

SOUTH AFRICA AND THE GLOBAL NUCLEAR BAZAAR: NORMS AND STATE IDENTITY IN THE NUCLEAR EXPORT CONTROL REGIME

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ABSTRACT

As a former illicit importer and exporter of nuclear-related equipment, South Africa remains determined to project itself as a rehabilitated nuclear state. To achieve this, the country participates in various nuclear export control regimes. However, the South African government's efforts were undermined by a series of nuclear proliferation-related incidents, most notably the involvement of South Africans in the A Q Khan network. This article analyses South Africa's identity, roles and interests *vis-à-vis* the nuclear export control regime and concludes with an assessment of South Africa's nuclear diplomatic instruments and achievements in the nuclear export control regime.

1. INTRODUCTION

In March 1993, President F W de Klerk announced to the South African Parliament that the termination of the country's nuclear weapons programme commenced in September 1989; shortly after he had taken office (De Klerk, 1993). Internationally, South Africa's nuclear *volte face* was lauded, but some concerns remained, which were only fully addressed once the International Atomic Energy

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Agency (IAEA) verified the complete dismantlement of South Africa's nuclear weapons programme in 1993.

A few months into the African National Congress (ANC) led Government of National Unity (GNU), the South African Cabinet reiterated the country's commitment to nuclear non-proliferation and accepted, on 31 August 1994, a proposal by the then Minister of Foreign Affairs, Alfred Nzo, that South Africa should actively participate in nuclear non-proliferation regimes and suppliers groups; publicly adopt positions on nuclear non-proliferation and other weapons of mass destruction (WMD) in order to promote international peace and security; and use its position in the Non-Aligned Movement (NAM) and nuclear suppliers groups to ensure that nuclear-related export controls do not deny developing states access to advanced technology (Markram, 2004: 12). South Africa also adopted a strong position on the nuclear non-proliferation export control regime. In an effort to allay fears of a South African nuclear roll-back whilst maintaining its nuclear sovereignty, the South African government admitted that 'a primary goal' of its foreign policy is to "reinforce and promote South Africa as a responsible producer, possessor and trader of defence-related products and advanced technologies in the nuclear, biological, chemical and missile fields" to "promote the benefits of non-proliferation" in Africa and the NAM (DFA, 2009).

The nuclear legacy of South Africa's erstwhile nuclear weapons programme meant that the country could maintain and advance certain aspects of its nuclear programme to, *inter alia*, export to international clients; thus earning much-needed foreign currency. Despite its history of by-passing severe United Nations (UN) sanctions relating to its nuclear industry (UN, 1994), South Africa has constructed a new state identity as a state compliant with the major nuclear non-proliferation norms, including those pertaining to the international nuclear trade. South Africa constructed this identity by practicing a unique brand of niche diplomacy by employing typical niche diplomatic strategies, namely confrontation, parallelism and partnership (Henrikson, 2005: 70-71; 74).

Therefore, this contribution outlines the nuclear non-proliferation export control regime before it proceeds to focus on South Africa's compliance with the regime by implementing, in a Krasnerian sense, 'principles, norms, rules and decision-making procedures' domestic-

ally to comply with these regimes (Krasner, 2009: 113). The article also focuses on South Africa's construction of its compliance with and socialisation of norms related to the global 'nuclear bazaar', here referring to the international nuclear non-proliferation export regime. By joining nuclear export control regimes to reiterate the country's commitment to nuclear non-proliferation, and communicating the country's national interests as complementing (and not opposing) international nuclear non-proliferation norms, South Africa portrayed its newly constructed identity as a unique state, which abandoned its nuclear weapons programme but also as a state which continues to comply with these norms. Despite these efforts, some discrepancies occurred between South Africa's actual and real behaviour in this regard.

2. THE NUCLEAR NON-PROLIFERATION EXPORT CONTROL REGIME

This article follows Krasner's (2009) definition of a regime. Therefore, multilateral nuclear non-proliferation export control regimes can be defined as laws, regulations and norms designed to regulate the transfer or export of nuclear material, technologies, equipment, software, and related data and services to foreign states and corporations to improve national security and/or trade. The norms associated with nuclear export control regimes include the 'nuclear taboo' (Tannenwald, 2008), that is, the non-use of nuclear weapons. A second norm relates to the peaceful uses of nuclear energy, whereas nuclear non-proliferation constitutes a third norm. These norms are encapsulated in a number of organisations and international agreements, most notably the *Treaty on the Non-Proliferation of Nuclear Weapons* (NPT), as outlined below.

