

THIS DOCUMENTS IS REQUIRED
READING FOR ANY PERSONNEL
PERFORMING WORK IN NSC
LABORATORIES

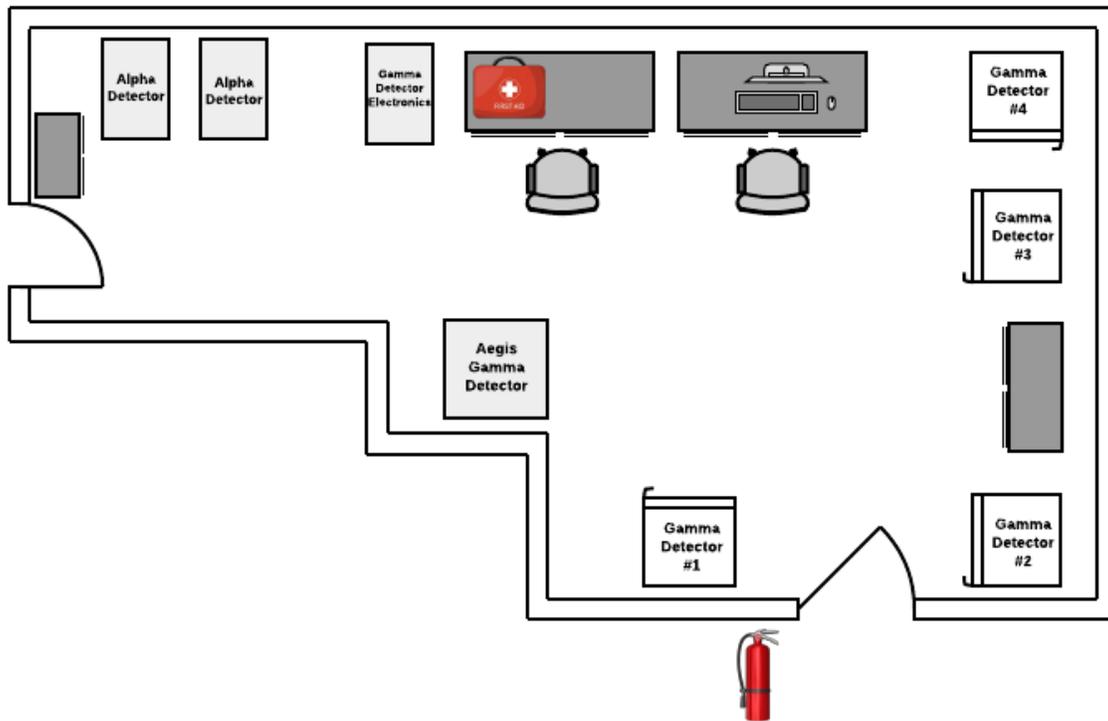
Laboratory Standards

Dodgen Laboratory Room 116
NUCLEAR SCIENCE CENTER
Rev. 1, 4/2025

Washington State University
Dodgen Research Facility

1 LABORATORY LAYOUT

The DRF-116 laboratory (116) is the Neutron Activation Analysis (NAA) lab and houses several high purity germanium gamma spectroscopy detectors. The lab is used for the analysis of WSU Reactor irradiated samples as well as reactor pool water and rad trash nuclide identification. No sample preparation is performed in 116 however, radioactive samples may be left for extended periods of time as they are being analyzed. Each detector cave is capable of being locked from the outside if samples need to run outside of business hours. The lab also houses several high voltage supply units to the detectors and should only be manipulated by persons who have been trained to use the instrumentation.



Dodgen Research Facility -116

2 GENERAL RULES

- 2.1 Utilize best laboratory practices at all times.
- 2.2 When working with radioactive material, follow the guidelines and regulations contained in the WSU Radiation Protection plan and the Nuclear Science Center Radiation Protection Plan.
- 2.3 DRF-116 is not equipped with lab benchtop space, all work with radioactive material shall be done in the experimenter's lab or by NSC staff in the sample prep lab. Samples should not be prepped or opened in DRF-116 as to produce a contamination hazard.
- 2.4 The gamma spectrometry meters are supplied with high voltage from several power supplies located in a rack on the south side of the lab. The presence of the high voltage creates a hazard to those working in the lab. All persons using the lab space should be trained or accompanied by a competent individual. The equipment should not be altered unless under the supervisor of the lab manager or director.
- 2.5 A lab safety manual is maintained in the lab. Refer to it for general safety, chemical hygiene and emergency preparedness.
- 2.6 A quarterly lab check / cleaning is performed by a licensee at the end of the last work week. See the section titled "Lab Checks" for procedures that are performed.

3 LAB CHECKS

An NSC staff member will perform the following checks and laboratory duties on a quarterly basis. **This list is to be performed in the order below.**

- 3.1 Check all computer desks and surfaces for cleanliness and debris. Make sure they are clean.
- 3.2 Check that all radioactive material, irradiated samples and calibration sources are stored appropriately.
- 3.3 Swiffer the entire lab.

4 CERTIFICATE OF EMPLOYEE TRAINING

Name and title of person providing laboratory safety training: Zachariah Heiden (associate director)

The following employees have received laboratory safety training and reviewed the chemical hygiene plan for this laboratory.

- Names and training dates of users trained on the use of the gamma spectrometers can be found in the Training Documentation binders found at the computer of the gamma spectrometers.