



Professionalism in Operations Communication

In the book *Grunt: The Curious Science of Humans at War* (Mary Roach, 2016), there is a chapter about hearing loss. Ponder this quote from that chapter: *According to the Hearing Center of Excellence, 50 to 60 percent of one's situational awareness comes from hearing.* That is one reason we emphasize the importance of alarms that provide both visible and audible indicators of a situation. The focus of this article, however, is on verbal communication between people. I observe there is a desire to avoid verbal communication between people, both in person and on phones.

TEAM RESOURCE MANAGEMENT EDUCATIONAL PROGRAM AUGUST 2016

People do not want to talk with one another. They want to text or send a message. I had a text exchange with a colleague today that included over 50 individual texts. I think we could have communicated better in a phone call. Everyone has devices with a phone function, but most people do not answer a call. When they have to talk, it is with reluctance and brevity. That can cause problems.

Consider the examples below even though I know none of them could ever occur in your pipeline company. Wait a minute, they did occur in pipeline companies! If 50 to 60 percent of one's situational awareness comes from hearing, we are missing opportunities to enhance our awareness. Both professional communications and situation awareness are important in team resource management.

There was an incident where a maintenance person needed a pressure reduction on one pipeline and called the number of the Controller for that pipeline. He was out of the room so the Controller for another pipeline answered the phone. The maintenance person requested a pressure reduction and the Controller who answered the phone lowered the pressure on the pipeline he was controlling. The maintenance crew then welded on a pipeline that did not have the pressure reduced. Could that have caused a problem? How could that have been avoided?

A pipeline controller from PetroChina works on the Western Products Pipeline. Other controllers are responsible for the Western Crude Oil Pipeline. These pipelines are on the same right-of-way. During an emergency on the Western Products Pipeline, a field operator contacted the controller for the Western Crude Oil Pipeline and told him to shut the line down because there was an emergency. Fortunately the controller asked the field operator to confirm which of the two lines had an emergency. In 2009, we had taught that PetroChina controller the importance of confirming the identity of callers and confirming the correct line before taking any action. Do you have a policy for confirming the identity of callers, their location, and the pipeline where they are working? Do you have a procedure for three-way communication?

A leak occurred on a naphtha pipeline when the line was blocked and over pressured. According to the NTSB report, "four distinct failures of communications were identified as contributing to the delay in stopping the flow of product into the accident area." What types of failures do you think might have occurred?

At a pipeline conference, a control center manager for a gas distribution system said his controllers did well at communicating with the customers, the public, and the operations personnel for the natural gas transmission pipeline system. He said the problem was that the natural gas transmission pipeline system personnel were poor communicators and needed training. What would the transmission pipeline system personnel say about their communications skills?

One company experienced a tank overfill incident, during a scheduled maintenance procedure. The incident was caused by failures of equipment. The incident was complicated by contributing causes related to situational awareness, lessons from previous incidents not incorporated into procedures, and gaps and conflicts in procedures and compliance. The report indicates that different groups had some communications problems in the planning of the work and response to the emergency situation.

Over the last 20 years, I have participated in or led numerous incident investigations that involved spills, leaks, pipeline hits during excavations, operating errors, personal injury accidents, vehicle accidents, property damage, and near misses. Almost all of them had some type of communications problem between human beings. Yet, there is a reluctance to communicate verbally with one another. Get over yourself and start talking to others before you contribute to an incident that can hurt the public, other people, yourself, or the environment.

Look at the drawing above of a Controller and a Technician. One is in a control center and the other is at a facility. The conversation begins with an exchange of names and the Controller stating he is controlling

TEAM RESOURCE MANAGEMENT EDUCATIONAL PROGRAM AUGUST 2016

System One. The Technician states he needs to do some testing on a System One valve. Now they both know each other's name and that they are talking about the same system. What comes next? The Controller needs to ensure that he knows where the Technician is working because a Technician may have responsibilities at multiple facilities. They need to discuss what System One valve will be tested, whether it will affect operations, how long the test will take, and all other relevant subjects. A work permit should be completed, and the Controller can then provide permission to do the testing. After the testing is completed, they should have another conversation to ensure that everything is as it should be and that nothing is left undone. The Controller and the Technician should complete necessary documentation, including the notifications about the work.

