

• **Los Alamos**
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Flat-Top Startup at NCERC



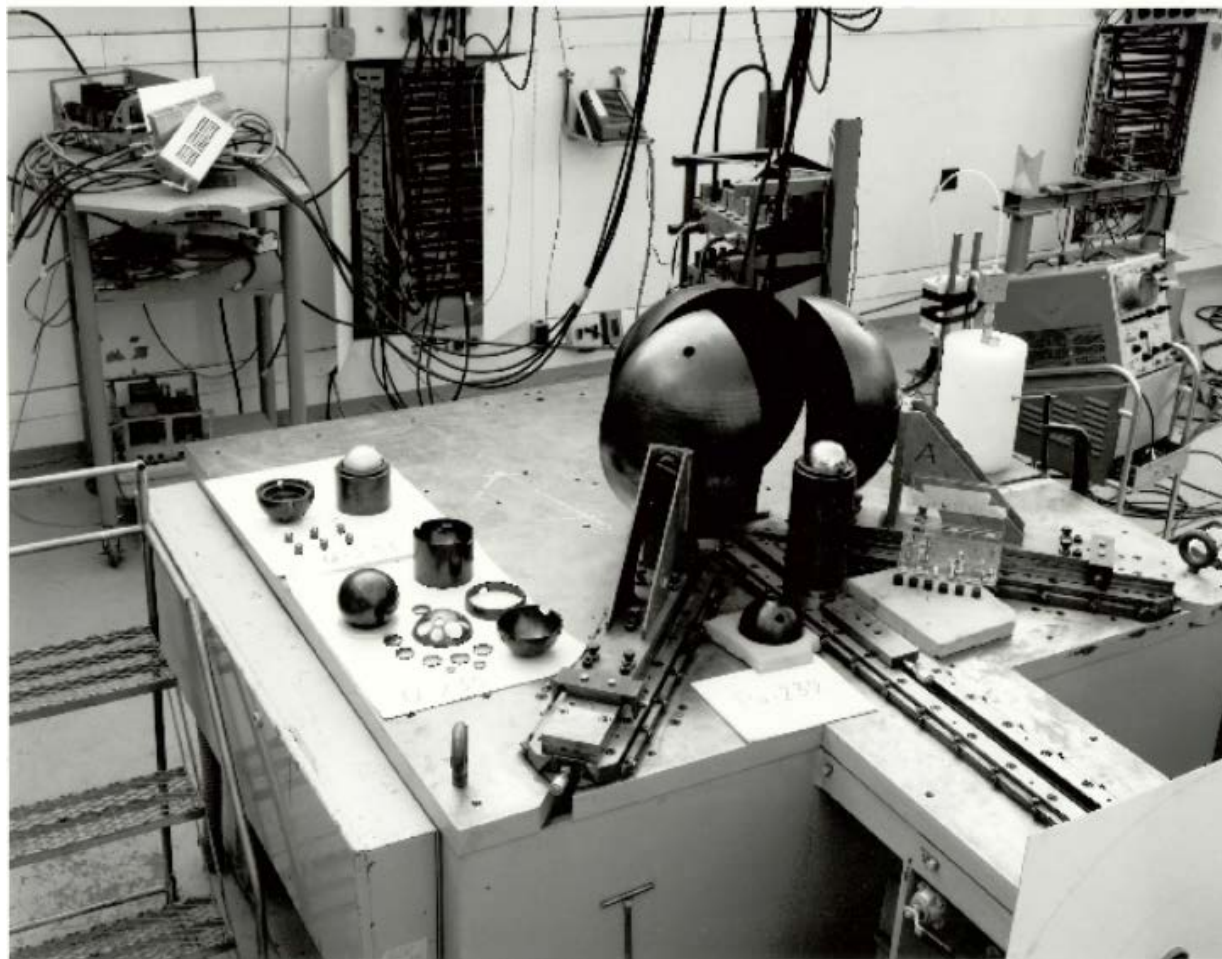
David K. Hayes

ANS Winter Meeting OCT17



What is Flat-Top?

- Topsy
- Why?

