

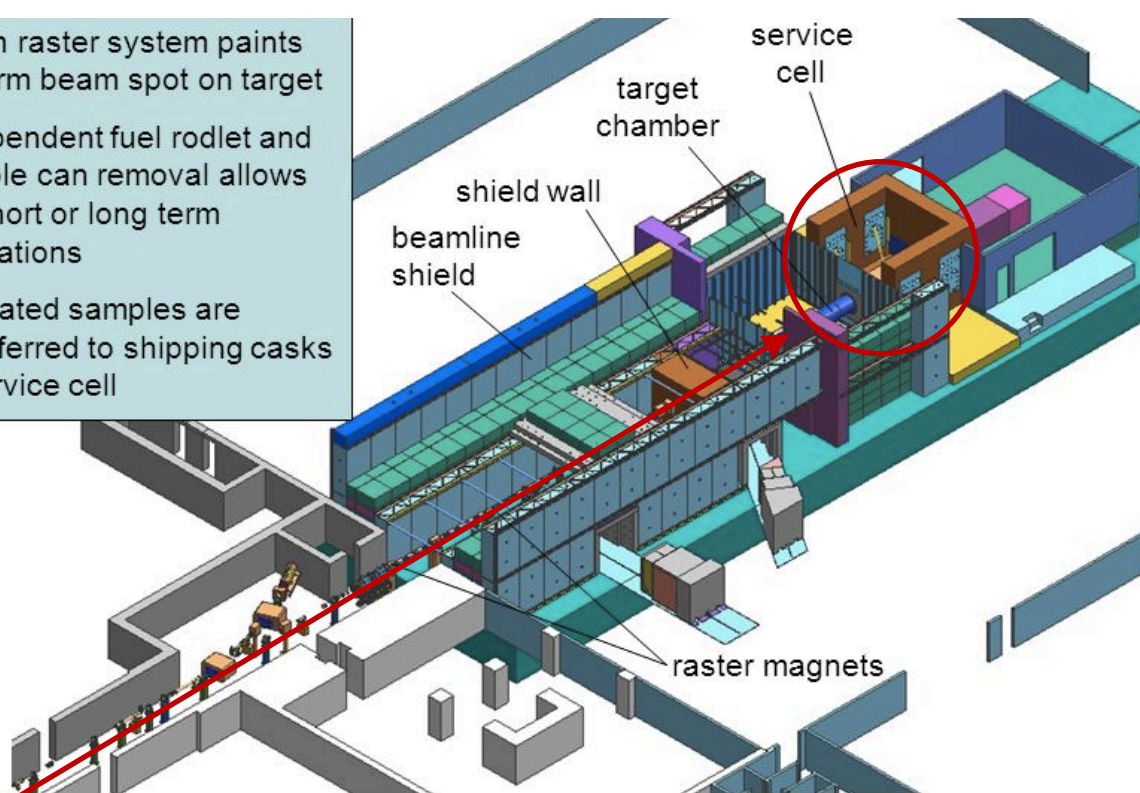
Radioactive Material Handling Mechanism

Jay Lin¹, Peter Hosemann¹, Sven Vogel², Joe Otoole², Jason Harper³

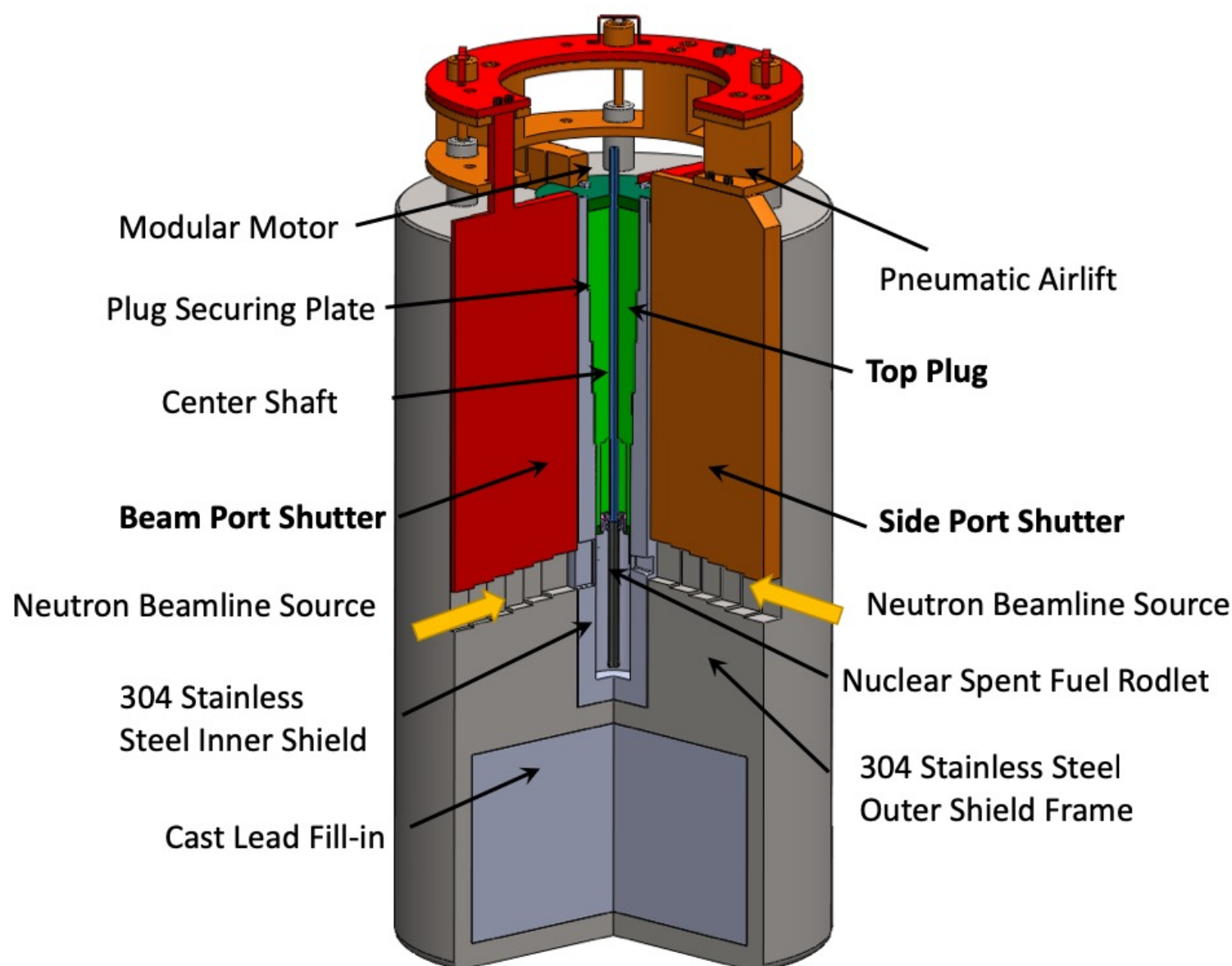
1. University of California, Berkeley 2. Los Alamos National Lab 3. Idaho National Lab

Creating a safer laboratory environment for radiological workers by designing safer Radioactive Material Handling Mechanism (RaMHaM) containers used in non-destructive neutron beamline tomographic imaging research.

