



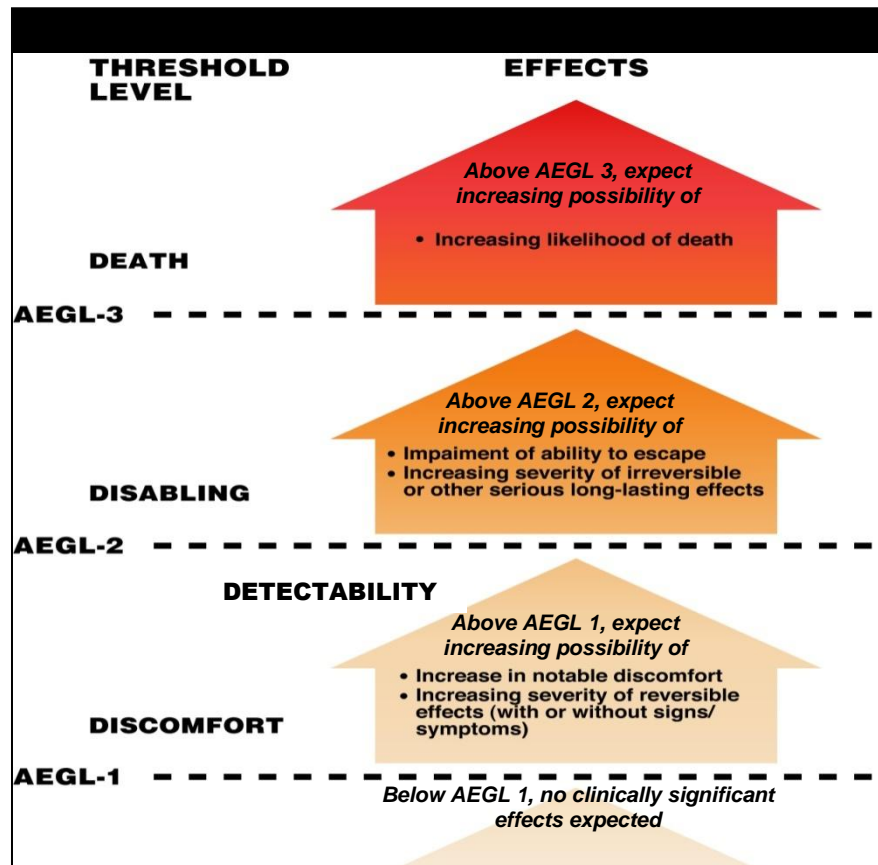
## Basic Questions Regarding Acute Exposure Guideline Levels (AEGLs) in Emergency Planning and Response

FACT SHEET 64-014-0711

### What are AEGLs?

Acute Exposure Guideline Levels (AEGLs) are concentrations of a chemical in air that indicate the levels above which different health effects could begin to occur in the general population. A National Advisory Committee, managed by the U.S. Environmental Protection Agency (USEPA), is developing AEGLs for hundreds of toxic industrial chemicals (e.g., chlorine and the chemical involved in the Bhopal incident), as well as chemical warfare agents. AEGLs include three concentration levels for specified time durations; these show the range of toxic effects caused by each chemical. Generic descriptions of the different levels are shown in Figure 1.

Figure 1. Generic Description of AEGL Levels



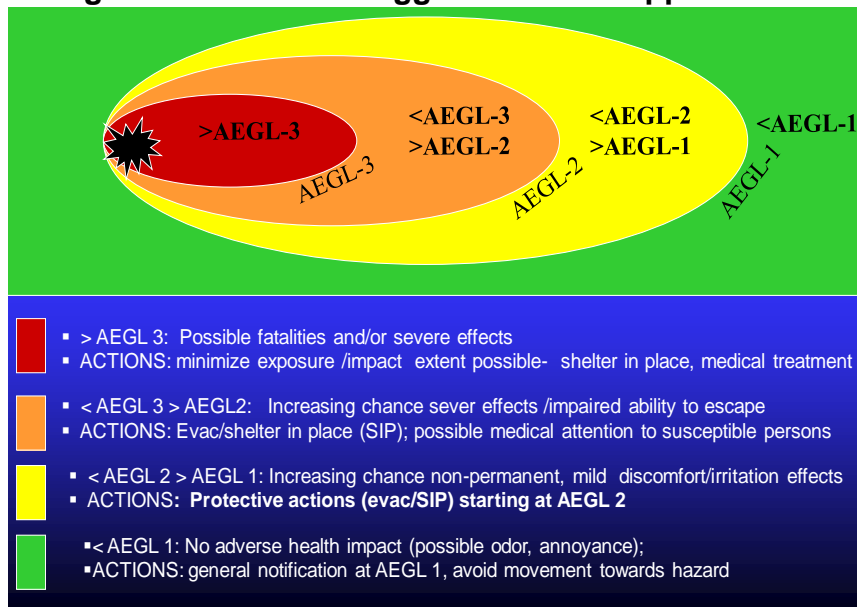
### Who uses AEGLs and how?

AEGLs are used by Federal and state agencies to aid in the development of emergency preparedness plans and to prioritize emergency response actions in the event of a chemical release from an accident or an intentional terrorist attack. Used together with computerized air modeling, the different AEGL levels allow emergency personnel to determine areas of higher risk. This assists in making the most appropriate actions to minimize the overall impacts to the public. Various options include public notification and instruction, sheltering-in-place,

Army Public Health Command  
MCHB-IP-MEM/Environmental Medicine Program  
Commercial 410-436-2714, DSN 584-2714, Fax 410-436-4117

evacuation procedures, procedures to enable or facilitate medical attention, or some combination of these approaches (Figure 2).

**Figure 2. USAPHC-Suggested AEGL Applications**



### How can I get more information?

Depending on your question, there are many additional sources of information, some more technical than others. Examples are listed below:

1. USAPHC Fact Sheets—

*Frequently Asked Questions (FAQs) Regarding AEGLs and Their Applications, 2011*  
*Detailed Facts Regarding Health Effects Associated with AEGLs for Nerve agents, Sulfur mustard, 2011.*

2. National Research Council (2001). *Standing Operating Procedures for Developing Acute Exposure Guideline Levels for Hazardous Chemicals*. National Academy Press, Wash, D.C.  
<http://www.nap.edu/index.html>

3. For additional information, contact the Environmental Medicine Program, 410-436-2714.