

**Dragon, Karen E. (CDC/NIOSH/EID)**

---

**From:** Freund, Alice [alice.freund@mssm.edu]  
**Sent:** Monday, April 04, 2011 11:29 AM  
**To:** NIOSH Docket Office (CDC)  
**Subject:** 223 - Emergency Responder Health Monitoring and Surveillance  
**Attachments:** NIOSH Emergency Responder Comments.docx

Thank you,

Alice Freund, Industrial Hygienist  
Mt. Sinai Irving J. Selikoff Center for  
Occupational and Environmental Medicine

212-824-7015

## COMMENTS ON EMERGENCY RESPONDER HEALTH MONITORING AND SURVEILLANCE DRAFT 1.2

Alice Freund, CIH, Mount Sinai Irving J. Selikoff Center for Occupational and Environmental Medicine

212-824-7015

[Alice.freund@mssm.edu](mailto:Alice.freund@mssm.edu)

Thank you for the opportunity to input into this document. I have very limited experience in dealing with emergencies of the magnitude that this document is meant to address. For a short time I was involved with extracting data from exposure questionnaires completed by WTC responders. My comments, therefore, are limited to particular items in the document, rather than the broad scope of the recommendations.

### Overall

It would be beneficial to have model databases for generic scenarios set up so that pieces could be pulled from it in the event of an emergency, instead of created from scratch in a rush.

### Chapter 3 and Chapter 5

The requirements for emergency training under OSHA Hazwoper Standard, 1910.120 should be mentioned in these sections (currently it is only mentioned in the Executive Summary, not in the body of the report)

### Chapter 6

#### 6.2 Who needs to be monitored

We need to include workers who may be mentally traumatized by the types of situations they are handling, not just those exposed to pollutants.

#### 6.3 Timing of Injury and Illness Monitoring Activities

##### Information to collect, Response related information-

Include engineering controls

##### Medical information-

PPE: When collecting information on what PPE was in use, we have found that there is confusion over "dust masks" versus N95's or filtering face piece respirators. It may be

helpful to have a picture and description of both so they can be adequately described by the patient. Similarly “tyvek” suits is used almost generically but there are various levels of protection from these types of suits. Some have hoods, some do not. Perhaps pictures would help here as well.

Engineering controls in place should be added to the list.

Patients should describe visual appearance and odors associated with exposure.

#### 6.9 What Type of Worker-Related Data Should Be Obtained for Injury and Illness Surveillance?

This should include what engineering controls were in place when it happened, whether the exposure was visible or had odors associated with it (to get a sense of magnitude)

#### 7.3 Acceptability of Exposures

Need to describe what steps to take in the event (very common) that there is no OEL.

#### 9.1 Suggested Information to Gather During Out-Processing Assessment (if not already obtained)

Response related information

Known hazardous exposures or conditions

Add engineering controls.

#### Post Event Tracking of Emergency Responder Health and Safety Function

##### Evaluation of Control Strategies

Needs a description of engineering controls (ie dust suppression systems, ventilation, local exhaust on tools, sunscreen, etc)

#### Appendix B

##### Figure 8

In an emergency, if there is uncertainty about the exposure assessment, controls should be put in place until such time that it can be ascertained that exposures are acceptable.

#### Exposure Assessment, pg 169

List types of engineering controls required (not just PPE).

Need to explain how to choose an OEL and what to do if no up-to-date OEL exists (quite common).

Need to take precautions in the event of uncertainty.

Need to explain that various OEL's are based on different expected time periods of exposure. For example TLV's are for 40 years of exposure, whereas some emergency guidelines could be based on exposures of days or weeks. Some may be established to prevent immediate danger to life or health, while others consider long term effects, like cancer.

### Control Strategies in an Incident Response

More emphasis should be put on maintaining the hierarchy of controls during emergency response, with emphasis on elimination, substitution, and engineering controls, where feasible. While some engineering controls may be readily available to protect responders, they may be reluctant to use them because they may do damage to the community and environment. For example, ventilating an enclosed space could be critical to the safety of a responder, but may result in contamination outside the space. Using water for dust suppression can result in environmental contamination. For this reason it is critical that ventilation equipment with filtering devices and containment equipment be available to response personnel. It must be clear what the priorities are.

### Data quality management in incident response

Somewhere in this document it needs to be added that when data is reported and disseminated that includes "non-detects" the detection limits must be reported and disseminated, as well.