

THE UNIVERSITY OF TEXAS

MD Anderson
Cancer Center

Making Cancer History®

UTMDACC INSTITUTIONAL POLICY # ADM1131

**FACILITIES PLANNED UTILITY OUTAGES
POLICY**

PURPOSE

The purpose of the policy is to define roles and responsibilities for requesting, coordinating, scheduling, and executing Planned Utility Outages.

POLICY STATEMENT

It is the policy of The University of Texas MD Anderson Cancer Center (MD Anderson) to establish and maintain a consistent process for requesting, coordinating, and executing Planned Utility Outages.

SCOPE

This policy applies to all faculty, trainees/students, and other members of MD Anderson's workforce and addresses MD Anderson-owned campus utilities systems and Utility systems in rented or leased property under the responsibility of MD Anderson (e.g., life safety, fire alarm systems).

Compliance with this policy is the responsibility of all faculty, trainees/students, and other members of MD Anderson's workforce.

TARGET AUDIENCE

The target audience for this policy includes, but is not limited to, all faculty, trainees/students, and other members of MD Anderson's workforce, including Facilities Management (FM) Project Managers, FM Operations and Maintenance (O&M) Staff, Contractors, and Stakeholders who request a Scheduled Utility Outage for:

- New construction.
- Renovation.
- Maintenance.

DEFINITIONS

Business Day: First full day of outage starts the clock for the timeline.

Contractor/Vendor: An individual or company hired to perform tasks on MD Anderson campuses but who does not receive wages directly from MD Anderson payroll.

Customer: Any faculty member, trainee/student, or other member of MD Anderson's workforce or any Contractor who may be affected by the Utility outage.

Energy Source: Any source of electrical, mechanical, hydraulic, pneumatic, thermal, or other energy.

Facilities Work Notification: A notification associated with Utility work or work in an area that customer operations will not be impacted by. Customers will notice fire alarm strobes and audible alarms.

FM Director: Facilities staff member responsible for managing a property/building and approving Utility outages affecting its operations, excluding fire detection and fire suppression outages.

FM Onsite Outage Manager: Facilities personnel responsible for managing the Planned Utility Outage execution. This person must be listed in the official outage e-mail notification.

FM Project Manager: Facilities personnel who manage construction/renovation projects.

FOC Outage Coordination Group: Facilities Management personnel responsible for guiding MD Anderson-approved personnel through the procedures outlined in this policy.

Hours of Operation: Outage coordinators will process Outage Requests from 6:30 a.m. - 3:30 p.m.

Large Project: A project that is estimated to have a significant number of outages during the course of the project.

Mission Area: Groups within Facilities Management that conducts technical investigations in clinical, research and administrative facilities spaces.

Outage Coordinator: Coordinates the FOC Outage Coordination Group.

Outage Request: A form that is used to collect pertinent information and to initiate the process for a planned/unplanned interruption of the normal/expected operation environment of the facility.

Outage Request System: A system that is used to collect and capture all data associated with the requisition and completion of a Planned/Unplanned Utility Outage.

Planned Utility Outage: A foreseen interruption of a Utility flow to an end user. Planned Utility Outages have a plan of action to accomplish specific tasks during the event and all parties have outlined end user affects.

Requestor: An MD Anderson workforce member or his/her approved designee who is authorized to input or generate Utility Outage Requests in the Utility outage system.

Scheduled Outage: An outage is considered "scheduled" whenever the outage coordinator sends the final e-mail notification of approval (e-mail includes the outage date/time and pertinent details).

Shop Response: An outage system document completed by the Technical Investigator that documents the impact and further defines the scope of the Utility outage.

Stakeholders: Facilities Management staff/clients/end users, including Contractors/Vendors, who have participated in the planning, implementation, and execution of a Utility outage or will be affected by the event.

Technical Investigator: A Facilities Management staff member who is responsible for investigating the impact of the Outage Request and preparing the Shop Response.

Unplanned Utility Outage: An unforeseen interruption that has occurred or is currently in progress relative to a Utility failure or building component breakdown. Unplanned outages are by nature urgent. There is no timeline compliance.

Utility: Any service provided by an outside source or manufactured in-house that facilitates building operations (e.g., gas, water, electricity, fire suppression water, fire alarm systems).

Work Notification: An Outage Request that is downgraded that should not affect end users. Work Notifications could also function as a form of communication to inform end users and O&M of work going on in their areas.

PROCEDURE

1.0 Request Outage

- 1.1 The Requestor will submit a completed Outage Request form through the Outage Request System.

