

# REGION 6 LEPC Update



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This marks the start of our 23<sup>rd</sup> year of issuing the Update to our local, State, Federal, Tribal, and industry partners. We hope you still find it useful !!



We have a valuable partner who has left us. Many of you have worked with Angie Rothen, either through the Hotzone Conference, the Regional Response Team, or CAMEO training, as well as numerous other CEPP activities. Angie has decided to move on and go to nursing school, to help others. As I know all of you will attest, Angie has been a joy to work with in the past years, and I know she will do wonderful in the health care profession.

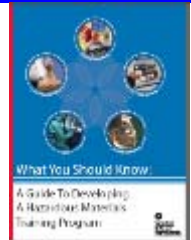
Hilary Gafford has agreed to take over Angie's workload, and we welcome her.

This month, we revisit a topic we covered years ago, communication to the media during an incident. Fred Cowie, our adopted Poet Laureate, has provided us another thought-provoking article. As always, if you received this Update from someone else, and would like to be added to the email list, just email us at one of the emails above.

Steve & Hilary

## *New DOT Guide for Hazardous Materials*

The Department of Transportation has published a new document, "What You Should Know: A Guide to Developing a Hazardous Materials Training Program," which explains the training requirements of anyone working around hazardous materials in a transportation mode. This includes handling, packaging, storing, moving, loading and unloading, of hazardous materials, as well as responding to emergency situations involving transportation of hazardous materials.



Planning and response organizations can consult this document to understand the training requirements in the Hazardous Materials Regulations, and appreciate how to work together with hazmat transportation employees when necessitated by a major hazmat transportation disaster. We have attached the document to the email transmitting this Update.

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# LEPCs, Communication, and the Media

The communication process is not always a simple matter. Conveyance of information between government, industry, and the general public can be hampered by dissimilar interests and backgrounds. It is important that different groups acquire the skills of communication so that they may effectively transmit the information they have as well as its perception by the public.

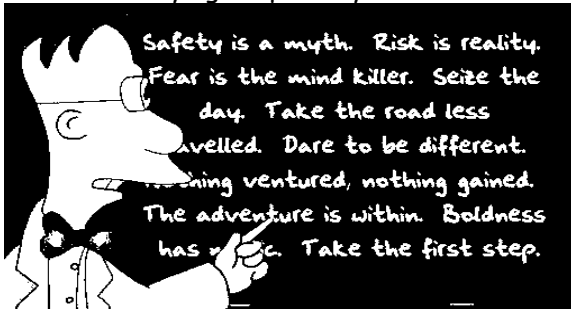


There is no full-proof, all-encompassing narrative on how to deal with the public and media during an incident. This article provides those persons responsible at the local level for working with the public some suggestions on how to express their ideas more effectively.

These principles may greatly improve the link between industry, government, and the public in understanding and handling chemicals. This information was compiled from sources developed over the years to assist different organizations in communication skills.

**Appreciation is extended to Chuck Wolf and Melanie Miller of Media Consultants for permission to use portions of their material in this article. Chuck and Melanie have devoted years to assisting LEPCs and industry in working together.**

If you made a list of the risks in order of how many people they kill each year, and then list them again in order of how alarming they are to the general public, the two lists would be very different. The public tends to define risk more broadly than those trying to quantify the risk.



People will perceive certain incidents to be very high risk (e.g., tire fire, diesel fuel spill), even though the actual risk may be much lower.

This occurs when people feel outrage toward an incident. Efforts to explain the actual risk to an incident are unlikely to succeed as long as the outrage is high. To decrease public concern about low-risk incidents, the persons responsible for communicating to the public must first diminish the outrage.

The following are four stages of communicating the potential risks of an incident. These progressively improve the public's understanding and help them make rational, education decisions:

1. Stonewall stage -- No communication. Ignore the public.
2. Missionary stage - One-way communication. Show the public why you are right and they are wrong.
3. Dialogue stage - Two-way communication. Learn from the public the ways in which they are right and you are wrong.
4. Organizational stage - Ongoing communication. Finds dialogue with public to be a natural ongoing event.



Being able to communicate to the public what is going on during or right after an incident is a complex process, which tends to escalate and ebb on a cyclic basis.

