


**UNIVERSITY OF TOLEDO
FACILITIES AND CONSTRUCTION**

Section:	Administrative	Procedure Number:	ADM-06
Subject:	Failure of Air Handling Equipment	Effective Date:	January 1988
		Revised Date:	October 2016
Facilities Officer:		Reviewed Date:	December 2019

Standard Operating Procedure

Should an air handling equipment failure occur, specific procedures will be taken to ensure the safety and welfare of all building occupants and to minimize the time needed to restore normal air handling capability to the disrupted areas.

Purpose

To provide guidelines for action in the event of an interruption of the normal operation of a piece of air handling equipment which is designed to provide a controlled environment for patients, visitors, students, staff and essential equipment.

Procedure

In the event of an air handling equipment failure or malfunction, the following notification system will be implemented:

1. The Central Control Operator shall notify:
 - A. During the regular working hours: 7:00 a.m. to 3:30 p.m., Monday through Friday, notify the Manager, Mechanical Maintenance, immediately.
 - B. Should the failure or malfunction occur before or after regular working hours, notify the appropriate maintenance personnel on duty and inform them of the problem as it was received through the centralized building automation system.
2. The appropriate supervisor or designate, or the maintenance personnel on duty should investigate the malfunctioning or failed equipment report by making an immediate visual inspection of the equipment.
3. If the malfunction has occurred after hours, the responding maintenance personnel on duty shall report back to Central Control any unusual conditions found and the status of the malfunctioned or failed equipment.
4. The Central Control Operator on duty shall then notify the Manager of Electrical/Systems or the appropriate supervisor and report any unusual conditions, if the malfunction has occurred after hours or if the HVAC supervisory staff cannot respond to the alarm.

	PHONE	MOBILE PHONE
Mike Nowicki Manager, Mechanical Maintenance & Joint Commission Compliance	419-383-4913	419-367-1602
Todd Marti Director, Facilities Maintenance & joint Commission Compliance	419-383-4357	419-265-3281

The Central Control Operator upon further direction from the appropriate supervisor or manager will begin the call-in procedure for additional facilities personnel in consecutive rotation, as outlined in the on-call list located within Central Control.

5. The HVAC supervisor staff will define the cause and severity of the problem and report this information directly to the University Director, Facilities Maintenance.

	UT PHONE	MOBILE PHONE
Todd Marti Director, Facilities Maintenance & Joint Commission Compliance	419-383-4357	419-265-3281

6. The Director Facilities Maintenance along with the responding appropriate supervisory staff, shall evaluate the severity of the problem and taken appropriate action in restoring normal air handling service back to the area(s) affected by the outage.

The main criterion for determining the cause of action will be the time table for restoration of the normal air handling service and an evaluation of the capability to maintain an acceptable amount of air exchanges.

The actual needs for equipment and actions required will have to be based on the extent of damage incurred to the air handling system.

7. The Director, Facilities Maintenance will notify the AVP, Facilities & Construction of the location of the outage or malfunction and the plan of action and the estimated time required to restore the air handler back to service.
8. The first HVAC person to arrive at the failure site should implement lockout/tag-out procedures if appropriate.

The Manager, Mechanical Maintenance, or appropriate supervisor or the designee will assess the damage and if the UT staff cannot make repairs, shall implement the following procedures:

- A. If the fan has breached its housing or steel fabrication is needed; one of the following vendors should be called:
 1. NBI
2362 South Ave.
Toledo, OH 43609
Contact: Bob Bergan
Phone: 419-382-9755
Cell: 419-250-0117

2. Waterville Sheet Metal Company
1210 Waterville-Monclova Road
Waterville, OH 43566
Phone: 419-878-5050
After 3:30 Contact: Jim Wortketter
419-351-2327 (cell)

3. V.M. System, Inc.
3125 Hill Avenue
Toledo, OH 43607
Daytime Phone: 419-535-1044
After Hours: Ken Gabel 419-461-2040 (cell)

B. If the mechanical failure is of a magnitude that cannot be accomplished within the Facilities Maintenance Department; one of the following mechanical contractors should be called:

1. Dunbar Mechanical
2806 N. Reynolds Road
Toledo, OH
24/7 Service Line: 419-537-1900

2. Dimech Services, Inc.
5505 Enterprise Blvd.
Toledo, OH
24/7 Service Line: 419-727-0111

C. If during the course of repair, it is determined a specific part needs to be made or modified; the following company should be notified:

1. Alton Precision Machining
425 W. Sophia Street
Maumee, OH
Daytime Phone: 419-893-0201
After 3:30 pm: Ben George 419-283-4926

D. After repairs are complete and before the fan can be placed in service, a vibration analysis will be done and the fan(s) balanced as needed. The following companies should be contacted for this service:

1. Industrial Motor Service
1038 Matzinger
Toledo, Ohio
24/7 Service Line: 419-727-9145

2. Lemsco-Girkins, Inc
2056 Canton Avenue
Toledo, OH
24/7 Service Line: 419-242-4005
419-360-1788 John (cell)
419-360-1862 Aaron (cell)

9. If deemed necessary to meet the emergency as determined by the Director of Facilities Maintenance and the Manager of Maintenance Facilities, the following procedures may be implemented:
- A. Determine whether the supply or return fan of the malfunctioning air handling unit can be run without further damage to the unit. The fan should be run if it does not pose a safety hazard to those personnel working on the system.
 - B. Air dampers on the air handling unit should be configured to give the best possible air circulations.
 - C. Doors can be opened to adjoining areas served by other air handling units for circulation.
 - D. Outside windows and doors can be opened for cooling as needed when the outside conditions warrant.
 - E. Outside windows and doors should be closed for heating as needed when the outside conditions warrant.
 - F. Air can be circulated using plug in portable fans as needed.
 - G. Notify the Vice President of Facilities and Construction.