EFFECTIVE COMMUNICATION

for

ICC and Mine Rescue Teams

Objectives

- Increase knowledge of basic communication processes and the impact of emergency situations on these processes

- Apply effective communication principles during mine emergencies

Basics of Communication

Communication

- The average worker spends 50 percent of his or her time communicating.
- Business success is 85 percent dependent on effective communication and interpersonal skills.
- 45 percent of time spent communicating is listening.
- Writing represents 9 percent of communication time.
- One-fourth of all workplace mistakes are the result of poor communication.
- A remarkable 75 percent of communication is nonverbal.

Definitions

- Communication
  - Systematic and continuous process of telling, listening and understanding

- Effective Communication
  - Occurs when the receiver understands the message in the same sense as the sender wishes to convey it

Send – Receive Model

- The sender sends a message.
- The receiver gets the message and personalizes it.
- The receiver, in turn, sends feedback and thus becomes a sender.
- The original sender now becomes a receiver and reacts to the feedback.
- Generally, a new communication sequence is then initiated.

SEND
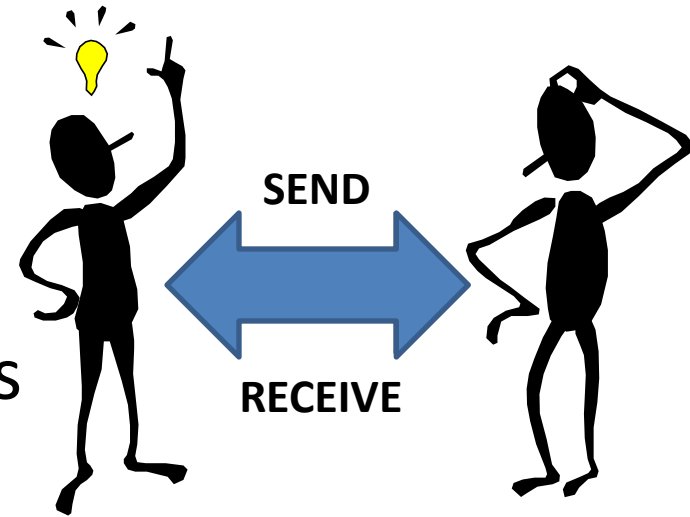
RECEIVE

Hearing vs Listening

- Hearing is the special sense by which noises and tones are received as stimuli. Hearing is a sensory experience that gathers sound waves indiscriminately.

- Listening is a voluntary activity and includes interpreting or processing that sound.

- Active listening involves listening with empathy.

We can hear something and choose not to listen!

Active (Empathic) Listening

- ***Decide to listen and concentrate*** on the speaker.
- Use your imagination and ***enter the speaker's situation***.
- ***Observe*** the speaker's vocal inflection, enthusiasm or lack of it, and style of delivery.
- ***Listen without interruption.***
- Use paraphrasing or clarifying questions to ***confirm*** that you received the intended message.
- ***Provide feedback*** to the speaker

External Roadblocks to Effective Listening

- Noise
- Uncomfortable temperature
- Uncomfortable seating
- Inappropriate location
- Inadequate personal space
  - 1.5 to 4 feet   friends
  - 4.0 to 12.0 feet   social and business contacts
  - 12 feet or more   strangers in public

Internal Roadblocks to Effective Listening

- Emotional interference
- Defensiveness
- Hearing only facts and not feelings
- Not seeking clarification
- Hearing what is expected instead of what is said
- Stereotyping
- Automatic dismissal - "We've never done it that way before."
- Resistance to change
- The halo effect - the tendency for something to be influenced by a loosely associated factor

Tips for Active Listening

- Make eye contact
- Adjust your body posture
- Give verbal or nonverbal acknowledgment
- Clear your mind
- Avoid distracting behaviors

Barriers or Roadblocks to Communication

- Any factor that leads to miscommunication
- Any factor which influences the communication process in such a way that the receiver does not understand the message in the way the sender was trying to communicate it

Communication Variables

- Differences between the sender and receiver
  - Attitudes, knowledge levels, communication skills, social systems, sensory channel
- Differences in communication styles
- Differences in previous experiences
- Cultural differences

Benefits of Effective Communication

- Reduce confusion
- Increase confidence in decisions
- Stop incorrect rumors
- Improve likelihood of success

Communication and Emergencies

Emergency vs Daily Communications

- Emergency information is important – matter of life and death

- Timeliness is essential

- Warnings require response

- More barriers to communication (stress, change of routine, sleep deprivation)

- Partner to ensure all messages are consistent

Roadblocks during Emergencies

- Insufficient time

- Stress/Emotional factors (fear, nervousness, etc.)

