IAEA
International Atomic Energy Agency
Atoms for Peace and Development

Occupational Radiation Protection during High Exposure Operations

Communication

Contents

Introduction

Internal and external communication is fundamental to the success of operations in HEO. This includes communication:

- between the field teams and coordination,
- between field teams changing shifts
- between the coordination and the press media

1. Principles of communication

1. Avoid fancy, pretentious language. It does not impress anyone. In fact, it confuses people and cuts you off from the audience.

2. Relax and remember that you probably know more about your subject than anyone in the audience. Stay calm no matter what has happened.

3. If you do not know the answer to a question, admit it. Your credibility is crucial. Do not jeopardize it. If you have bad news to say, do it. But inform what is being done to solve the situation.

4. Keep it short and simple try to make your point in 30 second sound bites. You will look and sound better if you get right to the point, avoiding technical language.

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2. Fundamental principles of communications

5. Do not be afraid to use humour in the right place. It promotes a friendly and confident image.

6. Personal stories and anecdotes help get across an idea or concept. The audience remembers the key points because of your personal insights.

7. Keep your goals in mind and stick to them. Control and focus all of your material. Decide what (maximum) three points you wish to make in the interview and stick with those three points no matter what the question is. Play your aces! Do not waste time with scientific background, etc.

8. Concentrate — do not be concerned with any distractions. Listen carefully to any questions asked. Say what you mean and mean what you say.

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1. Principles of communication

9. Use gestures, facial expressions and body language to add vitality to your words. Keep your voce conversational but imagine that it has a “face” which can show different emotions and expressions.

10. Speak convincingly. Do not be afraid to pause. Every time you open your mouth, look and sound as if you really care.

1. Principles of communication

You must:

- Address concerns
- Expect refusals
- Understand possible stigmatization
- Understand the fear of the unknown

2. Internal communications

Periodic briefings preferably on a daily basis should be held between the team coordinators and also between the team coordinator with the team. The actions for the day should be established and discussed with the team.

When a change of shift takes place the outgoing team should inform the incoming team on any change of status. Team debriefing after intensive work should also be considered.

In addition to the radiation warning signs, clearly visible postings of high dose rate or high surface contamination areas should be marked and periodically up-dated.

Out of work equipment should be clearly indicated as being defect.

If there are any doubts about the job or protection measures, stop and ask.

3. Communicating with the media and public

- A radiological accident will attract the attention of the media. This will be particularly so if there are serious health hazards associated with the accident.

- Representatives of the press/television in many instances are likely to be at the scene and broadcasting live coverage before the full mobilization of response.

- The on-scene controller should establish a media reception point and appoint a press liaison officer, as appropriate.

3. Communicating with the media and public

Experience from previous nuclear and radiological emergencies highlights public communications as one of the most important challenges in emergency management.

Communicating effectively with the public about radiation emergencies is key to successful emergency management.

It will help mitigate the risks, support the implementation of protective actions, and contribute to minimizing negative psychological impacts.

3. Communicating with the media and public

Communication to the public and media should be made through a trained Public Information Officers (PIO) and an information centre should be established as soon as possible.

Field team members should be instructed to refrain from speaking directly to the media, and should only give simplest information (name, what they are doing at the exact moment, who to talk to for more information) when questioned by a member of the general public.

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3. Communicating with the media and public

The Public Information Officer (PIO) or team is primarily responsible for keeping the public and media informed and for coordinating with all sources of official information to ensure a consistent message is being provided to the public.

In an emergency, the PIO will function under an Incident Commander who will approve information released to the public.

The major goals of responding to a radiation emergency are to protect the public and to protect emergency personnel during the response.

The PIO should receive the most up-to-date and correct information as soon as possible.

Previous experience has shown that the PIO is under high level of stress and shift work and/or backup personel should be considered.

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3. Communicating with the media and public

Sources of information for the PIO

Emergency response teams have to deal with injured persons, respond to the ongoing emergency (fire, industrial accident or natural occurrence), and conduct radiation monitoring.

They also have to coordinate tasks with the responsible parties at the site of the emergency, which may be at a nuclear power plant, an industrial site, a hospital or some other facility.

Each of these functions provides a source of information for the PIO.

Risk communication plans should include a list of these information sources, and their contact details, and establish and test mechanisms for actually communicating with these sources during an emergency.

4. International communication and INES scale

The emergency plan should also include designation of a national point of contact to the IAEA for public communications matters.

The role could be fulfilled by the National Competent Authority for an Emergency Abroad or a specific contact for media relations may be identified as part of specific response arrangements.

4. International communication and INES scale

The INES Scale is a worldwide tool for communicating to the public in a consistent way the safety significance of nuclear and radiological events.

Just like information on earthquakes or temperature would be difficult to understand without the Richter or Celsius scales, the INES Scale explains the significance of events from a range of activities, including industrial and medical use of radiation sources, operations at nuclear facilities and transport of radioactive material.

Events are classified on the scale at seven levels: Levels 1–3 are called "incidents“ and Levels 4–7 "accidents". The scale is designed so that the severity of an event is about ten times greater for each increase in level on the scale. Events without safety significance are called “deviations” and are classified Below Scale / Level 0.

