

THE REVISED NUCLEAR SUPPLIERS GROUP GUIDELINES: A EUROPEAN UNION PERSPECTIVE

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I. INTRODUCTION

On 24 June 2011 the Nuclear Suppliers Group (NSG) issued a public statement announcing the strengthening of its guidelines on nuclear enrichment and reprocessing (ENR) transfers. The agreement followed almost a decade of negotiations spurred by a fast-evolving post-cold war landscape in which the threat of nuclear proliferation has become a major concern for the international community. Acting on this concern, the European Union (EU) identified the proliferation of weapons of mass destruction (WMD) as the greatest threat to its security in the 2003 European Security Strategy and the associated EU Strategy against Proliferation of Weapons of Mass Destruction (WMD Strategy), both of which emphasized the salient role of export controls in countering this threat.¹ The 2011 NSG agreement signals a step in the right direction in terms of strengthening export controls as a non-proliferation strategy and also presents an opportunity for the EU to reinforce its multilateral security approach.

This paper discusses the negotiations leading up to the NSG agreement in June 2011 and the consequences of the decision for nuclear non-proliferation, with a particular emphasis on the EU perspective. First, the paper presents the NSG, its non-proliferation role and the context of the nuclear ENR issue. Second, it analyses the main factors involved in pushing the ENR issue into the NSG forum and the course of the negotiations leading up to the NSG guideline changes. Finally, the paper examines the revised guidelines and identifies their effects on the international non-

SUMMARY

This paper discusses the negotiations leading up to the Nuclear Suppliers Group (NSG) agreement on enrichment and reprocessing (ENR) in June 2011 and the consequences of the decision on nuclear non-proliferation, with a particular emphasis on the European Union (EU) perspective. The paper focuses on the NSG and its non-proliferation role, as well as the context of the nuclear ENR issue. Further, it analyses the main factors involved in pushing the ENR issue into the NSG forum and the course of negotiations leading up to the changes in the NSG guidelines. Finally, the paper examines the revised guidelines and identifies their effects on the international non-proliferation regime, especially within the context of the EU Strategy against Proliferation of Weapons of Mass Destruction.

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¹ European Council, 'A secure Europe in a better world: European Security Strategy', 78367/3, 12 Dec. 2003; and Council of the European Union, 'Fight against the proliferation of weapons of mass destruction: EU Strategy against Proliferation of Weapons of Mass Destruction', 15708/3, 10 Dec. 2003.

proliferation regime, especially within the context of the EU WMD Strategy.

II. THE NUCLEAR SUPPLIERS GROUP: A BRIEF OVERVIEW

Nuclear export controls—that is, delaying or precluding the acquisition of materials, equipment and technology by entities wishing to use them in the construction of a nuclear explosive device—play an important role within the field of non-proliferation. The NSG, an export control regime that was founded in the mid-1970s, is an informal body composed of nuclear suppliers that have agreed to abide by certain guidelines when considering nuclear transfers.² These guidelines are published by the International Atomic Energy Agency (IAEA) in a two-part information circular, INFCIRC/254 parts I and II, consisting of numerous articles and a control list of items. The guidelines have been amended by consensus on a regular basis, the latest amendment being the June 2011 establishment of new conditions for nuclear ENR transfers that forms the subject of this paper.

The guidelines outline conditions to be met by receiving states in order to receive transfers listed on the NSG control list as well as other principles to be adopted by suppliers. Supplier states are requested to authorize transfers only after obtaining formal guarantees that the goods will not be used for a nuclear explosive device. In addition, throughout all steps of the transfer, the receiving state must make assurances that its physical protection and safeguards standards are in line with its comprehensive safeguards agreements with the IAEA. The guidelines, in articles VI and VII, further specify conditions to be met for the trade of sensitive nuclear exports and it is this part of the document that NSG members agreed to revise in June 2011 with regard to ENR transfers. Supplier states must also include special provisions in export agreements that address future arrangements for the management of nuclear materials or facilities, and establish retransfer controls. In addition to these requirements, INFCIRC/254 includes the so-called ‘non-proliferation principle’ according to which states may follow through with nuclear transfers only

² The Nuclear Suppliers Group was created in part as a response to India’s explosion of a nuclear device in 1974. The explosion alerted the USA and the UK to the fact that the status quo had not been effective enough to curtail a state that was not a member of the Non-Proliferation Treaty (NPT) from obtaining nuclear weapon technology.

when ‘they are satisfied that the transfers [do] not contribute to the proliferation of nuclear weapons or other nuclear explosive devices or [will not be] diverted to acts of nuclear terrorism’, notwithstanding the other conditions of supply. In order to comply with the guidelines, NSG members must implement them domestically by establishing licensing regulations, enforcement measures and penalties for violations.

The second part of the guidelines consists of an appendix identifying a trigger list—or control list—specifying items that should ‘trigger’ export controls in order to make sure that they do not contribute to nuclear proliferation. Until the beginning of the 1990s, the guidelines consisted solely of INFCIRC/254 Part I, whose control list governs items ‘especially designed or prepared for nuclear use’, and suppliers assumed that the list was sufficient in order to achieve the non-proliferation aims of the NSG.³ This original control list was based on the cold war political context, where the risk of nuclear proliferation was overshadowed by the power play between the United States and the Soviet Union.

The fall of the Soviet Union and the rise of new security risks prompted NSG members to reassess the effectiveness of the guidelines in the early 1990s. The group recognized that it needed to significantly expand and reform INFCIRC/254 following the post-Gulf War revelation that Iraq had managed to skirt status quo export controls in order to build a clandestine nuclear weapon programme.⁴ Realizing that only specifying trade guidelines for the most integral nuclear items specified in the INFCIRC/254 control list had not been enough to preclude Iraq from engaging in covert activities contrary to its obligations under the Non-Proliferation Treaty (NPT), the NSG, with the help of the IAEA, identified a list of items not clearly essential for a nuclear weapon programme that could nevertheless assist in the development of a nuclear explosive device.⁵ These materials came to be known as dual-use items and are published as INFCIRC/254 Part II, which further establishes a basis for consultation;

³ International Atomic Energy Agency, ‘Communication received from the permanent mission of the Netherlands regarding certain member states’ guidelines for the export of nuclear material, equipment and technology’, INFCIRC/254/Rev.10/Part I, 26 July 2011, <<http://www.nuclearsuppliersgroup.org/Leng/PDF/infirc254r10p1.pdf>>.

⁴ ‘Gulf War’ refers to the 1991 Gulf War.

