Japan failed to include 640 kg of unused plutonium in its annual reports to the International Atomic Energy Agency in 2012 and 2013, in what experts are terming an “inappropriate omission.”

The stock is part of mixed plutonium-uranium oxide (MOX) fuel stored in a reactor that was offline during this period, and was thus deemed exempt from IAEA reporting requirements, said an official at the Japan Atomic Energy Commission.

Experts warn that Japan’s reporting does not reflect the actual state of unused plutonium that could be diverted for nuclear weapons. The unreported amount is enough to make about 80 nuclear bombs.

The official said, “There is also no problem in terms of security against nuclear terrorism.”
“From the safeguards point of view, this material is still un-irradiated fresh MOX fuel regardless of its location,” former IAEA Deputy Director General Olli Heinonen said. “If it has indeed not been irradiated, this should be reflected in the statements.”

In March 2011, the MOX fuel was loaded into the No. 3 reactor of Kyushu Electric Power Co.’s Genkai nuclear plant in Saga Prefecture during a regular checkup. It was removed two years later because the reactor has remained idled since the Fukushima nuclear crisis. When Japan reported to the IAEA in 2012 that it had 1.6 tons of unused plutonium at reactors nationwide as of the end of 2011, down from 2.2 tons the previous year, it excluded the 640 kg. The amount reported a year later remained at 1.6 tons. The fuel has been kept unused in a fuel pool since March 2013.

Japan is subject to rigorous international monitoring, as it possesses the largest amount of plutonium among non-nuclear weaponized nations, with more than 44 tons extracted from spent fuel and reprocessed for reuse under its nuclear fuel cycle policy.

The unreported plutonium was first reported by Kakujoho, a nuclear information website headed by nuclear policy analyst Masafumi Takubo.

Tatsujiro Suzuki, former vice chairman of the Japan Atomic Energy Commission and a professor at Nagasaki University, said the commission had overlooked the matter and therefore “should make efforts to improve” its reporting.