Exsys Case Study



Identification of Chemical, Biological and Radiological Agents

US EPA and Instant Reference Services

Terrorist attacks using chemical, biological or radiological agents (CBR) are of great concern due to potential for wide spread loss of life. The United States and other nations have spent billions of dollars on plans and protocols in defense against acts of terrorism that could involve CBR. However, CBR covers a wide range of agents with many specific chemicals and biological organisms that could be used in multiple sub-categories. Timely response requires rapid identification of the agent involved. This can be a difficult process involving different methods and instruments.

The US Environmental Protection Agency (EPA) along with Dr. Lawrence H. Keith, president of Instant Reference Sources Inc. and others from an extensive team, incorporated their knowledge, experience, and expertise, plus information in publicly available EPA documents to develop the CBR Advisor using Exsys Corvid.

One of the most important parts of the CBR Advisor is advice in logical step-by-step procedures to determine the identity of a toxic agent when little or no information is available, which is typical at the beginning of a terrorism incident. The systems help response staff proceed according to a well established action plan, even a highly stressful environment of a terrorist attack.

The system's dual screens presents 3 levels of information: (1) a top/executive level with brief answers, (2) an educational level with in-depth information, and (3) a research level with links to other documents, slide shows, forms, and Internet sites.



Content includes:

- How to classify threat warnings
- How to conduct initial threat evaluation
- Immediate response actions
- How to perform site characterization
- Initial site evaluation and safe entry
- Where and how to best collect samples
- How to package and ship samples for analysis

Restricted content includes CBR agents and methods for analyzing them.

The CBR Advisor can be used for incident response and/or training. It has two different menus, one for emergency response and another longer menu for training. Other advantages are that it is available 24/7 and may be accessed either from the Internet or CD-ROM and can be adapted for access using small personal digital devices.

The CBR Advisor is a restricted software program and is not publicly available.



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