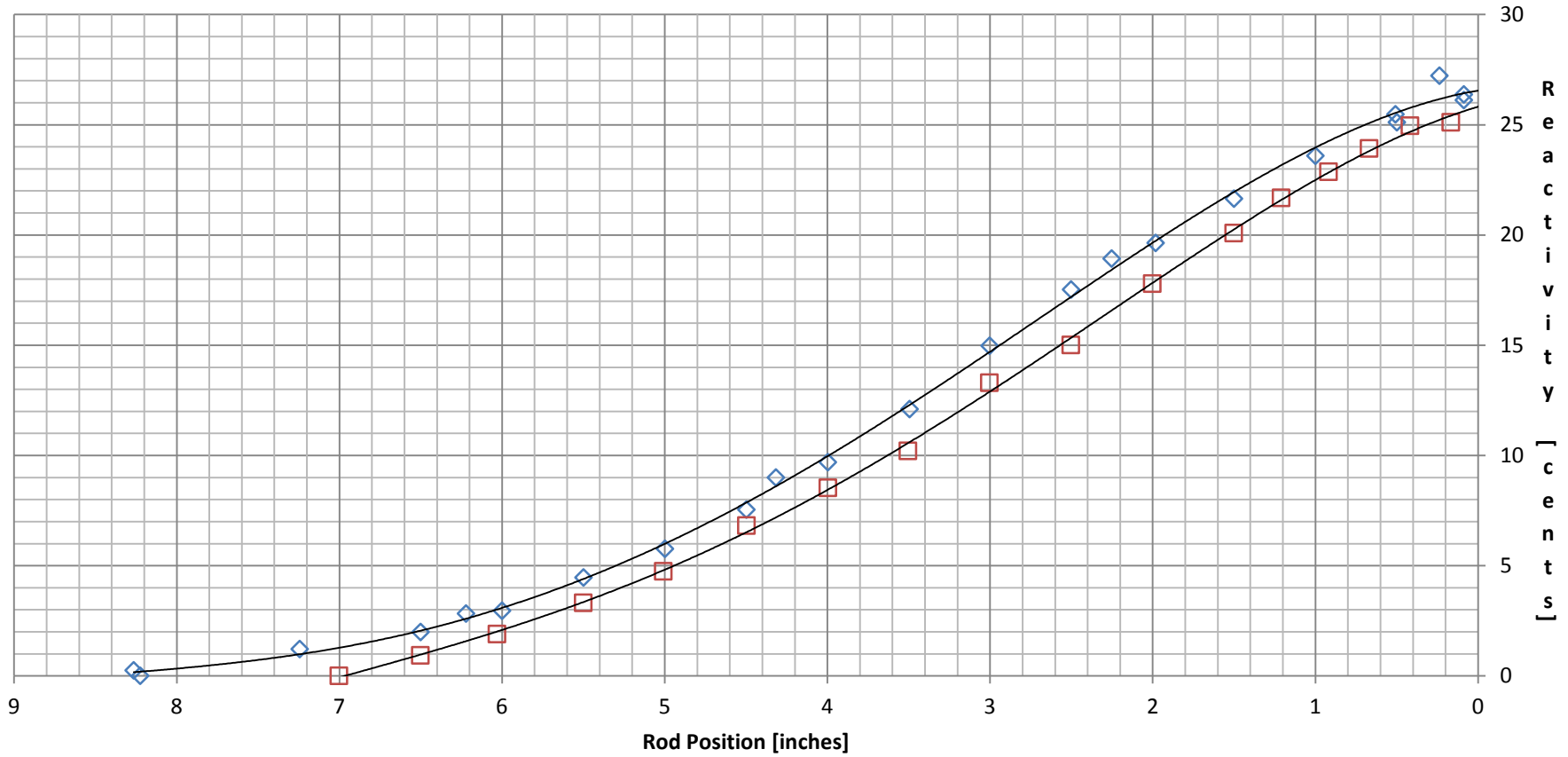


Timeline

- **2009 – Reflectors Installed**
- **2010 – Readiness**
- **2011**
 - May – Startup authorized
 - 29NOV – HEU Core First Critical
 - Pu Operations prohibited, DSA update required
- **2012 – Flat-Top takes leave of senses**
- **2014 – Pu Operations authorized**
- **2015 – All resources dedicated to Godiva restart**
- **2016 – 9AUG Pu core first critical**

