**Hazardous Materials: Managing the Incident, Fourth Edition**

**Chapter 6: Identifying the Problem**

**Chief Concepts**

* The evaluation of hazards and the assessment of the risks build on the timely identification and verification of the hazardous materials involved. A problem well defined is half-solved.
* Among the most critical tasks in managing a hazmat incident are surveying the incident scene to detect the presence of hazmats, identifying the nature of the problem and the materials involved, and identifying the type of hazmat container and the nature of its release.
* The identification process is built on the basic elements of (1) recognition, (2) identification, and (3) classification of the materials involved.
* Identification and verification of the hazmats involved are critical to the safe and effective management of a hazmat incident. The seven basic clues for recognition:
  + identification, and classification are:
  + Occupancy and location
  + Container shapes
  + Markings and colors
  + Placards and labels
  + Shipping papers and facility documents
  + Monitoring and detection equipment
  + Senses
* All hazardous materials are controlled as long as they remain within their container. Hazmat responders should be able to recognize the various container profiles and know the general hazmat class/division of materials that may be found within each type of container.
* Markings and colors on hazmat packaging or containment systems may include color codes, container specification numbers, signal words, or the content’s name and associated hazards. At facilities, clues may include Hazard Communication markings, piping color code systems, and specific signs and/or signal words.
* Shipping papers are required to accompany each transport vehicle. Responders must be familiar with the information noted on shipping papers, their location on each transport vehicle, and the individual responsible for them.
* Various types of facility documents are available to assist in the information process and can be a source for hazmat recognition, identification, and classification at an emergency. Examples include hazmat inventory forms, shipping and receiving forms, Risk Management Plans and supporting documentation, MSDSs, and SARA, Title III Tier II reporting forms.
* Monitoring and detection equipment can provide data concerning the overall nature of the problem responder’s face as well as the specific materials involved. They are also critical tools for evaluating real-time data and developing a risk-based response.