

D1206 - In-cell crane repair

When the in-cell 10 cwt crane failed it had to be repaired. Man entry could not be used to repair the crane due to the high dose rates. A mock-up was made to trial ideas. The following method was successfully used.

Key Facts:

- The installed shielding was used to protect the workforce.
- A core was made through the lead shielding and a threaded collet assembly was attached to the long travel adjustment shaft.
- The crane long travel chain was re-engaged using a remote handling tool.
- The new cross travel drive was raised into position and the fitting screw operated by long reach tooling from above.
- The hoist power supplies were changed for quick release fittings allowing ready connection and disconnection in cell.
- The crane's electric hoist unit was posted into the cell and transferred down to the working area via the crane and manual hoist.
- It was raised into position using the lifting system in the roof penetration with the power supply cabling connected.
- Future repairs to the crane are now a simple and quick task
- Dounreay workers carried out the work demonstrating the talent we have on site.
- The work was successful due to challenging the existing approach, thinking outside the box and importantly, using a full mock up to develop, trial and practice the techniques.

