

This guide was developed as part of a training course for construction workers who may be required to work at sites affected by a bioterrorist attack. The guide, designed to be teachable by non-experts, works in conjunction with other resources on which I also worked, including a website, video narration and PowerPoint presentation.

Note: company and employee names have been redacted at the request of the project leads. Purpose and Outcomes section has been truncated.

BioDisaster Response: Instructor's Guide

Purpose and Outcomes

Purpose: To provide construction workers with the information they need to work safely during or following a biological disaster. The course covers disaster situations that involve naturally occurring infectious disease outbreaks as well as those that might be caused by an intentional bioterror event.

Target Audience: Workers that OSHA calls skilled support personnel or SSP have been called “the nation’s forgotten responders”—the construction workers, heavy equipment operators, communications and utility workers, truck drivers, iron workers, laborers, and other trades needed during a disaster relief operation.

Expert Resources: Questions can be posted on a question board monitored by –Company– whose scientists and experts in disaster management will normally post answers within 24 hours. The question board can be reached at Company.com/BiodisasterTraining/questions.

INTRODUCTORY SLIDES 1-7

TOTAL TIME: 10-12 minutes

CONTENTS: Reviews the structure of the course, who should take the course and why.

Instructor's Notes: You may choose to mute the audio and present these slides orally so you can adapt the material to the occupations represented in the class. At the outset, emphasize the reasons for learning about biological disasters:

- Today’s constantly changing biological hazards include the emergence of new forms of naturally occurring infectious disease as well as the threat of bioterrorism;
- Numerous sources in the intelligence community suggest that the threat of attack on the U.S. using biological weapons is current, real, and likely to be seen in the near term.
- Significant respiratory health problems were experienced by construction workers

who were not aware of the precautions they needed to take to work on Ground Zero. The consequences of ignorance in the event of a biological attack are catastrophic infectious diseases with high fatality rates.

Slide 1

This training course was developed by -Company-, a firm that focuses on global health and homeland security. Our work is informed by hands-on experience in the field. We have gathered public health data from disaster sites across the globe and we've sampled from biological and chemical munitions. Our Managing Director, -John Smith-, served as a biological weapons inspector in pre-war Iraq and knows first hand how to work safely in biologically contaminated environments. You'll hear from -John Smith- several times during this training. You'll also hear from -Jane Doe- who has deployed with several disaster relief operations and is a subject matter expert on pandemic preparedness and disaster management.

Slide 2

Before we start, you need to ask yourself a simple question: If you were working in or near a site that was contaminated by an infectious agent would you know how to protect yourself? What if your job was part of a hurricane relief effort or required you to work during an infectious disease outbreak? Or say your city is attacked by terrorists who released a deadly pathogen and you are involved in rebuilding one of the many contaminated buildings. Maybe you wouldn't take that job but what if your other jobs were in the same general area? By the end of this course, we hope you will know how to work safely under any of these conditions.

Slide 3

Biological agents, defined here as any microorganism that causes disease, are also known as pathogens or disease agents. We will use these terms interchangeably throughout this course. We are mostly interested in bacteria and viruses—the major causes of infectious disease. This course will cover disaster situations that might involve naturally occurring infectious disease outbreaks as well as those that might be caused by an intentional bioterror event.

Slide 4

This course was developed for skilled construction workers, also called skilled support personnel or SSP, by OSHA. Workers involved in disaster response include all the occupations listed on this slide, though not all may be required for any single event. The World Trade Center disaster focused national attention on the health problems experienced by construction workers who were not aware of the precautions they needed to take while working at Ground Zero. To better prepare construction workers to work safely in a variety of disaster situations, the National Institute of Environmental Health and Safety supported the development of training for SSP including this course on BioDisaster Response. The goal is to give you the basic information you need to work safely in a biologically contaminated environment.

Slide 5

The examples on this slide illustrate the fact that you and your coworkers are crucial to disaster recovery operations. In the past, skilled support personnel were thought of as temporary members of the response team who were not needed as early as first responders or for as long a period of time. In fact, skilled construction workers are often needed to work together with first responders on rescue and recovery and may also be needed long after the initial event to restore sites after recovery operations are complete.

Slide 6

By the end of this training you will have an understanding of how infectious disease is transmitted, some of the disease agents you might encounter in a disaster site and how the disaster response might be organized. You'll know what you can do to minimize your exposure to disease and what to do if you think you may have been exposed on the job. This course does not cover basic construction safety procedures—it only deals with procedures for operating safely in biologically contaminated environments. The 40 hour General site Worker course (the OSHA 40) is recommended as the foundation course for construction workers. In addition, the Center for Construction Research and Training (CPWR) offers a forty hour training course for construction workers focusing specifically on general disaster response. This shorter awareness training augments those courses by focusing on hazardous biological conditions.

Slide 7

This training program has two parts. The basic training includes narrated slides that will take one to two hours depending on the length of your breaks. There is also a set of background readings. We suggest that you download and print all of these materials now so you will have them on hand as we go along. After you complete the basic training, there are several case studies of bio-disasters where you make choices of how to protect yourself based on what you've learned in this course. Your choices will translate into an exposure score. The score tells you how well you've protected yourself.