⁵ Treaty on the Non-Proliferation of Nuclear Weapons (Non-Proliferation Treaty, NPT), opened for signature 1 July 1968, entered into force 5 Mar. 1970, INFCIRC/140, 22 Apr. 1970, <<http://www.iaea.org/Publications/Documents/Infircs/Others/infirc140.pdf>>.

a rubric for information sharing concerning implementation; and a procedural standard requiring justifications for any domestic decision not to allow the export of a dual-use item to a particular country.⁶

While the introduction of INFCIRC/254 Part II signalled that the NSG could adapt to changing proliferation threats, the issue of control over the trade of ENR technology did not arise until the beginning of the 2000s when new security developments revealed further gaps in the ability of the NSG to curb nuclear weapon proliferation. The dilemma over ENR lies in the fact that the same facilities and technology used to enrich uranium or reprocess spent fuel in a civil nuclear power programme can often also be used in a nuclear weapon programme.

III. ENRICHMENT AND REPROCESSING: THE SIGNIFICANCE FOR NUCLEAR WEAPON PROLIFERATION

Establishing export controls for ENR transfers necessitates protecting the use of ENR technology for strictly peaceful purposes and raises two issues regarding: (a) civilian applications of ENR technology; and (b) the methods of control over ENR technology that assure that it will not be used for a nuclear weapon. With respect to civilian use, and in the context of enrichment, highly enriched uranium (HEU) has four general applications.

1. HEU can be used in fast neutron reactors. Such reactors are currently operating in China, India, Japan and Russia and are being designed for future construction in several other countries.⁷

2. HEU can be used in naval reactors to fuel nuclear submarines. However, only Germany, Japan, Russia and the USA have used this kind of technology.

3. HEU is required by nuclear research reactors, some of which use up to 93 per cent HEU.⁸ These kinds

⁶ International Atomic Energy Agency, 'Communication received from certain member states regarding guidelines for transfers of nuclear-related dual-use equipment, material, software and related technology', INFCIRC/254/Rev.8/Part 2, 30 June 2010, <<http://www.nuclearsuppliersgroup.org/Leng/PDF/infcirc254r8p2.pdf>>.

⁷ Cochran, T. B. et al., *Fast breeder reactor programs: history and status* (International Panel on Fissile Materials: Princeton University, 2010).

⁸ Broad, W. J., 'Research reactors seen as a security risk', *New York Times*, 12 Apr. 2010. This source notes that many of the 130 research reactors in operation are lightly guarded and can be easily attacked or accessed by malevolent actors. For this reason, several states as well

of reactors are not used for power generation, but rather provide a neutron source for research and other purposes.

4. HEU can be used for the production of medical isotopes for the diagnosis and treatment of disease.

While these applications demonstrate that HEU has extensive civilian uses, control over the trade of the materials, equipment and technology that can produce HEU is imperative in order to ensure that it is not diverted to a nuclear weapon programme.

Reprocessing is the other sensitive technology that is grouped with enrichment because it can produce material with nuclear weapon applications. Reprocessing refers to the chemical operation that separates useful fuel for recycling from nuclear waste. The output from reprocessing includes uranium, radioactive waste and a small percentage of plutonium.⁹ The uranium from this process can be reused as nuclear fuel, while the waste can be stored in a variety of ways. The plutonium, however, presents a different challenge. It can be mixed with uranium and turned into mixed oxide fuel to be used to produce energy in a mixed oxide fuel plant. Alternatively, plutonium can be used in a nuclear explosive device, posing a serious proliferation risk—especially as only a relatively small amount is needed.

While enriched uranium and plutonium pose proliferation risks due to their potential use in a nuclear explosive device, it is necessary to examine the link between NSG control over the trade of ENR technology and proliferation. Why is the NSG the relevant conduit for the control of this technology? To answer this, it is necessary to take a step back and analyse how countries that currently supply ENR have acquired this capability. Would an actor with proliferation goals apply for an ENR export licence from an NSG member and, if so, in what context?

These questions raise further queries regarding how this technology is controlled and why exactly the conditions for its export became such a pressing issue within the NSG. Fourteen countries currently operate enrichment facilities, with several others investing and holding a significant share in some of

as the IAEA have encouraged these reactors to switch to low enriched uranium (less than 20%) and increase reactor security.

⁹ 'What is nuclear reprocessing?', BBC News, 19 Feb. 2000, <http://news.bbc.co.uk/2/hi/uk_news/647981.stm>.

them.¹⁰ Of these countries, most are members of the NSG. Some of them also have reprocessing technology. In the past few years, in the rare cases where transfers of ENR technology have occurred, they have taken place between states already capable of enrichment or reprocessing. There have not been any examples since the formation of the NSG of countries obtaining ENR capability by overtly importing it from a supplier country. Instead, countries wishing to obtain it have used a variety of other methods such as importing dual-use goods, using false end-user certificates, involving proliferation networks and third parties, procuring scientists familiar with the technology, using intelligence services, or working secretly with other countries.¹¹ However, this does not mean that a country will never seek a license for ENR transfers from an NSG supplier state, which is why NSG controls over these transfers remain important.

This observation became clear to many NSG members during the first decade of the new millennium, when challenges posed by the nuclear renaissance, the threat of nuclear terrorism and the ongoing activities of nuclear proliferation networks led to calls for a strengthening of export controls as a non-proliferation strategy. The issue of ENR transfers received significant worldwide attention and spawned many years of negotiation within the NSG regarding whether to establish particular conditions for these kinds of transfers, or to prohibit them altogether, finally leading to a decision on the matter in June 2011.

Justifications for limiting transfers of ENR technology

Several justifications were raised by supplier states as well as in political and academic circles that increased both media attention and overall interest in the ENR debate. One of the justifications put forward was that, in theory, a state that is a party to the NPT can lawfully obtain ENR transfers because, according to NPT Article IV, non-nuclear weapon states that are signatories have a right to ‘develop research, production and use of nuclear energy for peaceful

purposes without discrimination’.¹² Article IV does not make exceptions for particular types of technology, simply stipulating that they must not be used for nuclear weapon purposes. Therefore, the problem that ENR transfers present is clear: they can be used for peaceful purposes, but they are especially vulnerable to being used for a nuclear weapon programme as well. In fact, it is possible for a state to lawfully import ENR technology, use it to build a nuclear explosive device and then withdraw from the NPT based on Article XI, which gives it the right to do so.

The probability of a state actually going about acquiring a nuclear weapon programme in this manner is debatable. However, the one instance of a country withdrawing from the NPT in this way—namely, the Democratic People’s Republic of Korea (DPRK or North Korea) in 2003—does support this justification. North Korea modernized a research reactor built for it by the Soviet Union in 1967 to begin embarking on a nuclear weapon programme. In addition, North Korea used the reactor as a model to build its own reactors with the help of clandestine imports and indigenous human capital.¹³ It can be argued, therefore, that the Soviet reactor served as the first step in North Korea’s nuclear aspirations. Had the NSG existed at the time of the North Korea–Soviet Union cooperation, had the Soviet Union been a member, and had there been limits to ENR transfers in the guidelines, North Korea would have had a more difficult if not impossible time obtaining the technology necessary for its nuclear weapon programme.

