Fissile Zero Future
The Naval HEU Fuel Problem

George M. Moore PhD, JD, PE

James Martin Center for Nonproliferation Studies
Middlebury Institute of International Studies at Monterey

Elliott School of International Affairs
George Washington University
October 30, 2018
Naval Propulsion

• Biggest HEU user other than nuclear weapons
• Arms race in nuclear powered subs and/or aircraft carriers?
U.S. Program

- SSNs, SSBNs, CVANs, +
- Now burn weapons surplus HEU
- No HEU production since early 90s
- 50 year supply at current use levels
- Life-of-the-Ship (LOS) reactors 40 years starting with Virginia class — Safety (?)

- Porquoi pas?
Problems/Solutions

• Unilateral vs. Multilateral approaches

• Impact on US needs for re-start of HEU production 20-25 years out and sooner for HEU restart for tritium production

• Impact on FM(C)T

• Impact on Safeguards

• Why not a new Washington Naval Treaty?