Normally, local officials are responsible for giving citizens necessary and appropriate information, allowing citizens to believe they are involved in making decisions that affect them - such as where to evacuate, for how long, and when will it be safe to return.

The spokesperson has four important roles:

1. to remove the psychological barriers within the audience,
2. to penetrate the public's anxiety and gain support for the public health response,
3. to build trust and credibility for the organizations involved in the response effort, and
4. ultimately to reduce the incidence of illness, injury, and death.

Through public appearances, the spokesperson gives human form to the organizations charged with resolving the crisis.

**There are four key rules that all spokespersons must follow to increase the likelihood of a successful communication.**

1. to provide a greater chance that the message will be acted upon, the communicator must exhibit sincere empathy for those affected by the disaster.
2. it is critical to have a command center and emergency communications system, where members from all responding agencies can communicate so that the appropriate information is disseminated to the public.
3. the content of the risk communication message must be accurate and consistent with other messages.
4. the spokesperson must be honest.

**People's perceptions of the magnitude of risk are influenced by factors other than numerical data.**

- Risks perceived to be voluntary are more accepted than risks perceived to be imposed.
- Risks perceived to be under an individual's control are more accepted than risks perceived to be controlled by others.
- Risks perceived to be have clear benefits are more accepted than risks perceived to have little or no benefit.
- Risks perceived to be fairly distributed are more accepted than risks perceived to be unfairly distributed.
- Risks perceived to be natural are more accepted than risks perceived to be manmade.
- Risks perceived to be statistical are more accepted than risks perceived to be catastrophic.
- Risks perceived to be generated by a trusted source are more accepted than risks perceived to be generated by an untrusted source.
- Risks perceived to be familiar are more accepted than risks perceived to be exotic.
- Risks perceived to affect adults are more accepted than risks perceived to affect children.



**Recognize the importance of community input. Citizen involvement is important because**

- a) people are entitled to make decisions about issues that directly affect their lives;
- b) input from the community can help the agency make better decisions
- c) involvement in the process leads to greater understanding of - and more appropriate reaction to - a particular risk;
- d) those who are affected by a problem bring different variables to the problem-solving equation; and
- e) cooperation increases credibility. Finally, battles that erode public confidence and agency resources are more likely when community input isn't sought or considered.



**To the extent possible, involve the community in the decision-making process.**

- Involve the community at the earliest stage possible.
- Clarify the public's role from the outset.
- Acknowledge situations where the agency can give the community only limited power in decision making.
- Find out from the communities what type of involvement they prefer.

**Identify and respond to the needs of different audiences.**

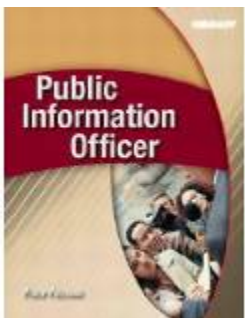
- Try to identify the various interests in a situation at the beginning and meet with representatives of each informally.
- Recognize the strengths and weaknesses of citizen advisory groups.
- Deal with everybody equally and fairly.

**When appropriate, develop alternatives to public hearings. In particular, hold smaller, more informal meetings.**

- If you cannot avoid a large public meeting, the logistics should enable both the agency and the community to be treated fairly.
- Consider breaking larger groups into smaller ones.
- Be clear about the goals for the meeting. If you cannot adequately fulfill a citizen's request for a meeting, propose alternatives.
- In certain situations, one-to-one communication may work best.

**Recognize that people's values and feelings are a legitimate aspect of incident and disaster issues and that such concerns may convey valuable information.**

- Provide a forum for people to air their feelings.
- Listen to people when they express their values and feelings.
- Acknowledge people's feelings about an incident.
- When people are speaking emotionally, respond to their emotions. Do not merely follow with data.
- Show respect by developing a system to respond promptly to calls from community residents.
- Recognize and be honest about the values incorporated in agency decisions.
- Be aware of your own values and feelings about an issue and how they affect you.



