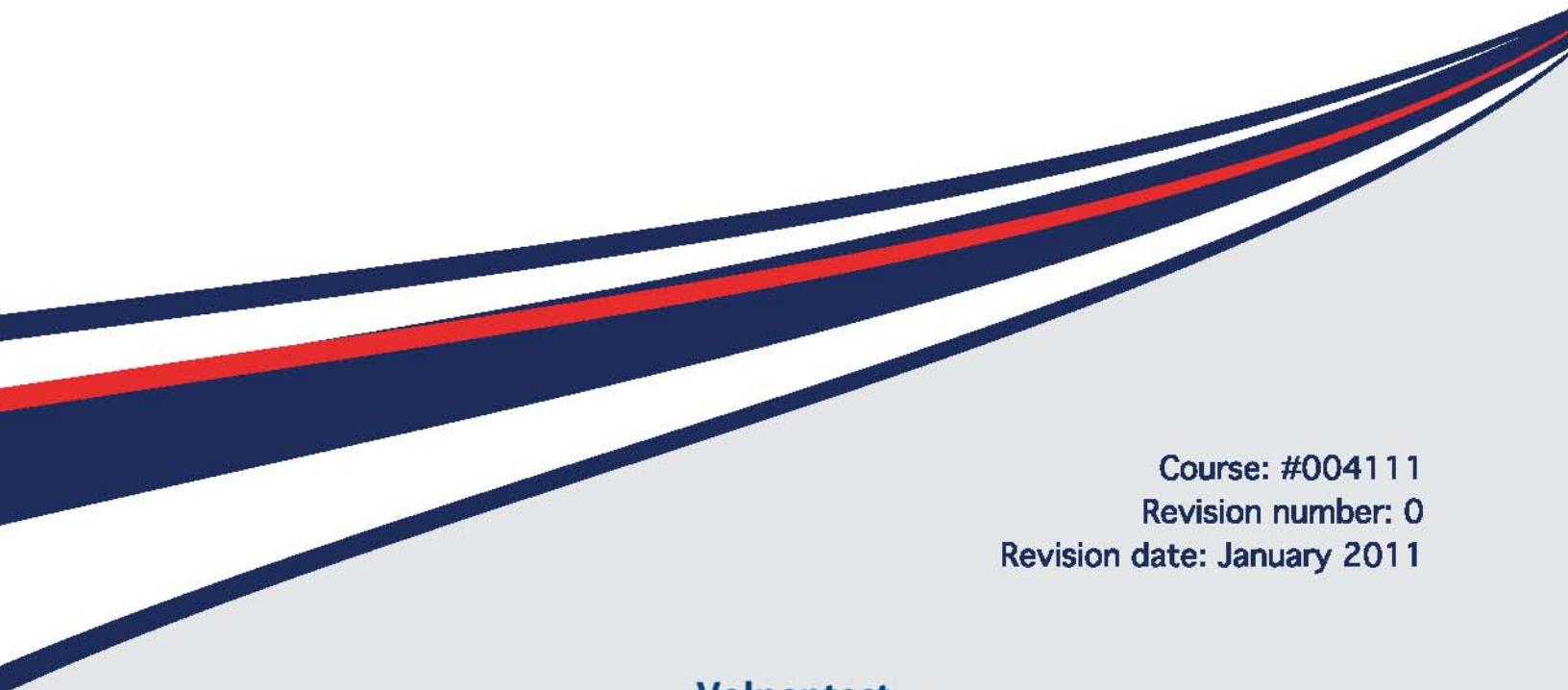


# Risk Communication

## For ES&H Professionals and Line Supervisors

Participant Manual



Course: #004111  
Revision number: 0  
Revision date: January 2011

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Training and Education Center  
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## Course Instructors

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**L.B. Sandy Rock, MD, MPH** has been Risk Communicator for CSC Hanford since 2004. Prior to that, he practiced medicine for more than twenty years in emergency rooms, ambulatory care centers, rural private practice, and community- and migrant-worker clinics on both coasts. After studying Risk Assessment, Embryological Toxicology, and Occupational Medicine at the University of Washington in 1994, he was Public Health Physician for the WA DOH's Hanford Health Information Network (HHIN); I-131 Environmental Health Education Project Consultant for the American College of Preventive Medicine; E & H Research Director for the PNW Pollution Prevention Resource Center; instructor of Environmental Science, Cell Biology and Environmental Health (2000-2005) at Bellevue [Community] College. He occasionally teaches Risk Communication at WSU-TC.

