

Shot Type 2: BLO Non-propagating Checklist S-AB-P-125 Rev A

Intent: This shot variation is used by the Beamlines Operator for a non-propagating shot to test a particular Beamlines PCU and Amplifier to monitor charging and/or firing characteristics of the amplifier, PILC one or more heads to identify potential lamp or cable problems and/or perform cavity hold-off tests.

The appropriate Beamlines shutters must be closed for these operations. There are three types of Type 2 shots:

Type	Beam Terminations	Shot Variations
2	<ul style="list-style-type: none">• Injection Cal.'s• SY Cal.'s• IRDP block	<ul style="list-style-type: none">PCU PILC Only ShotPCU Charge and FirePCU Charge and Dump

Closed access is required.

Prerequisite: Beamlines Pre-operations Startup Checklist completed per S-AB-P-122

Note:

Laser alignment expires after 60 minutes. If 60 minutes have passed (or will have passed at the time of shot) since alignment, inform the SD and realign (or re-check IRAT and IRDP Pointing and Centering) at his instruction. If alignment expires, start the procedure at step 1. If alignment will not expire, start at step 1, but skip steps 4 and 5.

Procedure:

Review the Laser Facility Managers Day Orders. Crosscheck with the current shot instructions.

- 1**
- Resolve any issues with the SD
 - Fill out ALT's Configuration Table with System Science

Review the Master Template pop-up on the *ep-ble* when the SD sends the PRESHOT signal.

- Confirm the Beamlines to be included in the shot.
- 2**
- Confirm or correct the M W C status of the software processes listed in the Day Orders/Master Template or verbal instructions from the SD.
 - Press the "Accept" button on the Template review pop-up when complete.

(continues)

- 3 Issue the ALT's Checklist. Coordinate with the ALT to make any necessary configuration changes per ALT's Configuration Table.

Align the beamline

- Align the IRAT and Injection tables using the IRAT beam per S-AB-P-111.
- Insert CSF waveplates
- Check Pointing and Centering on IRDP's ASP.
- Insert ASP beam blocks
- Insert and verify Shot pinholes are in place and are the correct size.

- 4

	OK	N/A	Time of alignment
BL1	<input type="checkbox"/>	<input type="checkbox"/>	
BL2	<input type="checkbox"/>	<input type="checkbox"/>	
BL3	<input type="checkbox"/>	<input type="checkbox"/>	
BL4	<input type="checkbox"/>	<input type="checkbox"/>	

Apply and verify WCS PID/USD file per S-AB-P-138. PID/USD file settings expire after 1 hour. Note: WCS correction can occur no sooner than 25 min. after a Type 5 (or higher) shot.

- 5

	OK	PID/USD	Time of Install	N/A
BL1	<input type="checkbox"/>			<input type="checkbox"/>
BL2	<input type="checkbox"/>			<input type="checkbox"/>
BL3	<input type="checkbox"/>			<input type="checkbox"/>
BL4	<input type="checkbox"/>			<input type="checkbox"/>

Use balign to ensure the IRAT beam is blocked and remove CSF waveplates.

- 6

	OK	N/A
BL1	<input type="checkbox"/>	<input type="checkbox"/>
BL2	<input type="checkbox"/>	<input type="checkbox"/>
BL3	<input type="checkbox"/>	<input type="checkbox"/>
BL4	<input type="checkbox"/>	<input type="checkbox"/>

Ensure the SP-POL is in the correct position.

- 7

	N/A	In	Out
BL1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BL2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(continues)

Ensure that the Injection Cal, SY Cal and IRDP blocks are inserted.

	N/A	Injection	SY	IRDP	
8	BL1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	BL2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	BL3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	BL4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Re-start the PEPC (if not running) per S-AB-P-136.

	OK	N/A		
9	BL1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	BL2	<input type="checkbox"/>	<input type="checkbox"/>	
	BL3	<input type="checkbox"/>	<input type="checkbox"/>	
	BL4	<input type="checkbox"/>	<input type="checkbox"/>	

10 Instruct the ALT to perform his checklist.

11 Select *lock* from the commands menu of *balign* for each macro run.

Select *compare* ⇒ **Fluorescence_Config** from the Macros pull-down menu.

	N/A	OK		
12	BL1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	BL2	<input type="checkbox"/>	<input type="checkbox"/>	
	BL3	<input type="checkbox"/>	<input type="checkbox"/>	
	BL4	<input type="checkbox"/>	<input type="checkbox"/>	

- Review the macro reports for errors. Do not proceed until each macro is clean.
- Review results with the SD-

13 Confirm the ALT's PRESHOT Checklist is complete by meeting him in the Ante room to review and sign his checklist.

14 Click the "Checklist" button on the *ep-ble*.
 (continues)

Wait for the SD to review the Type 2 Non-Propagating Shot checklist

- **SD:** “BL’s: Has the Type 2 Non-prop shot checklist been completed for BL1,2,3 and/or 4?”
BLO: “BL1,2,3 and/or 4, aye.”
- **SD:** “BL’s: Have the correct macros been run and confirmed?”
BLO: “Aye”
- 15 • **SD:** “BL’s: Have the correct PID corrections been installed?”
BLO: “Installed, aye”
- **SD:** “BL’s: Are the Injection, and SY Calorimeters inserted?”
- **BLO:** “2 Cals inserted, aye”
- **SD:** “BL’s: Are the IRDP blocks inserted?”
BLO: “Inserted, aye”
- **SD:** “BL’s: Are the PI’s special setup installed/removed?”
BLO: Setups installed/removed, aye.”

Participate in the shot

- 16 Monitor subsystem performance periodically throughout the shot.

On entering POSTSHOT: Follow the BLO POSTSHOT Procedures in S-AB-P-129.

- Give the SD the ALT & BLO Checklists.
- 17 Report any issues or concerns to the Shot Director and receive direction as to how to proceed.
- In the event of an ABORT: Report any issues or concerns to the Shot Director and receive direction as to how to proceed. (Record the information in the BLO logbook)

(done)

BLO: _____ **Date:** _____ **Time:** _____

Document Release:

Shot Type 2: BLO Non-propagating Checklist; S-AB-P-125

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