

ES-4100 Container Program



Joint TRTR and IGORR Conference
September 19-23, 2010
Knoxville, TN

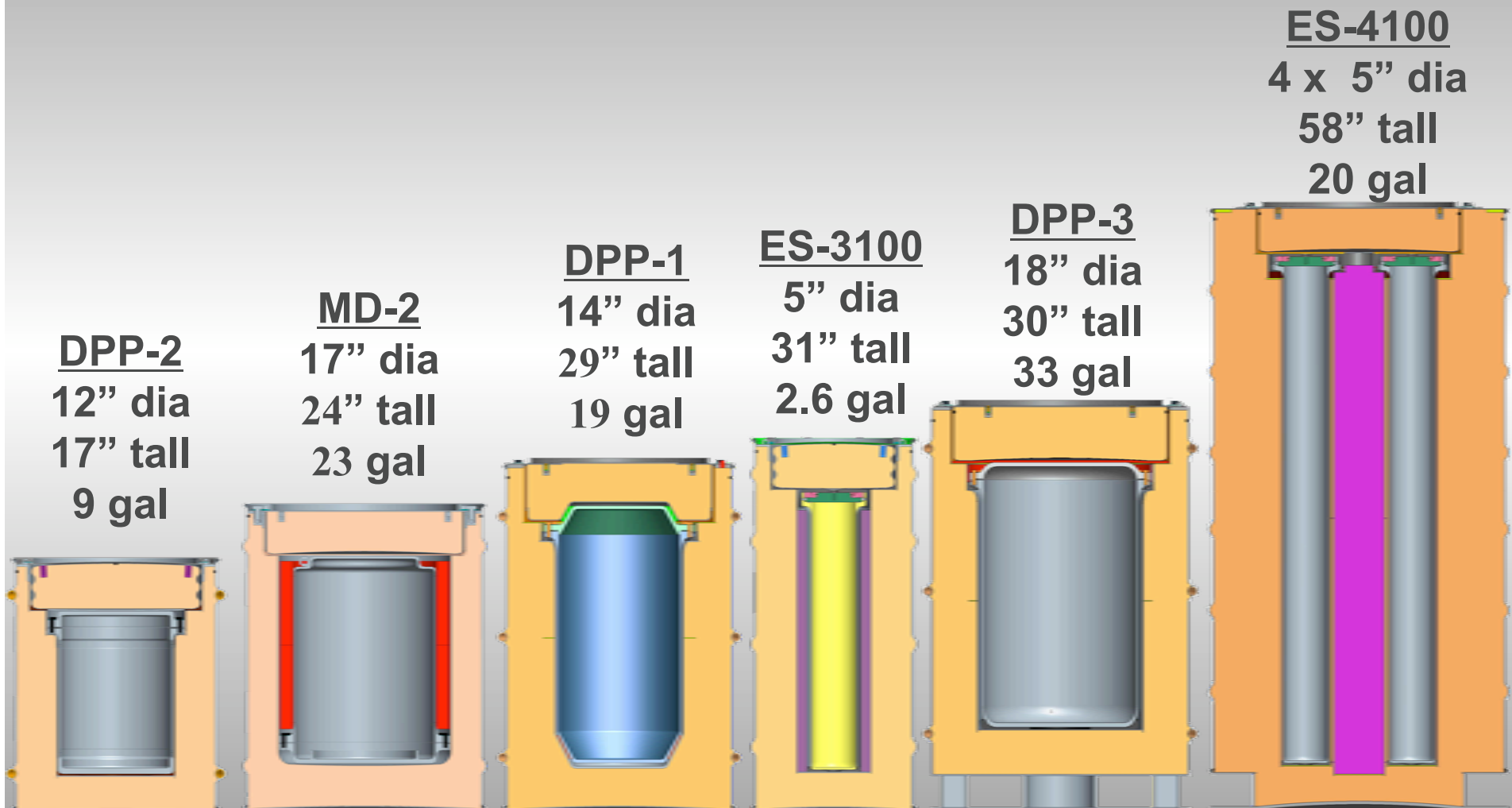


Presented by:
Jeffrey G. Arbital

Manager, Nuclear Packaging and Transportation Program

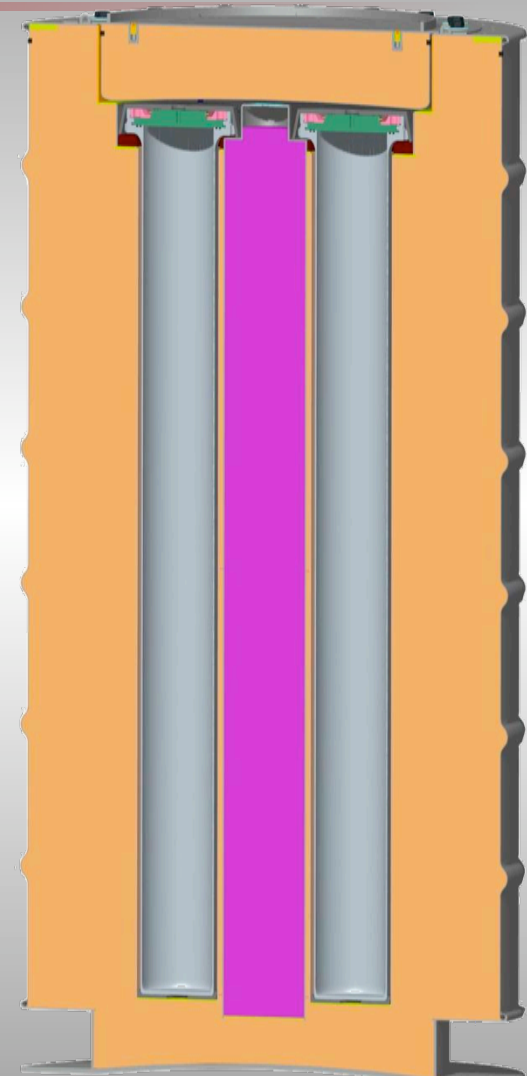


Y-12 Family of Type B Packages



Design Features

- Multi-pack – 4 CVs per drum
- CV inner dimensions –
 - 5.0 in. dia by 58 in.
- Outer drum size –
 - 34.0 in. dia x 71 in.
- Insulation
 - Kaolite 1600
- Neutron absorber –
 - Cast ceramic w/ B_4C
- Gross weight – approx 2000 lb.
 - Less than gross weight of four 6M-110's
- Content weight allowance – 4 X 88 lb



Typical Contents

- Univ of Missouri Reactor Fuel - MURR
