



## **Safe Conduct of Exempted or Restarted Research During Pandemic Response Period**

**The following is a brief summary of considerations for safe conduct of continued or restarted research at East Carolina University.**

As the university takes precautions to avoid widespread COVID-19 communal transmissions, investigators are faced with challenges such as limited supplies and shipping options, vendor services with long lead-times and reduced access to specialized equipment or spaces that require continuous environmental control and monitoring. This document is provided to help colleges, departments, and individual Principal Investigators plan for a safe and efficient startup or continuation of research activities.

The following tools to aid in your planning included in this document include:

- Expectations for maintaining a safe environment for staff, students, and visitors
- Appendix A – Social Distancing Requirements
- Appendix B - Cleaning and Disinfecting Work Areas
- Appendix C – A laboratory restart checklist with safety considerations

### **Considerations for Advanced Planning and Continued Adherence Include:**

#### **Your Colleagues**

Through your research exemption or approved research restart, you can continue your work/project, but you also have the challenge of working together to assure that no one person infects other teammates. “Teammates” is indeed the appropriate term as you are all in this together with a shared goal of avoiding infection. Consider cross-training for critical functions to address staffing interruptions due to illness or quarantine.

#### **Who Should Be Here?**

In general, minimizing the number of persons on campus and in our buildings makes managing key practices such as social distancing, cleaning, use of protective equipment and other practices much more manageable for all concerned. At this time, if there is not a need for physical presence to conduct your research, one should not be coming to campus. As this is a very complex topic, much more is involved in these decisions, so this is simply the infection control perspective. Use of student employees is discouraged at this time.

#### **Work Area**

Your work area should be limited to the area necessary to perform your work and practice social distancing. You should access your work area from the outside using the shortest and most direct route and maintain this route for the duration of your research activity. If you or a coworker becomes sick, this minimizes the space which may need to be cleaned. You should keep record of your daily travel and persons in physical proximity, like research notes that you compile.

## **Social Distancing**

Maintaining “social distancing,” defined as a six-foot separation, is a key practice for minimizing the risk of infection. With a defined work group, it starts with a discussion (conducted with appropriate spacing) of how you will achieve this. For instance, are mini-shifts possible versus the entire team in the workspace at the same time? If not, determine how you can maintain a large distance between you, perhaps eight feet or more. Always remember to maintain your spacing, including downtime. Avoid eating together. Before and after each meal break, the area should be wiped down using a disinfecting solution or soap wipe. This also applies to the restroom or water fountain you may use. Remember to disinfect routine high touch surfaces in these areas before and after touching. This, along with proper hand washing, substantially reduces your risk of infection via contaminated surfaces. See Appendix A for further information on planning for social distancing. Note that social distancing in “common” areas can be a challenge. Elevators should carry a single occupant (you can’t control this completely so you should have your face covering on as you board. Bathrooms are other areas where distancing need to be maintained or face coverings in use).

It is not just your lab space that needs to be considered, it is also write up spaces and other ancillary space to your lab operations. In some cases, “**staggered shifts**” within these spaces will be necessary to accomplish social distancing. If you have an operation where an employee or student must be fixed to a location and interact with others, you may need to add a **barrier** such as those seen in store checkout locations. For those who travel by vehicle to accomplish their research, and more than one person is involved, separate vehicles should be utilized.

## **Working Alone**

While social distancing is key, you must be careful to avoid situations where persons are working completely alone. Depending on the status of your exempted or restarted research you may have a drastically reduced building population. In that case, assurance of sight or sound contact for all operations is particularly important.

## **PPE**

Standard PPE for laboratory environments, includes a lab coat, eye protection, and appropriate gloves. Wearing gloves does provide some isolation of your skin from contaminated work surfaces but does not protect work surfaces such as door handles, etc. from the virus on the outside of your glove. For this reason, gloves should be changed, and hands washed before leaving the work area. Lab personnel should use a face covering to help reduce the opportunity for spread of the novel coronavirus in our workspaces. This personal use face covering is not intended as respiratory protection but rather a means to prevent virus spread from you and your colleagues to each other. If you are expecting visitors, please notify them in advance of visit that they are expected to come to campus with a face covering to aid in our virus spread reduction efforts. You will need to be sure to have necessary protective equipment in hand in suitable supplies before to startup your research. This involves an assessment of your needs and an understanding of your department process for acquisition and restocking of key supplies.

## **Your Cleaning Practices**

A standard practice for lab users, under normal conditions, is to wash your hands every time you leave the laboratory. If a sink is available inside the area, wash before you leave the area. This removes the potential for contaminated doorknobs and other areas where the coronavirus can

linger. An occasional wipe down of work surfaces where documents or other materials such as paper are handled is a good practice to follow as well. If utilizing hand sanitizer, you should retain rather than discard any empty hand sanitizer containers you may have in your work location for potential refilling with new supplies as replacement containers may be in short supply. Remember that while Housekeeping Services will be doing limited disinfecting of common spaces, cleaning of your personal space is your responsibility. See Appendix B below for further details on cleaning of your workspace. Your building or department plan should include guidance on increased frequency of cleaning as well as further cleaning practices for shared spaces, particularly those not within the scope of Housekeeping Services.

