AMERICAN NUCLEAR SOCIETY

Position Paper Abstract - Disposition of Plutonium

Short-Term: Surplus Weapons Plutonium

1. We strongly support conversion of all plutonium released from weapons stocks to a form in which it is protected from theft or seizure by intense radioactivity (the "spent fuel standard"). Place immediate emphasis on protecting stocks as securely as when they were active weapons. We urge that higher priority and attention be devoted to assuring that this standard is being met. — 1/01.02.00

2. We recommend prompt implementation of the reactor irradiation option for disposition of surplus U.S. and Russian weapons plutonium, employing available reactors in the United States and Russia, or in third countries. — 2/06.00.09

3. The time schedule for both initiation and completion of conversion should be shortened. — 3/07.01.00

4. All released plutonium in the United States and Russia should be placed under international safeguards as early as possible.

Longer-Term: Civil Plutonium

5. Energy demand, especially for electric power, is increasing steadily in the developing countries. We cannot and should not wish these countries to forgo the benefits of abundant energy that the industrial world has enjoyed for so long. — 4/01.03.00

6. The use of nuclear energy will take place primarily in industrialized countries, making fossil fuel resources more accesible and affordable for use in the developing world.

7. Current proven reserves of reasonably priced uranium are insufficient to support a long-term, major contribution of nuclear energy to meeting world energy demand. Breeder reactors can overcome this limitation.

8. The issue of the proper level and structure of development on the breeder and other advanced reactor systems calls for further assessment. We urge that this be undertaken. — 5/14.00.00

9. The recent U.S. decision to stop all development work on reprocessing and the breeder should be reversed.

10. The development of permanent waste repositories is essential, since these will be needed for either spent fuel or fission product waste disposal. — 6/12.01.00

11. We see no need for international uniformity in selection of fuel cycle options. — 4/01.03.00 cont.

12. The IAEA should place increased emphasis on containment and surveillance and other nonaccountancy safeguards measures. — 7/13.00.00

13. The IAEA should be called on to review the adequacy of national measures for protection of nuclear materials against subnational threats.

14. It is essential that the IAEA be assured of the financial, technical and manpower resources and the political support necessary to carry out its increasingly vital tasks. — 4/01.03.00 cont.

WA-021

01 02 00 — Comment Number 1

Comment noted.

06 00 09 — Comment Number 2

Comment noted. However, disposition of foreign weapons-usable materials is beyond the scope of this PEIS.

07 01 00 — Comment Number 3

Comment noted.

01 03 00 — Comment Number 4

Comment noted.

14 00 00 — Comment Number 5

Liquid metal breeder reactors were not considered reasonable alternatives for Pu disposition in the PEIS since more time and greater cost would be incurred to complete construction than with LWRs.

While the PEIS discusses the generation of spent fuel as an indirect result of potential disposition actions, there would not be any subsequent reprocessing and extraction of Pu from that spent fuel. The U.S. policy concerning reprocessing is beyond the scope of the PEIS and the fundamental nonproliferation purpose of the disposition effort.

The President's Nonproliferation Policy says the United States will not recycle Pu. Burning weapons Pu in reactors does not utilize the recycling process because the Pu in the spent fuel from this process will not be extracted for reuse in new fuel. This is consistent with U.S. policy since no Pu is being recycled. After a once-through fuel cycle, the Pu would be converted to a nonproliferation form as spent reactor fuel.

12 01 00 — Comment Number 6

Comment noted. Site characterization is currently being performed for a geologic repository in accordance with the NWPA, and further environmental analyses will be performed as necessary.

13 00 00 **Comment Number 7**

Comment noted. The emphasis that IAEA places on various safeguards measures is not a part of this environmental analysis. IAEA inspectability is considered in the technical and nonproliferation analysis and will be integrated into DOE's decisionmaking process.