



# Understanding the Hazard

## Idle, Vacant or Strikebound Facilities

### Human Element

*Vacant and/or idle buildings are corporate assets, but often are not treated as such. Consequently, they are frequently targeted by arsonists, or are more vulnerable to weather-related events. If proper attention is not given to these buildings, they will likely be lost or deteriorated beyond practical use.*

#### UTH topic categories:

- Construction
- Equipment
- Fire Protection
- ▶ **Human Element**
- Natural Hazards
- Process Hazards

This series of publications is designed to help you understand the everyday hazards present at your company's facilities. For more information on how you can better understand the risks your business and operations face every day, contact FM Global.



#### The Hazard

When the economy takes a downturn, it seems that news of plant closings, layoffs, strikes and slowdowns are a daily occurrence. What these situations invariably lead to are buildings that are shut down, locked up, and/or abandoned. For a number of reasons, these conditions create a threat of property loss.

The abandoned building may burn to the ground because the sprinkler systems were intentionally shut off to prevent freezing of pipes. Perhaps a disgruntled employee shut off the unguarded sprinkler system and lit the fire, probably with combustible debris that was left behind. Or, equipment may have been removed with the help of torches, and with no attention given to hot work precautions because the building was not in active use at the time. Probability is high that the burning building will threaten other buildings nearby, which may house functioning, profit-making units of your company.

#### Science of the Hazard

There actually isn't a great deal of science involved: A building is situated on your property. Inside it are needed spare parts and/or equipment, or maybe even entire idled production lines that can be reactivated when business improves. The building may get a cursory drive-by security glance every few hours, but isn't being watched carefully — despite the assets inside.



This combination of factors makes the building very vulnerable. Ill wishers have a ready target. Weather, like wind, freeze, flood and surface water, will have an impact on an unprotected structure. In general, people do not treat these buildings like they do key production facilities. More often than not, an idle facility is ignored.

*In the event of emergency, valuable time will be lost while the public fire service searches for this connection.*

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### What you can do at your facility

- Keep sprinkler systems in operation, including the inspect-and-test program.
- Remove unnecessary combustible material both inside and outside, and keep vegetation trimmed.
- Remove ignitable liquid, and turn off utilities, if not needed.
- Monitor hot work operations.
- Inform the public fire service of the building's vacant condition, and provide them access, if necessary.
- Make sure building is secure, to deter arsonists or vagrants.
- Maintain the building heat at no lower than 40°F (4.5°C).
- Notify FM Global of any idle, vacant or strikebound buildings.

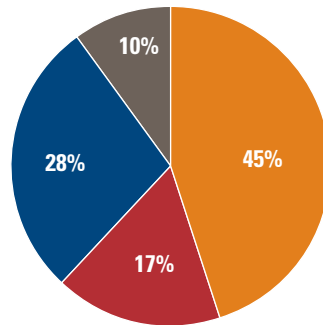
### Loss Experience

A review of idle or vacant building losses reported by FM Global clients from 1982 to 2012 shows that non-arson-related fire accounted for 45 percent of the losses by number but only 18 percent by cost. Conversely, arson, vandalism and theft caused only 17 percent of the losses by number, but they were responsible for 38 percent by cost.

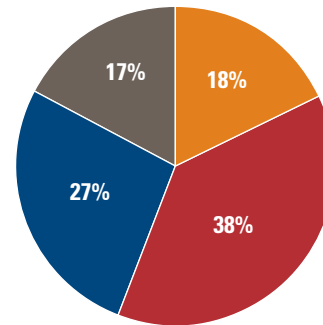
### Loss Lessons

#### 30 Year Loss History – Idle Vacant Buildings

Causes of Loss by **Number of Losses**



Causes of Loss by **Cost**



- Fire
- Arson, vandalism, theft
- Weather
- Other

Source: FM Global clients



*While this idle facility waits to be purchased or leased, it is prime target for arson and vandalism.*

## **Related FM Global Resources**

### **FM Global Property Loss Prevention Data Sheets**

- 10-3, *Hot Work Management*
- 10-6, *Protection Against Arson and Other Incendiary Fires*

### **Publications**

- *Reducing the Arson Threat* (P7721)
- *Hot Work Permit System Wall Hanger* (P9311)
- *Controlling the Shut-Valve Hazard* (P7133)
- *Red Tag Permit System Wall Hanger* (P7427)
- *Protecting Your Facilities from Wind Storms* (P0101)
- *Freeze-Up Checklist* (P9521)

At an idle food-processing plant, sparks from a demolition contractor's torch fell through holes in the third floor and ignited plastic bag storage in the unsprinklered second floor. By the time the contractor's employees reached the second floor, fire had already started along the wall behind the plastic bags. The fire spread, and by the time it was put out, the loss total was approximately US\$2.7 million.

In another case, a US\$4.2 million fire occurred at an idle manufacturing facility. Discovery of this fire was delayed because power to operate a supervised proprietary water-flow alarm system had been shut off for weeks before the loss. Arson is the suspected cause of this fire that severely damaged the two-story, 87,225-ft.<sup>2</sup> (8,103-m<sup>2</sup>) building.

### **But What About...**

**...draining the sprinkler system instead of paying to heat the building?**

Draining a wet-sprinkler system is a last resort and should never be done without speaking to your FM Global engineer first. If you are in a freeze-prone area, the best option is to maintain a building temperature of 40°F (4.5°C) through the winter.

A second option is to leave the sprinkler system pressurized and watch the temperature carefully. Bring in safe portable heat if the temperature drops below 40°F (4.5°C). Be sure to see related FM Global publications on prevention of freeze-ups (see sidebar at right).



*This building has not been occupied for some time. From the presence of overgrown vegetation, to the potential for freezing pipes, arson and break-ins, the number of hazards on site are a call for action.*

### ***Need more information?***

Ask your FM Global engineer or client service team about the following:

- Examples of properties particularly at risk of this hazard.
- The FM Global Fire Prevention Grant Program

### **Ordering Information**

For additional copies of this publication or other FM Global property loss prevention resources, shop online 24 hours a day, seven days a week at [www.fmglobalcatalog.com](http://www.fmglobalcatalog.com).

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*...the lack of available staff? We don't have enough people to properly monitor the idle buildings.*

If you do not have a security service, at the minimum you should appoint maintenance staff to check, on a weekly basis, that sprinkler control valves are locked open, and on a daily basis, that doors and windows are locked shut. During winter months, frequently check that the interior temperature is above 40°F (4.5°C) both during the day and at night. If you use a security service, they should be instructed to conduct these minimum checks for you and include the results in their daily report.

*...the difficulty of checking buildings while workers at the plant are on strike?*

During periods of labor unrest, it is difficult to get onto the grounds, let alone have management check idle buildings. Yet, you can't afford not to check the facilities. These buildings are part of your corporate assets; and if they catch fire or suffer weather damage, they threaten the rest of the property. At the very least, the idle building will become devalued because of the damage. This can be avoided by taking the steps recommended in the answer to the previous question.

### **Don't Let This Happen To You...**



*This idle building is a set-up for disaster. Accumulated combustible rubble can easily be ignited by an arsonist. If the automatic sprinklers are not in service, whether intentionally or through neglect, the damage likely will be total.*