Although significant international compliance with these norms occurs, several cases of non-compliance continue to occur with Iran, North Korea, Israel and Pakistan some notable examples. In order to enforce these norms, the international community has applied several strategies, bi- and multilateral diplomacy, isolation, sanctions, and inspections by the International Atomic Energy Agency (IAEA).

Export controls are not necessarily complete prohibitions but require government permission, in compliance with a state's obliga-

tion as a party to nuclear non-proliferation agreements. More importantly, export controls can delay the acquisition of nuclear weapons of mass destruction (WMD) by deviant state and non-state actors by 'buying time' for diplomatic channels to operate. These controls also serve as a deterrent by increasing the cost of pursuing WMDs, and contribute to the protection of commercial interests and secure trade in dual-use goods between countries (Beck and Gahlaut, 2003: 2-4).

The nuclear export regime originated prior to the Second World War as the United States (US), the United Kingdom (UK), the Soviet Union, Japan and Germany competed and cooperated to develop nuclear technology, equipment and material. The IAEA was the first major multilateral effort to establish a nuclear export regime. The IAEA, whose Statute entered into force on 29 July 1957, assists states with the development of nuclear science and technology for peaceful uses, oversees the safety and security of nuclear material and installations for peaceful uses, and enforces safeguards and verification processes relating to nuclear disarmament (IAEA, 1957); thus institutionalising, *inter alia*, the nuclear export regime. A significant number of technologies, material, equipment and raw materials required for the construction of nuclear weapons also have legitimate civilian, or peaceful application; resulting in the so-called dual-use dilemma. Consequently, the control of these technologies, material, equipment and raw materials is imperative to prevent horizontal and vertical nuclear proliferation (Early, 2009: 3).

The UN (2012) recognises several multilateral export control regimes, as outlined in *Table 1*, which also indicates South Africa's membership of some of these regimes.

The nuclear export control regimes included in *Table 1* are predominantly voluntary, informal and impose no legally-binding obligation on its participants. Consisting of like-minded states, its membership is often exclusive and aims to prevent nuclear proliferation. Finally, these regimes enable the coordination of national nuclear export control policies to control the proliferation of controlled goods through the joint implementation of common export control lists by participating governments (Early, 2009).

The remainder of this section summarises the regimes South Africa participates in as a precursor to the discussion on the country's norm compliance and the construction of state identity *vis-à-vis* the nuclear export regime as manifested in domestic legislation and

Table 1: South Africa's membership of nuclear non-proliferation export control regimes		
Nuclear export control regime	South African membership	Date of membership
Australia Group (AG)	x	Not applicable*
Missile Technology Control Regime (MTCR)	√	1995
Nuclear Suppliers Group (NSG)	√	1995
Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies (WA)	√	2006
Zangger Committee (ZC)	√	1993
*Membership of this regime is restricted.		
Sources: UN 2012 & NPC 2011		

the country's diplomatic conduct.

2.1 The Zangger Committee

Established in 1971, the Zangger Committee (ZC) is one of the oldest nuclear export control regimes and not formally part of the NPT regime. The ZC attempts to standardise the interpretation of nuclear export control policies for NPT Parties. Deciding to designate its status as informal, its membership as voluntary and its decisions legally non-binding, ZC members apply a so-called Trigger List, containing dual-use equipment, items and material whose export would trigger the need for states to implement safeguards (ZC, 2010). Currently, the ZC has 38 members, including all nuclear weapons states (NWS) and some non-nuclear weapons states (NNWS), including South Africa which joined the ZC on 23 October 1993.

2.2 Nuclear Suppliers Group

The Nuclear Suppliers Group (NSG) was established in 1974 as an informal voluntary institution. The NSG's (2010) export guidelines include *the Guidelines for Nuclear Transfers*, which governs nuclear equipment; and the *Guidelines for Transfers of Nuclear-Related Dual-*

Use Equipment, Materials, Software and Related Technology, which governs the export of nuclear-related dual-use items and technologies.

South Africa joined the NSG on 5 April 1995, prior to the start of the 1995 NPT conference.

2.3 Wassenaar Arrangement

Established in 1995, the Wassenaar Arrangement (WA) covers conventional weapons, and sensitive dual-use goods and technologies that can be used in WMDs (WA, 2011). Although it became a member of the WA only in 2006, South Africa participated in the WA's first outreach seminar in Vienna on 19 October 2004, and incorporated the WA control lists into the *National Conventional Arms Control Act* (Act 41 of 2002) as early as 2003. Cabinet only gave approval for South African membership on 1 December 2004. However, due to administrative delays, South Africa's membership took some time to realise. The country became the first African member of the WA on 28 February 2006 (DIRCO, 2011).

