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Understanding HIRA

APPENDIX 2

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A Hazard Identification Risk Analysis (HIRA) ensures that potential risks to the home are identified and assessed as to their potential risk to the residents and staff. The HIRA is used to prioritize prevention, mitigation and training priorities for the home.

There are two phases of completing a HIRA process: **hazard identification** and **risk assessment**.

PHASE 1: HAZARD IDENTIFICATION

The Hazard Identification is a determination of the various hazards that are pertinent to a home's specific location. This is completed by assessing what types of emergencies could occur within a home and in the community.

HISTORICAL

- What types of emergencies have occurred in the community, at this home, at other homes in the area, and at similar organizations? Examples:
    - Fires, Missing Resident, Severe weather, Hazardous material spills, Transportation accidents, Earthquakes, Hurricanes, Tornadoes, Utility outages, etc.

GEOGRAPHIC

- What can happen because of the home's location? Consider:
    - Proximity to flood plains, seismic faults, dams, etc.;
    - Proximity to companies that produce, store, use or transport hazardous materials;
    - Proximity to major transportation routes (highways, railways, seaports, etc.); and/or
    - Proximity to nuclear power plants.

TECHNOLOGICAL

- What could result from a process or system failure? Examples:
    - Fire
    - Explosion
    - Hazardous materials incident
    - Safety system failure
    - Telecommunications failure
    - Computer system failure
    - Power failure
    - Heating/cooling system failure
    - Emergency notification system failure

HUMAN ERROR

- What emergencies can be caused by staff error? Do they know what to do in an emergency? Human error is the single largest cause of workplace emergencies and can result from:
    - Limited training and education
    - Lack of situational awareness
    - Misconduct
    - Substance abuse
    - Fatigue
    - Complacency
    - Rushing a task

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PHYSICAL

- What types of emergencies could result from the design or construction of the home? Does the physical building design enhance safety? Consider:
    - The physical construction of the home; and
    - Evacuation routes and exits.

Once the team has identified the potential hazards at the home, these are listed in the "Threat" column of the HIRA Assessment.

PHASE 2: RISK ASSESSMENT

The second phase is the risk assessment that determines the risk level based upon the probability of a potential emergency occurring and the consequence of the emergency should it occur.

- Determine Likelihood: The likelihood for each emergency's occurrence is rated using a simple scale of 1 to 5 with 1 as the lowest probability and 5 as the highest taking into consideration the potential human consequence (the probability of injuries or death), the potential property (damage, ability to quickly relocate) and the potential business impacts (business interruption, staff unable to report to work, etc.). *This number is entered into the Likelihood column of the HIRA Assessment.*
- Determine Consequence: The consequence for each emergency's occurrence is rated using a simple scale of 1 to 5 with 1 as the lowest consequence (insignificant) and 5 as the highest (catastrophic). *This number is entered into the Consequence column of the HIRA Assessment.*

Rating numbers of Likelihood and Consequence are applied to a risk matrix to determine risk priority level.

PRIORITIZING PREVENTION, MITIGATION AND TRAINING

Rating numbers of Likelihood and Consequence from the second phase are applied to a risk matrix to determine risk priority level (it should be noted that the level of risk is simply a planning tool, not a scientific determination of what will occur).

The Risk Priority Level determination can assist the home to prioritize prevention, mitigation and training in the home by identifying areas/risks that are the highest priority items (addressed first), followed by the medium risks and, where applicable, the low-risk items.

The information gathered on the HIRA can guide the home-specific procedures of the home's Emergency Response Plan (ERP).