

HEALTH CARE FACILITY SCORING FOR SHELTERING-IN-PLACE CAPACITY
February 8, 2011

Please return this form to Dr. Stephen Pickard, NDDoH even if not requesting approval to shelter-in-place.

The policies expressed in this document are accurate as of the day of its writing, but are subject to change.

Background

Earthen levees designed to hold back flood waters are unpredictable; not even previous levee performance guarantees future performance. They may fail without warning.

Patients in health care facilities, including acute care hospital, LTAC, skilled or basic care nursing facilities, assisted living and medical congregate care facilities are considered medically frail; therefore, the goal of NDDoH is never to evacuate these patients through flood water. However, the agency may risk that possibility if flood control measures are strong and the facility is fully capable of caring for patients for multiple days without outside assistance should flooding occur. No policy can be applied in all circumstances; exceptions may have to be made or the level of risk taken may be adjusted up or down according to circumstances and the recommendations of those on the ground in the city.

If a facility floods, it must evacuate, but evacuation will be time consuming and supplies are unlikely to reach the facility without rescuer assistance. Consequently, facility must be prepared to be entirely on its own resources until assistance arrives and evacuation can be completed (i.e., shelter-in-place). External contracts for delivery of materials will be valueless and are not considered in ability to shelter-in-place against flooding. Isolation will include isolation from employees. A facility may have time to bring in additional staff in the hours after a levee breaks, but for planning purposes, agreements with employees to staff the facility in a disaster should be considered valueless for those employees whose homes will flood if the facility floods or whose homes have already flooded.

Although evacuation of a flooded facility can be conducted by high water vehicle as long as flooding does not exceed 34 inches¹, use of a bus (stretcher or wheelchair), which is needed for rapid evacuation, is limited to 24 inches. Therefore, sheltering-in-place is considered more risky if the facility is at risk of flooding deeper than 20 inches (water may continue to rise before evacuation can be completed). Evacuation by boat or rotor wing craft is not an acceptable planning alternative².

¹ If the facility floods and the water is less than 34 inches deep, the National Guard can bring in trucks to remove patients; however, it will take time to bring the needed vehicles to the disaster area. Potentially up to three patients plus one staff member may be moveable by a single vehicle at one trip. Driving speeds will be very slow so in addition to loading time, distance from facility to the drop off point will determine time requirements. Patients would have to lie on the truck bed but could be covered by a tarp in the event of rain or snow. Patients would be exposed to ambient temperatures. Vehicles are high and a loading dock would be preferred. Bringing patients to the truck will likely require moving the patients down stairs and through flood waters by persons wearing waders; however, only two guardsmen will be able to come in the vehicle so they will need hospital staff assistance(in waders). Moving patients over 250 lbs. in this manner will be difficult.

² There are rare facilities situated at such a low elevation that evacuation every time the water is more than 34 inches above its elevation is not reasonable. Triggers for these facilities will be determined on a case by case basis.

Policy

*NDDoH is establishing the following criteria for sending a request to the Governor for facility evacuation:
For facilities not protected by a second community levee:*

- *For a facility which cannot shelter-in-place: when water level outside the levee is equal to facility elevation, the facility needs to evacuate if risk of levee breach with flooding is considered a reasonable likelihood;*
- *For a facility which can shelter-in-place, patients weighing more than 250 pounds and ICU patients need to evacuate. Subsequently, if water level outside the levee reaches 20 inches above facility elevation the entire facility needs to evacuate;*
- *For a facility without a protecting community levee: when projected water level is expected to reach or exceed facility elevation within 72 hours, the facility needs to evacuate.*

For a facility protected by a second community levee, above criteria may not need to be applied unless the primary levee fails or is likely to fail or the secondary levee is not considered adequate to protect the facility for a sufficient amount of time to effect evacuation.

Circumstances may indicate the need for earlier evacuation, such as compromise of egress routes from the facility, levee softening or rapidly rising water. For any facility, water level determinations may be based on projections rather than actual level to provide time for safe evacuation, particularly if water is continuing to rise.

NDDoH does not consider sheltering-in-place to be a requirement; a facility may request an order for mandatory evacuation at any time when 72-hour projected water levels exceed the elevation of the facility. This would initiate the request process for a mandatory evacuation order.

The following document will be used to assess a facility's ability to shelter-in-place. It should be completed by the facility and returned.