Note: Refer to the [Appendix A - Summary of Outage Schedule Procedure Timeline](#) for typical timelines for executing outages in all MD Anderson buildings based on the scope of the outage, as determined by the request description (initial level) and Shop Response (final level).

- 1.2 The Outage Coordinator will accept an Outage Request Form and ensure that it is forwarded to a Technical Investigator.

Note: A returned/rejected Outage Request Form must be re-submitted.

- 1.3 Mission Areas must generate a work order in the computerized maintenance management system (CMMS) and indicate "outage" as the Work Type, along with the most appropriate Asset Number for the associated equipment involved in the outage.

Note: Time and expenses must be assigned, as appropriate, to the work order.

- 1.4 Outage Requests received after 3:00 p.m. will be processed the next Business Day.
- 1.5 All unplanned outages must be captured in the outage database and have an associated work order.
- 1.6 All floor plans and drawings should be attached by Requestor if traffic flows are affected. Drawing will be required for Interim Life Safety Measures (ILSM) investigations.

2.0 Evaluate Outage

- 2.1 The Technical Investigator will determine the scope and impact of the Outage Request and make note if another craft / Shop Response is required for the outage in the Shop Response form.
- 2.2 The Technical Investigator will review historical outages for the affected equipment before the field investigation and will validate current conditions.
- 2.3 The Technical Investigator will complete and submit the Shop Response in the Outage Request System.

- 2.4 Environmental Health and Safety (EH&S) will review and respond to all Outage Requests that may impact life safety systems (e.g., sprinkler, fire alarm, egress paths) and perform an ILSM evaluation.
- 2.5 The Outage Coordinator will perform an initial review for the terms "fire," "emergency," "egress," and "life safety systems." If any of these terms are present, the Outage Request will be forwarded to EH&S. The final ILSM assessment and plan will be determined by EH&S.
- 2.6 Project management is encouraged to provide dedicated contract staff for Large Projects to investigate (e.g., Shop Responses) to expedite outages.
- 2.7 Work Notifications will be handled as follows:
- A. The Outage Request will be turned into a Work Notification if the potential for impact to stakeholders or building tenants is non-existent.
 - B. The mission area's Technical Investigator will complete an assessment of impacts on the Customer and building before indicating "No Impact" as a response to the Outage Coordinator.
 - C. If the Work Notification requires an interruption of Utility service, an outage will be implemented, per the proper procedure, to reduce risk to the Stakeholders and operations.

Examples of Utility Work Notifications include but are not limited to:

- Hot Taps (e.g., domestic water).
 - Turning off Energy Source to equipment that is not in service.
 - "Hot" Electrical Work (e.g., installing breakers or bus plugs in a hot panel or riser).
 - Utilities that have redundant sources (e.g., domestic water tanks, pumps, heat exchangers).
 - Testing of systems (e.g., fire detection systems, fire pump tests, fire alarm function testing).
 - Load shed testing.
 - Uninterrupted Power Supply (UPS) and equipment on UPS.
 - Corridors.
 - Driveways.
- 2.8 The Shop Response must include the possible impact description as well as a timeframe for restoration of Utility or work area. End users and O&M must be made aware of the possible impact in case of failure of redundant system/equipment. End user(s) and O&M must have some say of the date and time it may take place.
- 2.9 Lockout/tag-out and/or live work must be indicated in a check box on the Shop Response form.

3.0 Coordinate Outage

3.1 The Outage Coordinator will review the Shop Response(s) and establish the final level of the outage as well as the date and time for the outage after communicating and coordinating with the personnel impacted by the outage and consulting with group requesting the outage.

3.2 The Outage Coordinator will obtain approval from the FM Property Manager / Director for the final scheduled date and time of the outage.

Note: EH&S will approve fire alarms and fire sprinkler systems.

3.3 The Outage Coordinator will send the final Facility Outage Notification via e-mail of the approved outage to Stakeholders and Customers.

Note: This Facility Outage Notification e-mail makes the outage an officially Scheduled Utility Outage. The FM Onsite Outage Manager and their one up, FM PM and Contractor PM must be listed with proper contact information if applicable.

3.4 The Requestor will notify Contractors/Vendors when the outage schedule is official and will provide them with all the pertinent information.

For a complex outage, it is recommended that the Requestor and Contractor do a pre-outage walk-through to confirm that the outage will occur as scheduled.

3.5 The Outage Coordinator(s), Mission Area, and Stakeholders will meet, as needed, to discuss outages, review requested and Scheduled Utility Outages, and review the status of all Shop Response requests.

