On Revised Mid-Term Implementation Plan for Spent Nuclear Fuel Reprocessing by the Nuclear Reprocessing Organization of Japan

— Views of the Japan Atomic Energy Commission —

March 23, 2022 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 9, 2022 (20220307, Document No.13)¹, the Japan Atomic Energy Commission hereby presents its views on the revised Mid-Term Implementation Plan for Spent Nuclear Fuel Reprocessing (hereinafter referred to as "the Mid-Term Implementation Plan") which has been applied for approval by the Nuclear Reprocessing Organization of Japan (hereinafter referred to as "NuRO").

The Mid-Term Implementation Plan specifies the locations, timing and quantity of reprocessing of spent fuel and related activities during the three-year period, FY2022 to FY2024.

The locations indicated are the Rokkasho Reprocessing Plant (hereinafter referred to as "RRP") and the MOX Fuel Fabrication Plant (hereinafter referred to as "J-MOX"), both owned by Japan Nuclear Fuel Ltd., (hereinafter referred to as "JNFL"). These and other related facilities are subject to the safeguards of the International Atomic Energy Agency (IAEA).

With regard to the timing and quantity of reprocessing, it is planned that 70 tons of spent fuel will be reprocessed to recover 0.6 tons of plutonium in FY2023 and 170 tons reprocessed to recover 1.4 tons in FY2024 based on the operational schedule of RRP and J-MOX. According to the explanation by the Ministry of Economy, Trade and Industry and relevant organizations, this plan was developed based on the current assumptions of full consumption in pluthermal² reactors in FY2026 and thereafter. The Commission takes it understandable, considering the situation as it stands at the present time. The Commission also recognizes, however, that the operational status of J-MOX and consumption in pluthermal reactors after FY2024 are uncertain and could be changed depending on future development.

In light of these circumstances, the Commission requests that the Minister of Economy, Trade and Industry, on approving the Mid-Term Implementation Plan, 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 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.

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

- 1. When NuRO recovers plutonium through reprocessing, it should properly manage the reprocessing volume only to an extent necessary for the aggregate amount of domestic demand as set out in the "Basic Principles on Japan's Utilization of Plutonium" (declared by the Commission on July 31, 2018). The 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 Mid-Term Implementation Plan in accordance with the progress made in specific initiatives, in a timely and appropriate manner.
- 3. In the execution of the Mid-Term Implementation Plan, NuRO and JNFL should work together in an efficient and effective manner under appropriate division of roles and implementation framework, placing the highest priority on safety assurance.
- 4. JNFL should make an appropriate process management with the highest priority on safety assurance 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, power companies and relevant organizations should provide necessary and sufficient technical and human support for JNFL as required.

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