Brookhaven National Laboratory National Synchrotron Light Source		Number: LS-OPS-0059	Revision: B
		Effective: 05/23/03	Page 1 of 2
Subject: VACUUM PROCEDURES FOR BEAMLINE X-17C			
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*Document must contain approved signatures for validity.

The following procedures must be followed when bleeding up different beam line sections and when returning these sections to operation (refer to Beam Line Layout Drawing):

I. FRONT END (PROCEDURE TO BE PERFORMED BY NSLS VACUUM GROUP ONLY)

A Bleed-Up

1. Notify the Coordinator (Beeper 5824).
2. Refer to Front End Vacuum Procedures (SLS-07.19-13-1).

B. Return to Operation

1. Notify the Coordinator (Beeper 5824).
2. Refer to Front End Vacuum Procedures (SLS-07.19-13-1).

II. SECTION BETWEEN BE WINDOW #2 (DOWNSTREAM OF XENON FILTER CHAMBER) and BE WINDOW #6 (FRONT of X17B1 Hutch)

A. Bleed-Up
1. Notify the Coordinator (Beeper 5824).
2. Turn off Multigauge vacuum controller and ion pump associated with the section to be bleed-up.
3. Coordinator places yellow tag on Multigauge vacuum controller.
4. Slowly bleed-up with boil-off N2 while coordinator monitors front end pressure.

B. Return to Operation
1. Notify the Coordinator (Beeper 5824).
2. Turn on multigauge vacuum controller and ion pump associated with the section.
3. If pressure reading is below 10-7 Torr, coordinator removes yellow tag from the multigauge vacuum controller.
4. Make sure that cooling water is flowing in the MS monochromator and beam splitter/filter unit. If not, reset the user interlock controller located at the control area of X17B1.
5. Make sure that gravity water is flowing in the MS monochromator. Water pump should be ON and water should be seen in the clear Tygon tube at the MS monochromator.

* NSLS POLICY FOR RGA SCANS (24 HOUR NOTICE REQUIRED)

An RGA scan is required before returning to operation if there is a major change of hardware in the vacuum system, i.e. changing of samples, mirrors, windows, monochromator crystals or gratings, manipulators, detectors, etc., **with the following two exceptions:**

1. After UHV sample chambers have been bled up for replacing components, an RGA scan will not be required if the chamber pressure is returned to $< 2 \times 10^{-9}$ Torr and the Front End pressure remains $< 2 \times 10^{-9}$ Torr when vacuum sections upstream of the chamber are opened into the Front End.

2.   If any vacuum section upstream of the bled-up section remains at a pressure of $< 9 \times 10^{-10}$ Torr as read using a hot-filament ion gauge, when the entire beamline is opened into the Front End, and the Front End pressure does not increase, no RGA is required.

** NSLS TURBO PUMP POLICY

An unprotected turbo pump is one not separated from the Front End by a beamline valve which automatically closes in the event of a power loss or a pressure increase at the turbo pump. **No unprotected turbo pump can share a contiguous vacuum with the Front End.**

NSLS REVISION/REVIEW LOG	
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> See NSLS Quality Control Coordinator for review signatures <

REVISION TABLE		
Rev	**Description**	**Date**
B	Initial release into controlled document system. Major modification/upgrade to beamline.	05/23/03