



Australian Clinical Dosimetry Service

Level I OSLD Postal Audit – Facility Instructions

General Instructions – Before

1. Fill out the “LI facility data collection – Prior” form and email to acds@arpansa.gov.au

General Instructions – On the day

1. Before OSLD irradiation, verify dose per monitor unit calibration of the beam according to facility routine protocol for weekly/monthly output check.
2. Fill out the “LI facility data collection – During” form. Print hardcopy and sign.
3. Review the Level I photon beam audit demonstration video at:
<http://www.youtube.com/watch?v=wLRARNIPWPg>
4. Review the Level I electron beam audit demonstration video at:
<http://www.youtube.com/watch?v=WchjCEPbzIQ>

General Instructions – After

1. Repack the kit including:
 - OSLD blocks containing the OSLDs
 - Photon platform
 - Electron phantom blocks (if applicable).
 - Enclose signed “LI facility data collection – During” form.
2. Return the kit to ACDS:

Australian Facilities

For your convenience we have enclosed an express post bag for returning the OSLD kit to the ACDS.

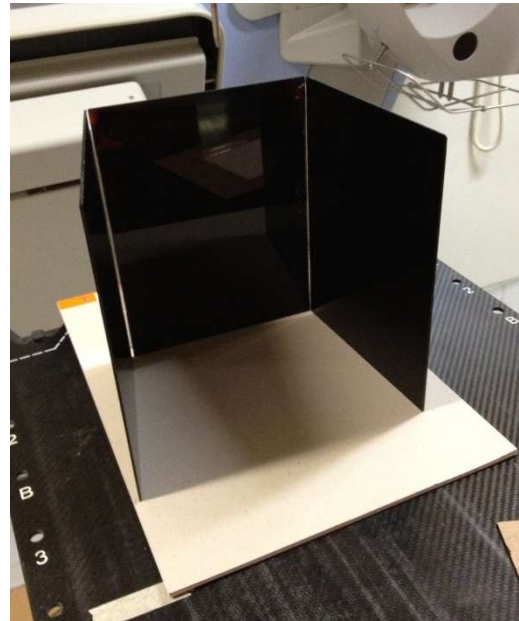
International Facilities

Please contact the ACDS when you are ready to return the OSLD kit, noting a convenient day for courier collection. ACDS will arrange return courier collection, then email a consignment note and shipping documents for you to print and affix to the shipping case.

PHOTON (CONVENTIONAL LINAC) OSLD IRRADIATION INSTRUCTIONS

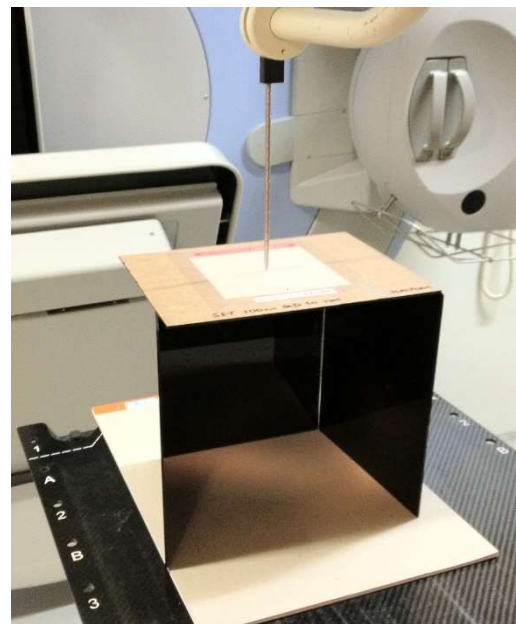
Step 1

- Unfold platform stand



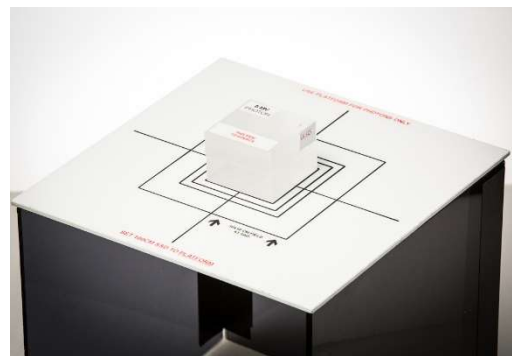
Step 2

- Place platform on top of stand
- Set 100 cm to top of platform



Step 3 – for each photon energy

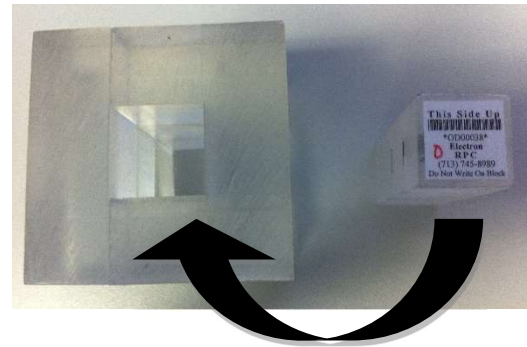
- Place appropriate photon block on to the platform centred in the 10 × 10 cm field
- Set to CLINICAL mode
- Deliver 100 MU



ELECTRON (CONVENTIONAL LINAC) OSLD IRRADIATION INSTRUCTIONS

Step 1

- REMOVE photon platform and stand
- Stack the three acrylic rings with a central square hole on table.
- Insert energy appropriate central acrylic plug.