**Regina Lundgren** wrote the book on risk communication. She is a nationally recognized expert with nearly 25 years of experience in the field. She has both researched risk communication and practiced effective risk communication in environmental cleanup, cancer cluster investigations, disaster planning, and homeland security. Her book, coauthored with PNNL communicator Andrea McMakin, is in its fourth edition and is used by practitioners around the country as well as at major universities. A PNNL staff member for 14 years, she has been a consultant and trainer for the last 10 years in her own business.

**Introduction Directions:** Be prepared to share your name, position, contractor, and any information you already know about risk communication with the group.

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## Learning Objectives

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### Terminal Objective

This course will help you successfully apply risk communication principles when interacting with workers regarding work hazards.

### Enabling Objectives

EO-1. Define risk communication.

EO-2. Explain the importance of risk communication in regard to health hazards.

EO-3. Distinguish between a risk and a hazard and identify why this distinction is important.

EO-4. Recognize scenarios in which risk communication is helpful.

EO-5. Describe how perception and worldview affect risk communication.

EO-6. Identify characteristics of effective risk communicators.

EO-7. Recognize common obstacles to effective risk communication.

EO-8. Demonstrate effective application of risk communication principles.

EO-9. Recognize when additional resources are needed to communicate risks.

### Course Outline

- Definition of Risk Communication
- Principles of Risk Communication
- Characteristics of Effective Risk Communicators
- Tips
- Practice.

## Three Part Message and Risk Communication Definition

### Three-Part Message



Write your response to the video using a three-part message.

### Definition of Risk Communication

Risk communication is a research-based set of principles that create an effective means of exchanging views about [workplace] hazards.

### Benefits of Risk Communication

- Gain a better understanding of risks and hazards
- Build consensus on how to manage risks
- Foster trust and credibility
- Ensure a safe workplace and a productive workforce.

## Risk Communication Compliance

**ISMS:** A strong safety culture is highly dependent on a learning environment. Environmental Management (EM) operates multiple learning and communication processes to capture and share project and safety knowledge.

**Occupational Safety and Health Act:** "All employers [must] provide information to their employees about the hazardous chemicals to which they are exposed, by means of a hazard communication program, labels and other forms of warning, material safety data sheets, and information and training."

**ISO 14063:** "Environmental communication is not an end in itself; it is the process of communicating environmental information to build trust, credibility, and partnerships; to raise awareness; and to use in decision making."

**DOE Policy on Decommissioning DOE Facilities Under CERCLA:**

"Decommissioning activities will be conducted in full compliance with the community relations and public participation requirements established by CERCLA, the National Contingency Plan, and DOE policies."

**Hanford Site Chronic Beryllium Disease Prevention Program:**

"Monitored employees shall receive written notification of personal beryllium monitoring results ... All employees have the right to request ... additional explanation of the sampling results."

**BeCAP 162 (1.3.4)** "Standardize Risk Communication across contractors; information obtained from the site should be distributed to workers using risk communication." Beryllium Corrective Action Plan (BeCAP)

**It's the right thing to do.**

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## Risk vs. Hazard

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What Is the Difference Between a Risk and a Hazard?

In many cases, the terms “risk” and “hazard” are incorrectly used interchangeably.

A **hazard** is a physical condition or practice with the potential for causing harm/adverse effects.

A **risk** is the probability of harm/adverse effects occurring from an exposure to a hazard. It is modified by the severity of harm (the consequence).

## Risk Analysis Framework

Once a hazard is identified, a risk assessment is conducted to determine the severity of the risk. It uses scientific methods and rigorous tests to determine the effects of the risk on people and the environment.

Risk Management takes data from the risk assessment and writes policies to help protect people and the environment against the risk.