2.4 The Missile Technology Control Regime (MTCR) and The Hague Code of Conduct against Ballistic Missile Proliferation (HCOC)

South Africa's missile development programme commenced in the 1960s. Originally, the intended payload for the missiles was most likely the gun-type atomic bombs. The RSA-3, one of the missiles in the RSA missile series of the National Party government prior to 1990, could possibly have delivered a small warhead, and was most likely a space launch adaptation of the RSA-2 missile.

While still in office, De Klerk's government presided over the establishment of Denel (Pty) Limited (hereafter Denel) on 1 April 1992. State-owned Denel is the largest manufacturer of military aerospace and landward defence equipment in Africa. In June 1993, South Africa terminated its manufacturing programme for long-range missiles and dismantled its capability to produce large space rockets. However, Denel revived its missile capability with Denel Dynamics, the only African missile house. Currently, as outlined in *Table 2*, Denel Dynamics designs, develops and manufactures five missiles.

Table 2: South Africa's current missile programme		
Type of missile	Name	Key features
Air-to-air Missile	A-Darter	Infrared air-to-air missile
Air Defence Missile	Umkhonto-IR	Vertically-launched, high-velocity, infrared homing missile
Anti-Armour Missile	Ingwe	Medium-range multi-purpose, anti-armour missile
	Mokopa	Long-range, precision-guided, anti-armour missile
Stand-off Weapon	Raptor II	Long-range, precision-guided weapon that can be launched from a variety of aircraft
<i>Source: Denel, 2010: 36</i>		

The South African National Defence Force (SANDF) remains Denel's primary local customer. However, the local defence expenditure is insufficient to sustain Denel, making it highly dependent on exports. Notwithstanding this Denel Dynamics has advanced with its fifth generation Darter missile, which has been integrated with the Gripen. The Mokopa missile is ready for integration with the Gripen but lacks a launch customer, whereas the Ingwe is in production for export and will also arm the South African Army's future tank destroyer. The Umkhonto (MK) missile is employed by the South African Navy, while the MK 2 is in production for the Finnish Navy and has been selected for purchase by Sweden. The Raptor II is also exported (Römer-Heitman, 2010).

While South Africa was developing its RSA missile series, a number of countries gathered in 1987 to establish the MTCR. An informal and voluntary regime, the purpose of the MTCR is to restrict the proliferation of missiles, rocket systems, unmanned air vehicles (UAVs) and related technology which may be used as WMDs. Notwithstanding these restrictions, partners to the MTCR agree that the transfer of missile-related technology should occur without the disruption of legitimate trade. The MTCR's *Guidelines for Sensitive Missile-Relevant Transfers* (also called the *MTCR Guidelines*) and the *Equipment, Software and Technology Annex* provide guidelines for national control laws, and to deny the transfer of any nuclear weapon delivery systems development (MTCR 2011).

South Africa first attended a MTCR plenary session in 1995,

one of the earliest nuclear diplomatic activities of the Mandela government. The HCOC entered into force in 2002 and has 131 subscribing states. The HCOC is the only global normative instrument to verify the proliferation of ballistic missiles capable of delivering WMDs. South Africa became a subscribing state to the HCOC on 26 November 2006 (HCOC, 2011).

The next section outlines South Africa's domestic policies as an expression of the country's compliance with the above-mentioned voluntary and informal regimes in an effort to signal South Africa's commitment to nuclear non-proliferation.

3. SOUTH AFRICA'S NUCLEAR EXPORT CONTROL POLICY

South Africa's policy on nuclear non-proliferation, arms control and disarmament practices, and the mechanisms established to adhere to these norms are contained in various policy documents and statements, legislation and *Government Notices* such as *Government Notices Numbers 20, 21 and 22* (3 February 2010). These include the declaration of dual-use equipment, materials and software and related technology; and certain missile technology as controlled goods, and control measures applicable to such goods (NPC, 2010). South Africa also executes its nuclear non-proliferation commitments through international agreements, including the NPT, IAEA, NSG, ZC, the *Convention on the Physical Protection of Nuclear Material* and the *Pelindaba Treaty*.

3.1 Nuclear non-proliferation legislation

The *Non-Proliferation of Weapons of Mass Destruction Act* (Act 87 of 1993, as amended in 1995 and 1996) continues to be South Africa's primary nuclear non-proliferation legislation. The Act controls and regulates matters relating to the WMD proliferation in South Africa, and prohibits nuclear explosions and tests in South Africa, and any person to be or become involved in any activity or with dual-use goods that contribute to WMD programmes with states and/or non-state actors (NPC, 2011).