- Assumption that receiver already knows some information

- Distortion of messages

- Distractions

- Sleep deprivation / fatigue

- Change in routine

Roadblocks during Mine Rescues

- PPE (full face respirator)
- Communication devices resulting in poor transmission of messages
- Using communication methods that require repeating messages
- Exposure to mine gases may impact ability to reason (victims)

Communications Paths

- Mine rescue team members

- Victims and mine rescue team

- FAB and mine rescue team

- ICC and mine rescue team

- ICC and family members

- ICC and public safety officials

- ICC and MSHA

- ICC and media

- ICC and public

Communcation Practices During Emergencies

- Present the information in sequence; present the reason for the message, the supporting information, and the conclusion.

- Word the message precisely, making every word count.

- Avoid jargon, codes, and acronyms.

- Use common names for all personnel and facilities.

- Omit unnecessary details.

- Speak in synchrony with other related authorities.

- Keep messages consistent across various media.

MAKE SURE YOUR MESSAGE IS CLEAR

Information You Will Get Without Planning

The tailpiece is on fire.

We have called the agencies.

We need rib blocks.

Four miners are missing.

We are coming out the primary escapeway.

Everyone is safe.

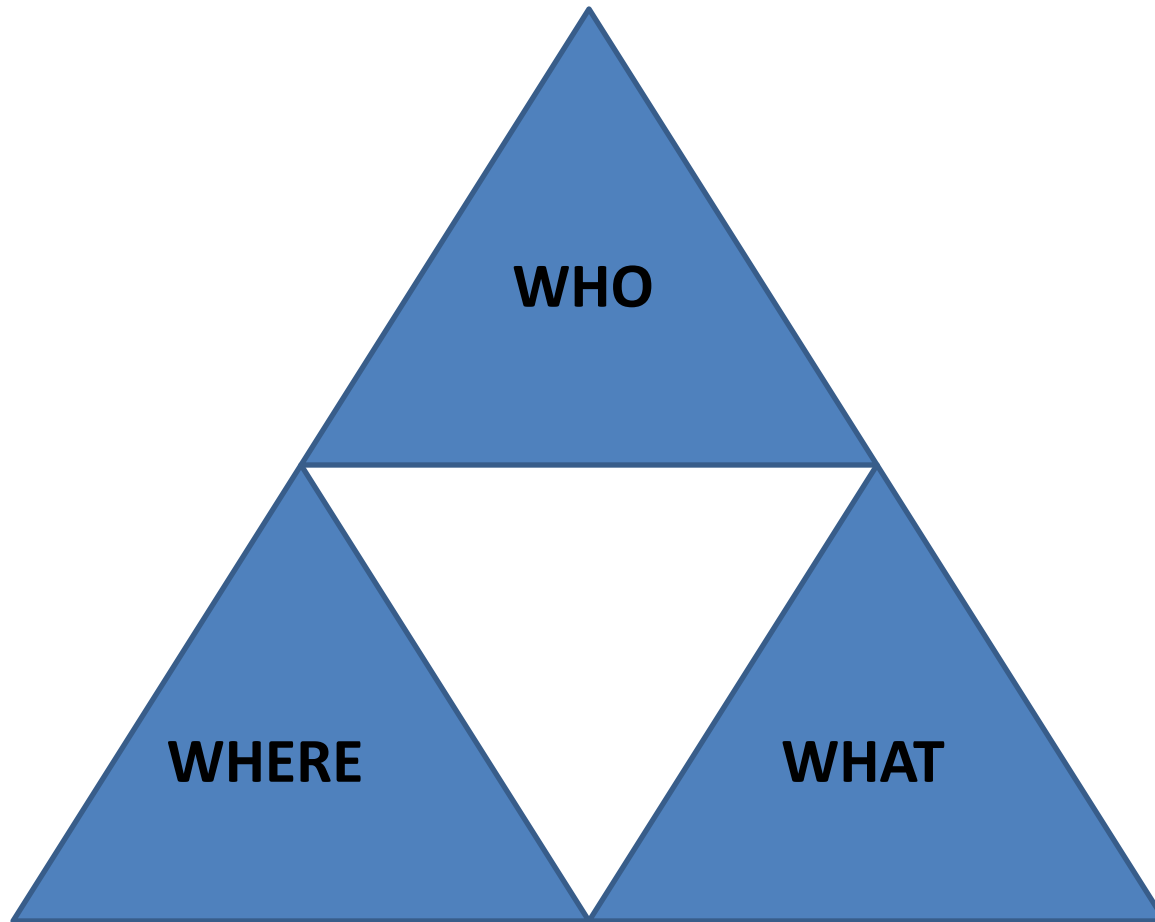There is a fall.

