

Emergency Management – Hazard Vulnerability Analysis

The chart below may be used by departments to identify various emergencies, the level of disruption caused by the emergency and how well they are prepared to manage these events. Other emergencies may be added to the list. This process is inexact and subjective in nature; however it can be used as a tool to prioritize emergency management efforts. If you need help in completing this table or have any questions, contact Environmental Health and Safety at 974-5084.

Directions:

1. Before you begin, become familiar with the definition of **probability**, **disruption factor** and **preparedness** found on page 3 of this document.
2. Determine the probability of each emergency by placing an “X” in the cell that corresponds to the event.
3. Determine the disruption factor for each event by placing an “X” in the cell that corresponds to the event.
4. Determine how well the department is prepared to respond to each emergency by placing an “X” in the cell that corresponds to the event.
5. Multiply the value in each of the three categories to determine a final hazard vulnerability analysis (HVA) value
6. The larger the HVA value, the more emphasis should be placed on preparing for this emergency.

Example

Hostage emergency

probability determined to be *medium*value of 2

disruption determined to be *safety*value of 3

preparedness determined to be *fair*value of 3

Total HVA is $2 \times 3 \times 3 = 18$

Probability

Extreme (3)– has occurred within the past five years, or could occur within the next five years.

Medium (2)– has occurred within the past 15 years, or could occur within the next 15 years.

Low (1) – has occurred within the past 50 years or could occur within the next 50 years.

Disruption Factor

Extreme (4)– Death or serious injury could result for five or more individuals or the event may require evacuation of an entire building for several days.

Safety (3)– Death or serious injury is possible for 1-4 individuals or the event may require evacuation of a floor or area.

High Disruption (2)– Many areas of the building are impacted and activities could be affected for more than one day. Will require the department to shut down or significantly curtail operations.

Low Disruption (1)– The event is limited in area and activities could be affected for less than one day. Some department activities may be curtailed.

Preparedness

Poor (4)– No written plan, no drills within the past five years, lack of equipment, no employee knowledge

Fair (3)– May have a written plan, drill has been conducted and evaluated within the past three years, some equipment present

Good (2)– Written plan in place, drill or actual event has occurred within the past year, most equipment in place. Department can manage the event reasonably well.

Excellent (1) – Written plan in place, drill or actual event has occurred within the past year and been successfully managed, all equipment in place, most employees know how to respond.