



# UNIVERSITY OF WYOMING

## APPENDIX A Respirator Types

### Surgical Masks



Surgical masks are not respirators and are not meant to protect the wearer from airborne contaminants. A surgical mask can help block large particle droplets, splashes, sprays, or splatter that may contain germs, viruses, and bacteria from reaching the nose and mouth. However, surgical masks are primarily intended to protect the patient from the healthcare worker by reducing exposure of saliva and respiratory secretions to the patient. These masks do not form a tight seal against the skin or filter very small airborne pathogens, such as those involved in airborne disease transmission. Surgical masks have not been tested by NIOSH do not contain any certification markings.

### Filtering Face piece Respirator



These respirators are sometimes referred to as “disposable respirators” because the entire respirator is discarded when it becomes unsuitable for further use. These respirators are also commonly referred to as “N95s” and have been certified by NIOSH and have the appropriate NIOSH markings on the respirator. These devices do not remove gases, chemicals, or vapors from the air you breathe and cannot be used in atmospheres considered immediately dangerous to life and health (IDLH).

### Air-Purifying Respirators (APRs)



These respirators have filters, cartridges, or canisters that remove contaminants from air by passing the ambient air through the air-purifying element before the air reaches the user’s breathing zone. This respirator is different from disposable respirators because there are replacement pieces and parts available (including filters and/or cartridges). These devices cannot be used in atmospheres considered IDLH.

### Half-Face APR with Particulate Filters



APRs equipped with particulate filters capture particles (dusts, mists, fumes) before they reach the user’s breathing zone. These respirators do not protect against gases or vapors. Filters should be replaced when user finds it difficult to breathe through them or the user can sense the surrounding contaminated environment. These devices cannot be used in atmospheres considered IDLH.



## Half-Face APR with Cartridges



APRs equipped with cartridges are typically used in atmospheres that contain hazardous gases or a combination of particulates, gases, or vapors. A variety of cartridges are available to protect the user from these hazards. These devices cannot be used in atmospheres considered IDLH.

## Full-Face APR with Cartridges



Full-face APRs protect the user's respiratory system the same as a half-face APR. However, this respirator provides additional protection to the eyes and face. APRs equipped with cartridges are typically used in atmospheres that contain hazardous gases or a combination of particulates, gases, or vapors. A variety of cartridges are available to protect the user from these hazards. These devices cannot be used in atmospheres considered IDLH.

## Powered Air-Purifying Respirators (PAPRs)



A PAPR has a blower that pulls air through attached filters. The blower then pushes the filtered air into the face piece, which covers the user's face. For loose-fitting PAPRs, fit testing is not required and these units can be used by workers with facial hair. Tight fitting PAPRs must be fit tested. These devices cannot be used in atmospheres considered IDLH.

## Supplied-Air Respirators (SARs)



These respirators use a hose to deliver clean, safe air from a stationary source (compressor). These are sometimes called airline respirators. These respirators are normally used when there are extended work periods required. For extended work periods, the supplied air provides user comfort through a cooling effect. These devices can be used in atmospheres considered IDLH with an appropriate escape cylinder.



## **Self-Contained Breathing Apparatus (SCBA)**



This type of respiratory protection equipment consists of a wearable, clean-air supply pack that provides Grade D breathing air to the user from the cylinder. These devices can be used in atmospheres considered IDLH.