**Working through the Disaster**

***Before the Disaster/Crisis***

- **Designate a PIO in each emergency relief organization.** The PIO duties could be part of a persons regular emergency relief duties. Having a designated PIO on-staff provides reporters with a central spokesperson in everyday and emergency situations.
- **Organize a "what if" brainstorming session with others in your office.** Come up with "what if" scenarios about potential crisis and disaster situations. Determine steps on how you would respond to the "what if" crises.
- **Have a crisis communication/emergency communication plan before a disaster strikes.** With an emergency communication plan in place, PIOs will be able to respond and perform in a proactive stance, as opposed to a reactive mode, thus better controlling the information and news coverage in a disaster.
- **Select disaster/crisis communication teams.** Who is responsible for communicating with the media during a crisis? Who fields telephone calls? Who makes decisions about what to say to the media? Everyone in your office should know who are on the crisis communication teams.



- **Provide all PIOs with communications-related training opportunities.** Ephasize topics PIOs believe to be important when communicating with the media. It is not enough to have a designated PIO on staff; that PIO should be properly trained in communication methods. (Many PIOs are volunteers.)
- **Initiate internet development training for PIOs or a designated person on staff.** Reporters and the general public are becoming more adamant about getting almost immediate, online information.

### *During the Disaster/Crisis*

- **Gather and classify information into categories, such as *facts* and *rumors*.** Facts should be routinely updated; rumors should be verified or exposed as myths.
- **Cater to local before national media.** Local reporters will provide immediate information to area constituents.
- **Remember newspaper reporters have information needs.** The immediacy of television and radio coverage may have caused PIOs in the firefighters study to provide more resources to television reporters and video photographers.
- **Consider "media pool coverage,"** especially of video, and media tours to damaged areas. This should be a standard feature at all emergency command center sites and not change from site to site.
- **Be accessible or designate someone to the media at all times.** Reporters should have a contact person's telephone number, cell number, fax and email address for around-the-clock contact.
- **Provide necessary resources (cellular phones, laptop computers) to PIOs in the field.**
- **Provide other services, such as a 24-hour telephone hotline, for the public to use for emergency updates.**
- **Get the facts.** Miscommunication heightens during a crisis and can be exaggerated by half-truths, distortions, or negative perceptions.
- **Take the offensive when a serious matter occurs. Be active, not reactive. Tell it all; tell it fast.**
- **Deal with rumors swiftly.** Tell the truth on facts you know. Do not repeat others opinions, hearsay, or possibilities.



- **Centralize information.** Designate one spokesperson. A central spokesperson provides a singular "face" for the reporters. Viewers begin to become familiar one spokesperson, so this is one way to begin building credibility with the organization, if the person comes across as trustworthy. Centralized information also will minimize miscommunication.

- **Don't get mad. Don't get mad. Don't get mad.** Keep your cool in an interview or news conference with reporters. Some of their questions may be hostile, and some questions and comments may seem to be a personal attack to you, but remember that they are trying to get information on a crisis-oriented story that may have widespread impact to their audiences.
- **Stay "on the record" in all interviews.** Do not go "off the record." Any comment worth saying should be said "on the record." If you go "off the record," be ready to read it in print the next day. Is this unethical for reporters to report "off the record" comments? Sure, but anything can, may, and will be done to advance a story.



- **No "no comments."** Try to have an answer for reporters questions. But if you dont have an answer, dont be afraid to say, "I dont know, but Ill find out." Saying "no comment" instead, appears to television news viewers and newspaper readers that you have something to hide.
- **Write everything down.** Maintain a crisis communication inventory of what was said by whom and at what time. This way, you will have a record of the event and how it was communicated. You can evaluate your responses so you will be better prepared if another crisis happens in the future.

## After the Disaster/Crisis

Dont just sit back and do nothing; you wont be ready for the next disaster or crisis! It is time to evaluate how you handled the crisis. Your review should include the following:

- A review of why the crisis or disaster occurred. Could you have done anything to prevent it?
- An evaluation of how the crisis was handled and communicated. You may want to use the crisis communication inventory you maintained to evaluate how communication was handled. Was information disseminated through one spokesperson? Did miscommunication occur?
- An examination of similar scenarios. What would you do in a similar situation? What did others do in similar situations?



