RELATED TERMS

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- Incident Site Management
- Radioactive Material

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Radiological Dispersal Device Incident Response Planning: Public Information

PURPOSE

Describes public information planning to help jurisdictions communicate effectively with the public after a radiological dispersal device (RDD) incident.

SUMMARY

Assessing and communicating risks is likely to be especially difficult during incidents involving RDDs. Many people do not understand radioactivity and its short- and long–term effects. Further, they may confuse an RDD incident with a nuclear detonation or an accident like the one that occurred at Chernobyl. Thus, they are likely to mistake even a small release of radioactive materials for a catastrophic event. This lack of critical knowledge of RDDs is likely to intensify the public's fear of radiation. Moreover, the media may deliver conflicting messages to the public after an RDD incident. This uncertainty also can greatly exacerbate the public's fears and concerns. It could also lead the public to doubt or even disregard official statements in favor of unfounded rumors after an RDD event.

Experts advise jurisdictions to create RDD annexes to their crisis communications plans. RDD public information planning can help jurisdictions communicate effectively with the public, address general concerns, and minimize unfounded rumors after an event. This Best Practice discusses five issues:

- Public Perception Issues after an RDD Event
- Pre-established Public Information Messages for an RDD Incident
- Informational Materials for the Public
- Establishing an RDD Annex to the Crisis Communications Plan
- Public Information Officer (PIO) with Radiological Expertise

Emergency planners can review the *Lessons Learned Information Sharing* Best Practice series *Crisis Communication Planning* for a general understanding of public communication issues. This series can provide communications officials with a framework for crisis communications planning.

DESCRIPTION

Jurisdictions will need to be prepared to address public concerns, inform people, and minimize unfounded rumors throughout the response to and recovery from an RDD event. Clear, timely, and accurate public information can help reduce fear and panic and can limit the number of uncontaminated, uninjured people who will self-refer to healthcare facilities.

Public Perception Issues after an RDD Event

Planners must be aware that public information officers in many jurisdictions can find it challenging to deliver critical information to the public in an effective and timely manner after an RDD incident. Indeed, many people and public officials in a large number of jurisdictions do not understand the risks related to radiological emergencies.

The Public

Many people may not appreciate the distinction between an RDD incident and a nuclear incident. A lack of consensus among experts and media representatives about the effects of radiation could confuse the public. As a result, after an RRD event many people may doubt public statements and start believing unfounded rumors. Experts advise planners to create informational materials for the public prior to an RDD event. These materials can help jurisdictions provide the public with clear information and guidance, curtail unfounded rumors, and manage fear and panic. For more information on these materials, please refer to the "Informational Materials for the Public" section of this document.

Public Officials

Many public officials may not understand the short- and long-term consequences of an RDD event. Jurisdictions must be aware that many of these public officials will serve as the strategic communicators after an RDD event. This lack of substantive critical knowledge by some local public officials could impair emergency response operations. Experts advise planners to establish RDD-specific messages in draft form to help these public officials provide accurate information after an RDD event. For more information on these messages, please refer to the "Pre-established Public Information Messages for an RDD Event" section of this document.

Public Behavior following a Radiological Release Event

- **Goiânia, Brazil, cesium-137 release event**: Authorities failed to issue any official statement to the public after the 1987 Cesium-137 release in Goiânia. Rumors started spreading immediately, causing mass fear and panic. Misunderstanding of radiation principles amplified mistrust towards authorities that lasted for months. For additional information on public communication during this event, refer to the *Lessons Learned Information Sharing* Lesson Learned document, *Radiological Incident Response: Public Communication*.
- **Three Mile Island nuclear power plant accident**: On March 28, 1979, a cooling malfunction at the Three Mile Island (TMI) nuclear power plant near Harrisburg, Pennsylvania, caused the most serious nuclear power plant accident in US history. At 4:00 a.m., the main feedwater pumps and a pressure relief valve malfunctioned, causing reactor 2's (TMI-2) cooling water to start pouring out of the system. The power plant operators did not realize that the TMI-2 core was overheating. They mistakenly believed that there was too much water in the system and further reduced the coolant flow through the core. Although about half of the TMI-2 core melted, only a small amount of radioactive gas was released into the environment. Most of the radiation was contained, and the actual release had negligible physical health effects for individuals and the environment.

  Federal, state, and local organizations failed to communicate effectively with the public in the immediate aftermath of the accident. For 5 days, officials and the media presented confusing and contradictory information that caused public fear and panic. For instance, on March 30, the Governor of Pennsylvania, Richard L. Thornburgh, advised pregnant women and pre-school aged children within a 5-mile radius of the plant to evacuate the area as a safety precaution. Within days, 140,000 people self-evacuated from the area.

Selected Resources

The following resources can help jurisdictions prepare to communicate effectively with the public after an RDD event:

- The Federal Emergency Management Agency, Emergency Management Institute, Independent Study Program IS-301 Radiological Emergency Response. Unit 8 concentrates on public information and media relations following a radiological release event.
- The Department of Energy, Office of Environmental Management, Transportation Emergency Preparedness Program, Modular Emergency Response Radiological Transportation Training. The "Public Information Officer" module describes communication strategies to ensure that the media and the public are adequately informed during an incident involving radioactive material.
- The National Council on Radiation Protection and Measurement, "Public Communication," in *Management of Terrorist Events Involving Radioactive Material*, NCRP Report No. 138, lists communication policies and strategies following an RDD event.

In 2003, the Centers for Disease Control and Prevention (CDC) and the Agency for Toxic Substances and Disease Registry released the beta version of Emergency Risk Communication (ERC) CDCynergy. The program lists pre- and post-event activities, basic communication principles, and resources available for emergency communication personnel. Scenario 3 of this program is a "dirty bomb scenario."

