

# PREVENTATIVE MAINTENANCE AGREEMENT

## SCOPE OF SERVICES

### 1. FIRE ALARMS (MONTHLY)

**Standard:** CAN/ULC S536

**Frequency:** Monthly

- 1) operate one manual pull station on a rotational basis and check system for operation;
- 2) confirm alert signal or alarm signal on a rotational basis to a minimum of one zone;
- 3) inspect primary annunciator to determine correct annunciation of the tested device;
- 4) operate common audible and visual trouble signals;
- 5) inspect batteries to assess whether:
  - a) terminals are clean and lubricated;
  - b) terminal clamps are secure; and
  - c) electrolyte levels and specific gravity, where applicable, are as specified by the manufacturer.

### 2. FIRE ALARMS (ANNUAL)

**Standard:** CAN/ULC S536

**Frequency:** Annual

- 1) inspect power supply;
- 2) test and inspect batteries;
- 3) test and inspect each audible and visual signal appliance for proper operability, intelligibility, audibility and visibility;
- 4) test and inspect each smoke detector including test of sensitivity value conformity to proper operating range;
- 5) test and inspect all annunciators, sequential displays and remote trouble units;
- 6) test and inspect electrical portion of sprinkler flows and supervisory devices;
- 7) test initiation at fire alarm control units and the operation of output contacts of fixed extinguishing system;
- 8) test that correct operation of other supervisory devices results in an audible trouble and visual signals;
- 9) test and verify receipt of required signals at remote monitoring station;
- 10) test each manual alarm initiating device on each floor including sub-grade areas; and
- 11) test control equipment including the main control unit.

**Note:** Testing auxiliary functions other than the activation of the fire alarm relays is **excluded**.

### 3. SPRINKLER, WET

**Standard:** N.F.P.A 25

**Frequency:** Annual

- 1) check exposed sprinkler piping hangers;
- 2) check sprinkler heads;
- 3) remove, inspect and lubricate fire department's connection, plugs and caps;
- 4) test water flow alarm using hydraulically most remote test connection;
- 5) test sprinkler system water supply by main drain flow test;
- 6) inspect sprinkler head cabinet; and
- 7) provide inspection letter and documentation and, if system is complete without deficiencies, issue certificate.

#### 4. SPRINKLER, DRY

**Standard:** N.F.P.A 25

**Frequency:** Annual

- 1) check exposed sprinkler head piping hangers;
- 2) check sprinkler heads;
- 3) inspect auxiliary drains for dry pipe systems;
- 4) inspect dry pipe system for priming water levels;
- 5) remove, inspect and lubricate fire department's connection, plugs and caps;
- 6) test water flow alarm using hydraulically most remote test connection;
- 7) test dry pipe system;
- 8) test sprinkler system water supply by main drain flow test;
- 9) conduct flow test from hydraulically most remote or highest hose connection;
- 10) inspect and test flow and supervisory devices;
- 11) inspect sprinkler head cabinet; and
- 12) provide inspection letter and documentation and, if system is complete without deficiencies, issue certificate.

#### 5. SPRINKLER, STANDPIPE

**Standard:** N.F.P.A 25

**Frequency:** Monthly

Visual inspection of:

- 1) control equipment and fire alarm systems;
- 2) valves, valve components, and trim, including water supply valves locked in the open position; and
- 3) standpipe.

#### 6. FIRE HYDRANTS

**Standard:** N.F.P.A 25

**Frequency:** Annual

As per applicable codes and standards.

#### 7. EMERGENCY LIGHTING (MONTHLY)

**Standard:** As Applicable

**Frequency:** Monthly

- 1) check that the unit will provide emergency lighting under simulated power failure conditions;
- 2) check the pilot lights for functioning and apparent damage or obstruction;
- 3) record operational readiness of system; and
- 4) provide inspection letter and documentation and, if system is complete without deficiencies, issue certificate.

#### 8. EMERGENCY LIGHTING (ANNUAL)

**Standard:** N.F.C.

**Frequency:** Annual

- 1) check exit signs for visibility and illumination;
- 2) check emergency lighting battery packs for visibility and illumination;
- 3) check and inspect unit batteries;
- 4) test proper duration under simulated power failure depending on application;
- 5) test compliance of charging system with specification; and
- 6) provide inspection letter and documentation and, if system is complete without deficiencies, issue certificate.