South Africa's promulgation of the Act is significant for a num-

ber of reasons. The legislation generated diplomatic benefits for South Africa, which had only joined the NPT in 1991, but illustrated its commitment to nuclear non-proliferation, and prepared it for its membership of export control regimes. Moreover, South Africa maintains control over the import and export of dual-use and sensitive goods. From 1999, South Africa adopted additional legislation in support of South Africa's nuclear non-proliferation stance, including, the *Nuclear Energy Act* (Act 46 of 1999), the *National Nuclear Regulator Act* (Act 47 of 1999); and the *National Conventional Arms Control Act* (Act 41 of 2002).

3.2 Nuclear export control institutions

Two main institutions, as summarised in *Table 3*, control and regulate South Africa's nuclear exports, namely the South African Council for the Non-Proliferation of Weapons of Mass Destruction (NPC) and the National Conventional Arms Control Committee (NCACC).

Table 3: South African nuclear export control institutions		
Controlling institution		
	NPC	NCACC
Established	1993	2002
Appointed by	Minister of Trade and Industry	The President
Reports to	Minister of Trade and Industry	Parliament
Status	Export promoting council	Statutory sub-committee of Cabinet
Controlled material	Chemical, biological, nuclear dual-use and missile delivery items	So-called 'other' dual-use materials and items
Relevant legislation	Non-Proliferation of Weapons of Mass Destruction Act	National Conventional Arms Control Act
Members	Representatives of relevant industries and government	Cabinet Ministers and Deputy Ministers
<i>Adapted from: South Africa, 2005: 3</i>		

Established in 1995 by Cabinet but legislated only in 2002 in terms of the *National Conventional Arms Control Act*, the NCACC (2008: 2) regulates the development, manufacturing and transfer of conventional arms in South Africa in compliance with the government's arms control policy and international commitments; improve national and international confidence in South Africa's control procedures; provide guidelines for the assessment of applications for export permits, and account properly of the trade in conventional arms. South Africa requires permits issued by the NPC and NCACC to develop, manufacture, market, contracting, export, import or transferring (conveyance) of conventional arms and dual-use goods. Human rights and security criteria are applied when contracts and permits are considered for approval.

South Africa's arms industry is increasingly growing, which requires more stringent control and regulation. In 2008, for example, the 111 companies registered exported to 88 countries, whereas it imported material and equipment from 61 countries. The total value of registered companies amounted to approximately R5.8 billion in 2008 (NCACC, 2008: 6, 18). The NCACC's 2009 report indicated that the South African government approved 371 contracting permits worth R82.5 billion. This is over four times more than the R19.586 billion allocated for 2008. In 2008, the NCACC approved 370 contracts with 90 countries. The figures are down from 388 in 2004, but up from 326 in 2003 (*DefenceWeb*, 2010).

Few aspects of post-1994 South Africa's international relations have been as contentious as the country's arms sales.¹⁾ Accusations were made that South Africa has sold dual-use goods to known nuclear proliferators. Irregular reporting to Parliament has inflamed these accusations. Some of the concerns, as the next section elaborates, centred around the volume of exports, the type of arms (dual-use, or not) exported, the imbalance between South Africa's stated policy on human rights and arms sales to undemocratic governments, and South Africa's national economic interests and its foreign policy.

4. CONCERNS ABOUT SOUTH AFRICA'S COMMITMENT TO NUCLEAR NON-PROLIFERATION

South Africa is one of at least 20 states that has terminated its nuclear weapons programme.²⁾ However, despite its nuclear policy innovations and membership of export control groups, a series of developments cast doubt among the international community on South Africa's commitment to nuclear non-proliferation.

In the early 1990s, concerns were expressed that South Africa's 'nuclear inheritance' might fall in to the hands of so-called radicals in the country (Pabian, 1995: 10). The co-called 'mini nuke conspiracy' suggested that the pre-ANC South African government manufactured over 1 000 small tactical nuclear warheads that could be in the hands of an anti-Mandela, right-wing faction (Hounam and McQuillan, 1995). Following this, a 'confidential *Afrikaner Weerstandsbeweging* (AWB) [Afrikaner Resistance Movement] report' claimed that "enough raw materials and equipment might have been removed from the nuclear project site [at Pelindaba near Pretoria] during the winding-down phase [in 1993] to enable such a device to be assembled elsewhere" (Koch, Moodley and Porteous, 1996: 150). The report was prepared by the AWB's intelligence unit and referred to the "high level of support among personnel in the nuclear sector for the right-wing cause" (Koch, Moodley and Porteous, 1996: 150). The AWB report also stated that "at the very least the raw materials, parts and expertise are available to the right to build such a device at short notice" (Koch, Moodley and Porteous, 1996: 150).

