

Procedure for approval of external Pressure cells to be used at ISIS.

All information supplied should be e-mailed as early as possible to:-

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Prior to the cell arriving:

1. The unique identification mark of the cell. i.e. its serial number.
2. A full description of the proposed experiment that the cell will be used on. At a minimum we need to see, Chemistry to be investigated using the cell, environment (Time, Temperature and Pressure)
3. A set of full engineering drawings giving key dimensions and materials used in its construction.
4. Test certificates for the materials used in construction. Including any fasteners.
5. Manufacturing QA documents.
6. Any calculations done to prove the cell's robustness. FEA plots will not be enough
7. Any evidence of Pressure Tests done on the cell.
8. The Design Pressure, Working Pressure and Test Pressure.
9. The Design Code the cell has been made to. If this is not the case the justification for the deviation.

The information should be supplied in British English or with a certified translation. It is likely at this stage that some calculations will need to be done by RAL to verify the above. A "White Sheet" may need to be raised by Oleg Kirichuk or Steve Wakefield.

Once the cell is here the following are essential before an RLI is given:

1. Visual inspection of all parts
2. Check of serial numbers and cell identification ensuring a one-to-one match with the documents already supplied.
3. Witnessed Bunker Pressure Test to 1.43 x design pressure. This factor may not be achievable for some high pressure cells, and or cells designed to other codes. Each will be treated on a case by case basis. This should be agreed prior to the cell arriving at ISIS.