The North Korean case highlights a key characteristic of nuclear export controls as a non-proliferation tool: rather than being an independent solution to the spread of nuclear weapons, export controls make achieving nuclear military capability one step harder. If trade controls inhibit a country wishing to build a nuclear weapon from obtaining the necessary equipment or technology, it will take more time and more resources for the would-be nuclear state to achieve its goal. As no perfect solution to the complicated issue of nuclear proliferation yet exists, export controls provide an important barrier that, together with other non-proliferation tools, can help to prevent the spread of nuclear weapons.

¹⁰ Makhijani, A., Chalmers, L. and Smith, B., *Uranium enrichment: just plain facts to inform a debate on nuclear proliferation and nuclear power* (Institute for Energy and Environmental Research: 2004).

The 14 countries that operate enrichment facilities are Argentina, Australia, Brazil, China, France, India, Israel, Japan, South Korea, the Netherlands, Pakistan, South Africa, the UK and the USA. It is likely that Iran and North Korea also have uranium enrichment plants.

¹¹ This conclusion is based on case studies of India, Iran, Iraq, Israel, North Korea and Pakistan.

¹² Treaty on the Non-Proliferation of Nuclear Weapons (note 5).

¹³ Nikitin, M. B., *North Korea’s Nuclear Weapons Program*, Congressional Research Service (CRS) Report for Congress RL34256 (US Congress, CRS: Washington, DC, 12 Feb. 2009).

Aside from the discussion of the NPT withdrawal clause, NSG members also raised the issue of implementing constraints on ENR transfers due to the growing threat of proliferation networks and terrorism. At the beginning of the 2000s the NSG feared that terrorist groups would try to acquire sensitive technology via an illegal network to build a nuclear weapon, or that they would try to attack ENR facilities located in other states.¹⁴ In fact, the subject arose soon after the terrorist attacks on the USA of 11 September 2001 and gained increasing importance in 2004 after the revelation of the A. Q. Khan network's activities. It was after these events that the USA really focused on the issue, with renewed justifications for introducing stipulations for ENR transfers. In a 2004 speech, then US President George W. Bush stated:

The 40 nations of the Nuclear Suppliers Group should refuse to sell enrichment and reprocessing equipment and technologies to any state that does not already possess full-scale, functioning enrichment and reprocessing plants. This step will prevent new states from developing the means to produce fissile material for nuclear bombs. Proliferators must not be allowed to cynically manipulate the NPT to acquire the material and infrastructure necessary for manufacturing illegal weapons.¹⁵

The threat used by the USA to give a new context to the ENR debate, when analysed critically, is quite an unlikely one, mostly because since the formation of the regime no NSG member has completed an ENR transfer to a state which did not already possess such capabilities. Nevertheless, whether it is a terrorist network trying to acquire a nuclear weapon or cause harm to an existing ENR plant, or a state illegally trying to obtain ENR capability for a nuclear weapon, the more states that have access to sensitive nuclear technology, the more likely further proliferation is: in other words, proliferation breeds proliferation.

¹⁴ McGoldrick, F., *Limiting Transfers of Enrichment and Reprocessing Technology: Issues, Constraints, Options*, Report for Belfer Center for Science and International Affairs (Harvard Kennedy School: Cambridge, MA, May 2011).

¹⁵ The White House, 'President announces new measures to counter the threat of WMD', Remarks by the President on Weapons of Mass Destruction Proliferation, National Defense University, Washington, DC, 11 Feb. 2004, <<http://georgewbush-whitehouse.archives.gov/news/releases/2004/02/20040211-4.html>>. Today the NSG consists of 46 member states.

An additional reason for strengthening the NSG guidelines regarding the transfer of sensitive nuclear technology is to hedge against the possibility of a non-NSG state requesting ENR technology and there not being sufficient safeguard assurances in place to ensure that they do not acquire it and then divert it for military purposes.¹⁶ It has also been argued that ENR facilities are difficult and costly to inspect, and that clandestine military diversion of the use of these facilities is hard to detect. Limiting ENR transfers would therefore help in terms of safeguards by keeping the number of such facilities to a minimum. Finally, proponents of limiting the trade of ENR technology are concerned that once a state acquires such technology, it is more likely to use it for an eventual military programme, even if that was not its intention at the time of acquisition. This argument falls under the definition of nuclear hedging: developing a nuclear energy programme to such an advanced point that it would take relatively little time and effort to use it for a nuclear weapon programme.¹⁷

While this discussion identifies the justifications for the adoption of stricter rules regarding ENR transfers, it is also important to identify the existing instruments of international law that framed the NSG discussions leading up to the 2011 agreement, such as the IAEA Additional Protocol.

IV. THE IAEA ADDITIONAL PROTOCOL: FRAMING THE ENR DISCUSSION

The revelation that Iraq had been pursuing a covert nuclear weapon programme catalysed additional initiatives by the IAEA at the end of the 1990s, having a significant effect on the way the NSG drafted and discussed new conditions for ENR transfers. As IAEA Director General Hans Blix noted in a 1997 speech, after the Gulf War the IAEA realized that its safeguards system, while effective and correct, was not complete.¹⁸ More specifically, while nuclear material accountancy could provide accurate measurements regarding a state's declared facilities, other factors, such as the construction of secret and undeclared facilities, could render the IAEA's safeguards

¹⁶ Krass, A. et al., SIPRI, *Uranium Enrichment and Nuclear Weapons Proliferation* (Taylor & Francis: London, 1983).

¹⁷ Levite, A., 'Never say never again: nuclear reversal revisited', *International Security*, vol. 27, no. 3 (winter 2002–2003).

¹⁸ Blix, H., Keynote speech at the International Seminar on the Role of Export Controls in Nuclear Non-proliferation, Vienna, 7–8 Oct. 1997, <<http://www.nuclearsuppliersgroup.org/Leng/PDF/SeminarControl.pdf>>.

approach ineffective in the fight against nuclear non-proliferation.