3.6 The Outage Coordinator schedules and executes a Planned Utility Outage.

3.7 FM and/or designated Contractor personnel will execute the outage.

3.8 The FM Director, and/or his/her designee, will approve the cancellation of the outage prior to the execution of the outage or the extension of the outage if appropriate.

3.9 The FM Onsite Outage Manager will notify the Facility Operations Center (FOC) (Monitoring Services) via radio or e-mail if the work has been completed.

3.10 The FOC or the Outage Coordinator will notify Stakeholders if an outage has been cancelled or extended.

3.11 The FOC will log completed and cancelled outages in the Outage Request system.

3.12 Outage coordinator will schedule outage only after all EH&S actions are completed. See Utility Outage Process Flow.

3.13 Fire and life Safety outages:

ILSM Shop Responses will not be required if the words "commission," "inspection," or "testing" are part of the description in the Outage Request. A new ILSM Shop Response will be required if the date and or time changes for the outage.

3.14 Pre-construction meetings should be held with O&M and Outage Coordination ASAP to assure that any predetermined outages list be communicated so that these outages may fall within Outage Scheduling Procedure Timeline.

3.15 A project event that affects Facility operations or an event that was not forecasted but still must be completed immediately to keep the project moving towards completion requires an

Outage Request. Some of these outages may be requested on short notice, but will be tracked and reflected in the monthly metrics report. (See [Appendix A - Summary of Outage Schedule Procedure Timeline](#).)

4.0 Cancellations

4.1 If situations require the outage to be cancelled or rescheduled, the FM Project Manager / FM Director / FM on-site manager and/or their designee are responsible for cancelling an outage after it has been approved and before it is executed.

4.2 The FOC and Outage Coordinators will communicate cancellations as follows:

A. During normal Hours of Operation:

Outage Coordinator issues a cancellation notice under the direction of the FM Project Manager / FM Director or on-site manager one-up.

B. After normal Hours of Operation:

The FOC issues a cancellation notice under the direction of the FM Project Manager / FM Director / on-site manager one up.

Note: If outage is executed by a Contractor and the PM is not available, the Contractor should call the FOC with the outage number so the FOC may contact the affected parties.

C. All Stakeholders will be notified of the cancellation.

4.3 Reasons for cancellations:

A. Outage scope of work change after request has been submitted.

B. Incorrect information found on the original request. Location/Utility etc.

C. Operational need to cancel the outage.

D. Date or time change.

E. Weather.

Outage cancellation approval must be given by a one-up staff member, so the loss of time and preparation are considered for each outage.

4.4 ILSM-related Outages:

If a change in scope, date, time, Contractor, etc. is needed before the outage notification is e-mailed, the Outage Coordinator:

A. In the existing software:

- Makes changes to existing outage.
- Informs all who submitted Shop Response of the changes and asks if their Shop Response is still valid.
- Requests new ILSM (24-hour turn around).

B. In new software:

- Cancels existing outage.
- Informs all who submitted Shop Responses and asks if existing Shop Response is still valid. If so, copies and pastes form old outage to new outage. If not, requests new Shop Responses.
- Notifies FLSPM of original ILSM and requests new ILSM (24-hour turn around).

If a change in scope, date, time, Contractor, etc. is needed after the outage notification is e-mailed and:

C. Change was made by Contractor (e.g., no show, late, wrong equipment):

The outage is cancelled, and a new outage must be requested according to policy timeframes as related to outage complexity.

D. Change was made by MDACC personnel (e.g., O&M unavailable due to emergency):

The outage is cancelled, and a new outage must be requested with a three-day turnaround time.

4.5 Outage extensions:

Outage extensions must be verbally communicated to the FOC/Outage coordinators by the appropriate mission area or department authorized outage approver. The FOC/Outage coordinators will then notify all groups associated with this outage (via e-mail).

5.0 Unplanned Utility Outages

5.1 Requests and Shop Responses are requested immediately or soon after (when appropriate).

5.2 Life safety measures must be considered very early in this process, as soon as the FOC/Outage coordinators are contacted, so that they can send out an official notification to building tenants and EH&S for ILSM.

5.3 All unplanned outages must have a work order associated with them. Samples of unplanned outages include, but are not limited to:

- A. A city-related Utility failure that affects MDACC facility(ies).
- B. An unforeseen equipment failure that affects one or more building systems.