### Planning Checkpoints

- Do those responsible for issuing warnings to the public understand that widespread panic is not a common problem in disasters, but that convincing people to evacuate is?
- Does your community's disaster planning and training address which organizations and persons are responsible for the various aspects of warning: detection of the threat, decision to warn, and dissemination of warning?
- Does your warning process take into consideration the importance of the warning context? The legitimacy of the warning source? The importance of warning repetition and consistent, multiple warnings from different sources?
- Does your planning include provisions to disseminate information that will help members of the public determine that they don't have loved ones impacted by the disaster (such as information accurately describing the geographical boundaries of the disaster, the involved aircraft destination, flight number, and list of uninjured passengers)?
- Do you have a regional system for collecting disaster victim information and providing it to the public at a site away from the disaster response activity?



### Myths of Risk Communication

- **We Do Not Have Enough Time and Resources to Effectively Communicate Risk.** Risk communication does take time and staff. Still, you must devote efforts to interact with the public or you will be dealing with communication disasters.
- **Communicating with the Public about Risk Is More Likely to Alarm People Unduly than to Keep Quiet.** Not allowing people to express their concerns is more likely to increase rather than decrease alarm.
- **If We Could Explain Risks Clearly Enough, People Would Accept Them.** Data are not the only factors that influence people's perception of risk. Pay attention to your process for dealing with people as you do explaining the data.
- **We Should Not Go to the Public until We Have Solutions to Environmental Health Problems.** Failing to involve people in decisions that affect their lives may result in opposition. Release management options, not decisions, and invite communities to discuss risk management strategies in which they have a stake.
- **These Issues Are Too Tough for the Public to Understand.** Environmental health issues can be complex, but many people can grasp much of the substance.

- **Technical Decisions Should Be Left in the Hands of Technical People.** Technical staff are generally better versed in the scientific aspects of environmental health, but problems raised by policy and value issues are beyond the technical realm.
- **Give the Public an Inch, They Will Take a Mile.** If the interaction is confrontational, this may be true. Listen to people when they ask for inches, and they are unlikely to demand miles.



- **If We Listen to the Public, We Devote Scarce Resources to Issues That Are Not a Great Threat to Public Health.** Closing out the public is likely to cause distrust and further skew the policy debate. Be sensitive to public concerns. Otherwise, you will unknowingly create controversy and contribute to raising the profile of lesser issues.
- **Activist Groups Stir up Unwarranted Concerns.** Activists do not create the concerns; they merely arouse and channel those that already exist. Deal with the groups and their concerns with respect rather than merely fighting them.

### Seven Cardinal Rules of Communication



By adhering to these seven cardinal rules of communication, you can help dispel the myths of risk communication. If the media and the public feel that you are interested in their opinions and ideas, then their preconceived "myths" will no longer exist.

1. **Accept and Involve the Public as a Legitimate Partner.** A basic principle of risk communication is that people and communities have a right to participate in decisions that affect their lives, property, and things they value. Demonstrate your respect for the public and underscore the sincerity of your efforts by involving the community early, even before important decisions are made. The goal of risk communication should be to produce an informed public that is involved, interested, reasonable, thoughtful, solution-oriented, and collaborative.
2. **Plan Carefully and Evaluate Your Efforts.** Begin with clear, explicit communication objectives - providing information to the public, motivating individuals to act, stimulating response to emergencies, or contributing to the resolution of conflicts. Evaluate the information you have about the risks and know its strengths and weaknesses.



3. **Listen to the Public's Specific Concerns.** If you do not listen to people, do not expect them to listen to you. Communication is a two-way activity. Do not make assumptions about what people think, know, or want done about risks. Take the time to find out what people are thinking: Use techniques such as interviews, focus groups, and surveys.
4. **Be Honest, Frank, and Open.** In communicating risk, trust and credibility are precious assets. Disclose information as soon as possible. Discuss data uncertainties, strengths, and weaknesses - including the ones identified by other credible sources.

5. **Coordinate and collaborate with other credible sources.** Allies can be effective in helping you communicate risk information. Take time to coordinate all inter-organizational and intra-organizational communications. The key word is "credible". Do not get into conflicts with irrational or fringe individuals. You will never win.

