

FRANCES MAHON DEACONESS HOSPITAL
621 3rd St. So.
Glasgow, MT 59230

DEPARTMENT: Environment of Care

PROCEDURE: EOC-240

SUBJECT: Internal / External Flood Procedure

PURPOSE: To supplement the facility-wide Emergency Operations Plan and to outline special challenges related to an external flood. An external flood is one that originates from an external source. Flood waters may or may not enter the facility.

RESPONSIBILITY:

- All Staff

PROCEDURE:

1. Mitigations:
 - a. Frances Mahon Deaconess Hospital (FMDH) recognizes that many of our mechanical and utility systems are located below grade (underground). The expense of moving them is significant. Therefore, our mitigation plan for this reality is to move these systems at the time that major upgrades to the systems occur.
2. Preparedness:
 - a. Determine the need for sandbags, sand, and selects stockpile locations of these materials.
 - b. Annually through the Environment of Care (EOC) Committee's Hazardous Vulnerability Analysis, the facility will prioritize its response needs related to external flood.
 - c. Training/Education:
 - i. All employees will receive training regarding the Emergency Operations Plan and the identified disaster vulnerabilities, annually, through the facility wide Health Stream training. Specific training relevant to external floods will be conducted at the Spring All Staff Meeting.
3. Purpose
 - a. The flood plan provides detailed procedures to be implemented when flooding occurs inside / outside the hospital. Internal flooding is typically an unexpected event that can be financially, medically, and structurally devastating. This type of event could be caused by storms, facility location in a flood zone, broken pipe or water main, city sewer system pressurization, or hydrostatic pressure. The hospital flood plan is intended to help protect patients, staff, and the facility during a flood. During an extreme internal flood, a partial or complete evacuation of the facility may be needed. With this, safe patient care and medical management need to remain intact. The scenario for an internal hospital flood should always be

assessed. An evacuation should only be ordered if the situation requires and should be activated through the criteria below.

4. Emergency Flood Contacts

- a. The following agencies and responders may be contacted by FMDH to help manage a flood incident:

Organization	Company/Agency Contact name	Phone-number Primary	Resources
Valley County DES	Rick Seiler	263-1479	Local, County, State Assistance, Sandbags
Glasgow Weather	Tanja Franzen Local office	230-1151 228-4042	Forecasts
City of Glasgow	Becky Erickson Mayor	228-2476	City Resources
Glasgow Fire	Brandon Brunelle Fire Chief	263-2726	Fire trucks to pump, manpower
Valley County	Commissioners	228-4333	County Resources
Long Run Fire	Bob Hansen Fire Chief	263-8625	Fire trucks to pump, manpower
Valley County Transit	Colleen Pankratz	228-8747	Transportation
EMS	Connie Wethern	406-263-1482	Transportation, Lifting and moving
Northwestern Energy		888-467-2353	Electrical
MDU		800-638-3278	Natural Gas

5. Internal Flood Activation

- a. The most serious decision in the event of an internal flood is partial or full-evacuation of the building. Usually during any internal flood, unless there is a direct threat to patients or employees in other areas of the building, only the affected area will be activated.
- b. If there is a direct threat to the safety and/or life of individuals in the area, then employees should initiate evacuation of the area immediately.
- c. During an internal flood, general evacuation procedure should be followed and Hospital Incident Command System (HICS) will be activated.
- d. If there is no immediate danger, the extent of damage and threat will be assessed by Incident Command, Facilities Director and the Safety Officer, and evacuation may eventually become necessary. If the decision to evacuate has been made, refer to Evacuation Policy and Procedures.
- e. Internal Flood Response Procedure
 - i. Activate HICS
 - ii. Patient Safety

1. Move patients from flooded areas to other locations within the facility, as ordered by Incident Command.
 2. Hospital will transfer patients as needed, using the transfer protocol in the evacuation plan.
 - iii. Hospital will cancel non-essential patient care services (i.e. surgeries, outpatient procedures, etc.) as determined by Hospital Incident Command.
 - iv. Primary concern is for facility safety
 1. FMDH Incident Command will contact contractors/agencies to assist in flooding issues.
 - v. Hospital Public Information Office (PIO) will provide media briefings and regular updates and safety recommendations to staff, patients, and families as designed in the hospital evacuation plan.
 - vi. Resources will be requested as designed in the hospital evacuation plan.
 - vii. FMDH Facilities Services Director will assess possible loss of water/pressure, power failure, loss of operations due to are or facility flooding.
- f. Resources (if applicable)
 - i. FMDH has equipment to address flooding of the grounds and measures to prevent water from flowing into the facility. Facility equipment for this type of incident is listed below:
 1. Maintenance Supplies:
 - a. Sandbags
 - b. Sand
 - c. Pumps
 - d. Drain Seals
 - e. Shut Off Valves
 - f. Shovels
 - g. 5 gallon buckets
 - h. Cat litter
 - i. Rain gear (rain ponchos, rubber boots, rubber work gloves)
 2. Dietary Supplies:
 - a. Drinking water (2 pallets of bottled water (240 - 8 oz bottles)
 3. Housekeeping
 - a. Anti-bacterial hand sanitizer (5 cases of refills (8 refills per case)
- g. Communication
 - i. Communication during an internal-flood incident or threat is crucial. The FMDH call roster will be activated as appropriate. Emergency management, law enforcement, surrounding hospitals, and other emergency response agencies will be notified if flood poses threat to hospital facility and hospital operations. FMDH Incident Command will continue to assess the current threat and damage regularly and

will initiate partial horizontal or vertical evacuation of hospital departments and hospital areas as seen necessary. Department directors should stay in close contact with Incident Command during an internal-flood emergency to quickly respond when asked. If a department will be “likely evacuated,” general preparation for evacuation shall be initiated for smooth and timely evacuation response if needed. If a department will be “likely surged with patients,” (e.g. taking patients in from another department) general preparation for patient surge should be taken.

