## **EXECUTIVE SUMMARY**

In September 2000 the Russian Federation and the United States each agreed to make 34 tonnes of excess weapon-grade plutonium permanently inaccessible and unsuited to military use. Disposition is the word for this task. In June 2002 the G-8 instructed negotiators for the donors and the Federation to conclude a framework Multilateral Agreement in 2003 for disposition of the Russian amount. This is a programme that's likely to rely on Russian civil nuclear reactors and could take decades from initial authorization to the processing of the last kilo. Previously there has been some discussion of conditionality. This means performance requirements which need to be met by the programme in support of Russian disposition, and which therefore need to be addressed in the Multilateral Agreement. Irreversibility, nuclear safety, and environmental protection are key areas of concern. The better they are dealt with in the Multilateral Agreement, it's argued here, the more likely we'll have a disposition programme that's built to last in the face of forseeable difficulty.

This study therefore seeks to show what might be done with the notion of conditionality to make disposition sustainable over the long haul. Opinions are offered and some recommendations. The idea at this point is to prompt discussion among negotiators and disposition planners, not to state firm conclusions. The perspective is that of the donor country interested in arrangements which are reliable in the long term and acceptable to the Russian Federation now.

Where irreversibility is concerned, major challenges to sustained disposition are identified in the nuclear hedging practices of both principals, and in the determination of the Russian side to prepare for the accumulation of plutonium for civil use as it reduces a portion of its military plutonium. The term given to these challenges, of which Russian plans for reliance on civil plutonium is the greater, is contravention.

Contravention challenges the credibility and hence the sustainability of disposition. The questions it raises are these: Why go to all the effort and expense to process 34 tonnes each when all along great amounts of metal are being held in reserve for the resurrection of cold-war strategic forces? Or when it would be far simpler to assist Russia in converting plutonium metal into oxide and then storing the material until its nuclear industry got to the point of being able to make commercial use of it? If questions like these are not properly resolved at the outset, the disposition programme could find itself open to attack the moment something went wrong in Russia. The very capacity to disposition could be threatened.

This study therefore recommends that the two principals be asked to show good faith with the principle of irreversibility by undertaking to negotiate hedge cuts. More emphatically it urges that the bias of the September 2000 Agreement against reliance on civil plutonium be maintained and, better, strengthened in a Multilateral Agreement. Specifically, export of Russia's excess for irradiation in non-Russian reactors should be avoided as providing Minatom with an income stream for use in making the transition to closed fuel-cycle technology.

As to nuclear safety and environmental protection, it's the view here that neither is to be counted upon in Russia today or for years to come. Relatively minor misadventure or major accident in either domain have the potential to nullify international arrangements to accelerate