

## WAGGING THE PLUTONIUM DOG: JAPANESE DOMESTIC POLITICS AND ITS INTERNATIONAL SECURITY IMPLICATIONS

JAMES M. ACTON

Japan is the only non-nuclear-weapon state with a program to extract plutonium from the spent fuel produced in nuclear reactors—a process termed reprocessing—to fabricate more fuel. Because plutonium can be used directly in the manufacturing of nuclear weapons, Japan has, in keeping with internationally recognized best practice, pledged not to produce more plutonium than it can consume. Serious questions are emerging, however, about whether it can uphold this commitment.

### Japan's Entrapment

- Japan is entrapped in reprocessing. Commitments made by the national government to local communities to facilitate the development of Japan's nuclear industry and, in particular, its industrial-scale reprocessing facility, Rokkasho Reprocessing Plant (RRP) make RRP's operation effectively inevitable.
- Entrapment results in domestic pressure to operate RRP. In 2012, that pressure forced the administration of then prime minister Yoshihiko Noda, which sought to phase out nuclear energy, into supporting reprocessing.
- Following the March 2011 Fukushima Daiichi nuclear accident, Japan faces severe challenges—including domestic politics—in bringing nuclear reactors back into operation. Over the next decade, Japan is very unlikely to restart more than about half of the reactors designated for plutonium consumption.
- Within a decade, Japan will probably be producing more plutonium than its reactors can consume.

### Takeaways for Japan and the International Community

**Japan could take steps to reduce its supply of plutonium.** It could operate RRP at a lower throughput and negotiate with the United Kingdom, and possibly France, over their taking ownership of Japanese plutonium stored in Europe. Japan might also conduct research into alternative means of disposing of plutonium, possibly in collaboration with the United Kingdom and the United States.

**While operating RRP, Japan could take the steps necessary to create the option of phasing out reprocessing in the future.** Such steps would include changing the law to permit funds set aside for waste management to be used for the direct disposal of spent fuel and ensuring that Japan's planned geological repository is licensed for spent fuel. Japan would also need to secure additional interim storage facilities for spent fuel, possibly by offering greater financial incentives to any prefecture willing to host one.

**The Japanese government must take ownership of the problem.** No realistic solution can be implemented solely by the private companies that own Japanese plutonium and operate RRP.

**The government should develop a plutonium management strategy as soon as possible.** Waiting will merely exacerbate the challenges.

**Other states considering reprocessing should design programs so they do not become entrapped.** A critical step would be to ensure adequate storage space for spent fuel.

#### ABOUT THE AUTHOR

James M. Acton is co-director of the Nuclear Policy Program and a senior associate at the Carnegie Endowment. A longtime nonproliferation analyst and observer of Japan's nuclear program, Acton wrote, with Mark Hibbs, *Why Fukushima Was Preventable*, a groundbreaking study into the accident's root causes.

#### CONTACT

Christopher Dockrey  
Government Affairs Manager  
+1 202 939 2307  
cdockrey@ceip.org

Clara Hogan  
Media Manager  
+1 202 939 2241  
chogan@ceip.org

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