Based on this realization, following the 1995 NPT Review Conference, several states undertook to sign Additional Protocols with the IAEA. Although the form of the Additional Protocol varies from one state to the next, the model protocol requires states to agree to greater information sharing on all aspects of their nuclear cycles, short-notice inspector access to all nuclear facilities and the free collection of environmental samples beyond declared locations.¹⁹

Additionally, these agreements increase the amount of information available to the NSG, as they require states to report on international transfers of nuclear material as well as dual-use items and therefore provide a further legal instrument for export controls. Article 2 (ix) of the model protocol specifies that states must report ‘the identity, quantity, [and] location of intended use in the Receiving state’ regarding exports of nuclear and dual-use items, and must confirm imports with the IAEA on request based on other states’ export information, to check for consistency.²⁰ As of April 2012, 115 states plus Euratom had signed Additional Protocols with the IAEA.²¹

The Additional Protocol became a key element in the NSG debate regarding changing INFCIRC/254 to establish conditions for ENR transfers, mainly because having an Additional Protocol is a signal to the international community of a strong commitment to non-proliferation. The reporting, inspection and safeguards requirements contained within the agreement establish a high level of trust between the IAEA and the signatory state, especially due to the increase in transparency and communication necessary for compliance. The introduction of the Additional Protocol signalled a change of approach by the IAEA in response to the new proliferation threats present in the post-cold war world. These threats are mirrored in the previous justifications for limiting ENR transfers. Despite this, the agreement regarding the NSG guidelines did not occur quickly and often seemed in danger of not occurring at all.

¹⁹ International Atomic Energy Agency, ‘Model Protocol Additional to the Agreement(s) between States and the International Atomic Energy Agency for the Application of Safeguards’, INFCIRC/540, Sep. 1997.

²⁰ International Atomic Energy Agency (note 19).

²¹ International Atomic Energy Agency, ‘Conclusion of safeguards agreements, additional protocols and small quantities protocols’, 26 Apr. 2012.

V. ENRICHMENT AND REPROCESSING: THE ORIGINS OF THE ISSUE WITHIN THE NSG

The USA first mentioned the idea of changing the NSG guidelines regarding ENR transfers in 2001. This was in response to Russia citing the ‘safety clause’ of the NSG guidelines as justification for an export of 57 tons of nuclear fuel to the Tarapur nuclear plant in India. The safety clause states that a transfer may take place regardless of NSG guidelines if it is deemed essential for the safe operation of existing facilities and if safeguards are applied to those facilities. It is one of only two ways that a country can justify an exception to compliance with the guidelines, the other being the ‘grandfather clause’, which commits suppliers linked by contracts signed before NSG membership.²²

The NSG responded critically to Russia’s use of the safety clause in this way, as the informal consensus was that it should only be used to prevent an imminent radiological disaster.²³ However, while outraged by Russia’s use of the safety clause as an excuse to engage in trade that the guidelines otherwise would not allow, NSG members were helpless due to the structural and legal weaknesses of the regime.

Nevertheless, the Russia–India transfer sparked a debate within the NSG about the possibility of strengthening the safety clause in such a way that all members could agree on its interpretation. The USA, realizing that similar transfers could take place in the future, but involving more sensitive technology than that of the Russian case, suggested changing the guidelines regarding the transfer of particularly sensitive technology. Limiting the trade of specific ENR materials, equipment and technology could avert such a scenario.

Additional justifications supporting the US initiative put forth by other regime members consequently grew in number. Over time, however, the original motivation for the issue faded from the discussion, especially when the USA began considering its own civil nuclear cooperation deal with India. Therefore, by 2006, when Russia invoked the safety clause again in order to complete another transfer to India, the discourse had

²² International Atomic Energy Agency, INFCIRC/254/Rev.10/Part I (note 3), Article 4(b).

²³ Michel, Q., ‘The U.S.–India civil nuclear cooperation initiative: the question of safeguards’, ed. H. Sokolski, *Falling Behind: International Scrutiny of the Peaceful Atom* (Strategic Studies Institute: Carlisle, PA, 2008).

changed course.²⁴ Nevertheless, since the subject of limiting ENR transfers had already emerged, several NSG members adopted the issue and perpetuated the nearly decade-long debate that eventually led to the 2011 agreement.

VI. THE NSG NEGOTIATIONS: A CONTINUATION

Discussions about establishing conditions for ENR transfers steadily led to greater awareness among NSG members regarding these types of exports. The USA, initially the strongest proponent of changing the guidelines to respond to new threats through stricter export control rules, pursued a two-pronged approach. First, in 2004, it proposed that the IAEA Additional Protocol become a condition for all countries wishing to import nuclear materials and equipment from NSG states.²⁵ Second, the USA proposed limiting ENR transfers from NSG states to states that do not already possess this technology. This meant a complete prohibition of ENR trade outside of already established suppliers. US President George W. Bush emphasized that such a move would prevent new states from developing nuclear weapons.²⁶ To build support for this initiative, the USA engaged in strong diplomacy with other NSG members.

Based on the reactions it received within the NSG, the USA soon realized that its strict proposal to limit ENR transfers would be difficult, if not impossible, to reach a consensus on. Other NSG members had come up with a new way to move the issue forward, based on a more levelled approach. The idea of establishing specific conditions—a ‘criteria-based approach’—for the supply of ENR transfers came from France in 2004, followed shortly by a proposed model from Canada that served as the draft document for several years. This draft document established certain criteria for ENR transfers, including: (a) that a transfer does not negatively impact on the security situation in a country, (b) that the importing state has an acceptable reason for the import, and (c) that, in the event of a transfer, the recipient state works closely with suppliers in the construction and maintenance of ENR facilities. Several NSG members immediately opposed these

criteria, including the USA, which objected to them on the basis that they were too lax.

In order to reach a consensus, the USA compromised on several points. In addition to the criteria listed above, the USA vouched for a so-called total black box rule: that even on an importing state’s compliance with the Additional Protocol condition of supply, only capacity would be transferred, not technology. More specifically, under such a black box rule, exporters would supply ‘only complete, turnkey systems and facilities, and participate with the recipient’s consent directly in the operation of the facility’.²⁷ The USA also proposed that suppliers consider whether a transfer would stimulate other states in the importing country’s region to seek sensitive nuclear technology, and that suppliers not export such technology to countries that had already agreed to refrain from importing it.

In response to the new US position, the NSG drafted a new ‘clean text’ in 2008, which attempted to take into account all viewpoints and finally receive the support of all members. The clean text included so-called objective and subjective criteria. The objective criteria were mandatory conditions that suppliers would have to take into account before completing an ENR transfer. The subjective criteria were additional criteria that suppliers could take into consideration. Importantly, the clean text called for the new objective criteria to replace the word ‘restraint’ in the NSG guidelines with the following requirements for receiving states: (a) to be signatories and in compliance with the NPT; (b) to have an Additional Protocol agreement with the IAEA and fully comply with it; (c) to adhere consistently to NSG guidelines; (d) to implement the export controls delineated in United Nations Security Council Resolution 1540; (e) to have concluded intergovernmental agreements with receiving states regarding end use, safeguards and retransfer; (f) to have committed to mutually agreed standards with receiver countries; and (g) to apply IAEA safety standards and comply with international nuclear safety laws.²⁸

The subjective criteria included those proposed earlier by the USA and some other NSG members regarding considerations of domestic and regional stability, prior agreements to refrain from acquiring

²⁴ Michel (note 23).

