District Operations Utility Outage Process Reference Guide

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Purpose

The purpose of this guideline is to describe the actions the FM District Primary Contact (most likely the FM Team Manager (TM)) should consider to ensure utility outages are properly coordinated and communicated.


Impacted Groups

FM TMs, field staff and impacted user groups (utility outage dependent).

Definitions

Utility: Any service provided by an outside source, or manufactured in house (gas, water, electricity, fire suppression water, chilled water, steam, DI water, vacuum, compressed air, etc.) which facilitates building operations.

Planned outage: An interruption in utility services, which can be foreseen. Planned outages include all repair projects with enough lead time to allow them to be accomplished on a non-emergency basis and all capital and renovation projects which require outages during construction.

Emergency/Unplanned outage: an interruption in utility services that cannot be foreseen. Emergency outages are required when repairs must be accomplished immediately to safeguard property, research and occupant health.

Overview

Outages are typically required for the purposes of construction, renovation, isolation, maintenance, replacement, or repairs of existing systems, subsystems or component parts thereof.

Systems included in these guidelines include but are not limited to:

- Steam and condensate
- Compressed air
- DI Water Systems
- I.T. Systems
- Domestic Cold/Hot Water
- Electrical (High and Low Voltage)
- Elevator Systems
- Chilled Water
- Natural Gas
- Fire Suppression (pump, sprinkler, Alarm sys, etc)

This guideline does not apply to isolation valves, switches or other such devices that isolate a point of service device that shall result in only the loss of service of the specific piece of asset/fixture/device.
Planned Outage

All building system outages that result in an interruption of normal system service shall be reviewed, approved, and implemented with the full knowledge and involvement of the appropriate STAKEHOLDERS including FM personnel (Energy Management, TMs and project coordinators), the Primary Building Contact, Office of Information Technology, Office of Classroom Management, and other UMN personnel (Fire Marshal, etc.) as necessary.

The following procedures provide steps to assist the FM DISTRICT PRIMARY CONTACT (most likely the FM TM) to coordinate and inform building occupants of planned utility outages [refer to Energy Managements SOP titled Energy Management Planned Utility Outage for Energy Managements roles/responsibilities for the EM Utility Outage Lead]. Utility outage procedures contained herein cover basic communication steps only.

Procedures for a Planned Outage

1. Preplanning. Note: if outage impacts Energy Management utility, then the outage must be coordinated through Energy Management as they will be the lead for the outage. These steps are for the instances when District Operations is leading the outage.

   a. Set a tentative outage date
   b. Determine the key stakeholders for the outage. For all outages, the following should be considered as possible stakeholders:
      i. FM Energy Management (they may be able to perform needed maintenance during the outage so it is important to keep them informed)
      ii. Primary Building Contact
      iii. Data Center Operations (oia-entsvcs@lists.umn.edu)
      iv. Lock & Key Services
      v. Public Safety Emergency Communication Center (PSECC)
      vi. Elevator program manager
      vii. Building Automation Systems
      viii. Office of Classroom Management
      ix. Research Building Management Services
      x. Libraries

   c. Discuss/reach understanding on date/timeframe/duration of outage with identified stakeholders.
   d. Create a google calendar event for the outage for the appropriate date and time. Include all identified stakeholders from step 1b as ‘Guests’. Add 2 notifications to the calendar event:
      i. The first notification should be set to notify as a “Pop-up” 3 days prior to the scheduled outage date.
      ii. The second notification should be set to “Pop-up” 1 day prior to the scheduled outage.
2. Notification
   a. 3 Days before the approved date of the outage, the FM District Primary Contact will ensure outage notices are posted at all entrances and other key locations.
   b. Electronic notifications should also be sent to the impacted parties identified in step 1 via email or automated reminder notifications set up in a calendar event which all impacted parties were ‘invited’ to as attendees.
   c. Complete telephone notification if needed. Some that may need telephone contact prior to the outage are:
      i. OIT, OCM, FM Call Center, PSECC, Simplex, Library Server Rooms
      ii. Others as identified by the Fire Impairment SOP

3. Post Outage Actions: After restoration of services, technicians representing each technical area of Facilities Management shall survey the affected buildings/areas and ensure that systems in their respective areas are operational and that equipment is set in its normal operating position. This includes (but is not limited to): building HVAC and controls, elevators, fire alarm, building electric and emergency power systems, and building plumbing systems, etc.

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Emergency/Unplanned Outage

Emergency outages are required for repairs that must be accomplished immediately to safeguard property and/or health (people or animals).

A general outline of process steps to consider during an outage are listed below. The specific actions of FM will be determined during the outage; these are listed for consideration only to ensure as much communication/cooperation as possible

- Contact on-staff trade/mechanic to respond. If there is an outage, determine extent. If an outage is needed to make emergency repairs, determine impact of needed outage.
- Contact PSECC and FM Call Center as applicable to inform them of situation
- Contact Energy Management if needed (it should be up to whomever is contacted to initiate appropriate phone tree for EM)
- Work with responding emergency personnel as applicable
- Contact Primary Building Contact

Depending on the extent of the outage and the impact, consideration should be given to communicating with the customers of the building (see 1b in Planned Outage section) to take appropriate action such as:

- Shutdown any equipment or process that could be hazardous if power suddenly returns. Example: Unplug computers, equipment, appliances especially if not connected to surge protector.
- Do not open ultra-cold freezers, cold rooms, hot rooms, etc. if possible. Idea is to keep as much conditioned air in the space as possible. Take necessary steps to protect materials dependent on power.
- Do not use rest rooms as there may not be water pressure to remove waste, consider locking restrooms during the outage.
- Check to ensure proper personnel have been notified to protect research or animals or other special needs
- If possible, secure experimental work. Take extra precautions if moving hazardous material.
- Extinguish all flames
Restoration of Services. Every attempt shall be made to restore services as fast as possible. Services shall be restored in the general priority below:

- Building Life Safety
- Utility Life Safety
- Research Buildings
- Campus Housing and Hotel
- Auxiliary Areas
- Libraries, Classrooms, and Offices

Communicate return of services to appropriate personnel (at a minimum, the same people communicated with above who were notified of the outage).