The 'complex' nature, according to IAEA officials von Baeckmann, Dillon and Perricos (1995), of the verification of South Africa's nuclear inventory and the termination of its nuclear weapons programme was another concern. South Africa still has 'several hundred kg' of highly-enriched uranium (HEU) (IAEA, 2005: 5). Therefore, South Africa's refusal to give up its large HEU stock is a concern (Bunn, 2008: 51). These concerns were amplified when the international community realised that South Africa was slow in converting its nuclear research reactor, the South African Fundamental Atomic Research Installation (SAFARI-1), at Pelindaba from using HEU to using low-enriched uranium (LEU). This conversion was only achieved by

2009 after initial efforts to commence with the conversion process began as long ago as 1994 (Necsa, 2009).

Another concern relates to the safety of South Africa's nuclear installations. A 2006 peer-review of the Koeberg nuclear power station identified 'gaps in performance in several areas' at Koeberg (South Africa, 2005: 8) and, on 8 November 2007, armed attackers broke in at South Africa's major nuclear facility, Pelindaba, where, amongst others, significant volumes of weapon-grade uranium are kept, raising global concerns about nuclear safety in South Africa (Bunn, 2008: v, 3-4).

By its own acknowledgement, the South African government trades in "weapons and related materials, equipment, technology and services", which "forms an integral part of South Africa's foreign, defence, trade and industrial policies and initiatives" (NPC, 2011). Consequently, the South African government's arms sales with nuclear ambitious states such as Pakistan and Libya, and the sale of dual-use goods to Iran remains a concern (Maynier, 2009).

The South African government's current ambitions to develop the country's nuclear energy sector raised concerns. The South African government adopted a nuclear energy policy in 2008 and has stated its intention to develop the country's nuclear-related industrial sector (Economic Sectors and Employment Cluster, 2010). An announcement pertaining to the construction of new nuclear power stations are expected later in 2012.

The fate of South Africa's nuclear scientists which worked on the country's nuclear weapons programme is another cause of concern. Internationally, concerns were raised that these scientists may be employed by emerging nuclear weapons states. In 2007, for example, Iran actively recruited South African nuclear scientists for its nuclear programme (Barletta *et al*, 1998: 145). These concerns re-surfaced in 2010 when the South African government terminated its pebble bed modular reactor (PBMR) programme, which resulted in the retrenchment of a large number of South African nuclear scientists (Fig, 2010). The involvement of South Africans in the illicit nuclear proliferation network of Pakistani nuclear scientist A Q Khan raised major concerns about South Africa's commitment to nuclear non-proliferation and is addressed in the next section.

5. SOUTH AFRICA AND THE A Q KHAN NETWORK

Prior to 1990, South Africa's identity was that of an active international nuclear trader tapped into clandestine procurement networks in Europe, the US and Israel undermining global norms pertaining to the nuclear trade regime (UN, 1994: 52, 114). For the post-1994 South African government, South Africans' involvement in the Khan network, here referred to as the *Wisser Affaire*, was a major diplomatic embarrassment, which questioned South Africa's constructed identity and status as a self-confessed good global nuclear actor, and raised international fears of the potential for South Africa's nuclear recidivism.

5.1 The *Wisser Affaire*

Subsequent to Khan's arrest, the South African government investigated the possible involvement of two South African registered companies, namely Krisch Engineering Company (Pty) Limited and Tradefin Engineering CC, in the Khan network's procurement activities for Libya (prior to the termination of its nuclear weapons programme) and Pakistan. At Tradefin Engineering, South African authorities found, *inter alia*, dual-use components (NPC, 2004). The investigation also revealed that these components formed part of UN-sanctioned Libya's undeclared nuclear activities. Moreover, from 1986 to 1995 these South Africans also supplied controlled nuclear equipment to Pakistan.

