

# Restarting XRF Operations

## Ramp up and full operation checklist

### Following COVID-19 shutdown

**Updated:** May 06, 2020; **Original:** May 04, 2020.

This document provides items and actions that are needed for XRF Core Facility to ramp back its operation following the COVID-19 shutdown. This checklist envisions four phases of operation from the complete shutdown to full operation.

Currently XRF is in Phase 0. During Phase 1 which at this point likely to last from Wed, May 11, 2020 through May 20, 2020, XRF appointments can be made **by contacting me via e-mail one-day ahead of your needed experiment**.

The document was prepared by Thayumanasamy Somasundaram.

## Timeline

Phase	Lapsed Days Since Start	Days in Phase
Phase One	0	5
Phase Two	5	10
Phase Three	15	10
Phase Four	25	

## Phase One (Pre-Opening) | Week I

- 1. Check** your inventory of materials and parts needed for ramp-up and regular operations
- 2. Discard** outdated and expired materials and parts
- 3. Order** materials and parts needed for **Early Stage Phase**. There may be delays in receiving them
- 4. Anticipate** and **order** personal protective equipment (**PPE**) and personal disinfectants needed for **Early and Mid-Stages**. Coordinate with other Cores or with Office of Research
- 5. Avoid** ordering large quantities since assessing the time needed to reach **Full Operation Phase** is difficult at this time

## RESTARTING XRF OPERATIONS

### *Ramp up and full operation checklist*

- 6. Arrange** for proper delivery and storage
- 7. Update** computer security patches and software controlling the instrument
- 8. Start** each instrument and assess its working condition
- 9.** If working properly:
  - a.** Run a test/cleaning protocol
  - b.** Run a standard or known sample and check with known results
  - c.** If the standard matches with known results proceed
- 10.** If not, **investigate** and find the reason for mismatch: problem(s) w/ hardware, software, sample, etc.
- 11. Establish** a procedure for restarting the facility: Early, mid, full stage operations
- 12. Send** commencement of **Early Stage Operation** communications to users via e-mail, web, social media, etc.

## Phase Two (Early Stage) | Week 2

---

- 1.** Establish procedures for early stage operation which may include but not limited to:
  - a.** Booking instrument time for **regular** users via: E-mail, phone, webform, etc.
  - b.** Meeting with regular users keeping in mind the following guidelines:
    - Do we need to do wellness check, like, checking temperature (privacy issues)?
    - Can we ask simple questions, like, Are okay? Have you recently been unwell (privacy issues)?
    - Will they be voluntary or compulsory? What to do if they don't volunteer or don't comply?
    - Are users required to wear PPE? Do we provide them if they don't have it?
    - Are we required to run samples for our regular users?
    - How do we manage expectations and turnaround times?
  - c.** If needed, guiding experiment/instrument operation remotely via VNC, Zoom, Skype, WebEx, Remotely Anywhere, etc.
  - d.** Allowing only one user per the instrument at any time

## RESTARTING XRF OPERATIONS

### *Ramp up and full operation checklist*

- e. Limiting total number of users further if several instruments are located in close proximity/in the same area
- f. Do we need to provide physical barriers if there are several instruments close to each other? Air-flow issues?
- g. Who and how we monitor users in close proximity?
- 2. No new users will be trained or allowed during this early stage**
- 3.** Users need to disinfect and sanitize the equipment after their use
- 4.** How do we disinfect and sanitize computer keyboard(s) and mouse?
- 5.** Discourage/discontinue touch sensitive computer monitors and equipment panel
- 6.** If touch sensitive equipment panels cannot be by-passed, provide disposable plastic sheets (Saran Wrap/ Cling Wrap)
- 7.** Users may be referred to existing manuals, SOPs, YouTube videos, etc. for further assistance
- 8.** Current auxiliary account POs will continue to be used through late-June 2020 and new POs need to be created for work starting on July 01, 2020
- 9.** Inform users about the limitation of available instrument if calibrations are pending or servicing is needed
- 10.** Inform users about the limitation of certain procedures if the facility lacks materials/parts
- 11.** Consider ordering more materials/parts needed for next **Mid Stage Phase**

## Phase Three (Mid Stage) | Week 4

---

- 1.** Number of users allowed per instrument and particular room may be increased
- 2.** Continue to disinfect and sanitize the equipment in between users
- 3.** Continue disinfect and sanitize computer keyboard(s) and mouse
- 4.** Continue to discourage users from touch sensitive computer monitors and equipment panel
- 5.** Continue to provide disposable plastic sheets (Saran Wrap/ Cling Wrap)
- 6.** Occasional hands-on assistance and training may be entrained by Core Facility Staff at their discretion
- 7.** New users will be referred to existing manuals, SOPs, YouTube videos, etc. for familiarity

## RESTARTING XRF OPERATIONS

### Ramp up and full operation checklist

- 8. Update users about any webinars or zoom sessions broadcast by instrument manufacturers that may assist in their data collection and analysis
- 9. Current auxiliary account POs will continue to be used through late-June 2020 and new POs need to be created for work starting on July 01, 2020
- 10. Consider ordering more materials/parts needed for next **Full Stage Phase**

## Phase Four (Full Operation) | Week 6

---

- 1. Normal operation of the Core Facility may be started
- 2. Hands-on training and assistance will be resumed
- 3. New users will be trained
- 4. Current auxiliary account POs will continue to be used through late-June 2020 and new POs need to be created for work starting on July 01, 2020.

## X-Ray Facility Operation after COVID-19 Shutdown

---

Dr. Thayumanasamy Somasundaram  
Director, X-Ray Facility  
Institute of Molecular Biophysics  
[tsomasundaram@fsu.edu](mailto:tsomasundaram@fsu.edu)

*The following are some of the guidelines we will be following during the ramp-up to full phase operation at the IMB X-Ray Facility following the COVID-19 shutdown. Some of the guidelines may need to be modified when required.*

1. Reservations for Gryphon Robot, Formulatrix Rock Maker, Rock Imager, and Formulator usage can be done via phone or e-mail.
2. Confirmation of reservation and allocated time will be sent to users via e-mail.
3. Optical microscope(s), cold rooms, non-ambient crystal incubators can be used without prior reservation. However, users should maintain the recommended social distancing guidelines (6 ft<sup>2</sup> of personal space).
4. Users are required to wear personal protective equipment like face mask and gloves while working with the instrument(s).
5. Only limited number of users will be allowed to use the equipment at one time due to the close proximity of several instruments located in KLB 412 in order to maintain social distancing guidelines (6 ft<sup>2</sup> of personal space).
6. Equipment will be cleaned by XRF Director before the first use of the day and XRF will provide disinfectants and disposable protective film for keyboard and mouse.
7. Users are required to keep the area clean and are required to disinfect the instrument and dispose the protective film on computer keyboard and mouse after their use.

## RESTARTING XRF OPERATIONS

### *Ramp up and full operation checklist*

8. Data processing will be done by users (with assistance as necessary).
9. Remote data collection reservations will resume when NSLS-II, APS, and other beamlines resume their regular schedule and will be communicated to users via e-mail.
10. Sample freezing, loading of pucks, and shipping will resume after synchrotron beamlines resume regular operations.
11. Users are required to wear personal protective equipment like goggles, face mask and cryo gloves during sample freezing.
12. To ensure social distancing guidelines, only one user will be allowed to freeze and load individual pucks.