**9. FIRE HOSE (MONTHLY)****Standard:** N.F.P.A. 25**Frequency:** Monthly

- 1) inspect and initial tag(s);
- 2) check for leakage and damage; and
- 3) check couplings, gaskets and nozzles.

**10. FIRE HOSE (ANNUAL)****Standard:** N.F.P.A. 25**Frequency:** Annual

- 1) inspect and tag hoses;
- 2) check for last hydrostatic pressure test date;
- 3) check for leakage and damage;
- 4) check couplings, gaskets and nozzles; and
- 5) re-rack hoses so that any folds do not occur at the same position on the hoses.

**11. KITCHEN HOOD (ANNUAL)****Standard:** N.F.P.A 17A and 96**Frequency:** Annual and Semiannual

- 1) inspect and check actuation and components;
- 2) inspect and check fire extinguishing equipment;
- 3) replace fusible links;
- 4) replace nozzles; and
- 5) inspect disconnect switches for ventilating systems.

**12. FIRE PUMP (ANNUAL)****Standard:** N.F.P.A 25**Frequency:** Annual

- 1) check circulation relief valve for operation to discharge water;
- 2) check pressure relief valve (if installed) for proper operation;
- 3) continue test for half-an-hour;
- 4) record electric motor voltage and current (all lines);
- 5) record pump speed in rounds per minute;
- 6) record simultaneous (approximately) reading of pump suction and discharge pressures and pump flow;
- 7) observe operation of any alarm indicators or any visible abnormalities; and
- 8) conduct the foregoing under minimum, rated and peak flows of the fire pump by controlling the quantity of water discharged through approved test devices.

**13. FIRE EXTINGUISHERS (MONTHLY)****Standard:** N.F.P.A 10**Frequency:** Monthly

- 1) inspect extinguishers and mounting hardware for apparent physical damage, corrosion, leakage or missing parts;
- 2) inspect extinguisher nozzle for apparent physical damage, corrosion, leakage or missing parts;
- 3) visually inspect the pressure gauge to verify proper reading;
- 4) inspect pin, seal and tamper indicators;
- 5) sign the tag to verify monthly inspection; and
- 6) provide inspection letter and documentation

**14. FIRE EXTINGUISHERS (ANNUAL)**

**Standard:** N.F.P.A 10

**Frequency:** Annual

- 1) inspect extinguisher and mounting hardware for apparent physical damage, corrosion, leakage or missing parts;
- 2) inspect nozzle and hose for deterioration and obstruction;
- 3) test proper condition and reading of pressure gauge;
- 4) inspect lock pin, seal and tamper indicators; and
- 5) tag and record all test and inspections on an inspection tag.

**15. BACK FLOW DEVICES**

**Standard:** N.F.P.A 25

**Frequency:** Annual

- 1) inspect for leaks at system pressure;
- 2) test forward flow;
- 3) test supervisory device and alarm; and
- 4) test main drain.

**16. CARBON MONOXIDE DEVICES**

**Standard:** As Applicable

**Frequency:** Annual

- 1) calibrate units in the underground parking area, if applicable; and
- 2) inspect the main panel.

**17. EMERGENCY RESPONSE SYSTEM**

**Standard:** N/A

**Frequency:** 24/7 Including Holidays

- 1) triage issues reported;
- 2) make diagnostic assessment; and
- 3) recommend action items.

**Note:** *The purpose of the emergency response system is limited to triage, diagnostics and recommendations. Services delivered or recommended beyond this scope are **excluded** and will be performed at Customer cost and expense at then-current Mircom rates. Mircom will use commercially reasonable and practicable efforts to provide such limited onsite remediation services as required to temporarily manage presented issues. Customer acknowledges, however, that due to the nature of the services, deployed technicians may not have the time, resources or capability to do so, and that Mircom makes no representation to Customer in that respect. It is solely the responsibility of Customer to act upon the Mircom recommended action items.*