### **Building or Department Plans**

You should be familiar with your building specific expectations. There may be a customized plan for your building and/or department that provides requirements and recommendations referencing this document as well as other resources. You will need to be familiar with those plans which will address items not included here and provide more specific guidance than that which is possible or appropriate here.

### **Security / Chemical Receiving**

Your building should be locked and accessible via card reader. If this is not possible, a planned method for key distribution should be followed. Exterior doors should be posted to provide chemical and gas delivery personnel with a contact number to reach you or provided alternative instructions for delivery.

### **Waste Disposal**

Upon receiving your exception to conduct your research or support activity, continue to submit hazardous material pick-up requests via the existing Environmental Health & Safety (EH&S) waste submission process and properly label your containers. Submit requests to EH&S at [safety@ecu.edu](mailto:safety@ecu.edu).

### **Other Startup Considerations**

The facilities in which you work have been prepared for re-occupancy. Laboratory Principal Investigators and Lab Managers have the responsibility to:

- Assure that persons under their supervision have reviewed and understood their building re-occupancy rules
- Assure necessary protective equipment is provided
- Complete the Laboratory Restart Checklist included in Appendix C

Visit the University's [Coronavirus website](#) for general information and updates.

## APPENDIX A: Social Distancing Requirements

**1. Maximize Spatial Distancing in Research Labs:** Achieve minimum 6 ft. separation between researchers. Options on how to achieve:

**Examples:**

**Create alternating workspaces:** Where benches within a bay have researchers in close proximity with chair backs facing each other, close down alternate workspace on each bench to create a staggered workspace across the lab.

**Place markers (colored tape) on the floor** to identify 6 ft separation; particularly in common areas where multiple individuals may need to access shared equipment.

**For labs with more than one entrance,** consider designating one entrance for ingress and one entrance for egress, and establish traffic flow patterns to minimize close proximity to others during entry and exit from the laboratory. **NOTE: All egress must be readily available in the event of an emergency.**

**2. Minimize Time Together in Research Labs:** Stagger or split staffing to reduce overlap presence in labs.

**Examples:**

**Implement start time staggering** for different teams to start and end work to minimize contact time and avoid peak hours of arrival/departure.

**Implement split team arrangements** for laboratory usage, e.g. Team A and Team B to work on alternate days or half day shifts.

**3. Exposure Reduction in Research Labs:** Diligently take appropriate steps to minimize transmission of COVID-19 (person-to-person, person-to-surface and surface-to person) when working in the laboratory.

Self-monitor for symptoms and do not come to campus if you are unwell. *Seek medical attention immediately and contact your supervisor to arrange for backup coverage of essential laboratory tasks.* Inform Prospective Health of sick individuals so isolation and proper return procedures are followed.

If not working alone, wear an appropriate face covering to minimize risk of potential COVID-19 aerosol spread, especially if 6 ft distancing is not always an option (possible asymptomatic carrier is assumed).

**Wash hands regularly with soap and water** before and after laboratory work, and between procedures after potentially contaminated gloves are removed. **If soap and water are not readily available,** use hand sanitizer placed at strategic locations if available. Good hand hygiene requires a careful approach during these challenging times. Using good

judgement to balance hand hygiene techniques can help to reduce skin irritation and excessive dryness.

**Surface Disinfection:** Ensure regular disinfection of all touch points where gloves are not used, such as door handles, faucet handles at lab sinks, light switches, workstations, keyboards and other common equipment.

**Assigned Workspaces:** Assign work areas such as a desk or bench to specific individual staff. Each researcher should use only their assigned work area.

**Assigned Work Tasks:** Where possible, change work processes, assigning specific tasks to the same person to restrict people movement across laboratories and to minimize the number of users (and contamination spread potential) of specific equipment, such as confocal microscopy, cell culture, etc.

**Controlled Access to Common/Core Rooms and Equipment:** *Determine the maximum occupancy* allowed at a time. *Implement a scheduling system* with specific blocked periods for use and include downtime (e.g. 10 min) between blocked periods before the before the next person can use the equipment to prevent physical encounter of the two persons. This also applies for activities or equipment that are unable to be physically separated for operational reasons.

**Restrict visitors** to essential service providers. Assign an escort to visitors to ensure social distancing and other procedures are followed.

**4. Exposure Reduction Outside of Research Labs:** Be self-aware and take appropriate steps to minimize exposures to COVID-19.