²⁵ Hibbs, M., *Nuclear Suppliers Group and the Additional Protocol*, Nuclear Energy Brief (Carnegie Endowment for International Peace: Washington, DC, 18 Aug. 2010).

²⁶ ‘Bush’s speech on the spread of nuclear weapons’, *New York Times*, 11 Feb. 2004.

²⁷ Boese, W., ‘US joins others seeking nuclear export criteria’, *Arms Control Today*, May 2008.

²⁸ Lewis, J., ‘Additional Protocol and ENR transfers’, *Arms Control Wonk*, 13 May 2011, <<http://lewis.armscontrolwonk.com/archive/3962/additional-protocol-and-enr-transfers#more-1487>>.

ENR capability, a coherent reason for desiring the technology, and whether a transfer would be used for peaceful purposes. In addition, the clean text reached a compromise between the US position on the black box rule and opposing opinions, namely from Canada. The new, more limited proposal sought to put the transfer of existing ENR technology, and all technology once it has been developed, under the black box rule. However, during the experimental and development phase states would be able to coordinate and share the technology itself.²⁹

In 2009, in its efforts to convince the NSG to adopt these new conditions, the USA led the Group of Eight (G8) to adopt a unilateral declaration not to conduct ENR transfers, even though it was quite obvious that the NSG would not adopt the US position in favour of limiting ENR exports altogether to countries that do not already possess them. In a reflection of compromise over this issue, the G8 declaration then transformed its pledge to abide by the clean text draft NSG guidelines regarding these types of transfers, which had not yet been adopted officially within the regime. Meanwhile, the USA began to implement its original view regarding ENR transfers in its bilateral nuclear cooperation agreements with receiving states. For example, the USA and the United Arab Emirates (UAE), in their 123 Agreement for Peaceful Civilian Nuclear Energy Cooperation in 2009, included a clause in which the UAE promises to refrain from acquiring or developing ENR capabilities in exchange for nuclear cooperation.³⁰ This policy did not continue, however, as the USA later realized that pushing states to adopt such a clause would hurt its ability to conclude civil nuclear cooperation deals. Indeed, newer deals forgo such language in return for safeguards assurances.³¹

Opposition to the guideline changes

The 2008 clean text of the NSG, while being supported by many key regime members, failed for several years to garner enough support to change the guidelines. Several members refused to consider the conditions set out in the clean text, while other countries supported modifying the text, arguing that states with a spotless non-proliferation record should have the right to

peaceful uses of nuclear technology according to NPT Article IV.

The disagreements within the NSG regarding the inclusion of the ENR issue in the guidelines reflect the particularities in the decision-making apparatus of the regime and the difficulty of reaching consensus within it.³² The NSG may revise guidelines or make other decisions based on consensus reached at annual plenary meetings. Achieving agreement between all members on significant decisions is an arduous task of diplomacy, negotiation and patience for those involved.

An obstacle to the ENR initiative was posed by members of the NSG who did not have an Additional Protocol agreement with the IAEA and did not plan to have one in the future. Three NSG members in particular—South Africa, Brazil and Argentina—opposed the changes.³³ South Africa objected due to concerns that requiring an Additional Protocol as a condition for transfer would be unfair to receiving states since the Additional Protocol is a voluntary agreement between states and the IAEA, and it wanted to ‘protect the NSG from taking action that can be viewed as discriminatory’.³⁴

The objections of Brazil and Argentina present a special case. While neither country has signed an Additional Protocol agreement with the IAEA, they work together under a strict model of safeguards and inspections organized by the Brazilian–Argentine Agency for Accounting and Control of Nuclear Materials (ABACC). Brazil, Argentina, ABACC and the IAEA signed an agreement in 1991 that consolidates the system for the application of safeguards in force in both countries. Under the agreement, the ABACC and the IAEA conduct joint inspections, and Brazil has argued that this arrangement is a reason not to sign the Additional Protocol. In particular, it argues that an Additional Protocol would create unnecessary financial burdens and stifle commercial nuclear development by creating new regulations. Brazil further views the Additional Protocol as discriminatory because it creates more intrusive requirements for non-nuclear weapon states, while nuclear weapon states do not properly fulfil their disarmament pledges. Finally,

²⁹ Zangger Committee official, Interview with author, 10 Feb. 2011.

³⁰ Bürkli, D., ‘UAE sets nuclear “gold standard”’, *International Security Network Insights*, 3 Mar. 2011.

³¹ Pearl, J., ‘Charting a smarter course for the US–Jordan nuclear deal’, *Bulletin of the Atomic Scientists*, 25 Oct. 2010.

³² Horner, D., ‘NSG makes little headway at meeting’, *Arms Control Today*, July–Aug. 2010.

³³ Hibbs (note 25).

³⁴ US Embassy in Pretoria, ‘South Africa: amending NSG guidelines’, Cable to US State Department, no. 09PRETORIA2, 2 Jan. 2009, <<http://wikileaks.ch/cable/2009/01/09PRETORIA2.html>>.

Brazil objected for reasons of national pride.³⁵ In the case of Argentina, there have been no public indications as to why it has not signed the Additional Protocol, but it can be inferred that the reasons are similar to those of Brazil, especially regarding the oversight structure provided by ABACC.

In addition to the opposition voiced by Brazil and Argentina, Turkey opposed the subjective criteria of the clean text. In particular, Turkey took issue with the subjective criteria regarding whether a plausible reason exists for a transfer of sensitive nuclear technology to take place, and the impact of the transfer on the country and the region's stability and security. Turkey opposed such criteria because it felt that it would be viewed as being in an unstable region, and therefore denied transfers regardless of its non-proliferation record and commitments.³⁶ Its position was that the NSG should not 'victimize' any country simply because its neighbours are considered 'problematic'.³⁷ It also opposed the black-box requirement for trade of sensitive technology.

Many other countries within the NSG also took issue with the subjective criteria proposed in the clean text. The Republic of Korea (ROK, or South Korea), which had agreed with North Korea in 1992 to refrain from introducing ENR technology, did not like the idea of forgoing its ability to obtain such technology in the future, especially in light of its plans to become a major nuclear exporter. Canada, the Netherlands and South Africa led the opposition on this front, protesting that a country that already met the objective criteria of the clean text, and therefore had a clear commitment to non-proliferation and abided by nuclear safeguards obligations, should not be circumscribed by further subjective criteria.