Step 2

- Set 100 cm to top of acrylic plug.
- Insert 10×10 cm applicator
- Set to CLINICAL mode.
- Deliver 100 MU
- Change plug and repeat for each energy



NO PLATFORM!

PHOTON (UNITY MR-LINAC) OSLD IRRADIATION INSTRUCTIONS

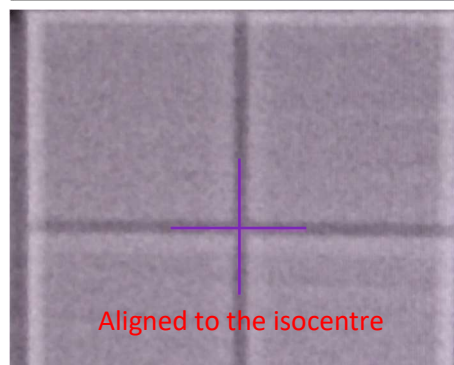
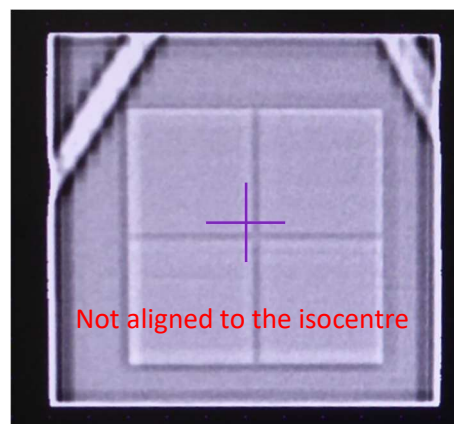
Step 1 – Setting Up

- Unfold the Unity platform stand on the couch and place the platform on top of the stand
- Set 143.5 cm SSD to the surface of the white platform
- Align the markings on the platform to the isocentre as best as possible while the couch is un-loaded
- Place the black alignment block centred on the platform markings, with the side with the perpendicular grooves in contact with the platform



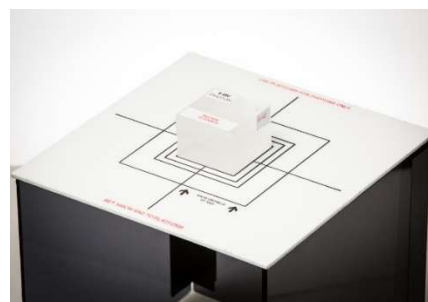
Step 2 – Alignment

- Perform single MV imaging at Gantry = 0° for lateral alignment of the black alignment block
- If necessary, un-load the couch and manually make any adjustments to the platform AND black block TOGETHER i.e. move the platform, keeping the black block centred on the markings
- Confirm the manual adjustment by re-imaging as per the first dot point in Step 2
- Repeat these steps until the grooves are laterally aligned with the isocentre (crosshairs within the air grooves)



Step 3 – Irradiation

- Place the 7FFF photon block on to the platform centred on the platform markings
 - Ensure the SSD has not changed
- Set to CLINICAL mode
- Deliver 100 MU (7FFF, 10 × 10 cm² field)
 - Note: No imaging of the OSLD block is required after completion of Step 2



EQUIPMENT - PLEASE FIND ENCLOSED:

FOR PHOTON IRRADIATION:

1. A set of acrylic blocks (one for each photon energy) each containing two OSLDs. Each block is labelled with an ID number and the energy range for which it is appropriate.
2. A small collapsible plastic platform and stand used for photon OSLD irradiation only.

FOR ELECTRON IRRADIATION:

1. Three 9 x 9 x 3 cm acrylic rings with a central square hole.
2. Central acrylic plugs (one per electron beam) containing OSLDs. Each plug is labelled with a unique ID and the energy range for which it is appropriate.

FOR UNITY MR-LINAC IMAGING ALIGNMENT:

1. Black alignment block with perpendicular grooves

CONFIDENTIALITY

The results of this audit will be kept confidential by the ACDS and will not be disseminated without the written permission of the participating institution.