

This standard focuses on procedures required to address the unexpected release of hazardous substances, or a substantial threat of a hazardous substance release which can pose significant health and safety risks to workers. The standard provides a guide to protect workers and enable them to handle the cleanup of hazardous substances safely and effectively. By implementing tight controls, the standard attempts to keep the contamination or pollution limited to that site only. There are a series of steps outlined in comprehensive work plans and site-specific health and safety plans, for each worker who enters and leaves the cleanup space to prevent additional contamination.

BASIC CLEANUP PROCEDURE

In addition to developing decontamination procedures for workers entering or leaving a worksite, consideration should be given to aspects of a worksite considered safe (green zones), and those that are polluted/infected (red zones). If workplaces have been properly decontaminated or no exposures to symptomatic persons have occurred, then the worksite can be considered a green zone. So, if we know we have a clean site (green zone), what can be done to prevent contamination from the outside (the public red zone)?

When planning to perform a cleanup of any type, you must establish three different zones:

- ▶ **Green (cold) zone** — where the contaminant does not exist
- ▶ **Yellow (warm) zone** — where the decontamination occurs before entering the green zone
- ▶ **Red (hot) zone** — where the containment exists

Normally, cleanup crews go into the red zone to clean it up, but they must first pass through the yellow zone and decontaminate before entering the green zone. They do this until the red zone becomes green again.

HOW IT RELATES TO COVID-19

One of the main differences when addressing COVID-19 is that all essential businesses and worksites would have to be setup as green zones. The outside world would be established as the red zone. The essential locations would have an established yellow zone at all entrances. To enter the green zone, the person would first have to pass the entrance test (body temperature check), then decontaminate before entering.

Hospitals, clinics and many construction sites have a partial yellow zone set up already. They are taking the temperature of every person before they are allowed to enter the worksite. If the person has a temperature, they are turned away. However, the other individual checking temperatures may not be performing any type of decontamination prior to allowing someone to enter the green zone.

Without proper personal protective equipment (PPE) and training, exposures could be increased. The people chosen for the task must be wearing PPE and have proper training, as well as follow strict decontamination protocols before exiting the area. Gloves and respirators specifically, should be required.

All those entering the area would also need to follow the same decontamination protocols. This would be the only way to minimize spread among workers. Furthermore, all those turned away would have to follow the protocol.

ESTABLISHING A YELLOW ZONE AT ESSENTIAL LOCATIONS

A yellow zone must be established at all essential locations. Keep in mind what all medical personnel are saying: a person can have the COVID-19 virus and pass it on to someone else without knowing it. Just because someone doesn't have a fever, doesn't mean they do not have the COVID-19 virus. So, decontamination is vitally important before entering the green zone. Establishing procedures at each site to follow the Occupational Safety and Health Administration's (OSHA) interim guidance to prevent worker exposures in this zone is a good start.

If the yellow zones are set up and adhered to, along with social distancing, the possibility of cross-contamination will decrease and jobsite workers can help mitigate the spread of the virus.

DECONTAMINATION FACILITY DESIGN

At a worksite, activities to assess workers entering the site (such as body temperature checks) or worker sanitization activities prior to beginning work, should be located in the yellow contamination reduction zone.

Assessment and decontamination procedures must provide an organized process by which levels of contamination are reduced. The decontamination process should consist of a series of procedures performed in a specific sequence. For example, the first step, either upon entry to the yellow zone or prior to entry, should be initial temperature check, followed by decontamination activities required by individuals — such as handwashing or decontamination of equipment and PPE. Ideally each step should be performed at a separate station in order to prevent cross-contamination. In this case, early identification of individuals with any symptoms at the first station would decrease chances of contaminating other areas where decontamination is occurring.

For the purposes of combating a pandemic, you may not be able to create stations, but you should at least have physically separated zones to prevent the potential for cross-contamination. This process potentially reduces exposure for all individuals, and addresses a method to protect your worksite, while also providing an orderly fashion to manage which individuals have gone through the yellow zone activities and those who have yet to pass through to the green zone.

Many sites are now using color-coded armbands or stickers for easy identification. Flow patterns and stations can be provided to facilitate workers moving from one contamination zone to the next. Entry and exit points should be conspicuously marked, and the entry to the contamination reduction zone (yellow zone) from the outside exclusion zone (red zone). The same method of entry is needed to access the green zone. Entry into the worksite (green zone) should be the final action once individuals have completed the necessary steps in the yellow zone.

SAMPLE YELLOW ZONE ACTIVITIES

- ▶ **Station 1** – Ask general health screening questions to identify possible exposures at home.
- ▶ **Station 2** – Individuals will perform sanitary tasks as required.
 - This could include cleaning of hands, PPE, other equipment.
- ▶ **Station 3** – Take body temperatures of every individual who enters the worksite.
 - This might require cleaning of thermometers if contact with individuals is necessary to obtain an accurate reading.
 - Frequency of cleaning will vary based on type of thermometer used or rotation of workers taking temperatures. The main goal is to minimize the possibility of transmission of the virus between individuals.
 - Ultimately, follow manufacturer guidelines to prevent damage, as well as any maintenance to ensure accuracy of equipment.
 - If temperatures are identified, individuals with a fever must leave the worksite and follow company procedures to address possible symptoms (seek assistance from health professionals, self-quarantine for 14 days, etc.).
 - Note: Those people who are taking temperatures must be trained on and wear appropriate PPE, as they are at higher risk than others due to closer proximity to the individuals who show up on location.
- ▶ **Station 4** – If your site is requiring face coverings, verify coverings are available by having workers show or don the covering.
- ▶ **Station 5** - Provide the worker with a color-coded item to show they have completed the process for the day.

DECONTAMINATION PLAN ELEMENTS

A decontamination plan can be developed (as part of the company's site safety plan) and set up before any personnel or equipment may enter areas where the potential for exposure to hazardous substances exists. The decontamination plan should:

- ▶ Determine the number and layout of decontamination stations
- ▶ Determine the decontamination equipment needed
- ▶ Determine appropriate decontamination methods
- ▶ Establish procedures to prevent contamination of clean areas
- ▶ Establish methods and procedures to minimize worker contact with contaminants during removal of PPE
- ▶ Establish methods for disposing of clothing and equipment that are not completely decontaminated

DECONTAMINATION AND DISPOSAL METHODS

All equipment used for yellow zone activities must be decontaminated and/or disposed of properly. Particular attention might be needed for thermometers. If infrared, “no touch” thermometers are not available, then a process should be identified to disinfect the equipment to prevent possible transmission of the virus between workers. Any spent materials generated during yellow zone activities, such as paper towels, should be collected, placed in containers and labeled for proper disposal.

SOME RECOMMENDED EQUIPMENT FOR DECONTAMINATION OF PPE AND OTHER GOODS

- ▶ Collection containers, such as drums or suitably lined trash cans, for storing disposable protective clothing, and/or potentially contaminated PPE or materials used to sanitize workspaces.
- ▶ Washing stations with antibacterial soap, or other approved sanitizing solutions selected to wash off and reduce the hazards associated with the contaminants.
- ▶ Long-handled, soft-bristled brushes to help wash and rinse off contaminants which could accumulate on surfaces and floors.
- ▶ Paper or cloth towels for drying protective clothing, equipment, tables and chairs.
- ▶ Lockers or closets for clean clothing and personal item storage.
- ▶ Sealed containers to protect required PPE that is to be donned during yellow zone activities if stored on location.

These steps do not supersede local, state, or federal regulations. This article is for general information only and is not intended to provide, and should not be relied upon, for ergonomic, training or medical advice in any particular circumstance or fact situation.