Regardless of the stalemate within the NSG negotiations, several member states decided to independently require an Additional Protocol agreement between the end-user state and the IAEA. This can be done, of course, without the need for general consensus between NSG members, as

the NSG guidelines establish minimum criteria for conditions of trade. If a country seeks to have even tighter regulations, it is within its rights to do so. The EU WMD Strategy gives a clear EU position in this regard: the NSG should 'make the export of controlled nuclear and nuclear related items and technology conditional on ratifying and implementing the Additional Protocol'.³⁸ Nevertheless, the growing agreement among NSG members on the adoption of new guidelines regarding the Additional Protocol continued to face opposition from several members. This obstacle was overcome solely by compromising on the revised guidelines, the text of which was agreed on in June 2011.

Agreement and the revised guidelines

In June 2011 at the 21st Plenary Meeting of the NSG, in Noorwijk, the Netherlands, an agreement was finally reached and revised guidelines were adopted. In a public statement following the meeting, the NSG stated that the new rules aim to 'address proliferation concerns without hampering legitimate trade', reflecting the role of the regime as a whole.³⁹ The final text was published as INFCIRC 254/Rev.10/Part I. By analysing the changes, it is possible to determine how much the new guidelines strengthen non-proliferation efforts, especially in the EU context.

The older version of the NSG guidelines dealt with transfers of sensitive nuclear technology in paragraphs VI and VII. Paragraph VI required states to 'exercise restraint in the transfer of sensitive facilities, technology, and material usable for nuclear weapons or other nuclear explosive devices'.⁴⁰ It also stated that if such a transfer takes place, recipients should be encouraged to accept supplier or multinational involvement in the facilities, and that the suppliers should promote regional fuel cycle centres. Paragraph VII stated that if a supplier decides to export enrichment technology, the recipient state must agree not to enrich uranium above 20 per cent without the

³⁵ Rublee, M. R., 'Nuclear threshold states', *Nonproliferation Review*, vol. 17, no. 1, Mar. 2010.

³⁶ Nitikin, M. B., Andrews, A. and Holt, M., *Managing the Nuclear Fuel Cycle: Policy Implications of Expanding Global Access to Nuclear Power*, Congressional Research Service Report for Congress RL34234 (US Congress, CRS: Washington, DC, 12 Sep. 2011).

³⁷ US Embassy in Ankara, 'Turkey/NSG: Turkey concerned about "subjective criteria" for ENR transfers', Cable to US State Department, no. 08ANKARA1974, 14 Nov. 2008, <<http://wikileaks.ch/cable/2008/11/08ANKARA1974.html>>.

³⁸ Council of the European Union (note 1).

³⁹ Nuclear Suppliers Group (NSG), NSG Public Statement, Nuclear Suppliers Group Plenary, Noordwijk, the Netherlands, 23–24 June 2011, <<http://www.nuclearsuppliersgroup.org/Leng/PRESS/Public%20statement%202011%20NSG%20v7.pdf>>.

⁴⁰ International Atomic Energy Agency, 'Communication received from the permanent mission of Brazil regarding certain member states' guidelines for the export of nuclear material, equipment and technology', INFCIRC/254/Rev.9/Part I, 7 Nov. 2007, <http://www.un.org/sc/committees/1718/pdf/INFCIRC_254_Rev.9_Part1.pdf>.

consent of the supplier and without notifying the IAEA.

These two paragraphs were significantly expanded in the revised guidelines. While the word ‘restraint’ remains in the first sentence of Paragraph VI, it is qualified by conditions modelled on the 2008 clean text. NSG members are required to abide by the conditions with a ‘policy of restraint . . . especially in cases when a State has on its territory entities that are the object of active NSG Guidelines Part 2 denial notifications from more than one NSG Participating Government’.⁴¹ Paragraph VI(a) obliges states to ‘not authorize the transfer’ of sensitive exports unless recipient states comply with six objective criteria: being a party to the NPT; being in compliance with IAEA safeguards obligations; implementing international obligations under UN Security Council Resolution 1540; assuring suppliers that the imports will not be retransferred and will be used for non-explosive purposes and under full safeguards; being in compliance with international norms regarding physical protection of nuclear facilities; and committing to IAEA and international nuclear safety conventions.

The rest of Paragraph VI of the revised guidelines is a mixture of subjective and objective criteria. Paragraph VI(b) fuses together the subjective criteria from the clean text into one general and open-ended statement:

In considering whether to authorize such transfers, suppliers . . . should consult with potential recipients to ensure that enrichment and reprocessing facilities, equipment and technology are intended for peaceful purposes only; also taking into account at their national discretion, any relevant factors as may be applicable.

Presumably these ‘relevant factors’ are a reference to the effect of the transfer on domestic and regional stability, prior arrangements to abjure the acquisition of sensitive nuclear technology, and a coherent reason for desiring the technology. However, these presumed subjective criteria are not specified and, in the context of the new guideline text, a great deal is left open to interpretation.

Paragraph VI(c) introduces the Additional Protocol as a condition of supply, but does so alongside a few

alternative conditions. Since Brazil and Argentina would not shift in their defence of ABACC, the NSG had to compromise on the matter of requiring the Additional Protocol. The new guideline text states the following for when a sensitive nuclear transfer can take place:

[O]nly when the recipient has brought into force a Comprehensive Safeguards Agreement, and an Additional Protocol based on the Model Additional Protocol or, pending this, is implementing appropriate safeguards agreements in cooperation with the IAEA, including a regional accounting and control arrangement for nuclear materials, as approved by the IAEA Board of Governors.

The second part of Paragraph VI(c) is a clear reference to ABACC, but the choice of words in the text must not be overlooked. Use of the phrase ‘pending this’ implies that arrangements such as ABACC are appropriate while awaiting the implementation of an Additional Protocol agreement. Therefore, Brazil and Argentina could receive sensitive nuclear transfers even without an Additional Protocol in place, but they would be expected to eventually implement one.⁴²

Interpretation of the language in practice may differ, however, as evidenced by Brazil’s reaction to the new guidelines. Following the June 2011 agreement, ABACC immediately issued a statement entitled ‘NSG recognizes the Quadripartite Agreement as an alternative criterion to the Additional Protocol’.⁴³ This signalled that the text not only clarifies regional arrangements such as ABACC as acceptable alternatives pending Additional Protocol implementation, but also sees them as somehow equivalent. While Brazil has spun the text to its favour, whether or not countries with such alternative agreements will receive sensitive nuclear transfers in the future will, of course, depend on how the suppliers themselves interpret the text. Exporters of sensitive technology may still require Brazil and Argentina

⁴¹ International Atomic Energy Agency (note 3).

