

J110(A84)

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Proposal Abstract J110(A84)

1. Arms Control Problem:

Nuclear weapons - fissionable material "cutoff".

2. Verification Type:

- (a) Remote sensors - satellite
- (b) On-site inspection - selective
 - IAEA safeguards
- (c) Short-range sensors - monitoring devices
- (d) Complaints procedure - consultation and cooperation
 - consultative commission

3. Source:

Sharp, Jane M.O. "Exploring the Feasibility of a Ban on Warhead Production". In The Nuclear Weapons Freeze and Arms Control, pp. 30-37. Edited by Steven E. Miller. Cambridge, Mass.: Ballinger, 1984.

4. Summary:

Sharp argues that a ban on the further production of nuclear warheads would not be difficult to negotiate since it would involve only a handful of facilities and could be adequately verified by national technical means. Such a ban would necessitate the closure of a few facilities in the United States and Soviet Union which produce weapons-grade plutonium and tritium. Under a tacitly agreed moratorium on production pending a formal agreement, these facilities could be placed under "some kind of caretaker arrangement" (p.32) and the cessation of activity could be verified by existing national technical means including satellite-based cameras and infra-red sensors.

A long-term warhead production ban would require supplementary verification measures. IAEA inspection of civilian nuclear plants in the Soviet Union and United States would be necessary to ensure that fissionable material was not being diverted from nuclear power plants to use in weapons production. It would also be necessary to verify that fissile material for permitted uses (warhead replacement and enriched uranium for naval and research reactors) was not being directed to clandestine production of warheads. Analysts disagree over whether the IAEA safeguards regime would be adequate for this task, but it appears that it would. An expanded safeguards budget would permit upgrading of inspection teams and new technology could facilitate the task. In particular, new tamper-proof monitoring devices (RECOVER), which provide remote continuous on-site verification could ensure that small plutonium isotope separation facilities were not being used for covert production of small amounts of weapons-grade plutonium.