On 2 September 2004, Johan Andries Muller Meyer, formerly involved with the South African nuclear weapons programme and founding-director of Tradefin Engineering in Vanderbijlpark, was arrested. Meyer was charged with contravening the NSG's *Guidelines*, the *Non-Proliferation of Weapons of Mass Destruction Act* and the *Nuclear Energy Act* (NPC, 2004). The charges against Meyer were withdrawn once he revealed that he had been acting on behalf of Krisch Engineering. The South African government gave Meyer the status as a cooperating, complicit witness and, on the strength of Meyer's evidence, the Managing and Design Directors of Krisch Engineering, namely German citizen, Gerhard Wisser and Swiss citizen, Daniel Geiges, both mechanical engineers, were arrested and

charged for their alleged involvement in Libya and Pakistan's nuclear weapons programme (Minty, 2007).

Wisser entered into a Plea and Sentence Agreement with the State, and pleaded guilty to charges linking him to the Khan network, the Libyan (from 1999 to 2003) and Pakistani (from 1994 to 1995) nuclear weapons programmes. Found guilty, Wisser's concurrent sentences included three years' correctional supervision, and three to ten years' imprisonment, suspended for five years. Wisser also consented to a confiscatory order in respect of €2.8 million and R6 million as being the proceeds of crime (NPA, 2007; NPC, 2007).

5.2 Implications of the Khan network for South Africa

The legacy of the Khan network has several implications for South Africa's nuclear diplomacy. The *Wisser Affaire* occurred after South Africa's initial successes at multilateral nuclear diplomatic events such as the 1995, 2000 and 2005 NPT conferences. The *Wisser Affaire* also raised concerns about South Africa's commitment to the norm of nuclear non-proliferation despite its membership of various export control regimes. However, the South Africans involved in the Khan network were not employed by the South African government. Yet, their involvement may have illustrated lax government control pertaining to the nuclear export regime. In constructivist terms, the *Wisser Affaire* highlighted the social dimensions of South Africa's nuclear diplomacy. South Africa constructed a niche role and state identity as a state that voluntarily terminated its nuclear weapons programme, a subscriber of and advocate for nuclear non-proliferation and disarmament, and a trustworthy nuclear actor.

The *Wisser Affaire* also highlighted the importance of multilateralism to prevent nuclear proliferations. In a statement to the IAEA Board, South Africa's ambassador to the IAEA, Abdul Minty (2007), attempted to allay the international community's fears of a nuclear South Africa by stating that his government cooperated with other countries (including the US, UK, Malaysia, Switzerland, Spain and Jordan) and the IAEA to investigate the contravention of relevant South African non-proliferation legislation.

However, the *Wisser Affaire* remains somewhat unresolved, as Deputy Foreign Minister Aziz Pahad (2008) observed, as some

countries were not cooperative on the matter. The South African government's self-assessment of its handling of the *Wisser Affaire* is in line with the construction of the country's identity and role. Pahad (2008) observed that "we [South Africa] have acted far better than other countries involved in it". The case against the remaining accused, Geiges, continued. In 2006, Geiges was diagnosed as being terminally ill with cancer, which resulted in him not being able to attend certain trial hearings. The case against Geiges was separated and postponed, pending medical reports concerning his health status and ability to stand trial. On 5 February 2008, a South African court convicted Geiges on charges linking him to the Khan network. Geiges' plea bargain with South African authorities resulted in him receiving a 13-year suspended sentence on the condition that he assists South African authorities in further investigations pertaining to the Khan network (NPA, 2008). However, the South African government seemed unwilling to charge Asher Karni, a businessman with South African connections and a known operator in the illicit nuclear market. Nevertheless, Karni was sentenced in the US to three years imprisonment on 4 August 2005 (US, 2005: 1).

The South Africans involved in the Khan network were economically — rather than politically — motivated and their involvement endangered global efforts to counter illicit proliferation. The *Wisser Affaire* undermined not only South Africa's national security and interests but also its identity as a former nuclear-turned-good-global-nuclear-citizen. Moreover, it affected South Africa's nuclear diplomacy; a niche area it had carefully crafted for itself in the global arena.

6. SOUTH AFRICA'S ROLE IN THE NUCLEAR EXPORT CONTROL REGIME

A state, constructivist Alexander Wendt (1999: 231 and 233) observes, is an actor whose behaviour is motivated by interests embedded in various identities, which refer to who or what actors *are*, whereas interests refer to "what actors *want*" [Wendt's emphasis]. Identities and interests are therefore mutually constitutive, and perform various functions. It reminds states who a state is and is often a driver of a country's foreign policy. A state's identity also implies its motivations,

intentions, preferences and consequent actions and interactions; thus ensuring predictable behaviour. Finally, a state is able to identify with "the other" and concerns itself with "the other's" welfare through expressions of solidarity, community and loyalty. Wendt (1999), and George and Keohane (1980) identify four national interests common to all states, including physical survival, autonomy, economic well-being (the latter three being objective national interests) and collective self-esteem (subjective national interests); referring to a state's need to 'feel good about itself, for respect or status'.