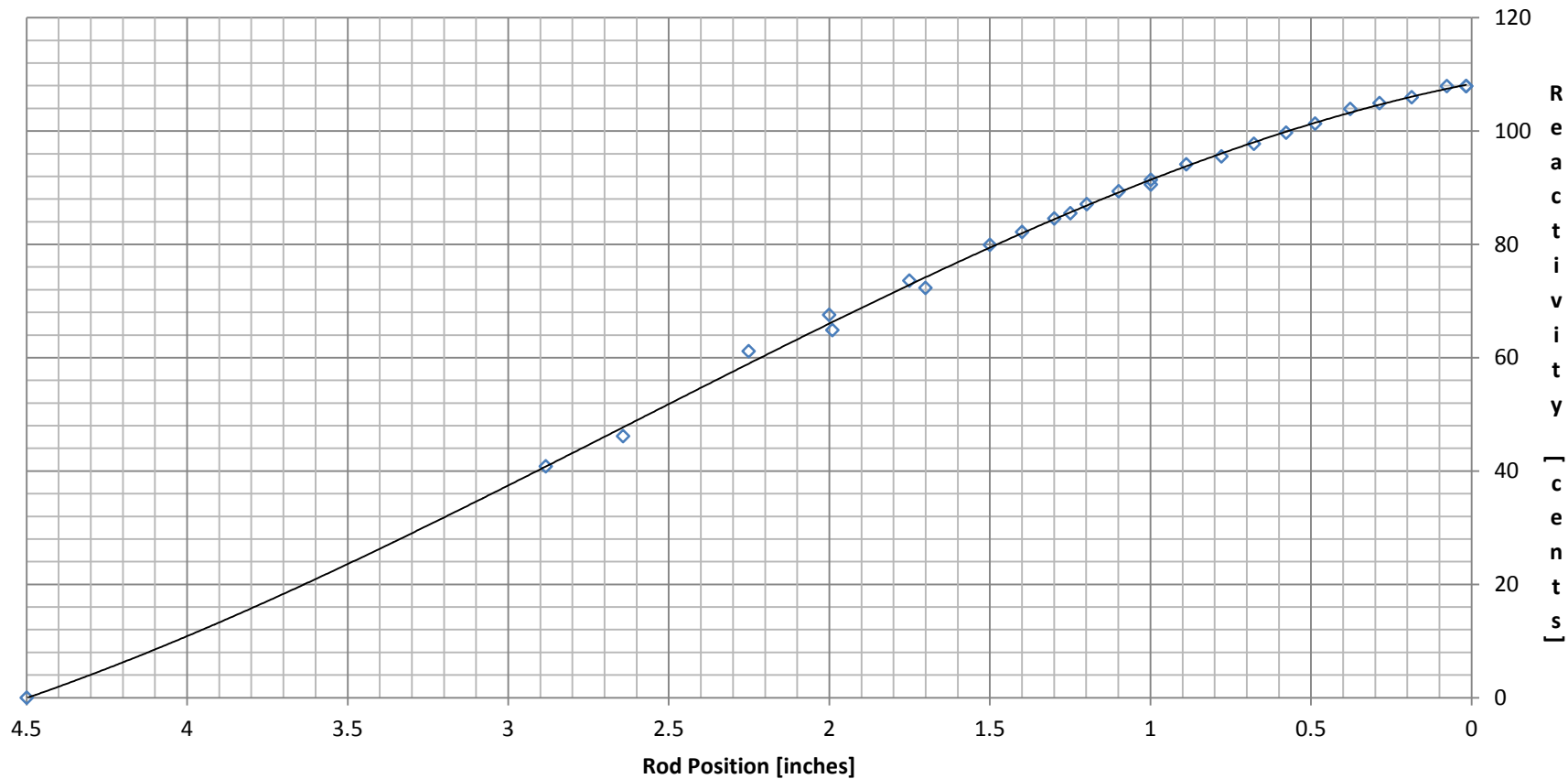
HEU Core

Flat-Top U Core E and G Rod Worths



HEU Core

Flat-Top U F Rod Worth

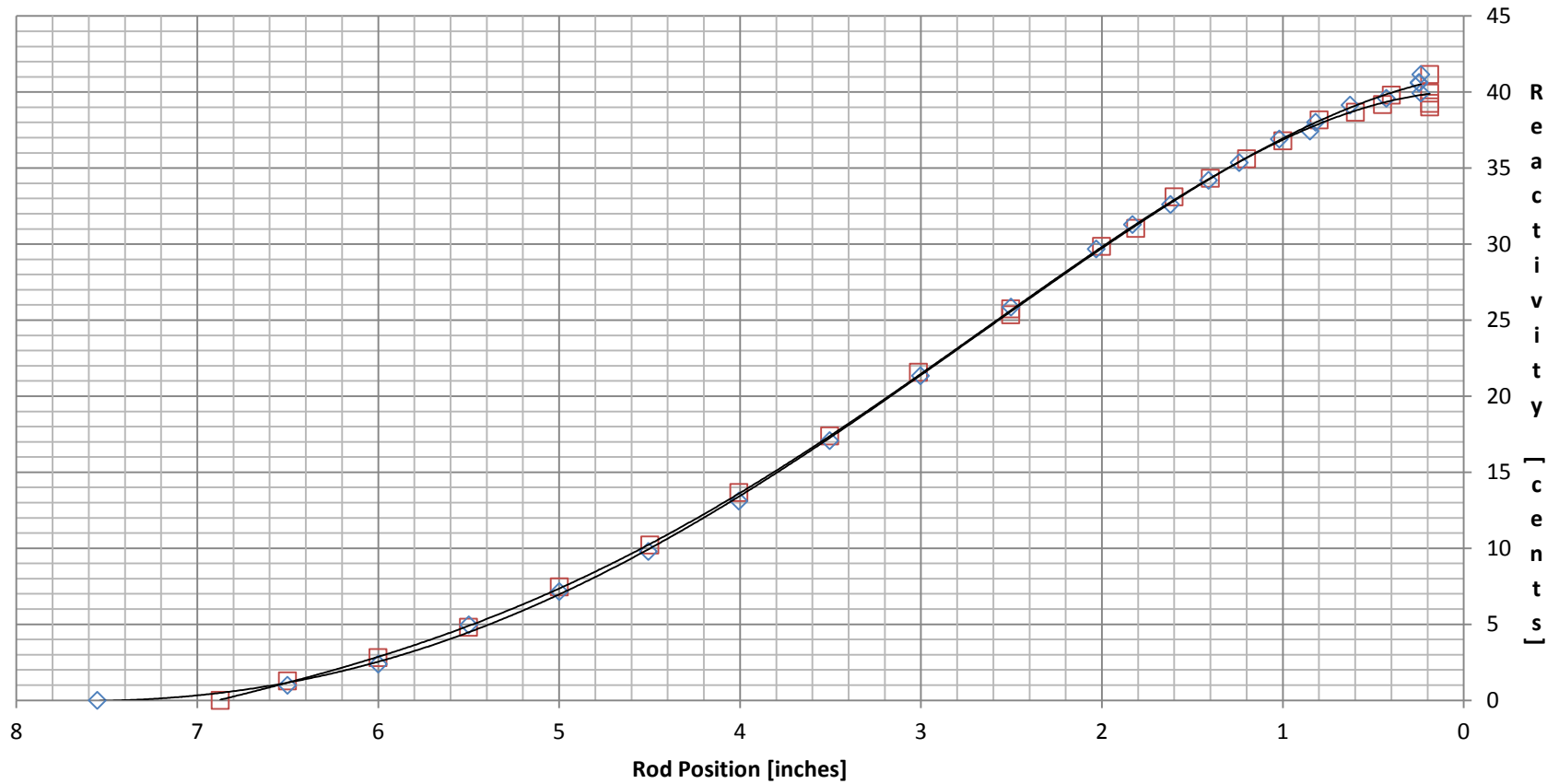


Pu Core



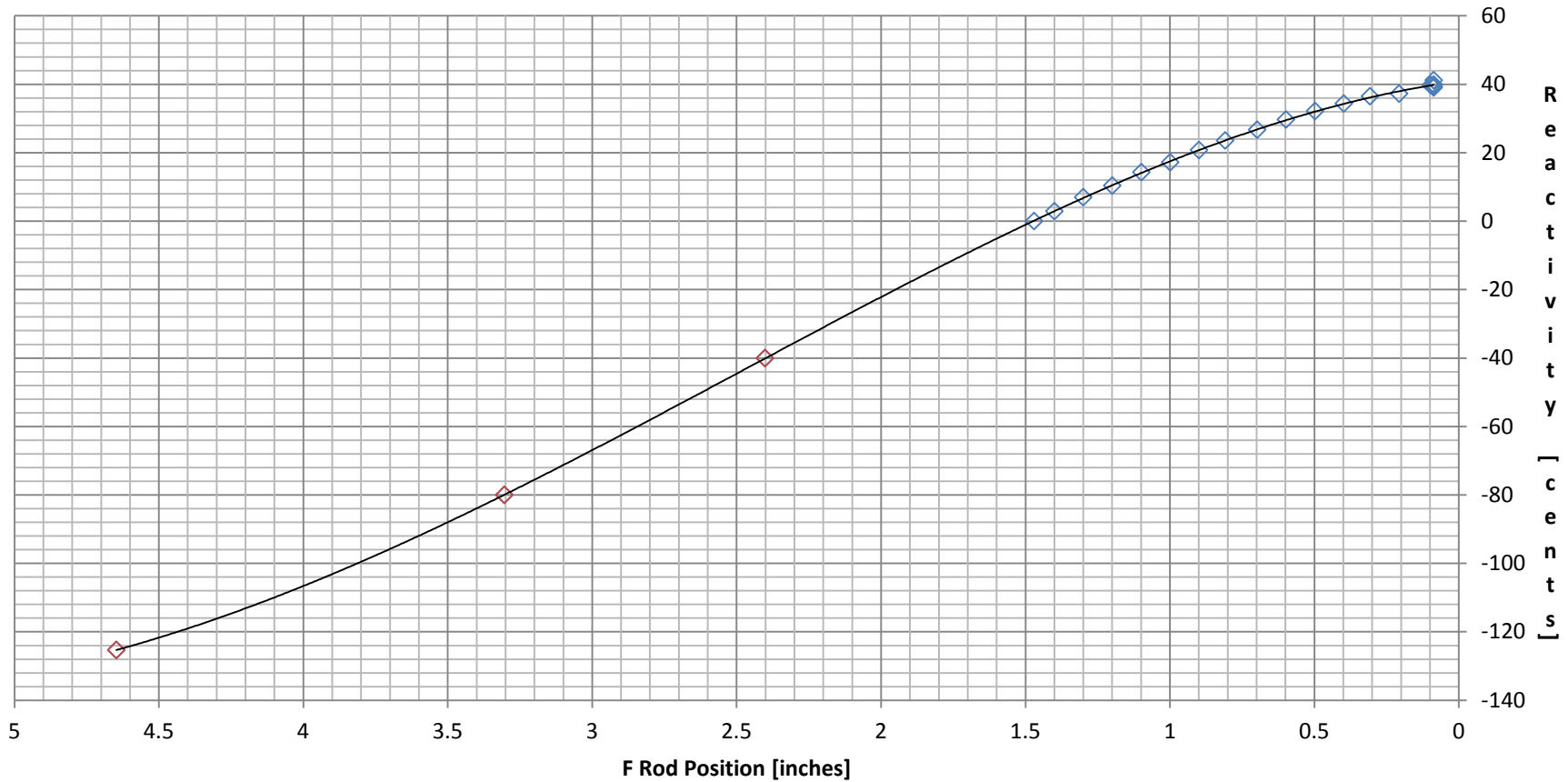
Pu Core

Flat-Top Pu Core E and G Rod Worths