⁴² Hibbs, M., *New Global Rules for Sensitive Trade*, Nuclear Energy Brief (Carnegie Endowment for International Peace: Washington, DC, 28 July 2011).

⁴³ Brazilian–Argentine Agency for Accounting and Control of Nuclear Materials (ABACC), ‘NSG recognizes the Quadripartite Agreement as an alternative criterion to the Additional Protocol’, 28 June 2011, <<http://www.abacc.org.br/?p=3846&lang=en>>.

to implement the Additional Protocol by the time a potential transfer takes place.

The last parts of Paragraph VI of the revised text, (d) and (e), deal with setting up non-proliferation conditions related to ENR transfers, and urge recipient states to accept supplier involvement, multinational participation or the use of multinational regional fuel centres, respectively. While Paragraph VI addresses conditions for the supply of ENR facilities, Paragraph VII addresses how the transfers should take place once a country meets the stated criteria. Whereas in the former NSG guidelines the only stipulation for conducting a sensitive transfer was that recipient states agree not to enrich uranium to more than 20 per cent, the new text outlines several other requirements adopted from the negotiations, called 'Special Arrangements'. Paragraph VII(a) re-emphasizes the 20 per cent enrichment rule and further calls on supplier states to try to design and construct facilities that preclude the ability of the recipient to enrich to more than 20 per cent. Paragraph VII(b) reflects the way that the NSG compromised on the black box debate, setting out two qualifications for the transfer of sensitive technology. First, suppliers should avoid transferring enabling design and manufacturing technology. Second, recipients should agree to conditions of transfer that do not 'permit or enable replication of the facilities'. However, these two restrictions apply to the technology and facilities that produce enriched uranium on a significant scale only as of 31 December 2008.

Paragraph VII(c) specifies that participants may individually or jointly develop enrichment technology that has been proven not to produce a significant quantity of enriched uranium and that transfers of this technology are subject to the conditions stated in Paragraph VII(b) unless alternative arrangements are made. Such alternative arrangements should be equivalent to the conditions in Paragraph VII(b) and the NSG should be consulted in relation to them. Notably, this section of the paragraph does not specify how much enriched uranium constitutes a 'significant quantity'. Paragraph VII(c) also states that starting in 2013 the NSG will discuss changes in enrichment technology and commercial practices that may affect the way such technology is traded. Paragraph VII(d) addresses how the conditions apply to cooperative enrichment enterprises, where a multinational company that is established in more than one state is exporting enrichment facilities. As

enrichment technology is often held in the form of these companies, transfers must take place that involve the different partners of the multinational supply chain in accordance with the conditions set out in paragraphs VI and VII.

IAEA safeguards on supplied enrichment facilities are addressed in Paragraph VII(e) and commit states to facilitate the IAEA's inspection work as much as possible, as well as to consult with the agency throughout the construction and design process, and emphasize effective nuclear material and physical protection measures. Finally, the last part of Paragraph VII calls on suppliers to ensure that the exported technology will be protected and not retransferred, and that the recipient state has strong enough domestic laws in place to ensure this.

The revised guidelines demonstrate a significant change from the old version of INFCIRC/254 in that the conditions defining when a transfer of ENR technology can occur have been greatly qualified, and the circumstances dictating the way in which such a transfer takes place have been narrowed. After many years of negotiation and struggling to reach consensus, supplier states succeeded in establishing clear conditions for the trade of sensitive nuclear technology. However, although the text of the guidelines has been amended, the power of the guidelines to influence NSG member behaviour remains the same. The guidelines are informal arrangements and there are no formalized consequences for non-compliance. This affects the ability of the regime to consistently and effectively enforce its own rules.

Member states' reactions to the revised guidelines, while not a definite indication of their usefulness in strengthening the NSG's ability to combat nuclear proliferation, do offer a glimpse of the immediate consequences of the rule change, particularly vis-à-vis the EU WMD Strategy.

Consequences for future trade

The justifications for changing paragraphs VI and VII of the NSG guidelines were based on countering potential proliferation threats related to ENR transfers. However, almost all of the media attention surrounding the amended guidelines raised the question of what the consequences would be for current and future civil nuclear cooperation deals with India. In 2008 the NSG granted India a waiver, allowing suppliers to export there despite the fact that India is not an NPT signatory

and therefore does not fulfil the conditions set out in INFCIRC/254 for receiving nuclear transfers. Three NSG members have signed civilian nuclear cooperation deals with India: France, Russia and the USA. India is also the only country that has clearly indicated that it would like to import ENR technology from an NSG supplier state.

While none of the agreements concluded with India by France, Russia and the USA have included ENR transfers, there have been promises and indications made by these countries that such transfers could take place in the future. France signed a civil nuclear cooperation deal with India in December 2010 to build two reactors. After the guideline change in June 2011, French Foreign Minister Alain Juppé stated that the new rules would not prevent France from exporting ENR technology to India in the future.⁴⁴ Russia has signed several deals with India to build nuclear plants, the most recent of which was signed in March 2010 for the construction of sixteen reactors. India and Russia are currently negotiating an ENR deal. While Russia has decided in at least one case to build a reprocessing plant on its own soil rather than in India as previously planned, it has not closed the door on such facilities being built in India in the future.⁴⁵

Similarly, the 2008 US–India agreement promised India help with increasing its nuclear power capacity to 25 000 megawatts by 2020, but did not involve ENR transfers. However, the deal contained language interpreted by India as ‘forward-looking’ with regard to the transfer of reprocessing technology.⁴⁶ India is seeking US help to acquire this technology in order to reprocess spent fuel from a reactor and use it for a fast-breeder reactor. In March 2010 Indian Foreign Secretary Nirupama Rao asked the USA to streamline its export controls to allow more high technology transfers, even though dual-use exports requiring licenses for US–India trade have dropped from 40 per cent to just 0.3 per cent since the civil nuclear cooperation was agreed.⁴⁷ It is not clear whether the USA will continue to apply the 2008 Indian waiver in the face of the revised NSG guidelines, but official

statements so far can be interpreted as leaving the option open for the future transfer of this technology. The US State Department has publicly stated that:

[N]othing in the new enrichment and reprocessing transfer restriction . . . should be construed as detracting from the unique impact and importance of the US–India agreement and our full commitment to full civil nuclear cooperation.⁴⁸

The implications of this statement have been underscored by several other speeches by US officials reiterating the 2008 waiver, in an attempt to quell India’s fears that the revised guidelines on sensitive nuclear transfers would endanger its exceptional position.