6. **Meet the Needs of the Media.** The media are a prime transmitter of information on risks; they play a critical role in setting agendas and in determining outcomes.
7. **Speak Clearly and with Compassion.** Technical language and jargon are useful as professional shorthand, but they are barriers to successful communication with the public. Acknowledge and respond to emotions that people express: anger, fear, anxiety, outrage, and helplessness.



## 10 Reasons to Release Information Early

Releasing information early reduces mistrust among the public.



1. People are entitled to information that affects their lives.
2. Early release of information sets the pace for resolution of the problem.
3. You are more apt to earn public trust if you release information promptly.
4. If you wait, the story may leak anyway. When it does, you are apt to lose trust and credibility.
5. You can better control the accuracy of information if you are the first to present it.

6. There is more likely to be time for meaningful public involvement in decision-making if the information is released promptly.
7. Less work is required to release information early than to respond to inquiries, attacks, etc. that might result from delayed release.
8. Prompt release of information about one situation may prevent similar situations elsewhere.
9. If you wait, people may feel angry and resentful about not learning of the data early.
10. People are more likely to overestimate the risk if you hold onto information.



## 10 Ways to Lose Trust and Credibility

Most communication 'horror stories' are the result of a breakdown between organizations, government, and the public. These rules are guaranteed to help destroy your credibility and ensure that the public will distrust you in future policies issued by your office.

1. Do Not Involve People in Decisions That Directly Affect Their Lives. Then act defensive when challenged.
2. Hold onto Information until People Are Screaming for It. While they are waiting, do not tell them when they will get this information.



3. Ignore People's Feelings. Better yet, say they are irrelevant and crazy.
  4. Do Not Follow Up. Place returning calls from citizens at the bottom of your to do list and delay sending out the information you promised people at the public meeting.
  5. If You Make a Mistake, Deny It. Never admit you were wrong.
6. If You Do Not Know the Answers, Fake It. Never say, "I don't know", or "I will find out".
  7. Do Not Speak Plain English. When explaining technical information, use professional jargon or simply leave out important information.
  8. Present Yourself like a Government Bureaucrat. Wear a three-piece suit to a meeting at the local garage, and sit up on stage with seven colleagues who are dressed similarly.
  9. Delay Talking to Other Agencies Involved. This way, the message the public gets can be as confusing as possible.
  10. If One of Your People Hates to Talk to People, Send Him out to Speak to the Public. It is good experience.



Obviously, these hints are facetious, but unfortunately, many public officials follow these tenets very closely. These behaviors will make your tasks more difficult, and destroy any chance you may have of using the public as an ally.



## Working with the Press

Environmental journalism has never been easy, either in communicating complex issues to a broad public or in dealing internally with editors whose interests can often conflict with those of the reporter.



Therefore, an LEPC member or local official should be prepared to assist the reporter in understanding the role of the LEPC, the requirements of EPCRA, and the limitations of the information collected under EPCRA.

The following hints may help in that assistance.

- **Environmental Risk Is Not a Big Story.** The reporter's job is news, not education. The news is the risk that has happened, not the determination of how risky it really is.
- **Politics Is More Newsworthy than Science.** The public needs to know about such abstract concepts like uncertainty of risk assessments, impossibility of zero risk, debatable assumptions underlying doseresponse curves and animal tests.
- **Reporters Cover Viewpoints, Not Truths.** In the philosophy of Journalism, there is no truth (or no way to determine truth); only conflicting claims to be covered as fairly as possible.
- **The Risk Story Is Usually Simplified to a Dichotomy.** The media will see the event as either safe or hazardous. Most of the journalistic bottom lines are tightly drawn; either the release is legal or illegal, people either evacuate or stay, and the incinerator is either built or not built. If you want to fight this tendency to split the issue, fight it explicitly, asserting that the issue is not "risky or not" but "how risky".
- **Reporters Try to Personalize the Risk Story.** Try to answer with both personal views and policy recommendations, then try to explain the difference if there is one. Come to the interviews with colleagues whose personal views are different, thus dramatizing the uncertainty of data.