Pu Core

Flat-Top Pu Core F Rod Worth

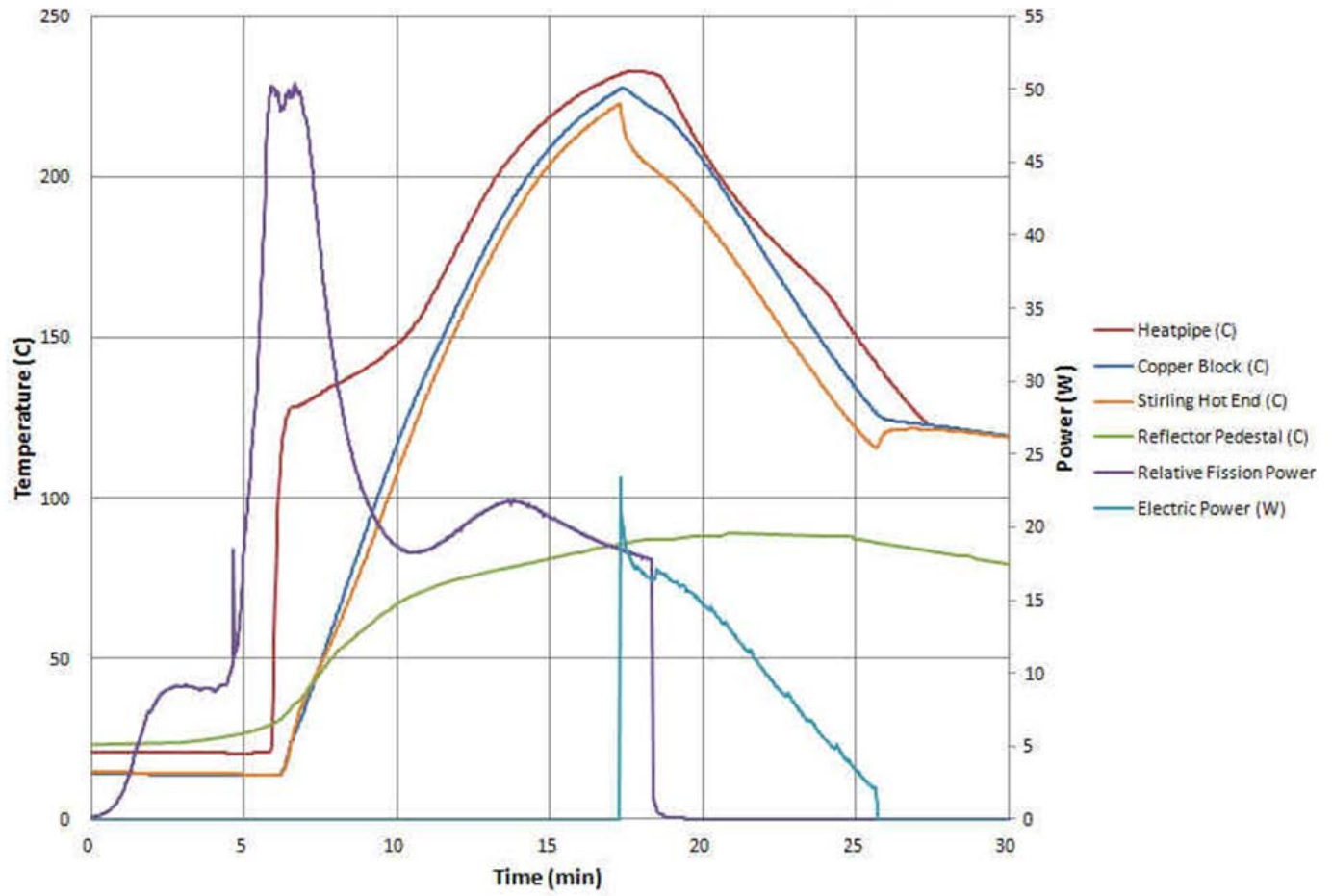


Special Operations

- **NCSP Hands-On Courses**
 - Practitioners, Managers, ad hoc
- **Twelve irradiations for SLFPY, R-Values [destructive chemistry]**
