenance

Maintenance is a thorough check of the fire extinguisher. It is intended to give maximum assurance that an extinguisher will operate effectively and safely. It includes a thorough examination and any necessary repair, recharging or replacement. This is intended to reveal the need for hydrostatic testing of an extinguisher. Repair and hydrostatic testing is required by a qualified fire extinguisher service technician.

2.4 Hazard Classifications

Light (Low) Hazards – locations where the quantities and combustibility of Class A combustibles and Class B flammables are low and fires with relatively low rates of heat are expected. These occupancies consist of fire hazards having normally expected quantities of Class A combustible furnishing and / or the total quantity of Class B flammables typically expected to be present is less than 1 US gallon (3.87 L) in any room or area.

Ordinary (Moderate) Hazards – locations where the quantity and combustibility of Class A combustibles and Class B flammables are moderate and fires with moderate rates of heat release are expected. These occupancies consist of fire hazards that only occasionally contain Class A combustible materials beyond normal anticipated furnishing and / or the total quantity of Class B flammables typically expected to be present is from 1 US gallon (3.87 L) to 5 US gallons (18.9 L) in any room or area.

Extra (High) Hazards – locations where the quantity and combustibility of Class A combustibles materials are high or where high amounts of Class B flammables are present and rapidly developing fires with high rates of heat release are expected. These occupancies consist of fire hazards involved with the storage, packaging, and handling of Class A combustible materials beyond normal anticipated furnishing and / or the total quantity of Class B flammables typically expected to be present is more than 5 US gallons (18.9 L) in any room or area.

2.5 Portable Fire Extinguisher

A portable device carried and operated by hand, containing an extinguishing agent that can be expelled under pressure for the purpose of suppressing or extinguishing fire.

2.6 Readily Accessible

Fire extinguishers must be located where they are readily accessible for immediate use and be of sufficient quantity and size to deal with the unexpected fire. The fire extinguisher needs to be located where there is no obstruction to access or visibility.

The portable device must be capable of being reached quickly for operation, renewal, or inspections. The extinguisher must not be blocked by obstacles including the need to unlock compartments, bins, or obstructions.

2.7 Travel Distance

Actual walking distance from any point to the nearest fire extinguisher to fulfill hazard requirements.

3.0 METHOD/PRACTICE

3.1 Selection

- Extinguisher size and type and selection shall be identified and meet the requirements of the Hazard/ Aspect and Rick Assessment
- Fire extinguishers shall not exceed 20lb/10kg ABC type extinguisher for ergonomic safety and size of fire hazards to be controlled.

3.2 Provisioning

Fire Extinguishers and mounting brackets shall be supplied through SaskPower Central Stores or through the Divisions purchasing process.

3.3 Location

- Fire extinguishers are pressure vessels and shall be secured from falling at all times when not in use.

- Fire TDG (Transportation of Dangerous Goods) label tool bin on the vehicle.

3.4 Use

Fire extinguishers shall be used according to manufacturer's specification.

3.5 Inspection and Maintenance

- Portable fire extinguishers shall be inspected and maintained in accordance with NFPA-10 (R2018).
- When removed for servicing, portable fire extinguishers shall be replaced with extinguishers that are suitable for the type of hazard and of at least equal rating. Maintenance shall include annual thorough examination and any requirements defined by the manufacturer.
- Periodic internal inspections and hydrostatic testing shall be performed
- Minimum internal inspection is every 6 years for dry chemical, stored-pressure fire extinguishers (with mild steel, brazed brass, or aluminum shells) and every 5 years for carbon dioxide fire extinguishers. Minimum hydrostatic testing is every 12 years for dry chemical, stored-pressure fire extinguishers (with mild steel, brazed brass, or aluminum shells) and every 5 years for carbon dioxide fire extinguishers.
- Extinguishers *shall* be inspected monthly to verify that it is in its designated place, that it has not been actuated or tampered with, and that there is no obvious or physical damage or condition to prevent its operation. Refer to Exhibit A– Fire Extinguisher Inspection Checklist.
- Monthly Inspections shall be recorded and shall be kept on a tag or label attached to the fire extinguisher, on an inspection checklist maintained on file, or by an electronic method (Safety Management System). Those doing the inspection shall keep records of all fire extinguishers inspected as well as those found to require corrective action.
- When fire extinguishers are initially placed in service they are to be manually inspected.
- Fire extinguishers shall be subjected to maintenance by a trained person annually, at the time of hydrostatic test, or when specifically indicated by an inspection. Refer to Exhibit B Fire Extinguisher Maintenance.
- Fire extinguishers shall have a tag or label securely attached and visible that indicates the month/year the maintenance was performed and that identifies the person performing the service.

4.0 REFERENCES

- Saskatchewan
  - Saskatchewan Occupational Health and Safety Regulations, 1996
- SaskPower (located on SafetyNet)
  - SaskPower Hazard/Aspect and Risk Assessment Policy and Standards
  - Emergency Response Plan Policy
  - Safety and Environment Rulebook
  - Chemical Inventory List
- **Third Party**
  - National Fire Code - NFPA 10 (R2018) Standard for Portable Fire Extinguishers 2013 edition
    The Fire Commission Office
  - CAN/CSA –Z731-03(R2014), Emergency Planning for Industry

EXHIBIT A – FIRE EXTINGUISHER INSPECTION CHECKLIST

Location in designated place
No obstruction to access or visibility
Operating instructions on nameplate legible and facing outward
*Safety seals and tamper indicators not broken or missing
Fullness determined by weighing or “hefting”
Examination for obvious physical damage, corrosion, leakage, or clogged nozzle
Pressure gauge reading or indicator in the operable range or position
Condition of tires, wheels, carriage, hose, and nozzle checked (for wheeled units)
WHMIS label in place

EXHIBIT B – FIRE EXTINGUISHER MAINTENANCE

A trained person who has undergone the instructions necessary to reliably perform maintenance and has the manufacturer’s service manual shall service the fire extinguishers not more than 1 year apart.

Maintenance procedures shall include a thorough examination of the three basic elements of a fire Extinguisher:

(a) Mechanical parts
(b) Extinguishing agent
(c) Expelling means