

Potential Irradiators in the United States

Status as of June 2012

Last update: Sept 2012

Irradiation Source	Targets/ Technology	Expected Operating Days	Expected normal available capacity p/week (6-day Ci)	Potential annual production (6-day Ci)	First full production year (estimate)	Project Status
NorthStar/ MURR [a,b]	Non-fissile in CRR	336	750/ 3,000	36,000/ 144,000	2013/ 2016	Phase 1 Nearing completion/ Phase 2 Seeking financing
B&W MIPS [a,b]	LEU solution in AHR	336	4,400	211,200	2015	Preliminary design and applications underway
NorthStar [a,b]	Non-fissile from LINAC	336	3,000	144,000	2015	Construction not yet started
Morgridge/ SHINE [a,b]	LEU solution w/DTA and SAHR	336	3,000	144,000	2016	Preliminary design and applications underway
AMIC [b]	LEU solution w/ HA-HWS	336	3,000	144,000	2017	Seeking financing
Coqui [b]	LEU in CRR	365	7,000	365,000	2017	Seeking financing
General Electric/ Hitachi [a]	Natural Mo in shell-type PWR	336	3,000	144,000	2014	Suspended

Sources:

[1] OECD NEA, "A Supply and Demand Update of the Molybdenum-99 Market," August 2012, pp. 10-11.

[2] OECD NEA, "The Supply of Medical Isotopes: A Path to Reliability," 2011, p. 40.

Notes: [a] Project has NNSA Cost-Sharing Agreement, [b] Project plans to have own processing capacity

Abbreviations:

6-day Ci—6-day Curies

DTA—Deuterium-tritium accelerator

HA-HWS—Hybrid accelerator-heavy water system

LINAC—Linear accelerators

AHR—Aqueous homogenous reactor

CRR—Conventional research reactor

LEU—Low-enriched uranium

PWR—Pressurized water reactor

SAHR—Subcritical aqueous homogenous reactor

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