

**On Revised Medium-Term Implementation Plan for Spent Nuclear Fuel Reprocessing
by the Nuclear Reprocessing and Decommissioning facilitation Organization of Japan
— Views of the Japan Atomic Energy Commission —**

March 24, 2025
Japan Atomic Energy Commission
Cabinet Office, Government of Japan

In response to the request by the Minister of Economy, Trade and Industry as of March 10, 2025 (20250306, Document No.27)¹, the Japan Atomic Energy Commission (hereinafter referred to as "the Commission") hereby presents its views on the revised Medium-Term Implementation Plan for Spent Nuclear Fuel Reprocessing (hereinafter referred to as "the Medium-Term Implementation Plan") which has been applied for approval by the Nuclear Reprocessing and Decommissioning facilitation Organization of Japan (hereinafter referred to as "NuRO").

The Medium-Term Implementation Plan on which the Commission is requested to make an opinion has been applied for revised approval by NuRO to the Minister of Economy, Trade and Industry in March 2025 based on the second sentence of Article 54, paragraph 1 of the Act on the Reprocessing and Decommissioning facilitation of Spent Fuel in Nuclear Power Plants. The plan was based on the provisional operation plan (hereinafter referred to as the "Operation Plan") for the Rokkasho Reprocessing Plant (hereinafter referred to as "RRP") and MOX Fuel Fabrication Plant (hereinafter referred to as "J-MOX") announced by Japan Nuclear Fuel Limited (hereinafter referred to as "JNFL") in December 2024, and the announcement by electric power companies of the plutonium utilization plan (hereinafter referred to as the "Utilization Plan") in this February.

The Medium-Term Implementation Plan specifies the locations, timing and quantity of reprocessing of spent fuel and MOX fuel fabrication during the three-year period from FY2025 to FY2027.

The locations indicated are RRP and J-MOX, both owned by JNFL. These and other related facilities are subject to the safeguards by the International Atomic Energy Agency (IAEA).

Regarding the timing and amount of reprocessing, RRP is scheduled for completion in FY2026, and the Operation Plan prescribes reprocessing of 70 tons of spent fuel and recovery of 0.6 tons of plutonium in FY2027. Regarding the timing and amount of reprocessing-related processing, J-MOX is scheduled for completion in FY2027, and the Operation Plan prescribes production of MOX fuel to begin in FY2030.

¹ The Minister of Economy, Trade and Industry requested an opinion of the Japan Atomic Energy Commission as per the resolutions accompanying the Act for Partial Revision of the Spent Nuclear Fuel Reprocessing Fund Act.

On the other hand, according to the Utilization Plan of the electric power companies, they plan to consume 0.7 tons of plutonium contained in MOX fuel assemblies fabricated in France in FY2026 and 0.7 tons in FY2027.

Considering the period from reprocessing to irradiation in the pluthermal² reactor, it is expected that there will be a temporary increase in plutonium stockpiles in the early stage of operation of RRP and J-MOX, but it is important to show the prospect of a decrease in the stockpile in the future.

In light of these circumstances, the Commission requests that the Minister of Economy, Trade and Industry, on approving the Medium-Term Implementation Plan, should provide the necessary and appropriate instruction and guidance for NuRO and other relevant organizations on the following points to ensure the peaceful use of nuclear energy and the balance between demand and supply of plutonium.

1. When NuRO recovers plutonium through reprocessing, it should make utmost efforts to properly operate RRP and J-MOX taking account of the balance between demand and supply of plutonium, while ensuring transparency, as set out in "The Basic Principles on Japan's Utilization of Plutonium" (declared by the Commission on July 31, 2018). The electric power companies are required to make their every effort to steadily consume the MOX-fuel produced by J-MOX at their domestic reactors.
2. NuRO is required to make revised reports of the Medium-Term Implementation Plan in accordance with the progress made in specific initiatives, in a timely and appropriate manner.
3. In April of last year, NuRO was given the new task of promoting decommissioning. NuRO and JNFL should continue to place the highest priority on ensuring safety and proceed with reprocessing operations efficiently and effectively, with an appropriate division of roles and implementation framework.
4. JNFL should make an appropriate process management with the highest priority on safety to ensure the safe and smooth operation of RRP and J-MOX, and should work on the continuous nurturing and hand-over of technical expertise to the next generation. In addition, electric power companies and relevant organizations should provide necessary and sufficient technical and human support for JNFL as required.

End

² The term "pluthermal" stands for the use of MOX fuel assemblies containing plutonium in thermal reactors.