Association of State and Territorial

ASTSWMO

Solid Waste Management Officials

FACT SHEET
Risk Communication for Environmental
Cleanup Programs at Federal Facilities

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Due to site-specific issues and contaminants at each facility, ASTSWMO does not endorse conducting these activities at all federal facilities.

This fact sheet has been developed as a resource for State and Territorial federal facility risk managers and project managers who communicate risk information to the public. It is written to provide information that can be used to help increase an understanding of risk communication and key factors helpful in communicating risk. This primer is based on information gathered by the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) Community Involvement Focus Group.

Introduction

An important aspect of community involvement at any environmental cleanup site is communication. It is difficult to discuss information from the risk assessment about potential health threats from contaminated sites with the community. Talking to the public about sensitive environmental issues can be tough when emotions are high. This atmosphere can be avoided with little planning. It is necessary for everyone involved in environmental site cleanups to learn the social and communication skills necessary to communicate risks and environmental issues effectively to the general public.

Effective risk communication and community involvement go hand-in-hand towards successful cleanups that meet the needs of all stakeholders. Effective risk communication is two-way communication and is customized to meet the unique needs of a diverse community. Knowing your audience is imperative. If not done correctly cleanup, may be delayed or denied for the wrong reasons.

Communication and community involvement should be conducted throughout the cleanup process. The parties that are most affected need to be included at the beginning of the process. Early and often is important! At this time, there may not be a lot of information to share with community. Outreach will help build trust and credibility. It will also lead to the formation of new partnerships, the identification of additional stakeholders and a better understanding of public concerns.

Benefits of communicating with the public early include gathering historical information and current and future uses which could alter exposure pathway scenarios. Public concerns can be identified in order to compliment a sampling and analysis plan to generate information needed in the risk assessment to address their questions and needs.

> **To better understand your audience, determine:**
> - Health and safety concerns.
> - Economic concerns (real estate values for example).
> - Aesthetics concerns.
> - Data or lack of data.
> - Community benefits of remedial action versus no action.
> - Trust.
> - Credibility.
> - Who makes the decision.
> - When can people weigh in.

This paper is written to help increase an understanding of risk communication and to identify key factors, such as trust, knowing the community, education, developing strategies to effectively involve the public, promoting dialogue and reducing misinformation that are helpful in communicating information effectively. The results of effective risk communication are successful remedial decisions that meet the needs of all stakeholders.

What is Risk Communication?

The National Research Council (1988) defines risk communication as an interactive process of information and/or opinion exchange with individuals, groups or institutions. Another definition of risk communication is the process of building, maintaining, and repairing relationships with stakeholders on issues (U.S. Army Center for Health Promotion and Preventive Medicine, 2004). Risk communication is not public speaking, spinning messages or talking numbers. Risk communication requires significant communication skills, planning and preparation.

Did you know that risk communication emerged from the medical community in the 1970s? At that time, risk communication was perceived as one-way messages from experts to non-experts! Today, risk communication involves two-way communication, empathy, value of third parties, awareness of perceptions, building trust and establishing credibility. Risk communication requires being honest, open, genuine, and sincere and applying both verbal and nonverbal communication skills in a variety of situations. It also requires ongoing commitment to practice and preparation before interacting with stakeholders.

Foundation of Risk Communication
Six principles that form the foundation of risk communication:
- Involve stakeholders as legitimate partners.
- Identify stakeholders' interests, needs and concerns.
- Train risk communicators.
- Coordinate and collaborate with allies and third party supporters.
- Learn how to communicate with the media.
- Plan for risk communication and developing an implementation process.

In addition, it is recommended that everyone involved in communicating risk follow the *Seven Cardinal Rules of Risk Communication* (Covello and Allen 1988):
- Accept and involve the public as a partner.
- Plan and carefully evaluate your efforts.
- Listen to the public's specific concerns.
- Be honest, frank and open.
- Work with other credible sources.
- Meet the needs of the media.
- Speak clearly and with compassion.

Covello and Allen (1988)

Why do Risk Communication?

A good working relationship should be established with the community early in the cleanup process. Early involvement allows one to identify issues and to develop relationships with partners including lay persons and experts. Early communication leads to better risk management decisions, improved public opinion and a better focus on risk issues.

Why is Risk Communication Difficult?

Risk communication can sometimes be the hardest part of the remedial process. Risk communication is difficult due to:

- Trust issues.
- Limited knowledge of the remedial process.
- Lack of scientific understanding.
- Lack of knowledge of quantitative numbers and modeling assumptions.
- Conflicting science.
- An increasing concern for safety, health and environmental risks.
- Lack of understanding of the community and its values.

> **Perceptions are reality, regardless of accuracy!**
> The public is looking for reassurance that the decision
> makers are taking actions that are sound and safe.

There can be media influence and mistrust of the source of information being communicated. One must be able to respond to misperceptions of risk, misunderstanding, anger, fear, irritation, distrust, concerns and confusion, as well as personal, economic, political, social, historical, and cultural agendas.

Perception of risk can be very different between environmental experts and the general public. Pidgeon (1992) defines risk perceptions as "people's beliefs, attitudes, judgments and feelings, as well as the wider social or cultural values and dispositions that people adopt, towards hazards and their benefits." This is a very different set of criteria than environmental experts use to base their judgment of risk - on magnitude and probabilities related to scientific fact and modeling predictions.

