

Table-1 The Plutonium-Use Plan for Research and Development in the Japan Atomic Energy Agency for Japanese Fiscal Year 2008

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Independent Administrative Institution Japan Atomic Energy Agency

| Holder | Amount of spent fuel to be reprocessed in JFY2008<br>Weight of spent fuel (tU) | Amount of Pu in possession *1(tPuf)*2           |   |   | Purpose of Use*7                                       |   |  |
|--------|--|---|---|---|--|---|--|
|        |  | Amount of Pu to be held at the end of JFY2007*4 | Amount of Pu to be recovered in JFY2008 | Amount of Pu to be held at the end of JFY2008*6 | Research and development of fast breeder reactor, etc. |   |  |
|        |  |   |   |   | Place of use   | Amount of Pu to be used (Rough estimate for annual use)*8 (tPuf/year)*2 | Time to start use and estimates for the period required to consume |
| JAEA   | —*3  | 3.6<br>《0.6》*5                                  | —*3                                     | 3.6<br>《0.6》*5                                  | Experimental Fast Reactor "JOYO"                       | 0.1   | approximately 6 years*9  |
|        |  |   |   |   | Prototype Fast Breeder Reactor "MONJU"                 | 0.5   | JFY2008 forward approximately 6 years*10                           |

\*1: "Amount of Pu in possession" includes plutonium which was recovered in the Tokai Reprocessing Plant (TRP) based on the reprocessing service contract with Electric Power Companies (EPC), but not yet transferred from EPC to the JAEA. The reason is that the JAEA plans to use the plutonium for "JOYO" and "MONJU" after transfer from EPC. The JAEA plans to use a part of the plutonium to be recovered at the Japan Nuclear Fuel Ltd. (JNFL) Rokkasho Reprocessing Plant after transfer from EPC. A fixed amount of the plutonium will be announced in this plutonium-use plan after a decision is available in the future.

\*2: "tPuf" represents a metric ton of fissile plutonium (Puf) contained in plutonium.

\*3: Plutonium recovery of JFY 2008 isn't planned at Tokai Reprocessing Plant (TRP) for reasons of measures for improvement of quakeproof safety.

\*4: "3.6 tPuf" excludes about 0.4 tPuf, which is dedicated to experimental purposes as fuel for a criticality test assembly FCA in the Tokai site from 4.0 tPuf of the "Separated Pu" to be held by JAEA at the end of JFY2007.

JAEA changed throughput of the spent fuel of JFY 2007 to 3tU from 13tU in the TRP, and amount of plutonium recovered was changed. Therefore, the value is different from the "Amount (3.7t Puf) of Pu to be held at the end of JFY2007" that was announced in "The Plutonium-Use Plan for Research and Development in the JAEA for JFY2007" last year.

\*5: The number in parenthesis 《0.6》 tPuf shows the amount of the "separated Pu" already fabricated into fuel assemblies for "JOYO" and "MONJU". The number in parenthesis 《0.6》 tPuf in JFY2008 consists of 0.0tPuf "separated Pu" to be fabricated as 7 new fuel assemblies for "Joyo" in JFY2008. (The reason why the value becomes 0.0 tPuf is round-off at the second place)

\*6: This value includes amount of plutonium which JAEA is going to use in JFY2008.

\*7: In addition to plutonium use for "JOYO" and "MONJU," a small amount of plutonium will be used in the JAEA's research and development facilities under a limited-quantity license for specific research and development purposes.

\*8: "Rough estimate for annual use" represents an annual average amount of plutonium contained in MOX fuel to be loaded into "JOYO" and "MONJU" during standard reactor operations.

\*9: "JOYO" is carrying out investigation on the obstacle on the in-vessel storage rack. On the basis of result of this investigation, JAEA examines a period in the restoration process of the obstacle on the in-vessel storage rack and judges in the startup time of "JOYO" (the plutonium use start time).

\*10: System start-up test of "MONJU" will be initiated upon acceptance of local community through proactive interactions. "MONJU" is expected to use about 0.5 tPuf every year after JFY 2008. The amount of annual usage and the expected period to consume the plutonium will depend on the progress of research and development, and therefore, will be subject to change and revision.