Coffee Break Training - Fire Prevention and Public Education

The Basics of Risk Assessment

No. FM-2011-8 September 1, 2011

Learning Objective: *Students will be able to identify the steps in a risk assessment process.*

Risk assessment is a multistep process. The steps are designed to gather and analyze information about the community and its risks. Community may often mean more than the overall city or town. At the Company level, community may mean the Company's first-due response area. At the Battalion level, community may be a geographical area or part of the city. Of course, community may also be the entire city or town taken as a whole. Through the analysis process the risks are narrowed to those that are the most critical. The analysis also provides invaluable information on the people who are affected by, or are part of, the problem. Understanding the people element of the risk assessment is the beginning of solving the problem. Community risk assessment is more than numbers on a report; it is about the human impact from the hazard.

The following steps describe a risk assessment process.

1. **Analyze the community.** A list of common risks is identified as well as information on the people affected by those risks. There must be accurate and detailed information on risk and risk issues including loss history, demographics, information on high-risks groups and areas, natural hazards, etc. Analysis is then conducted to develop a comprehensive picture of the community, especially the people information. Involve other community agencies and organizations in the analysis. These groups generally have important information to share. Unfortunately, there are often challenges to conducting a community analysis. Often communities lack resources to gather and analyze data and many times local data are incomplete and do not provide a comprehensive picture of the community.

2. **Identify risks/hazards and causal factors.** A description of the most frequent and serious hazards and the factors contributing to the severity of the hazards are developed. For example, in one community cooking fires are the leading risk of house fires. Examination of causal factors reveals that food left unattended on the stove is a causal factor in these fires. Other causal factors show that these homes have nonworking smoke alarms and residents try to fight the fires and do not know the proper procedures to extinguish small kitchen fires. Knowing the causal factors can help in designing programs to address issues associated with these fires.

3. **Assess vulnerability.** Vulnerability is the susceptibility to suffer harm or loss from an event. It may vary based on numerous factors such as preparedness, capability of emergency services, etc. A description of the community's ability to resist the impact/effect of existing hazards is developed.

4. **Establish risk-reduction priorities.** There are two parts to this step. The first part is to establish risk-reduction priorities. Assign a level of priority to each hazard. The second part is to determine the level of risk that citizens and local government can tolerate and afford.

5. **Create risk-reduction objectives.** This is the final step in assessing community risk and is the culmination of the previous steps. By the end of this step, objectives have been developed that identify desired outcomes from undertaking a risk-reduction initiative.

Source: U.S. Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA). *Executive Analysis of Community Risk Reduction*, April 2011.