I am the section foreman.

Information Needed During Early Stages of an Emergency

- What is happening

- Is anyone in danger?

- How big is the problem?

- Who reported the problem?

- Where is the problem?

- Has a response started?

- What resources are on-scene?

- Who is responding so far?

- Is everyone's location known?

Communication Triangle

Communication Triangle

MRT Communication Systems

Communications among MRT Members

- Talking among team members usually kept to minimum when using breathing apparatus
- Utilize system of signals to communicate among team members
- Use horn or rope
- Signals most commonly used are:
    - One signal   Stop
    - Two signals   Advance (move toward captain)
    - Three signals   Retreat (move toward No. 5 (last) person)
    - Four signals   Distress or emergency
- Signaling done by team captain and the last team member - each should return others signal before anyone on the team moves.
- Practice signaling

Communication Between MRT & FAB

- Team must stay in contact with FAB
- Use either sound or battery-powered communication equipment
- Last team member
  - wears the equipment
  - responsible for relaying information to and from the FAB
- Use existing underground phones, if operational

Backup Communication System between MRT and FAB

- Use cable from portable system to communicate with FAB (must meet requirements in 30 <u>CFR</u> Part 49.6)
- Cable attendant at the FAB
  - Unwinding the communication line as team progresses.
  - Monitors the line to make sure it's not getting snagged or caught.
  - If voice contact lost, receives and sends signals to and from the team by a system of pulls or tugs on the communication line.

Signals with Backup Communication System

- Signals
  - One pull or tug   Stop
  - Two pulls or tugs   Advance
  - Three pulls or tugs   Retreat
  - Four pulls or tugs   Emergency or Distress
- If team is stopped for extended period, FAB should signal one long pull about every five minutes to check out the team's condition. The team should then acknowledge that they are okay by returning the signal.

Communication Process with Backup System

- Captain's signals to the team should also be relayed back to the fresh air base.
  - The Captain signals the last team member
  - Last team member relays the captain's signals to the FAB and then waits for the FAB to acknowledge that it has received the signal
  - Last team member then sends response back to the captain
  - This communication is done before the team executes the instructions dictated by the captain's signal

Problems with Backup Communication System

- Difficult to signal if MRT has advanced any great distance from the FAB.

- Cable may get caught on corners.

- Falls, debris, and other obstructions may also snag the line and limit its use.

Mine Rescue Exercise

Discussion

References

1. Emergency Management Institute. *Effective Communication*. IS 242, 2002. (http://training.fema.gov/EMIWeb/IS/is241.asp)

2. Mallett, L., Vaught, C. and Brnich, M. The Emergency Communication Triangle. National Institute for Occupational Safety and Health, Publication Number 99-157, October 1999.

3. Mine Safety and Health Administration. Mine Rescue Team Training: Metal and Nonmetal Mines. Publication MSHA 3027, 2008.