Local Rules for the use of Equipment Generating Ionising Radiation

Meston Building – University of Aberdeen

These local rules must be read in conjunction with the School of Natural and Computing Science (Chemistry) Safety Handbook and all appropriate legislation regarding the operation of devices producing ionising radiation.

1. All users must be fully trained in the operation of the Bruker D8 powder X-ray diffractometer and its attached computer before using it and must follow these local rules at all times. A list of approved users is maintained by Dr Jan Skakle, who also nominates those who are authorised to train other users.

2. All data collections and any problems arising must be recorded in the instrument log book.

3. Before the shutter is opened, the glass shielding must be fully closed.

4. No attempt must be made to override the safety interlocks or to interfere with any other operation of the diffractometer.

5. The laboratory must be kept locked at all times when the diffractometer is unattended.

6. In an emergency, anybody may shut down the machine by the posted procedure.

Regular safety checks

7. Regular safety checks of the shielding must be made using an end-window Geiger counter.

8. Regular safety checks must be made to ensure the operation of the safety interlocks and the warning lights.

9. The checks described in sections 7 and 8 above must be carried out by one of the following personnel: Bill Harrison, Jan Skakle, Iain Gibson or Abbie McLaughlin, who will be issued with a personal dosimeter and follow a documented procedure. The checks will be made at six-monthly intervals and a record of the checks will be displayed on the diffractometer.

10. If any safety checks reveal a fault with the unit then it will be taken out of use immediately, the X-ray generator key removed, and a sign posted informing users not to use the system.

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