**Life Safety Equipment & Systems/Facilities Management**

<http://www2.umf.maine.edu/facilities/safety-guidelines/life-safety-equipment-systems-guidance/>

**Revised: 09-18-2003**

**Reference:  UMS Procedures for testing inspection and Maintenance of Life Safety**
**Equipment and Systems (dated 08-01-2003)**

**Purpose:** To establish procedures for the periodic testing and inspection of life safety equipment on the University of Maine at Farmington Campus.  This information covers general care and routine service requirements, for specific guidance on a particular piece of equipment or system refer to the above reference, consult the appropriate service manual, or contact an authorized servicing technician.

**Definitions:**

1.   Life Safety Equipment/Systems:  Emergency apparatus, either singular or in a system configuration that provide essential life safety services during an emergency evolution.

2.   Inspection:  Is the visual examination of life safety equipment/system to verify that it appears to be in good operating condition and is free of physical damage.

3.   Maintenance:  Is repair service, to include periodic inspection and testing required to keep the equipment/system in operative conditions at all times and provides for replacement of equipment/systems or components when they become unpredictable or inoperable.

**Discussion:**

1.  Life safety equipment/systems are rarely used and their state of readiness is not always obvious, yet their operability is paramount should they be called on in an emergency.

2.   Due to the scope of involvement, inspections can be accomplished by Facilities Management personnel at the prescribed intervals.  This will be done from floor level by walking through protected areas and observing their material condition.  Should equipment/system(s) be in questionable operability, the Facilities Management Office will be notified and required to take corrective action.

3.   Only qualified individuals or companies will perform maintenance tasks on life safety equipment/systems.  The Assistant Director of Facilities Management will ensure all systems are maintained in accordance with established intervals.

**Procedures:**

1. These procedures shall cover:

A. Emergency Lighting

B. Portable Fire Extinguishers

C. Automatic Sprinkler Systems

D. Fixed Fire Suppression Systems

E. Fire Detection and Alarm Systems

F. Exit Signs

G. Fire Doors

H. Emergency Eye Wash Stations

I. Emergency LP Gas Shut-Offs

1.A.  **Emergency Lighting:**

Monthly: Functional Test for a minimum of thirty (30) seconds shall be conducted
on every emergency lighting system.  This will include emergency exit signs and
emergency lights.

Annually:  Functional Test for a minimum of one and one-half hours duration shall
be conducted on every emergency lighting system.  Equipment shall be fully
operational for the duration of the test.  Where emergency lighting is provided by a
prime motor-operated generator, a delay of no more than ten (10) seconds is
permitted from the time normal building lighting goes out and emergency lighting
comes on.

1.B.  **Portable Fire Extinguishers:**

Monthly: Visual inspection or “quick check” to ensure fire extinguishers are
Available and will operate.  This quick check shall include:

1.  Located in the designated space

2.  No obstruction to access or visibility

3.  Operating instructions on nameplate legible and facing outward

4.  Seals and tamper indicators not broken or missing

5.  Fullness determined by weighing or “hefting”

6.  Visual exam for obvious physical damage, leakage or clogged nozzle

7.  Pressure gauge reading or indicator in the operable range/position

8.  HMIS label in place

If any of the above conditions are detected, immediate corrective actions shall be
taken.  Contact the Facilities Management Office to initiate corrective measures.
If items 4 or 7 are found, the fire extinguisher will be immediately taken out of
service and replaced.

Annually:  All extinguishers shall serviced by an authorized servicing technician
and hydrostatically tested before being returned to service.

Record Keeping: Records shall be kept on the fire extinguisher tag.  The tag will
include a record of monthly visual inspections and the service technician’s
information.

1.C.  **Automatic Sprinkler Systems:**

Weekly:  Gauges on dry, preaction, and deluge systems shall be inspected to ensure
that normal pressures are being maintained.

Monthly:  Gauges on wet systems shall be inspected to ensure good condition and
that normal pressures are being maintained.

Quarterly:  Alarm devices shall be inspected to verify that they are free of physical
Damage.

Annually:  From floor level, sprinklers shall be inspected to include sprinklers,
pipes, fittings, hangers, and braces.  No signs of leaks, corrosion, foreign materials,
paint or signs of physical damage should be present.  Sprinklers shall also be
inspected for proper orientation.  There shall be no storage or obstructions within
eighteen (18) inches of the sprinkler deflector.  Concealed sprinklers do not require
annual inspection.  The spare sprinkler supply shall also be inspected for proper
number and types of spare items and a proper wrench for change-out of sprinkler
heads.

Testing:  For additional details on testing, see the above cited reference.  UMF
Facilities Management contracts this service to be performed.

1.D.  **Fixed Fire Suppression Systems:**

UMF fixed fire suppression systems are inspected semi-annually by a qualified
servicing technician.

1.E.   **Fire Detection and Alarm Systems:**

Weekly:  For unmonitored systems for alarms, supervisory or trouble signals, check
fuses, interface equipment, lamps and LEDs, and primary (main) power supply.

Monthly: Will include the following:

1. Check of fire alarm equipment to ensure not damaged or inoperative

2. Check fire alarm system power supply for normal operation

3. Illuminate lamps and LED on fire alarm enunciator panels

4. Check manual stations for obstructions

5. Check detectors for damage or obstructions

6. Conduct a load voltage test on dry cell (primary type) batteries serving fire alarm systems

Semi-Annually: Performed by servicing technician

Annually: Performed by servicing technician

1.F.  **Exit Signs:**

All exit signs must be illuminated by a reliable light source.  Externally and
internally illuminated signs shall be visible in both the normal and emergency
lighting mode.  Exist signs should be inspected simultaneously with emergency
lighting and may be recorded on the same form.

1.G.  **Fire Doors:**

Annually:  Perform a visual inspection:

1. For door or panel damage

2. To ensure door is firmly mounted in frame

3. Closure to ensure proper operation and is able to completely close with sufficient force to make it latch

4. For proper latch alignment and ability to maintain door closed

5. Of hinges to ensure secure attachment to door and frame

6. To ensure coordinators are securely attached and operate properly

7. For any unapproved modifications to doors

Maintenance:  Shall be performed periodically or as needed depending on door use
and location.  At a minimum the following service should be performed during
annual inspections:

1. Lubricate guides and bearings

2. Operate doors on automatic hold devices quarterly to assure proper operation.

3. Adjust closing devices as necessary to ensure door completely closes

1.H.  **Emergency Eye Wash Stations:**

Semi-Annually: A trained member of Facilities Management shall conduct a
thorough inspection and service all Protector I eye wash centers and Protector II
auxiliary eye wash stations strategically located on campus.  This service shall
include:

1. Complete drain and flush of each unit

2. Inspection of all rubber nozzles

3. Interior and exterior cleaning

4. Refill with the proper ratio of solution and water

5. Reaffix safety seal and document attached service card

1.I.    **Emergency LP Gas Shut-offs:**

Annually: Facilities Management personnel will test operation of the Emergency
LP gas shut-offs located in Preble Hall.  To avoid classroom disruption, this test
will be performed during the regularly scheduled winter break.  One shut-off
control per floor will be randomly selected to ensure proper operation of the control
solenoid located outside the west doorway.  If adjustments are required, the
servicing LP gas provider will be contacted.

**Record Keeping:** Written records must include the building, location of units within
the building, date of monthly and/or annual test, results of test, and name of person
conducting the test.  These records must be retained for five (05) years.