**Follow current stay at home orders** (local, state, CDC, etc.).

*Follow the 6 ft distancing rule.*

**Wear a cloth face covering – consistent with current CDC guidance; especially where 6 ft distancing from others cannot be assured.**

**Use good handwashing techniques** (minimum 20 s, consistent with CDC guidelines), especially after touching public touch points (elevator buttons, door handles, etc.).

**If available, use hand sanitizers placed at strategic locations**, especially after touching items in high traffic common use areas such as elevator and copier buttons, light switches and phones, door handles.

**Research Offices:** The size/area of most offices in research buildings do not readily accommodate 6 ft distancing and should be reserved for only one person. Meet with staff and others in larger spaces where social distancing is possible.

## Appendix B - Cleaning and Disinfecting Work Areas

### 1. Know the difference between cleaning, disinfecting, and sanitizing.

**Cleaning** removes germs, dirt and impurities from surfaces or objects. Cleaning works by using soap (or detergent) and water to physically remove germs from surfaces. This process does not necessarily kill germs, but by removing them, it lowers their numbers and the risk of spreading infection.

**Disinfecting** kills germs on surfaces or objects. Disinfecting works by using chemicals to kill germs on surfaces or objects. This process does not necessarily clean dirty surfaces or remove germs, but by killing germs on a surface after cleaning, it can further lower the risk of spreading infection.

**Sanitizing** lowers the number of germs on surfaces or objects to a safe level, as judged by public health standards or requirements. This process works by either cleaning or disinfecting surfaces or objects to lower the risk of spreading infection.

### 2. Clean surfaces and objects that are touched often.

Housekeeping Services have enhanced their daily sanitizing of high touch in common areas across campus. Standard procedures call for disinfecting specific areas on campus, such as bathrooms.

To support efforts by University Housekeeping, you may *wish to help* clean and disinfect common areas and are *responsible for cleaning your private offices or workspace* where others visit regularly. Use only approved cleaning products.

### 3. Simply do routine cleaning.

As indicated above, simply using detergents (soap) and water can be effective. When using products designed to disinfect, consider products with less likelihood for improper use which can irritate the eyes, nose, throat and skin; aggravate asthma; and cause other serious side effects. Flu viruses and human coronaviruses are relatively fragile, so standard cleaning and disinfecting practices are sufficient to remove or kill them. Special cleaning and disinfecting processes, including wiping down walls and ceilings, frequently using room air deodorizers and fumigating, are not necessary and **ARE NOT TO BE USED**.

### 4. Clean and disinfect correctly.

Disinfecting with chemicals, after proper cleaning, can further kill germs on surfaces. It is important to remember that these chemicals can be hazardous if contacting your eyes or skin. These chemicals can also be irritants and trigger asthma in the user and others. Always follow label directions on cleaning products and disinfectants. The EPA maintains a list of disinfectants depending on the germs you are targeting.

Wash surfaces with a general household cleaner to remove germs. Rinse with water. If you use an EPA-registered disinfectant to kill germs, read the label to verify that the EPA has approved the product for effectiveness against the germs you are targeting.

If a surface is not visibly dirty, you can clean it with an EPA-registered product that both cleans (removes germs) and disinfects (kills germs) instead. Be sure to read the label directions carefully, as there may be a separate procedure for using the product as a cleaner or as a disinfectant. Disinfection usually requires the product to remain on the surface for a certain period of contact time (e.g., letting it stand for 3 to 5 minutes).

Use disinfecting wipes on electronic items that are touched often, such as phones and computers. Pay close attention to the directions for using disinfecting wipes. It may be necessary to use more than one wipe to keep the surface wet for the stated length of contact time. Make sure that the electronics can withstand the use of liquids for cleaning and disinfecting.

## 5. Use products safely.

Pay close attention to hazard warnings and directions on product labels. Cleaning products and disinfectants often call for the use of gloves and/or eye protection. For example, gloves and eye protection should always be worn to protect your hands when working with bleach solutions.

Do not mix cleaners and disinfectants unless the labels indicate it is safe to do so. Combining certain products (such as chlorine bleach and ammonia cleaners) can result in serious injury or death.

## 6. Handle waste properly.

Follow standard procedures for handling waste in your area, which may include wearing gloves. **Aerosol cans must be handled appropriately and may not be disposed in the regular trash.** Throw other disposable items used to clean surfaces and items in the trash immediately after use. Avoid touching used tissues and other waste when emptying waste baskets. Wash your hands with soap and water after emptying waste baskets and touching used tissues and similar waste.

## Appendix C – Lab Restart Checklist

It is natural that you will want to dive back into your exciting research, work longer hours to catch up, etc. but remember:

- Everyone is in the same situation!
- Plan and conduct work carefully and methodically.
- Maintain all social distancing guidelines while working.
- Accidents are more likely to happen when you are hurried and tired.

