# PAPR USE FACT SHEET AND CHECKLIST

Proper use of powered air purifying respirators (PAPR) is critical to ensure users do not acquire illnesses from their potential exposure(s) while working at MSU. PAPRs provide a higher level of respiratory protection compared to standard respirators by actively filtering air through a battery-powered blower. This ensure a continuous supply of clean air, reducing the risk of inhaling harmful particles, gases, or vapors.

PAPRs can use a variety of filters/cartridges to remove different contaminants from the air. Users must know what the contaminant is and select the proper filter/cartridge to be protected. This must be included in the **Worksite-Specific Respiratory Protection Plan.**

PAPRs equipped with high efficiency particulate (HEPA) filters provide 99.97% particulate filtration efficiency. Each PAPR unit should include: 1) Hood, helmet, or headpiece, 2) Breathing tube, 3) PAPR blower/filtration unit with battery pack and belt.

## Battery Charging

Proper battery charging is essential for reliable operation. Continuously charging a battery for longer than one (1) week can lead to overcharging, which may reduce battery lifespan, degrade performance, and increase the risk of overheating or damage. Following the manufacturer's charging guidelines ensure optimal charging times and practices, promoting battery longevity and safety.

## Airflow Testing

Airflow testing for PAPRs ensures they provide adequate clean air. Each PRPA must be tested prior to use. To perform the test:

1. Connect the airflow indicator tube to the PAPR. Ensure that the airflow indicator tube is perpendicular to the floor.
2. Attach the appropriate filter/cartridge and **REMOVE** any filter/cartridge caps.
3. Turn on the PAPR and let it run for a few minutes.
4. Check the airflow reading against the manufacturer's specifications.
5. If the floating ball inside the airflow indicator tube does not rise above the appropriate marking (typically 6 CFM), the air flow is insufficient. **DO NOT** use the PAPR until the unit has been serviced.

Regular testing ensure the PAPR functions correctly, providing optimal respirator protection.

## Decontamination Procedures

1. While wearing gloves, remove the filters/cartridges, if applicable. **DO NOT** clean the filters/cartridges; this may damage them.

2. Wipe the external surfaces (headpiece, blower/filtration unit, and battery pack) with an approved disinfectant for the contamination of concern by applying the disinfectant to a cloth/rag or use a pre-wetted wipe. Do not spray the PAPR blower/filtration unit directly.

3. If the hood/helmet is shared, wipe the inside of the hood/helmet with an alcohol wipe.

4. Wipe the outside of the breathing tube with the approved disinfectant. The breathing tube may be submerged and soaked in a mild cleaning solution as necessary, then rinse with water.

5. Allow PAPR blower/filtration unit, breathing tube, battery pack, and hood/helmet to air dry.

6. Store on a shelf in a cool, dry, dark space, out of sunlight.

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## Comprehensive Checklist for PAPR Use

1. Inspection **PRIOR** to use:

- ☐ Ensure the helmet/hood, breathing tube, and fittings are correct for the specific PAPR model
- ☐ Filter/cartridge is in place (wear gloves when installing previously used filters)
- ☐ Filter/cartridge is adequate for the contaminant
- ☐ Blower is turned on with adequate air flow (typically 6 CFM)
- ☐ Battery is fully charged

2. Donning (putting on the PAPR) and in-use procedures:

- ☐ Ensure fitting and connections are tight, and the hose if not leaking
- ☐ Confirm airflow is adequate (typically 6 CFM)
- ☐ Turn on PAPR **BEFORE** entering the exposure area
- ☐ Exit the exposure area if you notice any variance in airflow or motor sounds

3. Doffing (taking off the PAPR):

- ☐ For potentially infectious exposures, cleaning of the PAPR should take place **BEFORE** the PAPR is removed from the immediate area.

- ☐ **Infectious Exposures**: the wearer, or a SECOND PERSON, must wipe the exterior surface while the PAPR is still being worn with a disinfectant capable of inactivating the contaminant.

- ☐ PAPR may then be removed, and must be cleaned and disinfected outside of the hazard area within a dedicated decontamination area.

4. Cleaning and Disinfection:

- ☐ Disconnect all components of the PAPR.
- ☐ Blower unit **AND** all its components (blower/filtration unit, battery, breathing tube, and hood/helmet should be cleaned and disinfected
- ☐ **DO NOT** submerge the battery, blower/filtration, or hood/helmet in liquid
- ☐ **DO NOT** clean filters/cartridges
- ☐ Dispose of filters/cartridges after service-of-life has expired; special steps may be required

*Non-infectious exposures: use a mild cleaning solution or disinfectant cleaning wipes (70% Isopropyl Alcohol) to wipe down all PAPR components.

*Infectious exposures: typical cleaning agents **WILL NOT WORK** for some agents; instead, use bleach or alternatives.

5. Storage: After disinfection and drying, store on a shelf in a cool, dry, dark space, out of sunlight.