- **Claims of Risk Are Usually More Newsworthy than Safety.** Media coverage of environmental risk alerts the public to risks of which it was otherwise unaware. This can increase the level of alarm even when coverage is balanced.
- **Reporters Do Their Job with Limited Expertise and Time.** For most media outlets, reporters covering risk are not likely to have any special preparation for the assignment. Their goal is not to find out all there is to know, just enough to write the story. It may help to train reporters about your field - but it will help a lot more to train yourself about dealing with the media.

Summary: Many times during emergency situations, press calls often go to the boss and the expert instead of the press office, so the boss and the expert should know how to talk to reporters. Though you may never enjoy your contact with reporters, the risks of ducking the media are far greater.

There's not much you can do to change the nature of journalism or the performance of journalists. By improving your own performance as a source, you can bring about a real improvement in media coverage of environmental risk.

## Media Relations Rules

The media has the power to sway public opinion. They use these guidelines to determine how fast and how well you responded to them during an emergency.

If you don't adhere to them, they will not hesitate to let the public know.



- Credibility is established by how good/bad and how fast/slow you respond to the press and public.
- Public opinion is not always based on what action has been taken, but upon what information they've received.
- The media believes it has a "right to know" and "right to access" to see first hand what's going on to "protect the public."



- The media, not you, decide what is or isn't news, whether or when it will do the story, and what information to use in that story.
- Your only decision is whether or not to be one of the information sources.
- The media isn't trying to decide who is telling the truth, but to present the pro's and con's, and let the public decide.
- The press and public will seek certainty and absolutes during uncertain times.
- Early notice to the media can minimize public apprehension and prevent misinformation from other sources.
- Remember: you are not talking to a reporter, but to his or hers thousands of viewers, listeners, and readers.

## Simple Fears and Concerns Toward the Media

- Not knowing what to say, or saying too much to reporter;
- Being misquoted; out of context;
- Being embarrassed, or look bad on tv;
- Media will sensationalize event;
- Fear of negative press, or bad news;



- Lack of control of self and story;
- Too many media;
- Don't understand media technology, or media needs/wants;
- Possible security breaches;
- Takes time away from crisis

Communicating with the media is not easy. You feel as if you are "on-the-spot." In order to have a more natural relationship with the reporter, you need to relax and answer the questions to the best of your knowledge.

## Top 10 Rules of the Media Game

The media will sometimes use tricks to back you into a corner. They use silence (he/she who speaks first loses) and rephrasing questions as a way to make you nervous and blurt out an answer.

- **The Media Always Has the Home Court Advantage.** They even offer free tickets to their own arena.
- **The Media Plays to Win.** They don't necessarily play to outscore or beat you.
- **The fans are the referees.** The public decides what's fair, and who to penalize.
- **You have to play offense to score any points.** If you only play defense, the best you can win is a tie.
- **You can't score any points until you control the ball.** The ball is the message(s) you carry to key audiences.
- **Your skills become proficient with practice.** Continuous cycle: assess , plan, train, and drill.
- **You win or lose this game by your choice of words.** Not canned presentation, but planned presentation.
- **This game lasts until either side quits.** Or the fans stop coming, or a bigger game begins.
- **Your only decision is whether to suit up and play.** If you don't play, the media plays a substitute team.
- **In this game, it's easy to make mistakes.** Your training and techniques are not on trial. You are!