South Africa continues to grapple with 'multiple identities' (Serrão and Bischoff, 2009: 363); despite the country's diplomatic and economic efforts to assert its new identity since 1990. In nuclear matters, South Africa identifies itself as a "responsible possessor, producer and trader" of dual-use goods (DFA, 2009) to serve its national interests. This self-defined identity emanates from the country's constructed post-1994 foreign policy, which, in turn, has resulted in new diplomatic practices as an instrument of foreign policy, to give expression to the country's newly-defined identities. Therefore, South Africa's state identity is indicative of its motivation and intention to be considered a state complying with international nuclear export control regimes.

Since 1990, South Africa has constructed its norms, identity, role and interests in such a way that it has gained significantly in terms of greater diplomatic influence, authority, non-material power and economic incentives. South Africa's norm construction in its nuclear diplomacy is evident in the South African government commitment to "a policy of non-proliferation, disarmament and arms control which covers all weapons of mass destruction and extends to concerns relating to the proliferation of conventional weapons" (DIRCO, 2011). Moreover, South Africa has included all MTCR, NSG, CWC and Wassenaar guidelines in its legislation; often prior to its membership of the regime. This is illustrative of South Africa's leadership in complying with international export control norms.

In applying Young's (1991) leadership typology in regimes, South Africa has displayed at least two of three types of leadership *vis-à-vis* the multilateral nuclear export regime. Young's (1991) first type of leadership is structural leadership, which is exhibited when leaders, or a leading country, make decisions about resources available to them to achieve a multilateral bargain. This is particularly

evident in the case of the NPT where South Africa 'was instrumental' in the indefinite extension of the NPT in 1995 and the conclusion of the 2000 NPT Review Conference (NTI, 2010).

Entrepreneurial leadership refers to leaders which are not in a position of power but use their diplomatic skills to achieve a particular outcome. South Africa has positioned itself as a norm entrepreneur (Geldenhuys, 2006) resulting in some global recognition for South Africa. The South African government has admitted that South Africa's nuclear experience has "shown that no control regime, no matter how comprehensive, can fully guarantee against abuse" (Dlamini-Zuma, 2007).

Thirdly, intellectual leadership can change the normative environment to create opportunities for the achievement of a particular objective (Browne, Shetty and Somerville, 2010: 381). With the dismantling of its nuclear weapons programme, South Africa has accrued global moral authority and is regarded as a normative power, which can be defined as power that is "neither military nor purely economic, but one that works through ideas and opinions" (Diez, 2005: 615). Normative power also refers to the features of a relationship, that is, "to shape the values and behavior of another actor. In addition to a relationship, a normative power also employs particular means to achieve its objectives" (Diez, 2005: 616). In the case of South Africa, it employed niche diplomacy as the means to achieve its objectives. In addition to norm construction, South Africa has also secured a niche role through the construction of the country's new nuclear identity. This new nuclear identity includes an identity of self-proclaimed leadership in nuclear matters.

Notwithstanding South Africa's efforts to comply with international norms pertaining to the nuclear export control regime, some discrepancies between the country's constructed identity and role, and the actual record occurred as illustrated earlier. One explanation for this is the country's conflicting ambitions and interests. South Africa has repeatedly expressed its commitment to nuclear non-proliferation. However, with pressing socio-economic needs and the urgency of achieving commercial ambitions are often in conflict. In an effort to resolve these conflicting matters, South Africa has attempted to maintain its normative commitment to nuclear non-proliferation. These attempts include the promulgation of legislation complying with international non-proliferation norms, the resolution of

the *Wisser Affaire* related to the A Q Khan network, regular reports to the IAEA and the conversion of SAFARI-1 to use low-enriched uranium (LEU) rather than HEU, which can be used in nuclear weapons. More importantly, the country acted as a norm entrepreneur when President Mbeki sent a delegation to Iraq in 2003 to determine the existence of the country's WMDs.

International regimes such as the nuclear export control regime often challenge a state's sovereignty and its national interests. In response to this, states often walk a tight-rope between international regimes and a state's national interests. In joining the nuclear export control regimes, South Africa reiterated its commitment to nuclear non-proliferation. This position has been beneficial to South Africa. Not only did it serve in leadership positions in some of these regimes, but it was able to act as a norm entrepreneur.

