Radio Communications



Key Takeaways:

– Learning why radio operator training is required and recognize key operator responsibilities.
– Learning how to prioritize messages and recognize approved and prohibited message content.
– Understanding proper procedures for calling and acknowledging radio messages.
– Recognizing radio code words.
– Comprehending general radio communication requirements.

Course Description

Statistics are unnecessary to prove that radio communication saves lives.

Imagine how vital radio communication is to the ship that’s sending out a distress call, or for the airplane experiencing technical issues, or for the first responders to a natural disaster. Consider people working in isolation in high-risk work environments, like corrections personnel, or a team of backcountry firefighters. For them, radio communications systems can mean the difference between life and death. When someone needs immediate medical attention, a radio carries the promise of a better outcome, so it is fundamental to understand how they work and what they can and cannot do, and what rules govern the use of these systems.

Numerous companies with larger industrial operations, or open work sites where workers may not be visible at all times, employ a radio communications systems to facilitate work and working safely. All radio communications systems operate under the permission of the Federal Communications Commission (FCC), the agency that controls the airwaves, amongst other things. Not operators, but licensed employers are fully responsible for the actions of personnel who operate radio systems. Since the FCC holds the licensed employer responsible for all operator actions, workers need to comply with all of the organization’s rules and operating procedures.

As stated before, employers are responsible for the proper functioning and operation of radio systems. Typically, there is a system operator on duty with authority for the operation and use of the organization’s radio system, who is assigned to monitor the organization’s own compliance with FCC regulations. Every radio operator has the responsibility of knowing and following the “rules and regulations” governing the use and misuse of all radio equipment. Radio operators are also responsible for the prevention of any damage to the organization’s radios or radio equipment in any licensed installation.

Appropriate radio traffic is limited to communication essential to each organization’s business. Allowed message content includes information such as station, caller, and recipient identification, requests, instructions, reports, new job assignments, reporting clear from an assignment with a brief description of work done, current location, or requests for additional materials needed to complete the work in progress. Also permitted are Mobile units reporting in or out of service and specific and authorized radio system tests.

Compared to permitted messages which contain essential company business, the FCC has identified message content that is not permitted.

Message Content Prohibited – Violates federal, state, or local law – Unnecessary, unidentified, or superfluous – Obscene, indecent, or profane – Music, whistling, or entertainment – Not in English or approved code words – Personal (except for family emergencies) All radio transmissions are required by FCC regulations to be identified. To fulfill this requirement, call signs must be used. Businesses will have official FCC system call signs. Generally, radio operators use the vehicle number, portable radio number, or base station location, as applicable, to identify themselves. Steps in sending a message: – To avoid interrupting another call, always listen before transmitting – Always use the base station or mobile number assigned to you for identification – Use the word “to” – Report the identification number of the station you are calling – Report the channel you are calling on When messages are not answered: – Call again – Confirm your radio settings are on the proper channel and receive volume – Drive one or two vehicle lengths (if transmitting from a vehicle) before transmitting again Post stating personal identification, the identification of the unit being called, and the channel being used, employees still need to know what they are going to say before keying the microphone; encourage them to write it down if necessary. This keeps messages brief and prevents unnecessary repetition. Follow these basic best practices for operating most radio systems. Push the transmit key for a second before talking to avoid clipping the beginning of messages. Keep the microphone about 6 inches from the mouth. Talk slowly and clearly with a normal tone of voice. Never tie up the channel for extensive periods with long continuous messages. Answering a call – Report with your assigned identification – Never use your name, employee number, or other codes – Say your identification once, “to” and the identification you are answering if more than one station is calling – When clarification is needed, the message may be repeated