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UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Data Center Services

TSDC (HAB) Data Center Fire Suppression Procedures

October 9, 2023

HAB Fire Suppression Procedures

Two HAB Fike 25 Fire Suppression and Detection systems protect the HAB data centers. These systems will release the fire-retardant agent (ECARO 25, or FM 25) in 30 seconds after the alarms go off. The doors must remain closed for at least 10 minutes for the clean agent chemical to work. The two systems are separate and do not interact simultaneously.

The systems are in rooms 49 and 54.

- To discharge the HAB Fike system two alarms must trip in each zone.
- The first alarm sends an alarm to the UIUC Public Safety and the Urbana Fire Department. When the alarm is tripped, the alarm will sound and the strobe light by the panel will be activated.
- You have 30 seconds after the 2nd alarm is sounded to abort/disarm the release of the agent.
- Abort stations (yellow push buttons) and manual pull stations (red push buttons) located by each door in the sever rooms.
- To delay the release of an agent, press the abort button. Depressing this abort button only stops the clock on the release of the agent. When the button is released, the clock starts to run from were ever the system was in the count down time schedule. It is recommended that you hold the button until you have someone at the panel to switch over the reset to the system. If you are across the room, you may not have enough time to get across the room before the agent is discharged.

Include picture(s) here.



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- To manually discharge the fire suppression, pull the manual release at one of the manual release stations in the server rooms. This will discharge the agent immediately.
- If the system discharges, the system will automatically shut down all power in the two server rooms protected.
- **If you are in any of the two areas when the system discharges exit the room immediately and close the doors to the server rooms.**
- If the Fike system discharges, the chemical expands quickly, filling the room with a dry agent. The data center room is to remain shut for at least 10 minutes or longer.
- The agent is not considered deadly, though they can still produce toxic by-products as they work to extinguish a fire. Occupants in a room should exit quickly when a fire suppression system is activated.
- Call the UIUC Public Safety immediately at 3-2326 or 217-333-1216.
- Do not re-enter the room until all clear is given and the agent has dissipated. Once all clear is given, you should be able to enter the room after fifteen minutes.

UIUC Facilities Management Phone Numbers

UIUC F&S Service Desk 24 Hours a Day 217-333-0340

UIUC Police Emergency 3-2326 or 217-333-1216

Alice Jones 217-369-2191

How to disarm/abort the HAB Fike Fire Suppression System

1. Call Public Safety, 333-1216, and inform them the system will be disabled.
 - a. Room 54E: trouble 1-55, alarm 1-56
 - b. Room 49: trouble 1-59, alarm 1-60
2. Call F&S, 333-0340, ask for Shop 25 and inform them.



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3. Turn the key on Agent Disconnect Switch to Disconnected position, wait for solid green light indication (by Disconnected) before proceeding to next step. This physically stops the agent from being dumped.
4. Press acknowledge button on panel to acknowledge alarms.
5. Toggle the System Normal/System Disable switch located in panel box to System Disable position. This disables the system through logic software.
6. Press the acknowledge button on panel to acknowledge alarms.
7. System will now be in a disabled state.

How to arm/enable the HAB Fike Fire Suppression System

1. Call Public Safety, 333-1216, and inform them the system will be enabled.
 - Room 54E: trouble 1-55, alarm 1-56
 - Room 49: trouble 1-59, alarm 1-60
2. Call F&S, 333-0340, ask for Shop 25 and inform them.
3. Clear all alarms by pressing the reset button on the panel, this may take up to 1 minute to clear the alarms.
4. **DO NOT ENABLE THE SYSTEM WHEN ANY ALARMS ARE PRESENT. THIS COULD CAUSE THE AGENT TO DUMP.**
5. Toggle the System Normal/System Disable switch located in panel box to System Normal position. This enables the system through logic software.
6. Press the acknowledge button on the panel if needed.
7. Once alarms are cleared turn the key on Agent Disconnect Switch to Connected position. This will physically enable the agent tank/s.
8. Call Public Safety, 333-1216, and inform them the system has been enabled.

Locations of Fire Suppression control panels, manual pull stations, & abort release stations.



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- 1) Room 54 (server room) is protected by the Fike Fire Suppression system.
 - a. The system control panel is located on the North wall.
 - b. The manual pull stations are in the following areas in room 54.
 - i. The system control panel
 - ii. At each exit – Red push button
 - c. The abort release stations are in the following areas in room 54.
 - i. The system control panel
 - ii. At each exit – Yellow push button

Include picture here.

- 2) Room 49 (server room) is protected by the Fike Fire Suppression system.
 - a. The system control panel is located on the North wall.
 - b. The manual pull stations are in the following areas in room 49.
 - i. The system control panel
 - ii. At each exit – Red push button
 - c. The abort release stations are in the following areas in room 49.
 - i. The system control panel
 - ii. At each exit –Yellow push button

Include picture here.



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Remote alarming

The fire suppression panels in Room 54 and Room 49 send out emails and pages to help@datacenter.illinois.edu when the panels are in a unhealthy state.

Additional alarms received.

1. Trouble mode and the agent release has been disabled.
2. Smoke detector communication alarms.
3. Discharge alarm.