ATTACHMENTS/LINKS

[Appendix A - Summary of Outage Schedule Procedure Timeline \(Attachment # ATT1769\).](#)

[Utility Outage Process Flow.](#)

RELATED POLICIES

[Interim Life Safety Measures Policy \(UTMDACC Institutional Policy # ADM0210\).](#)

[Lockout/Tagout of Energized Equipment Policy \(UTMDACC Institutional Policy # ADM0229\).](#)

JOINT COMMISSION STANDARDS / NATIONAL PATIENT SAFETY GOALS

EC.02.05.01;

“The hospital manages risks associated with Utility systems.” *Comprehensive Accreditation Manual for Hospitals (CAMH)*, 2015.

LS.01.02.01;

The hospital protects occupants during periods when the Life Safety Code is not met or during periods of construction.” *Comprehensive Accreditation Manual for Hospitals (CAMH)*, 2015.

OTHER RELATED ACCREDITATION / REGULATORY STANDARDS

None.

REFERENCES

None.

POLICY APPROVAL

Approved With Revisions Date: 12/01/2015

Approved Without Revisions Date:

Implementation Date: 12/01/2015

Version: 12.0

RESPONSIBLE DEPARTMENT(S)

Environmental Health & Safety

Appendix A

SUMMARY OF OUTAGE SCHEDULING PROCEDURE TIMELINE REF, PCPF, AFCO, FPDC, IT/Telecomm

This document illustrates a summary of the flow of action and a *typical* timeframe for executing outages in buildings with critical research, patient care, or administrative functions based on the level and scope of the outage.

SUMMARY OF OUTAGE SCHEDULING PROCEDURE TIMELINE REF, PCPF, AFCO, FPDC, IT/Telecomm				
This document illustrates a summary of the flow of action and a <i>typical</i> timeframe for executing outages in buildings with critical research, patient care, or administrative functions based on the level and scope of the outage.				
1. Request Outage	2. Evaluate Outage	3. Coordinate Outage	4. Schedule and Execute Outage	Complete Post Outage Activities
Level 1 – Impacts ranging from “No effects to normal operations”, to less than one-half of a building floor. Level 2 – Impacts ranging from one-half of a building floor to less than one-half of a building. Level 3 – Impacts ranging from one-half of a building, up to an entire / multiple buildings.	LEVEL 1	LEVEL 2	LEVEL 3	
Step 1. REQUEST OUTAGE	WHO TAKES ACTION	BUSINESS DAYS FOR MOST OUTAGES.		
Complete, submit Utilities Outage Shutdown request.	Requestor	0	0	0
Accept outage, or return outage to requestor.	AFCO Outage Coordinator	1	1	1
Step 2. EVALUATE OUTAGE: Multiple crafts and possibly multiple Departments.				
Complete shop response. The shop response is used by the outage coordinator to determine the scope of outage impact.	Technical Investigator #1	2	3	5
Complete shop response. The shop response is used by the outage coordinator to determine the scope of outage impact.	Technical Investigator #2	1	2	4
Complete shop response ILSM. The shop response is used by the outage coordinator to determine the scope of outage impact.		1	2	2
Complete shop response by the IT Information Technology. The shop response is used by the outage coordinator to determine the scope of outage impact.		1	2	2
Assign outage level based on the outage impact as determined in the shop response.	AFCO Outage Coordinator	0	0	0
Step 3. COORDINATE OUTAGE				
Determine preliminary outage scheduled date using shop response and negotiate preliminary outage date with key stakeholders.	AFCO Outage Coordinator	3	2	3
<i>Additional time may be required to: 1) obtain a consensus from key stakeholders who do not agree with requested outage date; 2) escalate to the FM property manager / director and/or FM AVP; and 3) receive final approval from FM property manager / director.</i>				
Step 4. SCHEDULE AND EXECUTE OUTAGE				
Notify all impacted personnel of approved outages via email with lead time for preparation of the outage. Conduct walk through of impacted area within 48 hours of outage, if feasible. Execute the outage.	AFCO Outage Coordinator, Requestor, Contractor or FM Onsite Outage Manager	1	3	3
ELAPSED BUSINESS DAYS for STEP 1 - REQUEST OUTAGE TO STEP 4 - SCHEDULE AND EXECUTION UTILITY OUTAGE. <i>Note: See step # 3 as additional time may be required if key stakeholders require a 7-10 day notice if their area is affected.</i>		10	15	20
COMPLETE POST OUTAGE ACTIVITIES				
* Monitoring Services is notified about early, extended, cancelled and/or completed outages by FM onsite manager. * Monitoring Services notifies via email all impacted customers and key stakeholders about early, extended, and/or cancelled outages. * Monitoring Services updates shift log with outage complete after FM onsite manager notifies FOC-Monitoring Services.	FM Onsite Outage Manager, Monitoring Services			