

Zirconium Recycle Test Equipment for Hot Cell Operations

Fuel Cycle Research & Development

***Prepared for
U.S. Department of Energy
Fuel Cycle Research and Development
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***30-January-2015
FCRD-MRWFD-2015-000407
ORNL/LTR-2015/29***



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Zirconium Recycle Test Equipment for Hot Cell Operations

STATUS REPORT—EXPERIMENTAL EQUIPMENT PREPARATION FOR HOT CELL TESTING

The equipment components and assembly support work were modified for optimized, remote hot cell operations as illustrated in Figures 1 and 2 to complete this milestone. The modifications include installation of a charging door, Swagelok connector for the off-gas line between the reactor and condenser, and slide valve installation to permit attachment/replacement of the product salt collector bottle.

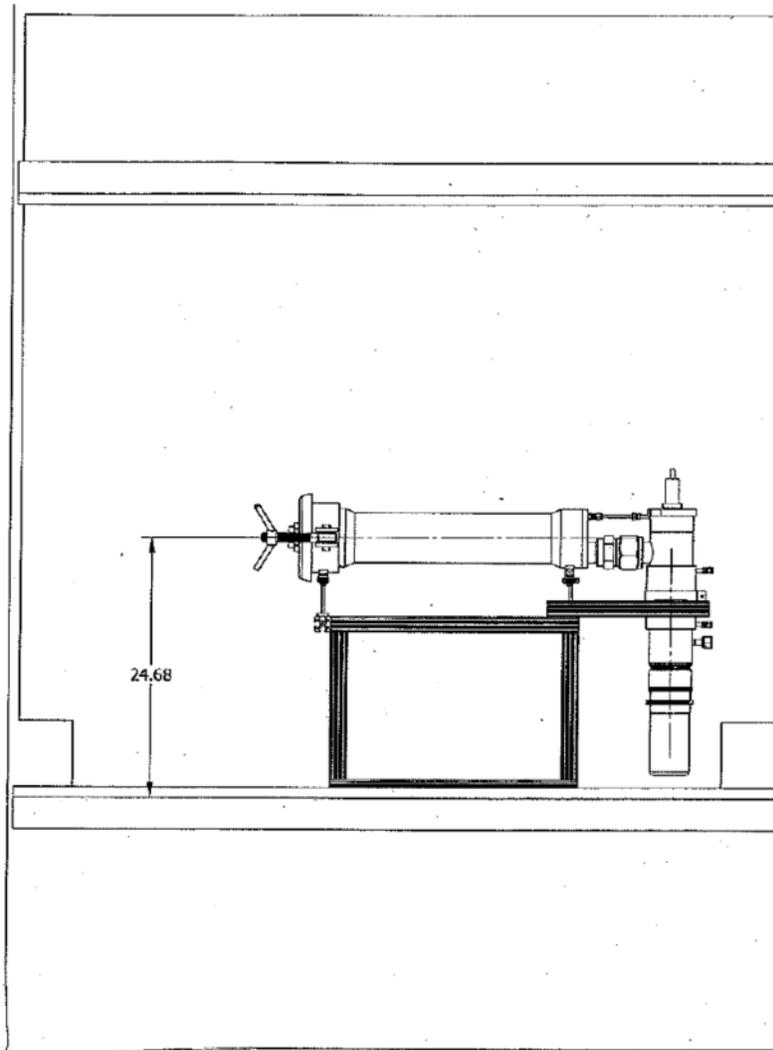


Fig. 1. Diagram of assembled test equipment.

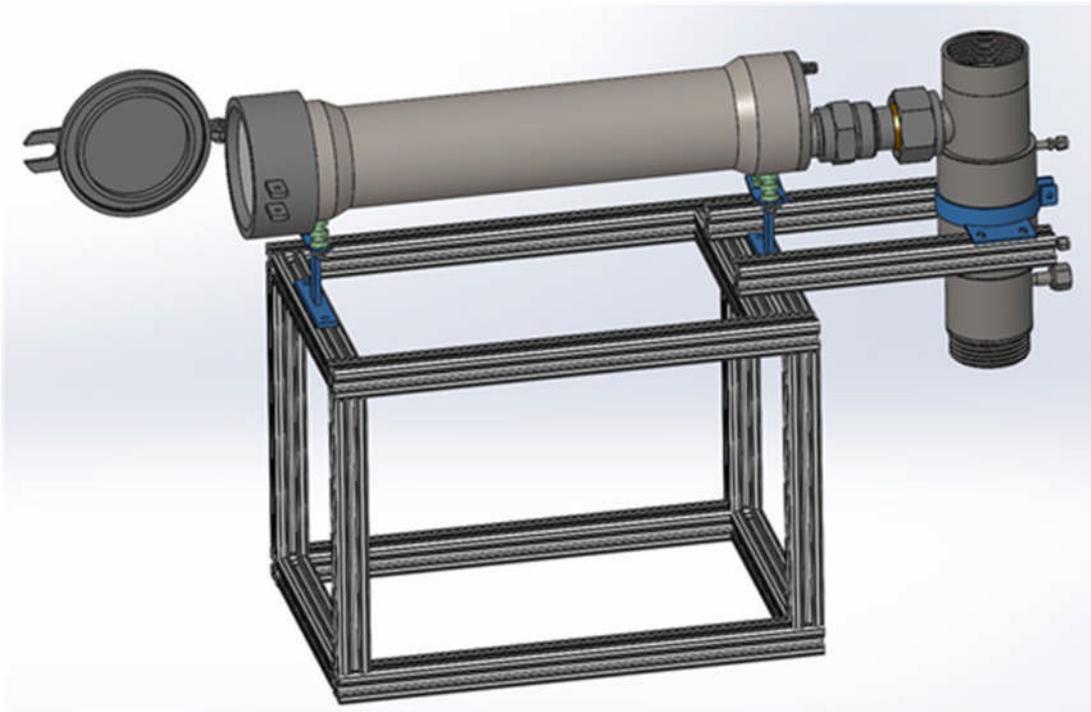


Fig. 2. Picture of assembled test equipment.

The latter will enable collection of product fractions during each test operation for subsequent mass balance weighing and sampling. The reactor currently contains a removable tray for containment of the cladding tubes and residual ash for mass balance weighing/sampling capabilities.

The assembled equipment will be moved to the laboratory containment box for non-rad testing and determination of any further modifications that may be required. Various methods of heating/cooling will be tested to select the optimum method for use in hot cell operations.