

Worksite: _____ Instructor: _____ Date/Time: _____

Topic C860: Portable Generator Safety (B)

Introduction: The use of portable generators is growing rapidly. As they become a regular appliance in many industries, it is easy to be complacent about their presence. The fact is, however, that portable generators pose a number of safety hazards that can easily lead to serious injury or death. Knowing how to address them is vital to job safety. The most common safety hazards connected to portable generators are: carbon monoxide poisoning, shock or electrocution, and fire.

CO Poisoning: A single portable generator can produce as much carbon monoxide as hundreds of cars. This poisonous gas can incapacitate and kill a person within minutes. In recent years, an annual average of 81 deaths have occurred as a result of CO gases emitted by generators. Taking this risk seriously and implementing a work standard that addresses it could save your life.

Use portable generators outdoors and away from all building entrances. Entrances include doors, windows, vents and all other structural openings.

Ensure that buildings surrounding a work environment in which a generator is being used are equipped with current, tested carbon monoxide detectors. NEVER use generators in an enclosed space, even with ventilation.

Common Portable Generator Hazards:

CO Poisoning: A single generator can produce as much CO as hundreds of cars.

Electrocution: Users commonly bypass safety devices that are built into electrical systems.

Fire Hazards: They emit serious heat while running and continue to do so for a period after discontinued use.

Shock or Electrocution: Generators present additional electrical hazards on top of what would ordinarily be an issue regarding utility-supplied electricity. They share the same basic safety hazards, but because users commonly bypass safety devices (such as circuit breakers) that are built into electrical systems, there is an increased risk of injury. Taking certain cautions while using a portable generator can reduce risk.

Operate the generator under a protective device, such as an open canopy, to keep it dry at all times. Ensure that your hands are dry before touching the generator. Do not plug the generator into a wall outlet; doing so may increase the risk of electrocution for other workers using the same utility transformer. If you need to use a generator to power devices or appliances within a building, contact the utility company or a qualified electrician to have an appropriate transfer switch installed. Grounding the generator properly is important; while many generators are supplied with a ground-fault interrupter (GFI), it may not function as intended if the generator isn't grounded. Check all connected cords for quality.

Fire Hazards: The engine of a portable generator runs hot, and heat combined with the element of electricity can pose serious fire hazards. They emit serious heat while running and continue to do so for a period of time after discontinued use. Aside from protecting the generator from external hazards, you should take care to wear protective gear and avoid touching engine components.

Before refilling fluids, turn off the generator and allow it to cool completely. The heat generated by the engine can set many fuels on fire should they be spilled around the compartment. Store gasoline and other fuels in approved containers and away from the generator while it is in use. Do not smoke around the generator, and keep it away from other heat-generating devices.

Conclusion: The convenience of a portable generator in terms of energy supply makes it an increasingly common device in various workplaces. Do not allow its simplicity to diminish the importance of handling it with care. Always follow manufacturer instructions.

Employee Attendance: (Names or signatures of personnel who are attending this meeting)

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These guidelines do not supersede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.