- Engr Test Reactor Fuel – ETR
- GE Test Reactor Fuel – GETR
- Mass Inst of Tech Reactor Fuel - MIT
- Loose ATR Fuel Rods

Primary Components

Containment vessels



Drum assembly



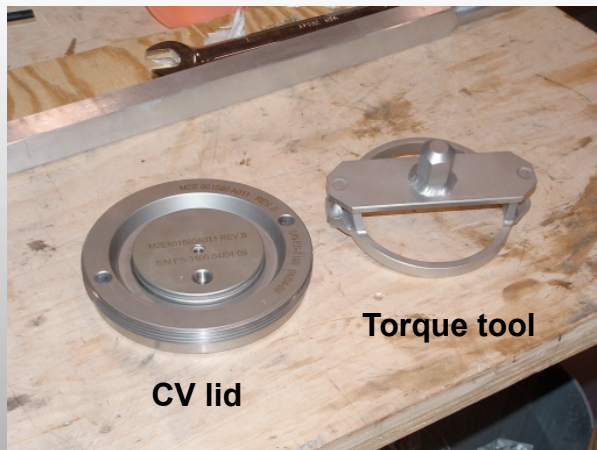
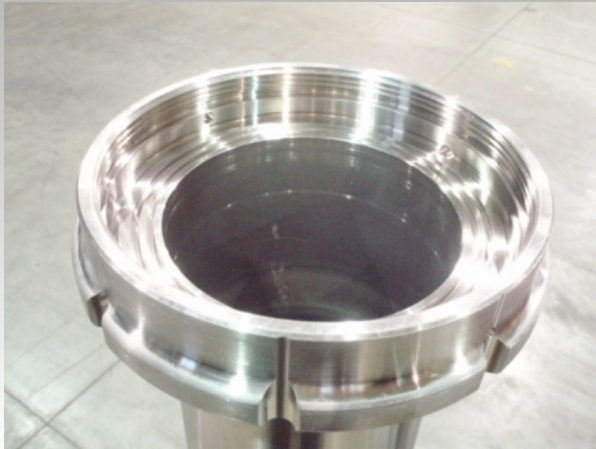
Drum lid



Open drum view



Containment Vessel Details



Inside View Showing 4 Vessels



Containment Vessel Insertion



Prototype Testing at ORNL



Prototypes in NTRC Test Lab



Forward Schedule

Prototypes delivered	August 2010
Full scale testing starts	October 19, 2010
SARP submittal to NNSA regulators	February 2011
Certificate expected	February 2012
Productions begins	October 2011
Implementation expected	July 2012