- **DUFF**
 - 24 We, 4kWt
 - Stepping stone to KRUSTy

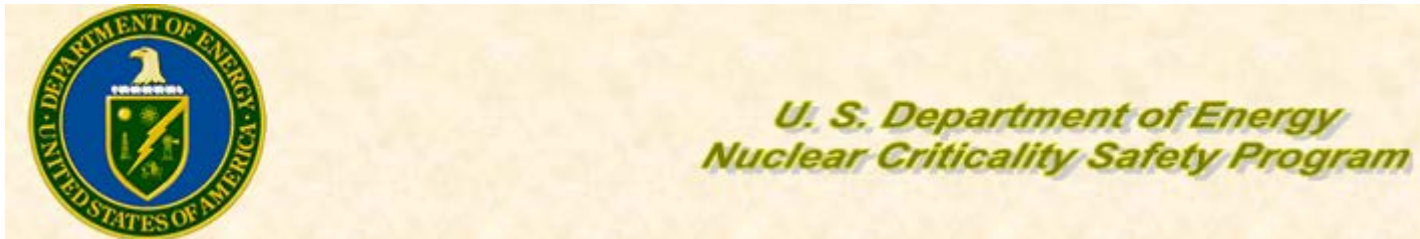
DUFF

Experimental Data From DUFF Sept13



At the End of the Day

- **Flat-Top is ready for experiments/operations**
- **Future Work**
 - Radiation Field Characterization/Dosimetry Intercomparison
 - Revamp Benchmarks
 - Pu Aging Studies



- Submit IERs ! (Integral Experiment Requests)
<https://ncsp.llnl.gov/IERMain.html>

Acknowledgements

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