NSCL	**Policy Number:S3-1**		**Current Revision Level:0**
	Initial Issue Date:3/1/2011	**Revision Date:**	**Author: Remco Zegers**
	Who is Affected: Users of the S3 experimental Vault		
Policy Title: Guideline for experimenters in the S3 vault			

1.0 Purpose

A large variety of experiments are performed in the S3 vault. To ensure that all users can be served adequately and that operations in the vault run smoothly, this guideline provides a list of expectations that the users can have when preparing for an experiment in the S3 vault and that the NSCL has of users when they perform an experiment in the vault. It also provides information on the use of storage space and tools in the S3 vault.

2.0 Scope

This document is supplementary to the S800 Spectrograph Service Level Description that can be found at: http://www.nscl.msu.edu/files/s800_sld_2007-2.pdf

For any questions regarding the operations in the S3 vault or the content of this document, please contact the vault coordinator (Remco Zegers – zegers@nscl.msu.edu). For questions regarding the Service Level Description of the S800 spectrograph and associated equipment, please contact the device physicist (Daniel Bazin – bazin@nscl.msu.edu).

Although "a user of the S3 vault" refers to any participant in an experiment performed in this vault, the user who is ultimately responsible for meeting the expectations in this guideline is the spokesperson of the experiment, or a person in the collaboration designated by the spokesperson. In the latter case, the spokesperson is responsible for informing the S3 vault coordinator of the person identified as the user responsible for meeting the expectations in this guideline. The spokesperson or the designee is the point of contact for the Vault Coordinator.

3.0 Expectations the user can have when starting to prepare for an experiment in S3

a) The vault is clean (floors swept) and tools/parts are stored in the appropriate tool boxes and cabinets. All areas are cleared of any parts/components that belonged to the previous experiment.
b) Chemicals are stored in the chemical storage safe located at the lowest level of the vault.
c) There are no extension cords/power distribution boxes that are left unconnected to any equipment.
d) The wooden platform at the target station of the S800 (near the pivot point) is installed and free of debris. Guard rails are installed.
e) Gate valves are installed in the standard fashion to the quadrupole magnets up and downstream of the target station (an appendix with pictures will be added to this document soon).
f) The bellows between the two last quadrupole triplets of the beam line is installed and leak tight.

g) An I-beam is installed above the target station whenever the scattering chamber is removed.
h) There are several patch panels in the S3 vault that provide connections through other locations in the vault and to dataU-6. These patch panels have only cables connected to it that are common/standard to all experiments in the S3 vault. The same holds for the patch panel in data-U6. In addition, the patch-panels only have standard labels.
i) All electronics racks, installation carts, boxes and other hardware related to the previous experiment have been removed from the vault.
j) The object box contains all target ladders, of which the central one is fitted with a beam viewer. The installation of an object scintillator, used in many experiments, should be coordinated with the beam physicists.
k) The beam line downstream of gate valve I177GV (entrance to the object box) and upstream of gatevalve I249GV (downstream of the I245TC) is at vacuum. The S800 spectrograph downstream of I255GV (entrance to I256QA) and upstream of I265GV (entrance of focal plane box) is at vacuum. The vacuum status of the focal plane box depends on whether work on the focal plane detectors in preparation for the next experiment is in progress. Please contact the device physicist for details.

The users have the responsibility to coordinate, schedule, and oversee the work by various NSCL departments to make sure that their needs for the experiment are met and that all NSCL supported equipment for the experiment is installed.

4.0 Expectations the NSCL has when the users leave the S3 vault.

a) **The user shall leave the vault behind as defined above in "Expectations the user can have when starting to prepare for an experiment in S3".** If, for whatever reason, this is not possible, the user shall notify the vault coordinator.
b) The user shall ensure that all equipment installed by NSCL departments in the S3 vault for the use during the experiment has been removed. This includes changes/connections that have been made to various utilities in the vault. The user shall have the responsibility for coordinating, scheduling, and overseeing the work by the NSCL departments.
c) The member of the collaboration responsible for the radioactive sources used in the experiment (this person must have completed Radioactive Source User Training) shall return all sources to the NSCL Safety Office.
d) The user shall return, store, or properly dispose of all chemicals brought into the vault during the experiment.
e) The user shall return all parts borrowed and taken from cabinets in the S3 vault and notified the responsible persons.
f) Users shall notify the vault coordinator of problems encountered with the systems covered in this document.

g) The user shall contact the vault coordinator when they finished the experiment and the clean-up. The vault coordinator may request for additional actions if the vault is not left behind in the appropriate condition.

5.0 Storage space in S3

Space in the S3 vault is limited and allocated for specific purposes. Cabinets/shelves have designated people who are responsible for the contents. These storage spaces are labeled by owner and purpose and are listed below:

Lowest Level:

- Beige cabinet nearest to stairs to mid level (Cabinet I): Daniel Bazin – various parts/spares needed for many experiments. Generally available to users, but must be returned to this cabinet. Targets/viewers/scintillators stored in this cabinet can only be used with the permission of Daniel Bazin.
- Dark beige cabinet next to the above (Cabinet 2): Betty Tsang – various parts for the big scattering chamber and HiRA detector. Contact Betty Tsang if you wish to use any parts stored in this cabinet.
- Dark grey cabinet, to the right of the shelving unit (Cabinet 3): Daniel Bazin – various parts/spares as well as a collection of screws/bolts etc. Generally available to users, but must be returned to this cabinet.
- Shelving unit (Cabinet 4): Dirk Weisshaar – lowest and middle shelves: parts and components for SeGA/CAESAR. Top shelf: various large parts (beampipes and table for big scattering chamber). Do not store/take any equipment on/from these shelves without contacting Dirk Weisshaar.
- Green Cabinet to the left of shelving unit (Cabinet 5, this cabinet will be installed ~March 2011): Dirk Weisshaar and Remco Zegers – various beam line parts for experiments using a simple beam line as the target chamber. Do not store/take any parts/pieces in/from this cabinet without contacting Dirk or Remco.
- Area behind the spectrometer: Remco Zegers. A variety of bigger pieces are stored here (wooden platform pieces, rail coverings etc). Do not store/take any parts in/from this area without contacting Remco Zegers.
- Big scattering chamber: Betty Tsang. A variety of parts and pieces that belong to the scattering chamber are stored inside the chamber. Do no store/take any parts in/from the scattering chamber and do not place/remove items on/attached to the chamber without contacting Betty Tsang.
- Tool box (downstairs): Remco Zegers. For general use by users of the vault. Tools should not leave the vault and should be placed back after use.
- Source safe: ORCBS. For storing radioactive sources necessary in the calibration of experiments. Available only for users who have completed Radioactive Source User Training. Return sources to the NSCL Safety Office after the completion of an experiment.

• Chemical safe: ORCBS. For storing flammable chemicals of general use for users of the vault. Remove any chemicals from this safe that are stored for use during a particular experiment after the completion of the experiment.

Mid Level

• There is no storage space available on the mid level and users should not leave any equipment on this level.

Alcove

• Toolbox: Daniel Bazin. Tools and parts in this toolbox are for use with the object box and associated equipment. Do not remove tools from the alcove.

Top Level:

• Small drawer cabinet with a variety of spare parts near the elevator: Daniel Bazin. Not for general use. Please contact Daniel Bazin if you are in need of any parts from this cabinet.
• Tool boxes (both large and small red): tools required for maintenance of the components of the focal plane detection system. These are not for general use. Contact Daniel Bazin if you are in need of any tools from this tool box.

6.0 Policy History

Revision Level:	Date:	Revision Changes:
0	3/1/2011	Initial version