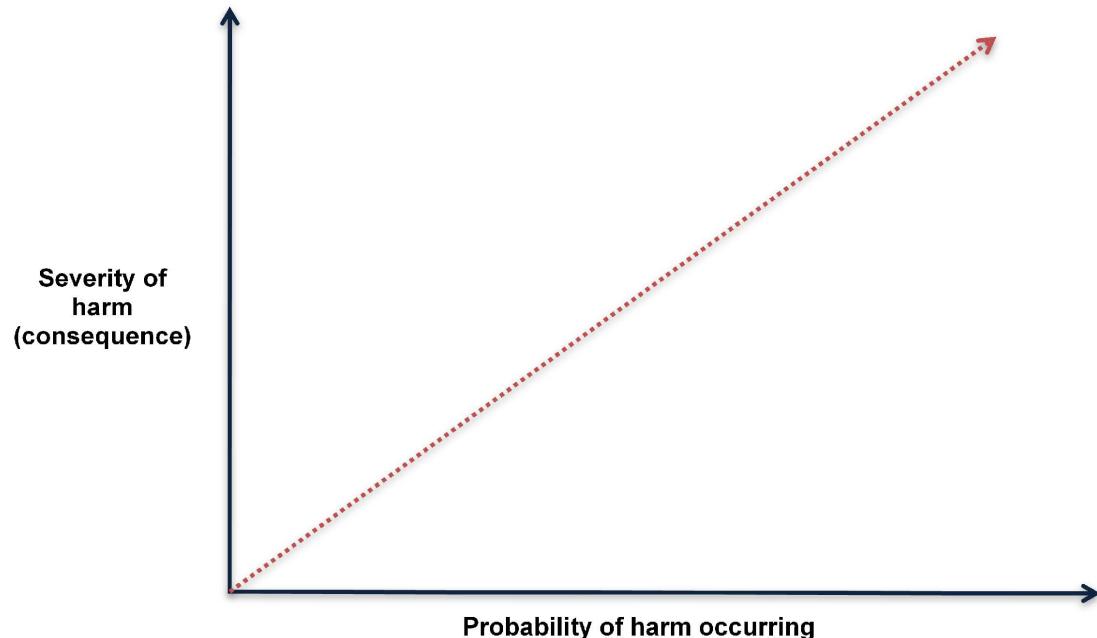
Risk communication is an ongoing process that starts soon after a hazard is identified and continues through the writing of policies. In the past, governing agencies did not do a good job of communicating risk; they would only communicate about risk after studies had been conducted and policies written.



## Risk Evaluation

Perception is reality.

Risk is subjective.



## Perception and Worldview

Factors that influence our worldview include:

- Race
- Age
- Geographic Location
- Friends
- Education
- Parenthood/Marriage
- Gender
- Culture
- Family (origin and creation)
- Religion
- Job Title/Position
- Income (SES)

## Factors Influencing Risk Perception

These factors are determined by how an event (risk) affects our lives, which is dependent upon our perception and worldview.

Factors	More Acceptable	Less Acceptable
Voluntariness	Voluntary	Involuntary
Level of Control	Within Control	Out of Your Control
Equity (fairness)	Fair	Unfair
Level of Trust	Trustworthy Source	Untrustworthy Source
Catastrophic Potential	Not Catastrophic	Catastrophic
Distribution of Benefits	Benefits Equal	Benefits Unequal
Level of Familiarity	Familiar	Unfamiliar
Moral relevance	Ethical	Unethical
Origin	Natural	Artificial ("human" made)
Level of Understanding	Easy to Understand	Hard to Understand
Detection Potential	Detectable	Undetectable

(Lundgren & McMakin, 2009)

## How to Reach an Understanding

1. Actively listen
2. Communicate using the three-part message
3. Carry through on part 3 of three-part message

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## Effective Communication

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### I Speak, Therefore I Communicate

Communication is a learned skill.

### I Hear, Therefore I Listen

Listening (especially for understanding and emotion) is a mental processing function and a learned skill. Even when we are listening to someone speak, our thoughts on average occur four times faster than the person talks. This leaves plenty of time for our minds to wander.

During this wandering time we may form opinions, solutions, and responses based on our perception and worldview. These may even include personal biases and stereotypes. Listening with empathy requires us to take hearing and listening one step further, to understand the emotional message being communicated.

### Active Listening

Active listening is different from passive listening. When we listen actively, we are listening to gain understanding of both the intellectual and emotional parts of the message.

- Our thoughts stay focused on the speaker and his/her message.
- We avoid mentally interjecting our own biases, stereotypes, and/or solutions.
- We listen to understand what the speaker is saying and how they feel about the issue/topic.
- We ask paraphrasing questions at appropriate times to summarize thoughts and check for understanding.
- We ask “How” or “What” questions to help clarify meaning and help the speaker understand his/her position.
- We use body language to foster trust, openness, and honesty.

