Deferred verification: Verifiable declarations of fissile material stocks

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THE CHALLENGE

Nuclear disarmament is impossible without a verifiable end of production of fissile materials for weapons, i.e. the Fissile Material Cut-off Treaty (FMCT)

How to account for existing stocks of fissile materials in FMCT?

Declarations, if made, should be **legally binding** and verifiable

Large amounts of materials are **in weapons**, where no access or verification is possible

DEFERRED VERIFICATION

Amount of material in weapons is known (to the owner) with **high accuracy**

This amount can be declared **without compromising sensitive information** about weapons

Correctness of this declaration is verified when weapons are eliminated, and the material is sent to disposition

Completeness is verified by closing the material balance in the entire nuclear complex

RESULTS

The declaration can be **legally binding and** verifiable

No access is required to nuclear weapons or weapon materials

Declarations of fissile material stocks can be legally binding and verifiable, even if fissile materials are in weapons







Take a picture to download the full report http://bit.ly/DeferredVerification

HOW WOULD IT WORK?

The entire nuclear complex is divided into **two segments – open and closed**

OPEN SEGMENT

What's included:

- All fissile material production facilities
- All civilian and non-proscribed military activities

Verification:

- Cooperative program of verification
- Physical inventory
- Closing the material balance
- Gradual opening of the records: production, removals, transfers
- Verification of all new production

CLOSED SEGMENT

What's included?

- Deployed weapons
- Weapons in reserve
- Weapon components
- Classified materials

Verification:

- No verification inside the segment
- No need to access nuclear warheads or classified materials
- All removals are accurately accounted for (removed material is in unclassified form)
- The segment becomes open when all material is removed

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