<b>Risk Communication Do's and Don't's</b>		
	<b>Do ...</b>	<b>Don't ...</b>
Jargon	define all technical terms and acronyms	use language not understood by your audience
Humor	if used, direct it at yourself	use it in relation to safety or environmental issues
Negative Allegations	refute allegations	repeat or refer to them
Words & Phrases	use positive or neutral terms	minimize or trivialize the risk
Reliance on Words	use visuals to emphasize key points	rely entirely on words
Temper	remain calm; use a question to stay positive	let your feelings interfere in communicating
Clarity	ask whether you have made yourself clear	assume you have been understood
Abstractions	use examples, anecdotes, and analogies to establish a common understanding	talk in the abstract or use hypothetical situations
Non-verbal Messages	be sensitive to non-verbal messages; make them consistent with what you are saying	allow your body language or your dress to be inconsistent with your message
Attacks	attack the issues	attack the person or organization
Promises	promise only what you can deliver; set and follow strict orders	make promises you can not keep or fail to follow up
Guarantees	emphasize achievements and ongoing efforts	say there are no guarantees
Speculations	provide information on what is being done	speculate about worst cases
Money	refer to the importance you attach to health, safety, and environmental issues	refer to the amount of money spent as if it proved your concern
Organizational I.D.	use personal pronouns (i.e., I, we)	take on the identity of a large organization
Blame	take responsibility for your share of problem	try to shift blame or responsibility to others
"Off the Record"	assume anything you say and do is part of the public record	make side comments or "confidential" remarks
Risk Comparisons	use them to help put risks in perspective	compare unrelated risks
Technical Details and Debates	base your remarks on empathy, competence, honesty, and dedication	provide too much detail or protracted technical debates or sound condescending
Length of Presentations	limit presentations to 15 minutes to allow for longer question & answer periods	ramble or fail to plan the time well

# “It’s OK, I Have Turnouts”

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Our health baseline is a body with a small amount of reserve energy, in the form of fat. Turnouts are heavy and get you hot, just by wearing them without doing anything.



Then add excess weight. Then add gear and, whew! Then add exertion.

Then a fire.

A fire fighter may immediately and consciously feel the affects of conductive and convective heat, and may take appropriate actions.

But infrared heat is a massless wave, like a radio wave or radar wave, and cannot, *per se*, be felt, as can a hot wall or hot air. The infrared wavelength resonates with the molecules of fat and water, making them move faster, creating heat energy. Working in this type of equipment, with excess weight, is analogous to putting an article of food containing fat into a microwave.

Turnouts increase the affects of this internal infrared heat on responders. Just read the manufacturers’ specifications on their turnouts.

Responders are, literally, and often unbeknownst to them, cooking from the inside, while wrapped up to keep the heat in. In hundreds of classes I have asked thousands of fire fighters what turnouts protected them from and all but four (trainers who had ordered agency turnouts) answered "heat."



The data is undeniable, the equations are quite simple.

Heat stress leads to death and injury in fire fighters at fires. According to FireChief.com, "The leading cause of death for firefighters is heart attack, approximately 44%.

After age 35, the proportion of deaths due to traumatic injuries decreases, and the proportion due to medical causes (e.g., heart attack, stroke, etc.) rises steadily." [http://firechief.com/health\\_safety/firefighting\\_heart\\_attacks\\_leading\\_2/](http://firechief.com/health_safety/firefighting_heart_attacks_leading_2/)

Fat, *all by itself*, decreases physical fitness and increases heat stress. Turnouts also increase heat stress. Together they are a recipe for failure. Maybe a few equations will make it clearer, easier for trainers to use:

Excess Fat = heat stress

Excess Fat + exertion = HEAT STRESS

Excess Fat + exertion + turnouts = **HEAT STRESS**

Excess Fat + exertion + turnouts + infrared heat from fire = **HEAT STRESS!**



HAS YOUR LEPC:



- Established a permanent address for facilities, the SERC, and EPA to mail required forms and information;
- Notified the SERC of any changes to the LEPC structure, especially a change in the chair or address;
- Provided EPCRA training to emergency responders, specifically local fire departments who often can provide information to facilities during fire inspections and police departments who respond to haz-mat incidents?
- Established a 24-hour manned emergency phone number (i.e., sheriff's office, 911, fire department) for facilities to make release notifications -- an answering machine is not sufficient

- The articles contained herein are provided for general purposes only.
- EPA does not accept responsibility for any errors or omissions or results of any actions based upon this information.
- Please consult the applicable regulations when determining compliance.
- Mention of trade names, products, or services does not convey, and should not be interpreted as conveying official EPA approval, endorsement, or recommendation.

**Region 6 Emergency Notification Numbers**

Arkansas Dept. of Emergency Management	800-322-4012
Louisiana State Police	877-925-6595
New Mexico State Police	505-827-9126
Oklahoma Dept. of Environmental Quality	800-522-0206
Texas Environmental Hotline	800-832-8224
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National Response Center	800-424-8802
EPA Region 6	866-372-7745
CHEMTREC	800-424-9300