## Nonverbal Communication – Body Language

Body language is a critical component of communication, and your body position sends powerful messages about your thoughts and feelings. For instance, when you face a person with arms open, palms up, and fingers extended, it shows openness and honesty. Also, when you angle your body toward the other person, lean slightly forward, maintain eye contact, and occasionally nod your head and smile, it demonstrates you are actively listening.



Crossing your arms and/or crossing your legs signify you are putting up a barrier. A person with a nervous, negative, or defensive attitude will fold their arms firmly across the chest, a strong signal of feeling threatened.



## Three-Part Message Activity



### Carrying Through on Your Three-Part Message

- Partner with credible others (who are viewed as competent, committed and caring)
- Working together, brainstorm options to resolve the issue or come to an understanding
- Working together, evaluate the options
- Select and implement a solution.

## Effective Risk Communication

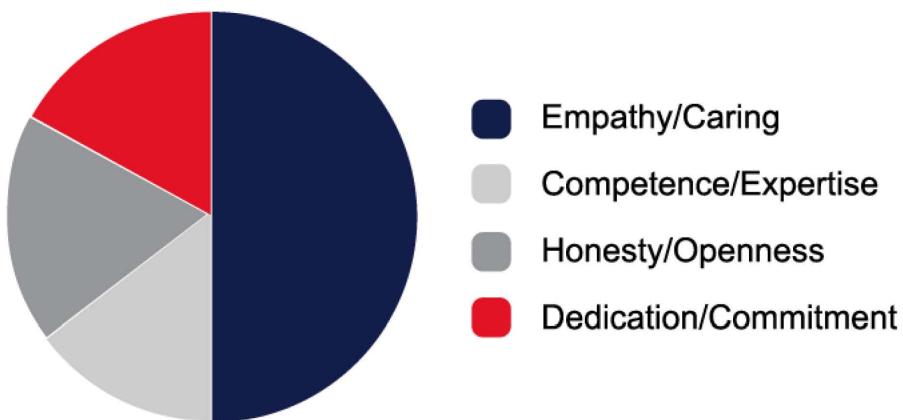
### What Does It Take to Be an Effective Risk Communicator?

Trust and credibility are the most important factors in communicating risk.

Trust and credibility are built upon:

- Empathy
- Honesty
- Competence
- Commitment

### Empathy Is the Most Important Characteristic



**“I don’t care what you know until I know that you care.”**

## Top Tips for Risk Communicators

- Listen more than you talk.
- Keep a neutral, open body position.
- Speak in language others will understand.
- Speak clearly and with empathy.
- Be honest, frank, and open.
- Show that you take concerns seriously.
- Take responsibility for your actions.
- Partner with credible others.
- Remain confident even in the face of hostility.
- Avoid humor.
- Know your limitations and ask for support.

Add some of your own tips in the space below.

## Risk Communication Obstacles

Obstacle	Solution
<b>Management not supportive</b>	
<b>Takes too much time, costs too much money</b>	
<b>Don't see immediate results</b>	
<b>Varying attitudes about the risk itself</b>	
<b>Fall back into old habits</b>	

## How Will We Know When We've Been Successful?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

## Culminating Activity

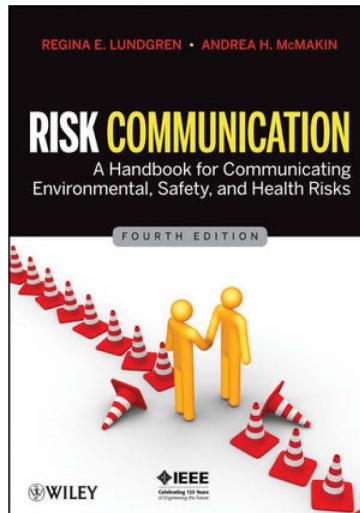
Read your scenario and develop a plan with the following elements:

Describe what you will do/say to show you are actively listening.	
Write your three-part message and describe how you will use it.	
Explain how you will follow through on the three-part message.	
Identify constraints and how you will overcome them.	
Identify how you will know you've been successful.	

## Resources Available

Take advantage of the support available to you:

- Doc Rock (sandy\_rock@rl.gov)
- Websites (Hanford, DOE, special interest groups, search keyword: Risk Communication)
- Books (Risk Communication – A Handbook for Communicating Environmental, Safety, and Health Risks)
- Job Aid



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