If you are a Controller, every time you answer the phone, you should identify yourself by name and the system/desk where you are working. If you are a person calling the control center, you should identify yourself by name and the system/facility/location where you will be working. I can hear you now: EVERYTIME! THAT TAKES TOO MUCH TIME AND TOO MANY WORDS! Do it every time without fail. Make it both a company requirement and a personal commitment. It does not take but a few seconds to say your name and location. It makes clear whom you are and where you are and ensures that you are talking to the correct person about the work that will be done.

Notice the sign in the drawing that states "Always Use 3 Way Communication." I was on vacation recently and went on a schooner tour of Penobscot Bay. Before we left the dock, the captain said, "Cast off the stern rope." The deck hand said, "Casting off the stern rope." The captain could see that the rope was cast off. The captain then said, "Cast off the bow rope." The other deck hand said, "Casting off the bow rope." The captain could see the bow rope was cast off. During the tour, the crew used this type of communication to affirm the correct message was heard and the correct actions were performed.

In pipeline operations or maintenance, three-way communication should be practiced to ensure that the correct messages are sent, received, and understood. This simple practice confirms that the correct actions are taken at the correct times. For example, suppose you are in a control center and you need someone to take an action, such as starting a pump.

Receiver: Person at facility or on pipeline who will answer the phone with name, position, and location	This is Sid, Lead Technician at Penobscot Bay Station.
Caller: Person who needs action performed and who will state name, position, and location	This is George, the Controller on System One. I need you to start pump number three on System One at Penobscot Bay Station.
Receiver: Person at facility who repeats what he heard.	I understand you want me to start pump number three on System One at Penobscot Bay Station.
Caller: Person who needs action performed and who confirms what the person at the facility repeated.	That is correct, Sid. Thank you.

Here is another example with a miscommunication and how the three-way communication process can catch a miscommunication.

Receiver: Person at facility or on pipeline who will answer the phone with name, position, and location	This is Sid, Lead Technician at Penobscot Bay Station.
Caller: Person who needs action performed and who will state name, position, and location	This is George, the Controller on System One. I need you to start pump number three on System

TEAM RESOURCE MANAGEMENT EDUCATIONAL PROGRAM AUGUST 2016

	One at Penobscot Bay Station.
Receiver: Person at facility who repeats what he heard.	I understand you want me to start pump number two on System One at Penobscot Bay Station.
Caller: Person who needs action performed and who confirms what the person at the facility repeated.	That is NOT correct, Sid. I want you to start pump number three on System One at Penobscot Bay Station.
Receiver: Person at facility who repeats what he heard.	George, I understand you want me to start pump number three on System One at Penobscot Bay Station.
Caller: Person who needs action performed and who confirms what the person at the facility repeated.	That is correct, Sid. Thank you. I will be monitoring the flows and pressures once the pump is started.

Are you interested in professional behaviors in your control room? If so, develop communications practices that include both three-way communication and identification of both callers during phone conversations. Some general principles for communication that should be used include:

- Make operating directions clear, concise, and correct
- Include who will perform the action, what is to be done, when it is to be done, and what and when to report back
- Avoid technical jargon and use commonly agreed upon terms
- Do not include multiple actions in one communication if they may be confused or misunderstood
- Acknowledge operating directions to ensure you understood them correctly
- Use the phonetic alphabet when communicating numbers or individual letters, particularly if the distinguishing difference between two component designators is a single letter,

When we do training sessions about professionalism in communications, we provide assessments so individuals can evaluate their speaking and listening skills. Most of the students are surprised to learn they need to improve their communications skills. We then provide information on ways to improve those skills. I suspect that your job description requires you to have both good verbal and written communication skills, and I also suspect that those skills are never assessed and that there are few standards for professionalism in operations communications in your company. Perhaps it is time to develop standards and train operations and maintenance personnel on those standards.

I like what George Bernard Shaw once said, “The single biggest problem in communication is the illusion that it has taken place.” Do not suffer under the illusion that you have communicated. Use the practices in this article to make communications a reality so that situation awareness and correct operations are assured. Talk with one another regularly and reduce your reliance on texting and other electronic means.