- h. Security
 - i. FMDH Incident Command liaison officers will coordinate with local law enforcement to secure facility areas as needed during an internal flood.
- i. Recovery and Response
 - i. FMDH shall designate recovery and response issues are seen necessary for the facility. This may include:
 1. Continuation of patient care services
 2. Decontamination
 3. Critical infrastructure restoration
 - a. Electrical
 - b. Heating
 - c. Cooling systems
 - d. HVAC
 - e. Vacuum tube
 4. Demobilization
 5. System Recovery
 6. Financial: documentation and tracking of response expenses
 7. Criteria and procedures to return to normal operations
 8. Equipment safety checks
 9. Debriefing

6. External Flood Response Procedure

- a. Level 1: (Flood Watch) A Flood Watch is issued when flooding is possible within the designated watch area – be alert. A Watch means to be prepared for possible flooding.
 - i. When the watch notice is received by the facility, the Health Unit Coordinator (HUC) will monitor the progress of the watch.
 - ii. The Administrative Call Person (ACP) will be notified by the HUC of the watch with details of the watch notice disseminated.
 - iii. The ACP will assess the potential impact on the hospital facility given the details of the watch notice. (Such as location of potential flooding etc...)
 - iv. Further actions will be directed by the ACP as necessary.
- b. Level 2: (Flood Warning) A Flood Warning is issued as an advance notice that a flood is imminent or is in progress at a certain location.
 - i. When the warning notice is received by the facility, the Health Unit Coordinator (HUC) will monitor the progress of the warning.

- ii. The Administrative Call Person (ACP) will be notified by the HUC of the warning with details of the warning notice disseminated.
 - iii. The ACP will assess the potential impact on the hospital facility given the details of the warning notice. (Such as location of potential flooding etc...)
 - iv. If in the judgment of the ACP the facility has the potential to be impacted by flood waters, the Hospital Incident Command System (HICS) will be implemented.
 - v. The following areas will be protected with sandbags:
 - 1. South Employee Entrance, Southwest Entrance, Medical Arts Entrance, The OB Fire Exit and Basement Access Doors will be completely sealed off.
 - 2. The Emergency Room Entrance, the Main Entrance and the Patient Discharge Entrance will be protected by a short dike constructed of sandbags.
 - 3. Loading dock crawl space access needs protection. (sand bags/ plastic seal, plywood)
 - 4. Outside stairwell to basement needs protection from seepage. (clinic side)
 - 5. All vents to the basement and crawl spaces will be completely sealed off.
 - vi. The following doors are elevated and do not require flood protection:
 - 1. The loading dock
 - 2. The Glasgow Clinic Rear Entrance
 - vii. Departments will implement department specific plans as necessary.
 - c. Level 3: (Evacuation) Flood has occurred follow EOC-225 Evacuation Procedure
7. Mitigation for External Flood Prevention
- a. Move snow away from facility foundations
 - b. Get snow off roof tops
 - c. Check sump pumps in basement areas for function
 - d. Seal leaky foundation areas
 - e. Ensure sewer backflow valves are operating
 - f. Elevate future utilities that are located in the basement areas
 - g. Clean and clear all storm drains of debris
 - h. Identification of storm drains critical to maintain to keep facility protected (2011 After action report - photographs and descriptions of drains to be protected)
8. Glasgow Milk River Flood Stages at FMDH
- a. Action stage 23.0 feet
 - b. Flood stage 25.0 feet
 - c. Moderate Flooding 31.0 feet
 - d. Major Flooding 32.8 feet
 - e. FMDH dike 37.0 feet
9. Actions Affecting Flood Outcomes:

- a. Levee saturation
 - b. Road saturation and failure
 - c. Glasgow storm drain gates closed
 - d. Dike leak
 - e. Sinkholes
 - f. FMDH Storm drain backup / sewer backup
 - g. Flood related illnesses
10. Other Considerations:
- a. Detour traffic around facility during flooding (sight-seers)
 - b. FMDH wellness section flood preparedness information
 - c. Radio spots on flood related topics
 - d. Assist Valley County Health and Sanitarian with mold and mildew cleanup information
 - e. Form joint task force to meet weekly to keep all agencies informed and connected with updates and with each other's needs.
11. Recovery:
- a. Ongoing assessments will be conducted throughout the flood event to determine the necessary actions to bring the facility back to normal operations. Based on this assessment FMDH will utilize the appropriate resources necessary to resume operations.
12. Decontamination
- a. FMDH will follow decontamination and clean-up guidelines, including bacteriological surveillance and potable water supply sanitation.

REVIEW PROCESS:

- The review process is scheduled for every three years or as needed.