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Revision Log

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Test Reason:	
Test Date:	Test Result: ☐ Passed ☐ Failed
Tester:	Assistant:

PREPARATION:

This test should be completed during a period when the need for the exhaust in the hutches is not needed. _____

Verify all fans are functioning and no alarms exist. _____

Refer to the appendix for pictures of equipment location. _____

1. **X18A, X18B & 19A Hutch Exhaust**

   Press the Red Off button on the Powerflex Controller (located at X19A).

   Verify all faults are observed at each beamline hutch Air Flow Alarm Box.

   X18A: Red Fault indicator is ON _____

   X18A: Audible Alarm is sounding _____

   X18B: Red Fault indicator is ON _____

   X18B: Audible Alarm is sounding _____

   X18B: Vane on Flow Switch is in the down position. _____

   X19A: Red Fault indicator is ON _____

   X19A: Audible Alarm is sounding _____

   X19A: Vane on Flow Switch is in the down position. _____

2. Press the Green "Hand" button on the PowerFlex Controller

   Verify all faults are observed at each beamline hutch Air Flow Alarm Box.

   Note: The system may take up to a minute before proper air flow is established and faults reset.

   X18A: Green indicator is ON _____

   X18A: Audible Alarm is not sounding _____

   X18B: Green indicator is ON _____

   X18B: Audible Alarm is not sounding _____

   X18B: Vane on Flow Switch is in the up position. _____

   X19A: Green indicator is ON _____

   X19A: Audible Alarm is not sounding _____

   X19A: Vane on Flow Switch is in the up position. _____

3. **X21A1 & X22B Hutch Exhaust**

Verify no alarms exist on the hutch panels and in the NSLS Control Room. _____

Press the Red "Stop" Button on the Power panel at X18B.

Control Room: "X21A1 Exhaust" is displayed on the Alarm System Monitor _____

Control Room: "X21A1 Exhaust" is displayed on Error Pro _____

Control Room: Audible Alarm is Sounding _____

Request for Operator to reset Audible alarm.

Fan Power Disconnect Red indicator is ON _____

X21A1Flow Alarm Panel: Red Fault indicator is ON _____

X21A1Flow Alarm Panel: Audible Alarm is Sounding _____

X22BFlow Alarm Panel: Red Fault indicator is ON _____

X22BFlow Alarm Panel: Audible Alarm is Sounding _____

4. Press the Green "ON" button on the Power Panel at X18B.

Fan Power Disconnect Green indicator is ON _____

X21A1Flow Alarm Panel: Green OK indicator is ON _____

X21A1Flow Alarm Panel: Audible Alarm is not Sounding _____

X22BFlow Alarm Panel: Green OK indicator is ON _____

X22BFlow Alarm Panel: Audible Alarm is not Sounding _____

Figure 1: PowerFlex Exhaust Fan Control Module at X19A Beamline Hutch

Figure 2: PowerFlex Exhaust Fan Control Panel

Figure 3: Example of an Air Flow alarm box located at hutches

Figure 4: Example of an Air Flow alarm box located at hutches

Figure 5: Example of an Air Flow switch, located inside the hutch, with vane in the up position.

Figure 6: Power Disconnect Switch for Exhaust Fan connected to X21A1 and X22B – Located on X18B hutch.

Figure 7: Power Disconnect Switch for Exhaust Fan connected to X21A1 and X22B.

PHOTON SCIENCES DIRECTORATE REVISION LOG		
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Subject:	**Hutch Exhaust Flow Test**	**3** Years
Review signatures on file with master copy of controlled document		

Rev	Description	Date
A	Initial document.	5/17/2011