## **Conference on Disarmament**

1 July 2015

Original: English

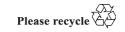
## Canada

Working paper

Considering verification implications of fissile material definitions and of fissile material categories for future treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices

GE.15-10965 (E)







## Verification implications for different definitions of fissile material for which their production is banned for proscribed purposes

Definition of	What specific obligations would be	Relevant verification	Challenges to effective	Potential verification risks/gaps to providing credible assurance on	Observations
Fissile Material	covered?1	tools	verification2	compliance	Observations

90% or more of U-235 or U-233 Pu containing more than 95% of Pu-239

Pu less than 80% Pu-238, 20% or more

U-235 and/or

U-233

(Un-irradiated

Direct Use

Material)

Pu-239, U-233,

U enriched in

U-235 and

U-233

(Special

Fissionable

Material)

a specific

isotopic

composition, to

be determined

during

negotiations

based on the

scope and

verification

requirements of

the treaty

Other Materials

Covered

(e.g

Neptunium,

Americium)

This could include, inter alia, specific production activities and production facilities, that would be included in the scope of a production ban according to different fissile material definitions.

<sup>&</sup>lt;sup>2</sup> This could include, inter alia, considerations related to national security and sensitive information, cost and resource questions, and technical capabilities.

## Verification implications of fissile material categories that could be included as part of the scope of a future Treaty

Functional	What specific obligations	Relevant	Challenges to	Potential verification risks/gaps to providing credible assurance	
Categories of	would be	Verification	effective	on	Observations
Material	covered?3	Tools	verification	compliance	

Future

Production of

Fissile

Material for

Civilian Use

Future

Production of

Fissile

Material for

Non-Proscribed

Military

Purposes

Existing

Stockpiles of

Fissile

Material for

Civilian Use

Existing

Stockpiles of

Fissile

Material for

Non-Proscribed

Military

Purposes

Existing

Stockpile

Excess to

Nuclear

Weapon

Requirements

Existing

Stockpiles

Produced for

Nuclear

Weapons

This could include, inter alia, obligations related to non-diversion, transfer, declarations and transparency, or material accountancy and control.