Aside from India, there has been no discussion of the impact of the new guidelines since they were changed in June 2011. It is ironic, given the effort put into negotiating conditions for the trade of sensitive technology to non-NSG members, that the first possible future instance of such trade is the Indian ‘exception’. One of the upcoming challenges for the NSG will be whether to admit India as a member of the regime. It will be important for EU countries to make a decisive and coordinated decision in this regard based on the goals of the 2003 European Security Strategy. More importantly, the EU must think ahead in terms of the consequences of the ENR agreement on the EU WMD Strategy.

VII. CONCLUSIONS

The EU, while holding observer status in the NSG, could take several steps in order to strengthen its security objectives in light of the revised guidelines on ENR transfers. These steps would need to be in line with the 2003 EU WMD Strategy, which stresses an effective multilateral approach to non-proliferation and the promotion of stable regional and international environments while using the legal, political and economic instruments at its disposal to achieve security goals. The EU’s goal of ‘[working] towards improving the existing export control mechanisms’ and ‘[advocating] adherence to effective export control

⁴⁴ ‘France not bound by new NSG restriction on nuclear sales to India: interview with French Foreign Minister Alain Juppé’, *The Hindu* (Chennai), 24 Oct. 2011.

⁴⁵ Parashar, S., ‘NSG norms make Russia rethink N-plant in India’, *Times of India*, 3 Nov. 2011.

⁴⁶ ‘New NSG guidelines may negatively impact India’s landmark civilian nuclear deal’, *Economic Times* (Mumbai), 29 June 2011.

⁴⁷ ‘India wants US to streamline its export controls’, *Business Standard* (Mumbai), 16 Mar. 2010.

⁴⁸ ‘US commits to expanding nuclear cooperation with India’, RTT News, 24 June 2011, <<http://www.rttnews.com/1653337/us-commits-to-expanding-nuclear-cooperation-with-india.aspx>>.

criteria by countries outside the existing regimes and arrangements', as stated in the WMD Strategy, already follows the NSG line.

The EU's first step would therefore be to ensure compliance with the revised guidelines by member states. European Council Regulation No. 428/2009 controls exports, transfers, brokering and transit of dual-use items with a view to ensuring that these items do not contribute to WMD proliferation. The regulation specifies dual-use trade, but nuclear materials, facilities and equipment are also included in the control list as Category 0 items and several items in a variety of categories are used in ENR. Introductory paragraph 6 of the regulation states that decisions taken with regard to 'items subject to export controls must be in conformity with the obligations and commitments that Member States have accepted as members of the relevant international non-proliferation regimes and export control arrangements, or by ratification of relevant international treaties'.⁴⁹

This means that EU member states, all of which are NSG members, are automatically bound by any changes to the NSG guidelines and must implement them in their national legislation and enforcement mechanisms. In order to ensure compliance with the revised guidelines, the EU should consider adopting the conditions for ENR transfer in the language of the regulation, or otherwise consider receiving guarantees that states fully understand and commit to the guidelines.

The EU could also use the new conditions for ENR transfers as a chance to further underscore the international legal non-proliferation regime. Whether or not a country has the intention of receiving an ENR transfer, conforming to the conditions set by paragraphs VI and VII of the NSG guidelines reinforces the legal instruments that strengthen non-proliferation efforts worldwide. These instruments, as related to nuclear WMD, include the NPT, UN Security Council Resolution 1540 and the IAEA Additional Protocol, as well as IAEA safeguards and compliance with international nuclear law regarding physical protection and nuclear safety. The EU WMD Strategy emphasizes employing these international legal instruments as well as supporting improvements to existing verification mechanisms and systems. Continuing these efforts is

critical to keeping ENR capabilities restricted to those countries in conformity with international law.

Finally, the EU needs to deal with the consequences stemming from the revised NSG guidelines with a uniform voice. In paragraph 30 (4) of the WMD Strategy, coordinating the EU position within the NSG is specified as a part of a 'live action plan' whose implementation is key to maximizing the strategy's effectiveness. However, achieving EU consensus in the context of the consequences following the ENR agreement is challenging due to the varying interests of member states. For example, France, which has a civil nuclear cooperation deal with India, may have different interests than another EU member state that is not a nuclear supplier. This point has been underscored by Peter van Ham, who believes that 'divisions among member states [make] it hard to envisage a common EU policy of substance that [takes] into account the economic, political and security interests of most—let alone all—member states'.⁵⁰

Indeed, the revised guidelines pose an important test for the EU. However, they also give it the opportunity to adopt a common position within the NSG on ENR transfer issues. The question of India's membership will inevitably be raised in connection with its NSG waiver in 2008 and following the statements made by suppliers after the guideline changes. EU member states must therefore act collectively to ensure that whatever decision is taken is one with foresight and one that does not compromise the EU's non-proliferation objectives.

ABBREVIATIONS

ABACC	Brazilian–Argentine Agency for Accounting and Control of Nuclear Materials
ENR	Enrichment and reprocessing
EU	European Union
IAEA	International Atomic Energy Agency
HEU	Highly enriched uranium
NPT	Non-Proliferation Treaty
NSG	Nuclear Suppliers Group
WMD	Weapon(s) of mass destruction

⁴⁹ Council Regulation (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items (Recast), *Official Journal of the European Union*, L134, 29 May 2009.

⁵⁰ Van Ham, P., 'The European Union's WMD strategy and the CFSP: a critical analysis', Non-Proliferation Papers no. 2, Sep. 2011, <http://www.nonproliferation.eu/documents/nonproliferationpapers/02_vanham.pdf>.

A EUROPEAN NETWORK

In July 2010 the Council of the European Union decided to create a network bringing together foreign policy institutions and research centres from across the EU to encourage political and security-related dialogue and the long-term discussion of measures to combat the proliferation of weapons of mass destruction (WMD) and their delivery systems.

STRUCTURE

The EU Non-Proliferation Consortium is managed jointly by four institutes entrusted with the project, in close cooperation with the representative of the High Representative of the Union for Foreign Affairs and Security Policy. The four institutes are the Fondation pour la recherche stratégique (FRS) in Paris, the Peace Research Institute in Frankfurt (PRIF), the International Institute for Strategic Studies (IISS) in London, and Stockholm International Peace Research Institute (SIPRI). The Consortium began its work in January 2011 and forms the core of a wider network of European non-proliferation think tanks and research centres which will be closely associated with the activities of the Consortium.

MISSION

The main aim of the network of independent non-proliferation think tanks is to encourage discussion of measures to combat the proliferation of weapons of mass destruction and their delivery systems within civil society, particularly among experts, researchers and academics. The scope of activities shall also cover issues related to conventional weapons. The fruits of the network discussions can be submitted in the form of reports and recommendations to the responsible officials within the European Union.

It is expected that this network will support EU action to counter proliferation. To that end, the network can also establish cooperation with specialized institutions and research centres in third countries, in particular in those with which the EU is conducting specific non-proliferation dialogues.

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