RiskTopics

Management practices: Locations unoccupied temporarily

There are many reasons for a facility to be unoccupied on a temporary basis. Regardless of why, consider the measures offered in this document to monitor the facility during the shutdown and manage the restoration once normal operations resume.

Introduction

Whether a location is a retail store or manufacturing plant, there may be times when the location will be closed and unoccupied on a temporary basis. For the purposes of this document, temporary may range from a long holiday weekend up to one month.

During a temporary shutdown, implement the measures offered in this document to maintain care, custody, and control of the unoccupied location.

Resuming normal operations may involve turning on utilities and restarting processes. When restarting each system, consider the precautions offered in this document – precautions to consider before, during, and after restart.

The measures offered in this document are for property protection purposes. Measures beyond property protection are outside the scope of this document.

Important note

This document recommends daily visits to idle locations. It is understood customers will determine if such visits are safe or legal. We understand and support a customer's responsibility to safeguard staff and obey laws.

Discussion

When a location is closed and unoccupied on a temporary basis, the lack of normal human presence may delay the discovery of developing adverse conditions such as electrical faults or the loss of building heat during cold weather. Early discovery may allow intervention before serious property damage can occur.

Utilities and process use energy to perform work. Whether it is electricity used to produce light or hydraulic fluids under pressure used to operate machines, these are active systems subject to possible deterioration while idle. To reduce the likelihood of breakdown or fire during restart, consider the guidance offered in this document.

Guidance

Before the shutdown

Where a location is still operating but expects to be shutdown, consider the following measures as the facility is shutdown.

- Arrange for unnecessary utilities and equipment to be turned off by a competent person following normal shutdown procedures
- Arrange for utilities and equipment needed to protect the building and contents to remain in service such as outside lighting, building heat (during cold weather), and refrigeration (for perishable goods)
- Arrange for combustible yard storage to be removed, waste containers to be emptied, and any gates closed and locked
- Verify alarms are in service and the building can be secured (exterior doors and windows can be closed and locked)
- Verify all fire protection systems are in service

During the temporary idle period

Maintain continuous monitoring of the idle location using either monitored alarm systems (fire alarms and intrusion alarms) or a guard service (guards present at all times).

For locations monitored by alarms, assign a person to visit the location to conduct at least a daily tour.

For all locations, with guard service, consider more frequent tours.

The purpose of the daily tour is to have a person visit all building areas to detect abnormal conditions, promptly notify management, and trigger timely corrective action.

Maintain contact with onsite persons

Maintain communications with the guards working onsite or the person conducting daily visits. Have guards communicate on a regular basis, and have the person visiting communicate with management as they arrive and depart the site. This will verify the communication pathway is intact and ready for use at any time to report abnormal property protection conditions.

Arrange tours to verify:

- Unnecessary utilities and equipment have been turned off (have a competent person perform any shutdown actions)
- Necessary utilities and equipment are in service to protect the building and contents such as outside lighting, building heat (during cold weather), and refrigeration (for perishable goods)
- Combustible yard storage has been removed, waste containers emptied, and any gates closed and locked
- Alarms are in service and the building is secure (exterior doors and windows are closed and locked)
- All fire protection systems remain in service

Restarting utilities and processes

Allow only qualified persons to turn on utilities or restart processes. Qualified persons may include electricians, plumbers (for fuels), or process equipment operators.

Follow a deliberate start-up process that allows time to detect abnormal conditions that could lead to equipment breakdown. Keep in mind, equipment breakdown could be accompanied by an ensuing fire.

See Appendix A for specific guidance to consider when restarting systems.

Allow only qualified persons restart utilities and processes

Always have qualified people restart utility systems and process machinery. The qualified person is more likely to detect and correct abnormal conditions before damage may occur.

Conclusion

When a location is unoccupied temporarily, take steps to deliberately provide human presence daily. And, when restarting a facility that has been temporarily idle, consider the measures offered in this document. Detecting abnormal conditions early during the idle period or during start-up may help avoid unexpected property damage.

References

National Board Inspection Code, Part 2, Inspection. Columbus, OH: The National Board of Boiler and Pressure Vessel Inspectors, 2019.

NFPA 54. National Fuel Gas Code. Quincy, MA; NFPA, 2018. Online.

NFPA 58. Liquefied Petroleum Gas Code. Quincy, MA; NFPA, 2020. Online.

NFPA 70. National Electrical Code. Quincy, MA; NFPA, 2020. Online.

NFPA 70B. Recommended NFPA 70B. Recommended Practice for Electrical Equipment Maintenance. Quincy, MA; NFPA, 2019. Online.

NFPA 85. Boiler and Combustion Systems Hazard Code. Quincy, MA; NFPA, 2019. Online.

NFPA 86. Standard for Ovens and Furnaces. Quincy, MA; NFPA, 2019. Online.

Appendix A – Restarting idle facilities

When restarting idle facilities, consider the following actions before, during, and after start-up.

Allow only qualified persons to turn on utilities or restart processes. Qualified persons may include electricians, plumbers (for fuels), or process equipment operators.

Before start-up

Before start-up, consider the following:

- All systems
  - Verify environmental conditions are suitable (such as temperature and humidity)
  - Verify contaminants are controlled (such as dust, dirt, and oily residues)
  - Correct abnormal conditions before proceeding to start-up
  - Depending on length of outage state-mandated inspections may be needed on pressure vessels, water heaters, and/or boilers prior to start-up
- Utility systems
  - Verify electric disconnect are turned off
  - Verify main switch gear, circuit breakers, and miscellaneous electrical apparatus are clean (air supply should not be used for cleaning), dry, and tight
  - If idle longer than a 1-year period, infrared testing should be considered on primary electrical components
  - Verify equipment fuel valves are shut off

Returning after a wildfire evacuation

When returning to locations following a wildfire evacuation, clear accumulated soot away from air intakes before starting systems that may draw contaminants into equipment or buildings.

- Machinery
  - Follow manufacturer's pre-start instructions such as cleaning and lubrication
  - If motors or controls have been subject to flooding, it is imperative that all objects are completely dry PRIOR to start-up
- Fuel-fired equipment
  - For fuel-fired equipment, have a certified technician test all fuel train and burner components in preparation for start-up

During start-up

- All systems
  - Monitor for abnormal conditions such as circuit breaker trip, heating, sparking, vibration, noise, or odor
  - Where abnormal conditions occur
    - Interrupt the start-up process
    - Shut down the system

- Correct the source of the abnormal condition before resume the start-up process

- Machinery
  - Follow manufacturer's start-up instructions
  - All critical safety controls for air, steam, or water supply shall be tested by a certified technician
  - Where needed, follow the manufacturer's emergency shut down procedures

After start-up

During the 24 hours following start-up, monitor the for signs of abnormal operation.

- Utility systems
  - Electric – As these systems are present in most building areas, tour the building to sense any abnormal conditions such as smoke or the odor of electrical breakdown
  - Fuel system – As these systems are present between the fuel source and the points of use, tour the building where the piping is routed to sense any abnormal condition such as the odor of natural gas or the leakage of fuel oil.
  - Where an abnormal condition is detected, have a qualified person isolate the condition by operating the nearest upstream disconnect or valve
- Machinery
  - Have qualified operator attend the machinery with more frequent checks
  - Follow manufacturer's pre-start instructions such as cleaning and lubrication
  - Where abnormal operation is detected, have the qualified operator implement the emergency shutdown procedure for the machinery involved

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