Guidelines for the Use of Respiratory Protection during the COVID-19 Pandemic

Office of the Chief Health and Medical Officer

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NASA’s Hazard Evaluation against COVID19

• Each center has designated specific personnel needed for their essential and critical work.

• The Centers’ Safety and Health organizations had performed hazard analyses to make sure mitigations (controls) are in place to avoid exposure to COVID19 to those employees working at each center.

• The common method to evaluate mitigations to avoid hazards is by using the hierarchy of controls. The hierarchy of controls is used as a means of determining how to implement feasible and effective control solutions from the exposure to COVID19.

• In order to protect our workforce, and your families, NASA’s Chief Health and Medical Officer Dr. J.D. Polk has strongly encouraged all NASA employees and contractors to stay home if you are sick, maintain social distancing and follow the CDC guidelines on the use of cloth face coverings.
Hierarchy of Controls from Hazards

Hazard - A hazard is an agent which has the potential to cause harm to a vulnerable target. In the current pandemic, the hazard is COVID19 and the vulnerable target are humans.

- NASA’s primary method of preventing the spread of COVID19 is to have people stay home if they are sick.
  - Eliminate the hazard from the workplace, physical removal from hazard

- The use of masks prevents the spread of illness.
  - Isolating from the hazard

- Maintain social distancing from each other (6 feet or greater)
  - Administrative controls changes the way we work to mitigate (avoid) the hazard

- The use of PPE protects workers from the hazard
Types of Disposable Respiratory Protection

- **N95 Respirator** - an N95 mask or N95 respirator is a particulate-filtering face piece respirator that meets the N95 standard of the U.S. National Institute for Occupational Safety and Health air filtration rating, meaning that it filters at least 95% of airborne particles. At NASA centers, here are some examples of personnel should be using N95 respirators:
  - Medical personnel working at the NASA Occupational Health Clinics
  - Center Designated First Responders while responding to an emergency, such as Security, Paramedics and Fire Technicians
  - Personnel working in confined working conditions performing critical/essential work when distancing is not possible
  - Clean rooms and controls rooms
  - Those where the intent is to protect the user from others (Astronauts)

- **Surgical Masks** - prevent the spread of bacteria and airborne illnesses. At NASA centers, here are some examples of personnel should be using surgical masks
  - Healthcare professionals

- **Cloth Face coverings** - simple cloth face coverings to slow the spread of the virus and help people who may have the virus and do not know it from transmitting it to others. Cloth face coverings fashioned from household items or made at home from common materials at low cost can be used as an additional, voluntary public health measure. Inside a NASA center and/or facility, here are examples of when personnel should wear a cloth face covering:
  - Public places
  - Walking around NASA sites in areas where social distancing may not be possible
  - Open office areas, cubicle areas where social distancing may not be possible
What is the difference between N95s and Surgical Masks

- **N95 Respirator** – Is a form of Personal Protective Equipment (PPE) used to protect the wearer FROM a hazard.
  - Provided to health care providers and other designated high-risk persons working in a known infectious environment

- **Surgical Masks and Cloth Face Coverings**
  - Are meant to protect other people in case YOU are infected.
  - In this sense, they are a form of engineering control, stopping respiratory aerosolization.
Guidelines on the proper use of Cloth Face Coverings

**Transmission**
- The virus is readily dispersed by exhaled air droplets.
- Face coverings help keep air droplets from being freely released into the environment.

**Donning**
- Don when working within 6 feet of other workers.
- Inspect condition of face covering.
- Needs to cover both nose and mouth.
- Should fit snugly but comfortably against side of face.
- Secure with ties or ear loops.

**Voluntary Use Face Covering for COVID-19**

**Doffing**
- Do not touch eyes, nose, and mouth when removing face covering.
- Wash hands immediately after removal.

**Cleaning & Storage**
- Launder after each work shift.
- Recommended laundry temperature is at least 160°F for 25 min.
- Dry and store in a contamination free area.

**Disposal**
- Discard if there is excessive cloth degradation or any other material defect present.

**Limitations**
- Face coverings are not respirators and should not be used for any other purpose beyond its intended use.
- Face coverings are designed to keep an infected person's contaminated air inside the covering.

**Total Hygiene Plan**
- Where feasible, maintain at least 6 feet distance from other workers.
- Wash hands regularly.
- Avoid touching eyes, nose, and mouth.
- Regularly clean common work surfaces.
Guidelines on the proper use of Cloth Face Coverings

The Centers for Disease Control and Prevention (CDC) has recommended wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain, especially in areas of significant community-based transmission.

For more information about the use of cloth face coverings and how to make them visit CDC website: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html