INDICATOR		SCORE
Background Information		
Facility Name:		
City:		
Elevation of inpatient/residential facility:		
GIS Latitude/Longitude of facility:		
Estimated time required to completely evacuate facility to high ground with current staff:		
Levees		
1	Levees were designed to keep back water to a height substantially above the elevation of the facility	
0	Levees were not designed to keep back water to a height at least two feet above facility's elevation	
Vertical Evacuation		
1	Facility has at least one floor above the floor which opens onto the street.	
0	Facility does not have at least one floor above the floor which opens onto the street	
Staffing (1)		
1	Facility has a signed agreement in place with essential staff (sufficient to adequately staff the facility 24 hours per day) that they would be available to remain in the hospital until evacuated (may include option to bring family).	
0	Facility does not have a signed agreement in place with essential staff or not in sufficient numbers to staff 24 hours a day.	
Staffing (2)		
1	No more than 33% of staff who have agreed to stay would lose their homes if the facility floods (this may change as river level rises)	
0	More than 33% of staff who have agreed to stay would lose their homes	
Staffing (3)		
1	Facility could support staff and families for at least five days	
0	Facility could not support staff and families for at least five days	
Care skill (Hospital only)		
1	Facility can provide the standard of care for any patient regardless of any reasonable complication that may develop.	
0	Facility does not have ICU capability or other capabilities to care for any reasonable complication	
HVAC		
1	HVAC would operate if all access to community utilities were lost.	
0	HVAC would not operate if all access to community utilities were lost.	
Potable water		
1	Facility keeps five days of potable water on hand	
0	Facility does not have at least five days of potable water on hand	
Service water		
1	Facility has an identified source of water capable of providing service water for HVAC and toilet flushing for at least five days	
0	Facility does not have a source of service water if water service were lost	
Electricity		
1	Generators and electrical system would continue to function if the facility flooded	
0	Generators and electrical systems would not continue to function if the facility flooded	

Communications		
1	Telephone and BTWAN would continue to function if the facility flooded	
0	Telephone and BTWAN would not continue to function if the facility flooded	
Generator		
1	Facility has enough generator capacity to operate all of the following for five days: Life support equipment/ICU, surgery/recovery, x-ray, laboratory, sterile equipment, pharmacy, food service, HVAC, water pumps, sewage pumps, elevators, BTWAN	
0	Facility does not have enough generator capacity to operate all of the above	
Fuel		
1	Facility has enough fuel on hand at all times to run generators continuously for five days	
0	Facility does not have enough fuel on hand to run generators for five days	
Medication		
1	Facility's inpatient pharmacy could supply medication needs for at least five days without external re-supply.	
0	Facility's inpatient pharmacy could not supply medication needs for at least five days without external re-supply.	
Oxygen		
1	The minimum amount of oxygen the facility has on hand at any time would meet needs for five days	
0	Facility does not have enough oxygen on hand to meet facility needs for five days	
Food		
1	Facility has enough food on hand for patient, staff and staff families for five days	
0	Facility does not have enough food on hand for patients, staff and staff families for five days.	
Linen		
1	Facility has enough linen on hand to function for five days without re-supply (may consider conservation measures)	
0	Facility does not have enough linen on hand to function for five days	
Rotor wing craft landing		
1	Facility has landing site suitable for rotor wing air craft even if the facility floods deeply	
0	Facility does not have a landing site suitable for rotor wing craft if the facility floods deeply	
Structural Stability		
1	Engineers have determined the building would remain structurally sound if flooded	
0	Engineers have not determined that the building would remain structurally sound if flooded.	
Waders		
1	Facility has waders for staff to assist moving patients through food waters to vehicles if the facility floods	
0	Facility does not have waders	

Yes, this facility wishes to shelter-in-place during the 2011 spring flood.

No, this facility does not wish to shelter-in-place during the 2011 spring flood.

The above information about this facility's ability to safely shelter-in-place is accurate to the best of my knowledge.

Facility Representative Signature _____ Date _____

Facility Name _____

For NDDoH Use Only:

Based on review of the information provided, this facility, _____,
is considered to be an acceptable candidate for sheltering-in-place.

Date: _____ Reviewer _____

Based on review of the information provided, this facility, _____,
is NOT considered to be an acceptable candidate for sheltering-in-place for the following reasons:

Date: _____ Reviewer _____