Potential exists for another ramp-down. Take consideration/caution in starting new research. Plan before beginning lab activities:

- Review laboratory safety protocols.
- Review/update lab safety plans/hazard analysis.
- Review/update Standard Operating Procedures.
- Review equipment operation safety procedures.
- Review equipment manuals for safe startup instructions.
- Evaluate and plan for equipment in need of calibration.
- Review start-up procedures for any compressed gas cylinders, gas generation station, and/or gas distribution systems.
- Ensure availability of supplies/consumables needed for your lab activities.
- Ensure availability of standard personal protective equipment required for your lab activities.
- Prepare for supply chain disruptions and limited availability.
  - Recognize that order placement may be slower as the volume of requests increases.
  - Plan for limited sales of high demand items in stockroom inventory.
  - Plan for limited Personal Protective Equipment availability (including N95's, face shields, gown, gloves, etc.). The current priority is for frontline healthcare workers.
  - Plan for some reagents having limited availability.
  - Plan for some consumables having limited availability.
- Ensure handwashing sinks with soap and water are available for personnel.
- Ensure personal distancing plans are in place and understood by lab personnel.
- Ensure plans are in place for managing sick personnel. Contact Prospective Health for assistance.
- Restrict lab access to essential personnel. Only essential, authorized visitors are allowed until further notice.
- Develop personnel log to document lab access and activity logs.
- Review any Shared Facilities restrictions (Shared Facilities are areas such as the Electron Microscopy area, service analytical labs, etc.).
  - Delays due to start-up procedures.
  - May have restricted schedules to accommodate social distancing: consider shifts to alternate occupancy, or sign-up sheets.
  - Develop frequent cleaning protocol: Example - lab user cleans before and after use as well as before and after shifts with wipes/sanitizing spray/alcohol.
  - Post signage for administrative protocols concerning scheduling, cleaning, etc.



### Upon returning to campus:

- Cautiously enter your lab, observing any leaks, damage, alarms, odors, etc. and survey the lab for unsafe conditions. Contact EH&S and/or Facilities Services for issues.
- Confirm fume hood and/or biosafety cabinet is operating as normal. Contact EH&S if fume hood is not properly functioning or requires certification. Contact Prospective Health for biosafety cabinet certifications.
- Mitigate any chemical leaks, spills, or releases if you are trained and have appropriate personal protective equipment or contact EH&S for support. Report all hazardous material incidents to EH&S. Report any missing materials, to University Police and other institutional officials, as necessary.
- Conduct a hazardous material inventory to ensure no loss of material (chemicals, radioactive material stocks, toxins, controlled substances, etc.).
- Cleanup/put away chemicals, supplies equipment, glassware, and other items left out during the shutdown.
- Evaluate expired, outdated, peroxide-forming, self-reactive, or other reagents with a limited lifespan. Contact EH&S for guidance.
- Secure, correctly label, and/or request a pickup for Hazardous Wastes.
- Review equipment state and safely release or mitigate any stored-up energy sources.
- Check that all lab utilities are operational.
- Check and/or verify emergency equipment is operational.
- Check the fire extinguisher pressure gauge to make sure the indicator is in operating range.
- Flush all eye washes for at least 15 minutes.
- Pour water down dry traps/floor drains to mitigate sewer gas smells that are often confused with natural gas leaks.
- Assure refrigerators and freezers are functional and stored materials are intact.
- Check hoses for damage, tight connections and appropriate hardware.
- Inspect electrical cords for damage.
- Confirm functioning of remote monitoring devices.
- Train and document cross-training of personnel.
- Train and document on updated guidelines for social distancing practices.
- Train and document on personal hygiene and hand washing practices.
- Train and document on cleaning and disinfecting practices.

### Develop, train, and implement guidelines for safe activities in your lab during this event.

- Require that all personnel who are feeling unwell stay home until they no longer have symptoms. Coordinate with Prospective Health.
- Have considerations for those that are at-risk or care for someone that is considered at risk.
- Remind all personnel to practice recommended personal hygiene measures including washing hands frequently, using hand sanitizer, avoiding touching their face and covering coughs.
- Establish social distancing protocols and never work alone.
  - Restrict schedules to accommodate social distancing: consider shifts to alternate occupancy.
  - Be mindful of shared spaces, including shared office spaces, break areas/food preparation areas, restrooms, copy room, other common areas.
- Conduct frequent cleaning and disinfection throughout the lab and common areas.
  - Use of EPA approved cleaning/disinfecting products.
  - Protocols for shared equipment, including computers, telephone
  - Protocols for shared PPE: safety glasses, goggles, gloves, etc.

- Develop a process to maintain access and activity logs in order to trace contacts if someone becomes sick or tests positive for COVID-19. (Should include researcher name, date and time work started and ended, and all room locations that were visited during that time. Additionally, names of any other individuals that the researcher interacted with could be included).