## Chapter 7.0 Safety
## Section 7.1 Electrical & Antenna Precautions

G0A06 (D) p.263
What precaution should be taken when installing a ground-mounted antenna?
A. It should not be installed higher than you can reach
B. It should not be installed in a wet area
C. It should limited to 10 feet in height
D. It should be installed such that it is protected against unauthorized access

G0A12 (B) p.262
What precaution should you take whenever you make adjustments or repairs to an antenna?
A. Ensure that you and the antenna structure are grounded
B. Turn off the transmitter and disconnect the feed line
C. Wear a radiation badge
D. All of these choices are correct

G0B01 (A) p.257
Which wire or wires in a four-conductor connection should be attached to fuses or circuit breakers in a device operated from a 240 VAC single phase source?
A. Only the two wires carrying voltage
B. Only the neutral wire
C. Only the ground wire
D. All wires

G0B02 (C) p.257
What is the minimum wire size that may be safely used for a circuit that draws up to 20 amperes of continuous current?
A. AWG number 20
B. AWG number 16
C. AWG number 12
D. AWG number 8

G0B03 (D) p.258
Which size of fuse or circuit breaker would be appropriate to use with a circuit that uses AWG number 14 wiring?
A. 100 amperes
B. 60 amperes
C. 30 amperes
D. 15 amperes

G0B04 (A) p.260
Which of the following is a primary reason for not placing a gasoline-fueled generator inside an occupied area?
A. Danger of carbon monoxide poisoning
B. Danger of engine over torque
C. Lack of oxygen for adequate combustion
D. Lack of nitrogen for adequate combustion

G0B05 (B) p.258
Which of the following conditions will cause a Ground Fault Circuit Interrupter (GFCI) to disconnect the 120 or 240 Volt AC line power to a device?
A. Current flowing from one or more of the voltage-carrying wires to the neutral wire
B. Current flowing from one or more of the voltage-carrying wires directly to ground
C. Overvoltage on the voltage-carrying wires
D. All of these choices are correct

G0B06 (D) p.259
Why must the metal enclosure of every item of station equipment be grounded?
A. It prevents a blown fuse in the event of an internal short circuit
B. It prevents signal overload
C. It ensures that the neutral wire is grounded
D. It ensures that hazardous voltages cannot appear on the chassis

G0B07 (B) p.263
Which of these choices should be observed when climbing a tower using a safety belt or harness?
A. Never lean back and rely on the belt alone to support your weight
B. Confirm that the belt is rated for the weight of the climber and that it is within its allowable service life
C. Ensure that all heavy tools are securely fastened to the belt D-ring
D. All of these choices are correct

G0B08 (B) p.262
What should be done by any person preparing to climb a tower that supports electrically powered devices?
A. Notify the electric company that a person will be working on the tower
B. Make sure all circuits that supply power to the tower are locked out and tagged
C. Unground the base of the tower
D. All of these choices are correct

G0B09 (D) p.264
Why should soldered joints not be used with the wires that connect the base of a tower to a system of ground rods?
A. The resistance of solder is too high
B. Solder flux will prevent a low conductivity connection
C. Solder has too high a dielectric constant to provide adequate lightning protection
D. A soldered joint will likely be destroyed by the heat of a lightning strike

G0B10 (A) p.262
Which of the following is a danger from lead-tin solder?
A. Lead can contaminate food if hands are not washed carefully after handling the solder
B. High voltages can cause lead-tin solder to disintegrate suddenly
C. Tin in the solder can "cold flow" causing shorts in the circuit
D. RF energy can convert the lead into a poisonous gas

G0B11 (D) p.264
Which of the following is good practice for lightning protection grounds?
A. They must be bonded to all buried water and gas lines
B. Bends in ground wires must be made as close as possible to a right angle
C. Lightning grounds must be connected to all ungrounded wiring
D. They must be bonded together with all other grounds

G0B12 (C) p.258
What is the purpose of a power supply interlock?
A. To prevent unauthorized changes to the circuit that would void the manufacturer's warranty
B. To shut down the unit if it becomes too hot
C. To ensure that dangerous voltages are removed if the cabinet is opened
D. To shut off the power supply if too much voltage is produced

G0B13 (A) p.260
What must you do when powering your house from an emergency generator?
A. Disconnect the incoming utility power feed
B. Insure that the generator is not grounded
C. Insure that all lightning grounds are disconnected
D. All of these choices are correct

G0B14 (C) p.256
Which of the following is covered by the National Electrical Code?
A. Acceptable bandwidth limits
B. Acceptable modulation limits
C. Electrical safety inside the ham shack
D. RF exposure limits of the human body

G0B15 (A) p.260
Which of the following is true of an emergency generator installation?
A. The generator should be located in a well-ventilated area
B. The generator must be insulated from ground
C. Fuel should be stored near the generator for rapid refueling in case of an emergency
D. All of these choices are correct

G4E03 (A) p.259
Which of the following direct, fused power connections would be the best for a 100 watt HF mobile installation?
A. To the battery using heavy gauge wire
B. To the alternator or generator using heavy gauge wire
C. To the battery using resistor wire
D. To the alternator or generator using resistor wire

G4E04 (B) p.259
Why is it best NOT to draw the DC power for a 100 watt HF transceiver from a vehicle's auxiliary power socket?
A. The socket is not wired with an RF-shielded power cable
B. The socket's wiring may be inadequate for the current drawn by the transceiver
C. The DC polarity of the socket is reversed from the polarity of modern HF transceivers
D. Drawing more than 50 watts from this socket could cause the engine to overheat