INES - The International Nuclear and Radiological Event Scale

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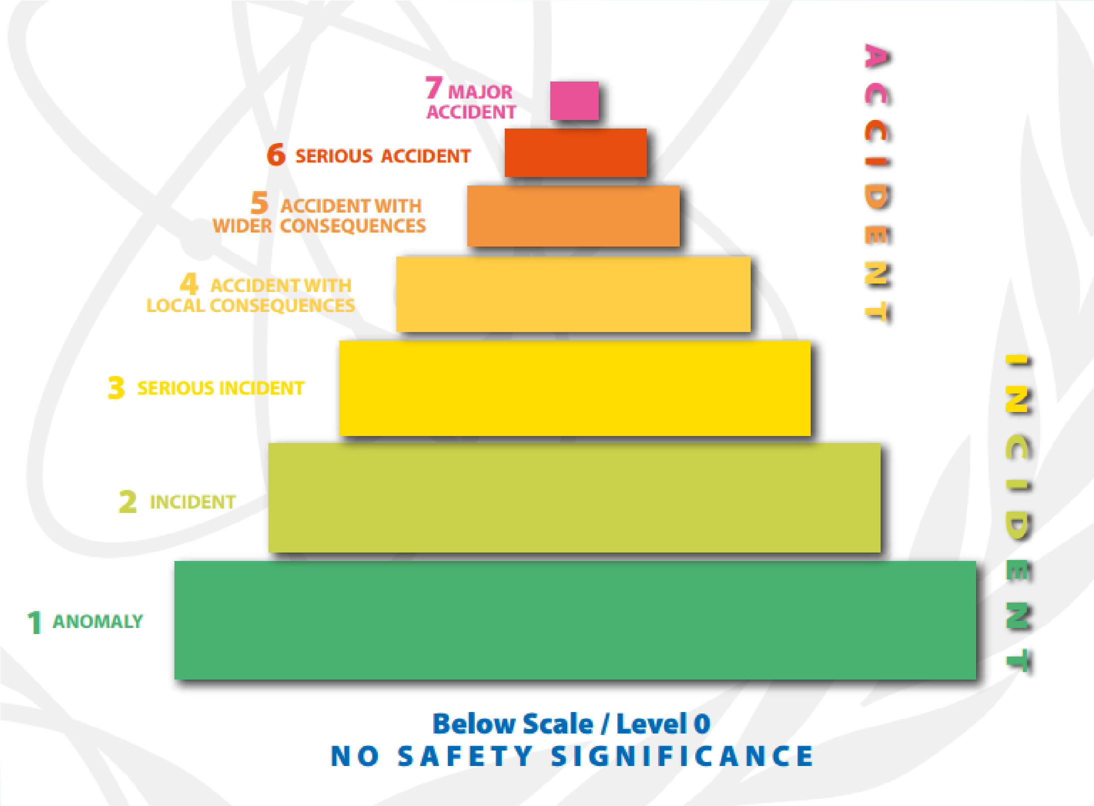

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INES - The International Nuclear and Radiological Event Scale

EXAMPLES OF EVENTS AT NUCLEAR FACILITIES			
	People and Environment	Radiological Barriers and Control	Defence-in-Depth
7	*Chernobyl, 1986* — Widespread health and environmental effects. External release of a significant fraction of reactor core inventory.		
6	*Kyshtym, Russia, 1957* — Significant release of radioactive material to the environment from explosion of a high activity waste tank.		
5	*Windscale Pile, UK, 1957* — Release of radioactive material to the environment following a fire in a reactor core.	*Three Mile Island, USA, 1979* — Severe damage to the reactor core.	
4	*Tokaimura, Japan, 1999* — Fatal overexposures of workers following a criticality event at a nuclear facility.	*Saint Laurent des Eaux, France, 1980* — Melting of one channel of fuel in the reactor with no release outside the site.	
3	*No example available*	*Sellafield, UK, 2005* — Release of large quantity of radioactive material, contained within the installation.	*Vandellos, Spain, 1989* — Near accident caused by fire resulting in loss of safety systems at the nuclear power station.
2	*Atucha, Argentina, 2005* — Overexposure of a worker at a power reactor exceeding the annual limit.	*Cadarache, France, 1993* — Spread of contamination to an area not expected by design.	*Forsmark, Sweden, 2006* — Degraded safety functions for common cause failure in the emergency power supply system at nuclear power plant.
1			Breach of operating limits at a nuclear facility.

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INES - The International Nuclear and Radiological Event Scale

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EXAMPLES OF EVENTS INVOLVING RADIATION SOURCES AND TRANSPORT

	People and Environment	Defence-in-Depth
7		
6		
5	*Goiânia, Brazil, 1987* — Four people died and six received doses of a few Gy from an abandoned and ruptured highly radioactive Cs-137 source.	
4	*Fleurus, Belgium, 2006* — Severe health effects for a worker at a commercial irradiation facility as a result of high doses of radiation.	
3	*Yanango, Peru, 1999* — Incident with radiography source resulting in severe radiation burns.	*Ikitelli, Turkey, 1999* — Loss of a highly radioactive Co-60 source.
2	*USA, 2005* — Overexposure of a radiographer exceeding the annual limit for radiation workers.	*France, 1995* — Failure of access control systems at accelerator facility.
1		Theft of a moisture-density gauge.

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