Generally, people perceive voluntary risks as acceptable and less troublesome than those risks that are considered involuntary. For example, consider someone who takes a newly marketed prescription medicine. The warning label may state, "On rare occasions, this product has been shown to cause stroke and even death." Nevertheless the patient will gladly take the medicine and may even pay a high price to do so. Simultaneously, trace amounts of penicillin or other common medicines in the drinking water can cause an

> **Risk Communication is More Than Words!**
> Did you know that 90 percent of communication is nonverbal? Nonverbal communication is more important, memorable, and noticeable than words. Nonverbal communication is communication through body language, voice, word emphasis, pitch, tone (monotone versus variation), hesitation and speed.
>
> Nonverbal communication also includes dress, physical barriers, location and active listening. Active listening is the ability to hear words and feelings, and provide feedback correctly. In the early stages of listening, the feedback of emotions is more important than words. When presenting risk information, it is important to be aware of body language and community concerns.

uproar. Involuntary risks are perceived to be forced on the public by decision makers, in which the public did not have a say in the decision or a
choice in accepting or declining the risk. Involuntary risks are considered to be unacceptable risks by the general public. The distinction between voluntary and involuntary risk may well be the central element in the difference between lay and expert judgments about risk. Experts tend to focus on facts, research, population effects, and scientific data. The general public cares a great deal about having a choice - whether a risk is undertaken voluntarily or not.

Table 1.

Much research has been done on how people interpret risk. In Table 1, Peter Sandman (1986) provides the following list that identifies some of the characteristics, other than mortality that factor into how risks are perceived. The very same risk will be understood quite differently between by the experts and the lay public depending on where it stands in the table.

Less Risky	More Risky
Voluntary	Involuntary
Familiar	Unfamiliar
Controllable	Uncontrollable
Controlled by self	Controlled by others
Fair	Unfair
Not Memorable	Memorable
Not dread	Dread
Chronic	Acute
Diffuse in time and space	Focused in time and space
Not Fatal	Fatal
Immediate	Delayed
Natural	Artificial
Individual mitigation possible	Individual mitigation impossible
Detectable	Undetectable

If differences in risk perceptions are not identified and understood, then communication may not be effective.

In addition, there are emotional levels in risk dialogue that virtually have no rational context, such as physical threats, unacceptable language and behavior, and difficult questions or statements lacking factual dialogue.

Explaining Environmental Risk: Dealing With The Public By Peter M. Sandman Published by TSCA Assistance Office, Office of Toxic Substances, U.S. EPA, Nov. 1986 booklet pp. 14-25.
http://www.petersandman.com/articles/explain3.htm

It is important to remember:
Do not to take this personally!

This situation can serve as an opportunity to reach out to the community, determine what perceptions are there and identify areas where communication can be most beneficial.
Risk communication is partly a thinking process. Effective communication will reduce the amount of time required to react in various situations. Plan ahead, prepare and involve the community early in the remedial process to better understand their needs, perceptions, and concerns.

The Role as a Project Manager
A good working relationship should be established with the community early in the cleanup process, as part of the overall site strategy. Community Involvement Plans (CIPs) are developed at most federal facilities and can be used as guidance for assessing the community in preparation of presenting risk information. CIPs can help with questions such as:
  • Who has indicated interest?
  • What type of forum is preferred?
  • What types of materials exist?
  • What materials need to be developed?
  • What are the known concerns?

Taking a proactive approach allows one to get ahead of issues, to build trust and to improve relationships with partners. Community partners can provide valuable input to help identify site specific information, as well as provide input to the community's vision for the future use of a site. Knowing the needs of the community in advance helps project managers plan the appropriate level of effort for message development and presentation. Sensitivity to community concerns, when planning communications in a way that does not talk down to a group, is critical. The risk communicator will benefit from some upfront strategic planning to:

- Identify goals of the risk presentation.
- Identify the target audience and concerns.
- Develop risk messages in clear concise terms.
- Prepare for meeting – conduct a dry run of the presentation.
- Contact and provide notice to key stakeholders.
- Provide a timeline and schedule of when the public can expect a response or the next step.
- Evaluate efforts with the project team.

Conclusion

For effective risk communication, it is important to develop good communication skills and to involve all stakeholders early and often in the cleanup process. Early involvement allows the public to be aware of the problem and to be an active participant in the cleanup process. Knowing the community will help regulators and cleanup officials become aware of issues in the community before they escalate into a crippling situation that could delay cleanup. The bottom line is that effective risk communication and public involvement early in the cleanup process builds the foundation for a successful cleanup project that meets the needs of all stakeholders.

References

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For More Information

Contact the Federal Facility Community Involvement Focus Group on the Web at
http://astswmo.org/programs_federalfacilities.htm

"The mission of the Community Involvement Focus Group is to identify issues and to encourage improved partnerships between States, Communities and Federal agencies."

Federal Facility Community Involvement Focus Group Members
Dave Allison, Utah Department of Environmental Quality - Chair
Richard Albright, District Department of the Environment, Washington D.C.
Ellie Grillo, Massachusetts Department of Environmental Protection
Chris Hemann, Arkansas Department of Environmental Quality
Ramona Huckstep, Missouri Department of Natural Resources
Brandi Little, Alabama Department of Environmental Management
Laurie Moore, Ohio Enviromental Protection Agency
Steven Mow, Hawaii Department of Health
Wilmarie Rivera, Puerto Rico Environmental Quality Board