- Beam raster system paints uniform beam spot on target
- Independent fuel rodlet and sample can removal allows for short or long term irradiations
- Irradiated samples are transferred to shipping casks in service cell



- **Functionality:**
 - Non-destructive neutron beamline tomographic imaging
 - Spent fuel rodlet transportation between national labs
 - Use as payload in Type-B container
- **Safety constraints:**
 - Low attenuation on the exterior.
 - Fail safety mechanism
 - Regulated by Nuclear Regulatory Commission



Container Design



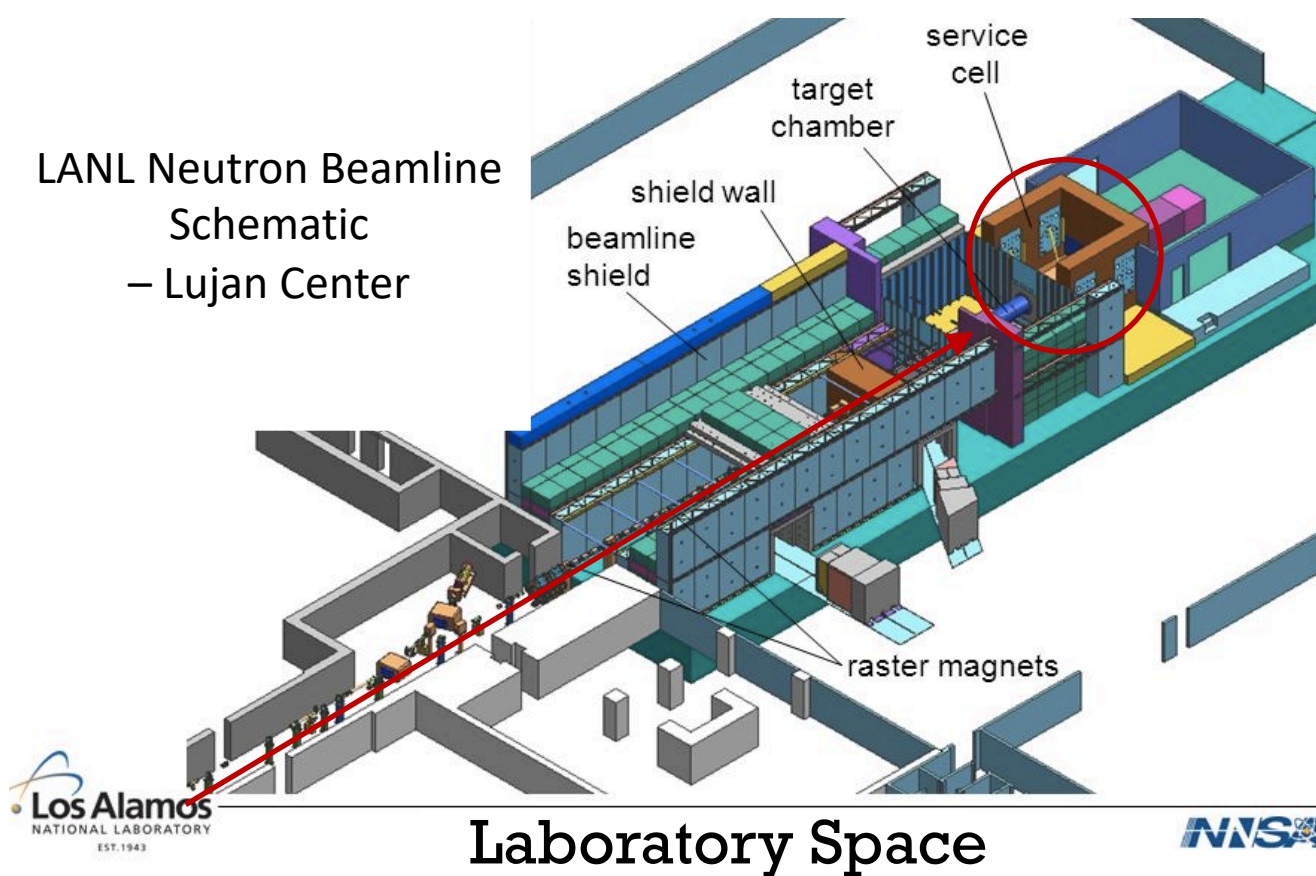
Type B Transportation Cask

Radioactive Material Handling Mechanism

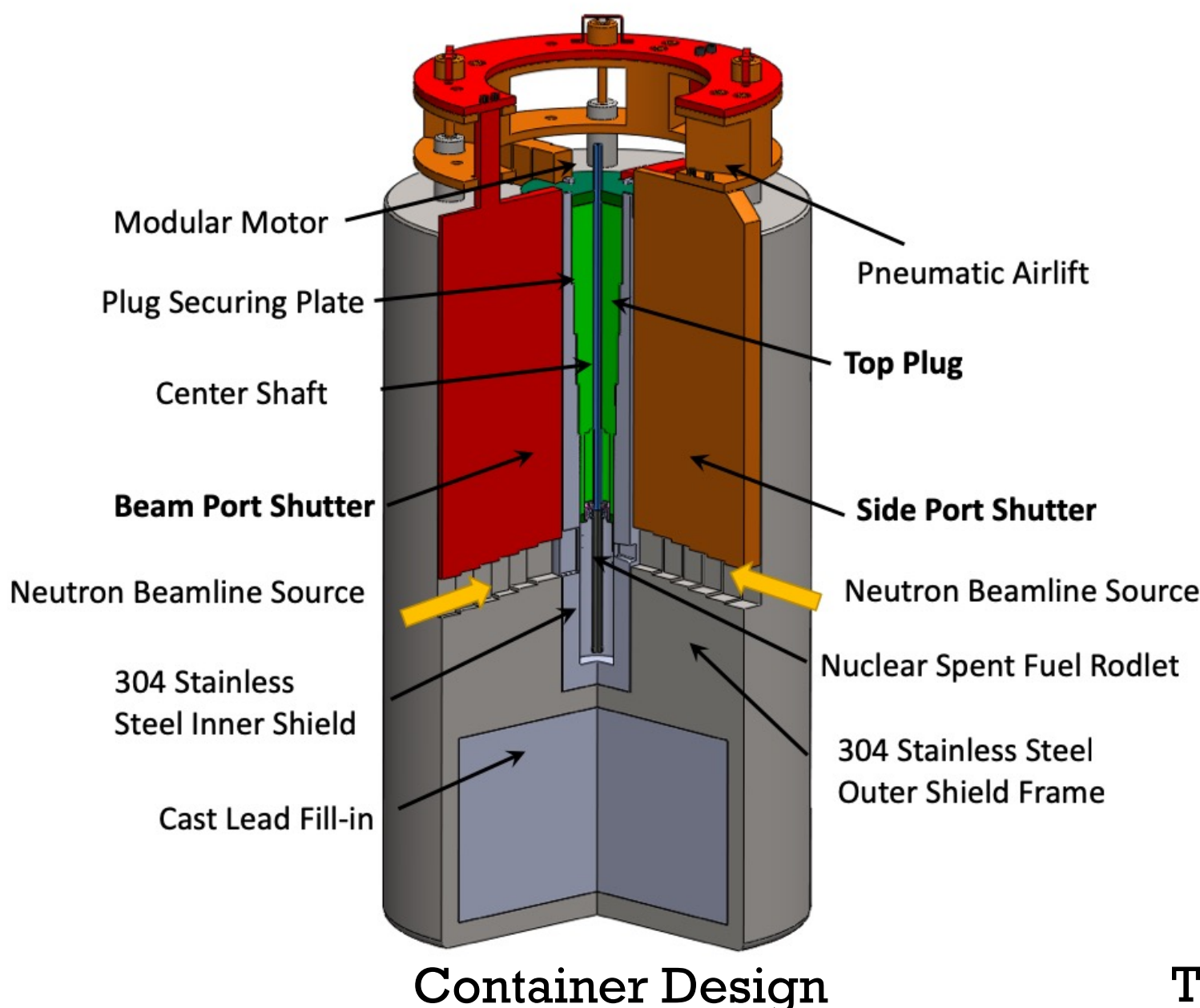
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