MSU researchers utilize hazardous agents (biological agents, chemicals, and radiological materials) for scientific purposes as part of MSU’s research enterprise. MSU’s safety programs (Biosafety, Chemical Safety, and Radiation Safety) have policies and procedures that are designed to safeguard researchers, students, the community and the environment from hazardous agents without limiting research. The four safety principles used to achieve these safety policies and procedures are Engineering Controls, Standard Operating Procedures (SOPs), Personal Protective Equipment (PPE), and Administrative Controls.

Although not a substitute for good laboratory practices (e.g., handwashing, no eating or drinking in the laboratory, etc...), PPE is considered a primary barrier to hazardous agents. PPE is most effective when used to supplement primary control methods such as Biological Safety Cabinets, Chemical Fume Hoods, Safety Centrifuge Cups, and other containment devices.

Due to the requirement for PPE in managing coronavirus disease 2019 (COVID-19), MSU must institute plans for a potential PPE shortage.

The following are considered PPE that may be in short supply due to COVID-19:

- **Face Protection:** face shields
- **Laboratory Clothing:** disposable laboratory coats, smocks, Tyvek suits, and gowns
- **Gloves:** Latex and nitrile gloves
- **Face Masks:** Surgical face masks
- **Respirators:** N95, N99, N100, and PAPR

The objective of this plan is to maintain research activities but at the same time ensure a safe working environment. In the event of a PPE shortage at MSU, the following measures will be taken:

1. Re-use of PPE will be encouraged where possible to preserve items in short supply. PPE will be appropriately labelled and may only be re-used by the same individuals. Re-use of another individual’s PPE is prohibited. For questions on re-use of PPE, contact appropriate safety officer.

2. PPE that is no longer available may be replaced with alternative PPE that is readily available, if approved by the appropriate safety officer and safety committee.

3. Engineering Controls, such as Biological Safety Cabinets, may be used in lieu of respiratory PPE, if approved by the Biosafety Officer and Institutional Biosafety Committee.

4. SOPs may be revised to reduce or eliminate PPE in certain circumstances, if approved by the appropriate safety officer and safety committee.

5. If essential PPE is no longer available to researchers, the principal investigator may make a request for PPE to the Biosafety Officer and Occupational Health Manager. The Biosafety Officer and Occupational Health Manager will then make a good faith effort to identify essential PPE.
6. The applicable safety committee and the Vice President for Research will jointly make any decision to place a research project on hold, in the event that essential PPE cannot be obtained or an alternative to achieve a safe working environment cannot be identified.

MSU Safety Committees
- Institutional Biosafety Committee
- Radiation Safety Committee

MSU Safety Officers and Managers
- Biosafety Officer: Ryan Bartlett
- Chemical Safety Officer: Ryan Brickman
- Occupational Health Manager: Laurie Shute
- Radiation Safety Officer: Nick Childs

February 2020