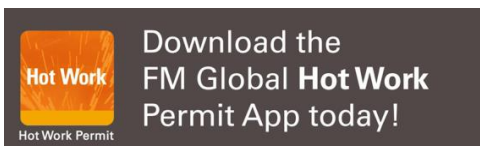


Hot Work

- The definition of **hot work** is any temporary or permanent work involving open-flame, producing hot surfaces, and/or generating sparks or molten material of sufficient energy to ignite combustible and/or flammable materials. Examples include torch-applied roofing, brazing, soldering, arc and torch welding, cutting, grinding, etc.
- Prior to conducting hot work, can it be avoided or relocated outside? If not, then manage hot work using the **FM Global Hot Work Permit System** (or equivalent).
- Records** of completed hot work permits should be kept on file for review.



Reference: FM Global Data Sheet 10-3: *Hot Work Management*

Flood Emergency Response Plan

- All sites identified as flood exposed by FM Global should have a written **flood emergency response plan (FERP)**. This pertains to sites exposed to flooding from a body of water (rivers, streams, lakes, canals, etc.) overflowing their normal boundaries or as the result of storm water runoff.
- The **FERP** should include the following basic components:
 - A reliable flood warning method
 - A person who has the authority to activate the plan
 - A clear list of responsibilities for the key leaders
 - Proper de-energization and shutdown procedures
 - Actions to reduce the damage by using available resources and staff (cleaning storm drains, elevating stock, etc.)
 - A recovery and cleanup plan
- A **FERP template** can be obtained by visiting field engineer or via link posted on State Risk website.
- In addition to a written FERP, sites exposed to flooding or storm water runoff should thoroughly explore implementation of **physical measures** that can permanently reduce expected property damage and subsequent business interruption. These include solutions such as flood doors, gates, curbs, elevating equipment, etc.
- Training** should be provided for the flood emergency response team at least annually.

Reference: FM Global Data Sheet 1-40: *Flood*

Division of State Risk & Insurance Services

Human Element Procedures



Human element procedures are inspections and practices that can be performed at your facility to help reduce the chance of having a property loss (fire, flood, etc). This document summarizes the critical procedures that should be implemented at all Commonwealth locations.

Revised September 2019

Fire Protection Supervision

Records for valve inspections and fire pump testing should be kept on file for review.

Sprinkler Control Valves

- ❑ All valves larger than 1.5-in. or those controlling more than five sprinklers should be individually **locked** in the fully open position with unbreakable locks and chains.
- ❑ **Weekly:** Visually inspect all fire sprinkler control valves to ensure they are fully open and locked.



- ❑ **Monthly:** All post indicator valves (PIV's), wall post indicator valves (WPIV's), curb box (buried) valves and non-rising stem gate valves should be physically tried for the fully open position.



Reference: FM Global Data Sheet 2-81:
Fire Protection System Inspection, Testing, Maintenance

Fire Pumps

- ❑ **Churn Testing:** Test start all pumps in automatic mode by pressure drop or water flow.
 - **Weekly:** Diesel pumps should run for 30 minutes.
 - **Monthly:** Electric pumps should run for 10 minutes.
- ❑ **Annually:** Full flow tests should be performed on all fire pumps.

**Do not isolate pumps (i.e., do not close discharge valve) from the fire protection system during weekly/annual testing.*

Fire Protection System Impairment Handling

- The definition of an **impairment** is the planned or unplanned shutdown of a fire protection system.
 - The **FM Global Red Tag Permit System** should be used anytime a sprinkler valve is closed or fire pump is shut off regardless of the duration. **Records** should be kept on file for review.
 - Per **NFPA code**, the local **fire department** should be notified when there is an impairment and when the system returns to operation.
 - FM Global can be notified of impairments via:
 - Online:** www.fmglobal.com/redetag
 - Phone:** 888-216-9330
 - Email:** ENGClevelandCustomerServiceDesk@fmglobal.com
- *Reference your **Index Number** when reporting fire protection impairments*



Fire Emergency Response Planning

- A written emergency response plan should include (at a minimum) the following positions that are critical to ensuring property loss and business interruption are minimized as much as possible. Please note that these tasks should only be performed if it is safe to do so:
 - ❑ Person-In-Charge
 - ❑ Fire Department Notifier
 - ❑ Sprinkler Control Valve Operator
 - ❑ Fire Pump Operator (if applicable)
- **Training** should be provided for the emergency response team at least annually. This includes pre-fire planning with the fire department.

Reference: FM Global Data Sheet 10-2: *Emergency Response*

Resources

- **State Risk Website**
<https://finance.ky.gov/offices/comptroller/pages/dsrisk.aspx>
- **Loss Prevention Data Sheets**
www.fmglobaldatasheets.com
- **Loss Prevention Training**
<http://training.fmglobal.com>
- **Hot Work and Red Tag Permits**
www.fmglobalcatalog.com
- **Plan Review Services**
ENGClevelandPlanReview@fmglobal.com
Reference your **Index Number when submitting plans for review*
- **Questions?** Contact your FM Global consultant engineer