

ESO Checklist for EP Target Chamber Entry S-AB-P-192 Rev A

Requirements:

1. When the EP Target Chamber access port is open, a Control Point Watch must be stationed at all times to control personnel entry and communicate to Control in the event of an Emergency.
2. The control point established for Target Chamber entry shall be continuously manned whenever the Target Chamber is open and personnel are in the chamber.
3. The SD will provide instructions on how to deal with the OAP in the TC and any other special requests.
4. Approval: Target Chamber entry requires permission from the Shot Director, XOPS Group Leader, Radiation Safety Officer and the Laser Facility Manager.
5. Gowning Requirements: Double clean-room clothing with secondary shoe covers, rubber gloves, and half-mask respirator with P100 HEPA filter.
6. Personnel: Persons entering the target chamber must be qualified Radiation safety Workers, holding a valid Respirator qualification and be approved for entry by the XOPS Group Leader and the Laser Facility Manager.
7. Shots: No shots involving SSA's firing, including Type 2, 5, 6, or 7 shots are permitted with persons in the Target Chamber.
8. Laser Propagation: Class IIb and Class IV cw lasers that go through focus into the TC are prohibited (i.e.: Sources, IRAT, UVAT, PAD).
9. Beryllium Safety Procedures: Compliance with LLE Instruction 6706E is mandatory. The XOPS Group Leader maintains a log of the beryllium level in the TC.
10. To enter and closeout the TC use the OMEGA EP Target Chamber Access Authorization Checklist Form (Appendix A, attached) and the following prerequisites:
11. To track personnel and material entry into the target chamber, use form Log A-8 provided in LLE Instruction 6610 (RADCON).

Initial Entry

1	SD to conduct a briefing to include the LFM, XOPS Group Leader, RSO and all other involved personnel.	<input type="checkbox"/>																																
2	<p>Tag Out Requirements: The following list of beam entry points must be tagged out before proceeding:</p> <table border="1"> <thead> <tr> <th>Item</th> <th>Position</th> <th>Tagout Location</th> <th>Done</th> </tr> </thead> <tbody> <tr> <td>Port 41</td> <td>Open</td> <td>Port 41</td> <td><input type="checkbox"/></td> </tr> <tr> <td>BL- Gate valve</td> <td>Closed</td> <td>Electrical connection at 24-in valve solenoid (V-30)</td> <td><input type="checkbox"/></td> </tr> <tr> <td>SL- Gate valve</td> <td>Closed</td> <td>Electrical connection at 24-in valve solenoid (V-29)</td> <td><input type="checkbox"/></td> </tr> <tr> <td>UV-DBS-Beam Dumps</td> <td>Inserted</td> <td>BL1, DB1 Crate 3, slot 5, jack 3</td> <td><input type="checkbox"/></td> </tr> <tr> <td></td> <td></td> <td>BL2, DB1 Crate 7, slot 5, jack 3</td> <td><input type="checkbox"/></td> </tr> <tr> <td></td> <td></td> <td>BL3, DB1 Crate 4, slot 5, jack 3</td> <td><input type="checkbox"/></td> </tr> <tr> <td></td> <td></td> <td>BL4, DB1 Crate 6, slot 5, jack 3</td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	Item	Position	Tagout Location	Done	Port 41	Open	Port 41	<input type="checkbox"/>	BL- Gate valve	Closed	Electrical connection at 24-in valve solenoid (V-30)	<input type="checkbox"/>	SL- Gate valve	Closed	Electrical connection at 24-in valve solenoid (V-29)	<input type="checkbox"/>	UV-DBS-Beam Dumps	Inserted	BL1, DB1 Crate 3, slot 5, jack 3	<input type="checkbox"/>			BL2, DB1 Crate 7, slot 5, jack 3	<input type="checkbox"/>			BL3, DB1 Crate 4, slot 5, jack 3	<input type="checkbox"/>			BL4, DB1 Crate 6, slot 5, jack 3	<input type="checkbox"/>	<input type="checkbox"/>
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3	Secure the OAPI/M as required by the SD.	<input type="checkbox"/>																																
4	Establish a controlled surface contamination area at the entry port compliant with LLEINST 6610 Sect.'s 3006 and 3007.	<input type="checkbox"/>																																
5	Station a Control Point Watch.	<input type="checkbox"/>																																
6	Conduct a gamma meter survey of the TC interior from the TC access hatch using the Ludlum Model 9 ion chamber compliant with LLEINST 6610E Section 3008.	<input type="checkbox"/>																																
7	Post the completed Target Chamber Access Authorization Form (see Appendix A) at the control point.	<input type="checkbox"/>																																
8	<p>Enter the Target Chamber ensuring compliance with the requirements of Appendix A below. Verify that:</p> <ul style="list-style-type: none"> Only qualified Radiation Safety Workers who are briefed and approved by the LFM and XOPS Group Leader for this specific evolution are permitted Respirator required; gowning requirements met. The Personnel and Tool Entry Log of A-8 in LLE INST6610 must be maintained by the Control Point Watch. All personnel and tools or equipment that enter the tank must be logged in and out of the Target Chamber using this log. <p>(done)</p>	<input type="checkbox"/>																																

Target Chamber Securing:

1. The OMEGA EP Target Chamber Access Authorization Form (attached) will be used to close out the Target Chamber.
 2. Clear beam entry point tagouts.
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Appendix A: OMEGA EP Target Chamber Access Authorization

Reason for Entry:

Entry Requested by: _____ Time/date: _____
Access authorized by: _____ Time/date: _____

Entry Checklist:

Use form Target Chamber Personnel and Material Entry Log Form A-8	<input type="checkbox"/>
Control Point Watch stationed.....	<input type="checkbox"/>
Target Chamber roughing valve is closed.....	<input type="checkbox"/>
Tag outs completed.....	<input type="checkbox"/>
OAPI/M secure per SD instructions.....	<input type="checkbox"/>
Establish a controlled surface contamination area at the entry port established compliant with LLE 6610 sect. 3006 and 3007.....	<input type="checkbox"/>
Target Chamber vented to atmosphere and port 41 (ventilation intake) is open.....	<input type="checkbox"/>
Personnel entering are gowned, respirator ON per requirement, qualified and authorized	<input type="checkbox"/>

Log the TC gamma radiation level: _____ mr/hr

• If the radiation level exceeds 5 mr/h, notify RSO and use control procedures compliant with LLEINST 6610E Section 3002. ☐

Internal cover is installed in Port 85 vacuum intake port..... ☐

Special Requirements for Entry:

Close-out Check list:

Target Chamber Entry Log A-8 accounts for all material and personnel used.....	<input type="checkbox"/>
Port 85 cover removed	<input type="checkbox"/>
Access hatch closed.....	<input type="checkbox"/>
Report Target Chamber closed to Shot Director.....	<input type="checkbox"/>

Entry Complete:

Control Point Watch: _____ SD: _____ Time/Date: _____