Emergency planners may also find it useful to refer to the *Emergency Public Information Pocket Guide* of the Department of Energy, Oak Ridge Institute for Science and Education. This guide outlines basic principles and approaches for communicating during an emergency.

Pre-established Public Information Messages for an RDD Incident

Jurisdictions are strongly advised to prepare a number of RDD-specific messages in draft form that the public information officer or public officials acting as strategic communicators could employ after such an event. Planners could prepare a minimum set of messages to be delivered:

- Shortly after emergency response personnel detect radioactivity;
- When the presence of radioactive material is confirmed;
- After contamination has been mapped; and
- When evacuating from and/or sheltering-in-place in designated areas is ordered or recommended.

In 2006, the North Dakota Department of Health translated its public information fact sheets into seven foreign languages. These fact sheets provide ethnic groups in North Dakota who speak little or no English with critical information and protective action guidelines on topics ranging from a dirty bomb incident to avian influenza. For more information, please refer to the *Lessons Learned Information Sharing* Practice Note document, *Emergency Communications: North Dakota Department of Health's Public Information Fact Sheets in Multiple Languages*.

Experts concur that these messages should familiarize the public with the RDD event while providing reassurance and a clear set of guidelines. These messages also should be tailored to provide the public with essential information throughout emergency response.

Pre-established messages should include, among others, the following critical concepts:

- An RDD is not a nuclear device;
- The public should stay away from the incident site to facilitate emergency response operations;

- Emergency response personnel will continue monitoring the incident area to establish the extent of radioactive contamination and to assure the safety of the public.

These messages also could include, when necessary, instructions on sheltering-in-place and evacuation, as well as information on self-decontamination. Furthermore, messages could recommend that the public should not report to local healthcare facilities unless requiring immediate medical treatment.

For more information on preparing pre-packaged information materials, please refer to the *Lessons Learned Information Sharing* Best Practice document, *Crisis Communications Planning: Pre-Packaging Informational Materials*. This document includes information on preparing messages for public release during crises and emergencies (including planning to identify the public's information requirements during specific terrorism scenarios).

Informational Materials for the Public

Jurisdictions should prepare informational materials for the public prior to an RDD event. Emergency response organizations can prepare suitable answers for expected questions following an RDD incident. Planners can refer to the *Lessons Learned Information Sharing* Best Practice document *Crisis Communication Planning: Pre-Packaging Informational Materials* when designing informational materials following an RDD event. Planners should consider having prepared informational materials such as:

- Definition of a radiological dispersal device;
- Expected health effects for different categories of people, such as children and pregnant women, after a radiological release event;
- Guidelines to minimize radiation exposure;
- Information on shelter-in-place and evacuation procedures; and
- Instructions for RDD victims.

Examples of Informational Materials

Several federal, state, and local organizations have prepared informational materials for the public following a dirty bomb attack or other RDD event, including:

- California Governor's Office of Emergency Services, *"Dirty Bomb" Radiological Dispersal Device Fact Sheet;*
- Department of Health and Human Services, Centers for Disease Control and Prevention, *Frequently Asked Questions (FAQs) About Dirty Bombs;*
- Department of Homeland Security, Federal Emergency Management Agency, *Are You Ready? Radiological Dispersion Device;*
- Department of Homeland Security, *Ready America, Radiation Threat;*
- Minnesota Department of Health, *Radiation Emergencies;*
- New York City, Department of Health and Mental Hygiene, Public Health Emergency Preparedness, *Dirty Bombs*;
- New York City, Office of Emergency Management, *Ready New York: A Household Preparedness Guide;*
- New York State Department of Health, *Dirty Bomb;*
- Nuclear Regulatory Commission, *Fact Sheet on Dirty Bombs;*
- Seattle and King County Department of Public Health, *Radiological Emergencies, Dirty Bombs or RDDs: Common Questions;*
- Texas Department of State Health Services, *Dirty Bomb Information*

Establishing an RDD Annex to the Crisis Communications Plan

A crisis communications plan is an important component of a jurisdiction's ability to manage a crisis. Experts recommend that jurisdictions should create an RDD annex to their crisis communication plans. NCRP Report No. 138 advises planners to consider concepts such as the following when establishing an annex to their plans:

- Complex technical data, such as aerial and ground photos, schematics of the plume, and official maps that may be useful to inform the public, should be obtained and released when possible.
- Non-contaminated vantage points should be identified to allow live coverage of selected emergency response activities when the level of radiological contamination or other safety considerations permit it.
- The Joint Information Center and the media briefing area(s) should be located upwind of the contaminated area.

Public Information Officer with Radiological Expertise

Experts strongly advise emergency planners to pre-identify a PIO who is familiar with radiation principles and RDD incident response procedures. A PIO selected to respond to an RDD event should be familiar with the specific communication challenges that might emerge after an RDD event.

Emergency response organizations may consider providing the PIO with a list of local subject-matter experts (SME) who could be called to help answer specific technical and/or scientific questions. This can help the PIO answer unanticipated or particularly challenging questions as well as curb public fear.

For more information on preparing a list of SMEs, readers can also refer to the *Lessons Learned Information Sharing* Practice Note document, *Radiological Incident Response: Washington State Department of Health's Recommendations for Developing a List of Assets in Small Jurisdictions*.

Information that PIOs might plan to release to the public from the onset of emergency response operations could include, but not be limited, to:

- Health risks to the public;
- Impact on property, the economy, and the environment;
- Long-term concerns and monitoring;
- Response and recovery activities, including expected length of decontamination; and
- Size of the affected area.

Public information personnel should release radiological information concurrently with protective action guidance. Emergency communicators may find it helpful to plan to release contamination levels and exposure information when issuing sheltering or evacuation recommendations.

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