Emergency Showers Meeting Kit



IMPORTANCE OF EMERGENCY SHOWERS

The first 10 to 15 seconds after exposure to a hazardous substance, especially a corrosive substance, are critical. Delaying treatment, even for a few seconds, may cause serious injury.

Emergency showers provide on-the-spot decontamination. They allow workers to flush away hazardous substances that can cause injury.

SNAPSHOT OF EMERGENCY SHOWERS: The emergency shower should be within a 10-second walk (approximately 50 feet) from the chemical workstation. Keep the pathways clear. Prevent shock hazards by keeping electrical equipment and outlets away from the shower area. Test the shower monthly or according to manufacturer's instructions weekly to ensure it activates.

Chemicals can do a lot of damage in just a few seconds. Don't hesitate; head directly to the shower. Notify a coworker for help getting to the shower and calling 911 if necessary.

Activate the shower using the hand pull lever. Once you activate it, the water will stay on. Showers are self-contained or plumbed, so water may run onto the floor (a facility crew can clean it up after the emergency). You can usually stop the shower by pushing the lever up.

If the chemicals saturated your clothing, remove them. If they are on fire, allow the water to extinguish the flames. Don't pull clothing off of burnt or damaged skin. Remove jewelry, contacts, and your shoes. Let the water wash over your body to decontaminate it for 15 minutes. You can use an eyewash station simultaneously if needed, or shield your eyes to prevent splashes and cross contamination.

LOCATION, LOCATION, LOCATION: To be effective, the equipment has to be accessible. ANSI recommends that a person be able to reach the equipment in no more than 10 seconds. In practical terms, consider that the person who needs the equipment will be injured, and may not have use of their vision. ANSI notes that the average person can walk 16 to 17 metres (55 feet) in 10 seconds, but this does not account for the physical and emotional state of the person in an emergency.

The location of each emergency shower should be identified with a highly visible sign. The sign should be in the form of a symbol that does not require workers to have language skills to understand it. The location should be well lit.

WATER TEMPERATURE FOR EMERGENCY SHOWERS

The 2014 ANSI standard recommends that the water should be “tepid” and defines this temperature as being between 16-38°C (60-100°F). Temperatures higher than 38°C (100°F) are harmful to the eyes and can enhance chemical interaction with the skin and eyes. Long flushing times with cold water (less than 16°C (60°F)) can cause hypothermia and may result in not rinsing or showering for the full recommended time (ANSI 2014). With thermal burns (injuries to the skin), the American Heart Association (2010) noted that water temperatures of 15-25°C (59-77°F) help to cool the burn and that “cooling reduces pain, edema, and depth of injury”. (However, do not apply ice directly to the skin.)

Remember that any chemical splash should be rinsed for a minimum of 15 minutes but rinsing time can be up to 60 minutes. The temperature of the water should be one that can be tolerated for the required length of time.

WORK AREAS THAT MAY REQUIRE EMERGENCY SHOWERS

- Battery charging areas
- Laboratories
- Spraying operations
- High dust areas
- Dipping operations
- Hazardous substances dispensing areas

INSPECTION/ MAINTENANCE: One person in the work area on a weekly basis, should be designated responsible for inspecting and operating (activating) the emergency shower. A weekly activation will help make sure that there is flushing fluid available as well as clear the supply line of sediments and minimize microbial contamination caused by ‘still’ or sitting water. This person should keep a signed, dated record. The ANSI standard also recommends a complete inspection on an annual (yearly) basis.

TRAINING/ WRITTEN INSTRUCTIONS

All workers require instruction in the proper use and location of emergency showers or eyewash stations before any emergencies occur. It should never be assumed that workers are already aware of the proper procedures. Written instructions should be made available to all workers and posted beside the emergency shower and eyewash station. Part of the instructional process should include a “hands-on” drill on how to find equipment.

BEST EMERGENCY SHOWER PRACTICES/PROTOCOLS

Emergency showers should:

- Be located as close to the hazard as possible,
- Not be separated by a partition from the hazardous work area,
- Be on an unobstructed path between the workstation and the hazard (workers should not have to pass through doorways or weave through machinery or other obstacles to reach them),

- Be located where workers can easily see them – preferably in a normal traffic pattern,
- Be on the same floor as the hazard
- Be located near an emergency exit where possible so that any responding emergency response personnel can reach the person easily,
- Be located in an area where further contamination will not occur,
- Provide a drainage system for the excess water
- Not come into contact with any electrical equipment that may become a hazard when wet,
- Be protected from freezing when installing emergency equipment outdoors.

FINAL WORD

Emergency showers are first aid only. Seek medical follow-up after a chemical exposure. Wearing your personal protective equipment and following safe work procedures can prevent emergencies.