In South Africa, norm diffusion, in some case, occurred prior to the country's leadership of some of the regimes mentioned earlier. Greater diffusion, however, occurred as additional legislation reflecting the country's new nuclear identity was promulgated, which, in some instances, has resulted in a disjuncture among governmental nuclear-related agencies, and between government, and the private and commercial nuclear sector.

Predominantly, most governments require only export permits for the export or re-export of controlled goods. However, according to the South African government (South Africa, 2005: 8), South Africa is "one of very few States that require both import permits for the import of controlled goods, as well as export permits for the export or re-export of controlled goods". In terms of the *Non-Proliferation of Weapons of Mass Destruction Act*, the NPC requires that for the import and export of chemical, nuclear dual-use and missile controlled goods, import and export permits should be obtained from the NPC. In addition to this, the South African government requires, in terms of the *Nuclear Energy Act*, that for the "import, export or transport of nuclear material", import, export or transport permits should be obtained from the Minister of Minerals and Energy (since May 2010 the Minister of Energy). For the import, export or re-export of conventional armament items or dual-use items, import or export permits should be obtained from the NCACC (South Africa, 2005: 8-9).

7. CONCLUSION

Since 1990, South Africa has secured a niche role for itself through the construction of certain norms and state identity relating to nuclear non-proliferation, which provided it with some kind of advantage over other countries. This advantage is either locational, traditional or consensual (Henrikson, 2005: 7-2). In South Africa's case, it is locational (one of the few African states to have acquired and gave up nuclear weapons), traditional (the country has a nuclear history) and consensual (South Africa's non-proliferation commitment is reflective of the country's post-*apartheid* commitments). Moreover, the country has constructed a unique brand of niche diplomacy by employing a number of diplomatic practices which has provided some material and non-material rewards such as status, prestige and trade opportunities. For South Africa, these rewards were of particular importance to convince the international community of its commitment to continue with a civilian nuclear programme rather than reverting back to a nuclear weapon programme or to become involved in shady nuclear bazaars.

South Africa's diplomacy pertaining to nuclear export regimes exemplifies that of a typical middle power, which often has substantial technical and scientific expertise (Ungerer 2007: 396).³⁾ South Africa maintains considerable expertise in nuclear science that contributes to its diplomatic status and competence in these regimes. Like other middle powers, South Africa also prefers multilateralism in its nuclear diplomacy as illustrated in its involvement in these export regimes.

A state's ability to "generate returns worth having" (Evans in Henrikson, 2005: 67) implies that a state wants to achieve non-material objectives with niche diplomacy, which, in turn, can generate international prestige, status, material benefit, soft power and moral authority. For South Africa, these incentives were of particular importance to convince the international community of its commitment to continue with a civilian nuclear programme. With the dismantling of its nuclear weapons programme and nuclear weapons, South Africa has accrued moral authority and legitimacy. As Henrikson (2005: 70-71) observes, to acquire and maintain a diplomatic niche requires recognition and a secured position in a globally com-

petitive arena requires publicity, including advocacy, positive branding, and the moral high ground

In its practice of niche diplomacy pertaining to export controls, South Africa has employed all the strategies identified by Henrikson (2005: 74). South Africa has applied partnership with NWS and emerging NWS in voluntary export control regimes such as the ZC and the WA. In addition to partnerships, South Africa also employs parallelism on matters relating to the export control regime; particularly evident in its efforts to undo the Khan network. South Africa's nuclear diplomacy with so-called nuclear rogue states has raised concerns among traditional NWS. South Africa's defence in supplier regimes of the developing world's right to advanced nuclear technology can be regarded as a strategy of confrontation against advanced developed states.

In reinforcing its status as a responsible producer, possessor and trader of advanced nuclear diplomacy, South Africa has partnered with NWS and NNWS in control regimes to combat nuclear proliferation and terminate illegal deals in the nuclear black market.

FOOTNOTES

1. See Maynier, D (2009) and Feinstein, A (2007).
2. For possible reasons why South Africa terminated its nuclear weapons programme, refer to Gumbi, L (2008), Liberman, P (2001), and Tsygankov, A and P A Tsygankov (2010).
3. South Africa's middle power status is discussed by Schoeman, M (2000) and Serrão, O and P Bischoff (2009).

BIBLIOGRAPHY

- Barletta, M *et al.* 1998. "Nuclear- and missile-related trade and developments for selected countries, November 1997-February 1998". *The Nonproliferation Review*, Spring-Summer.
- Beck, M and S Gahlaut. 2003. "Introduction to non-proliferation export controls", in Beck, M *et al* (eds), *To Supply or to Deny. Comparing Non-Proliferation Export Controls in Five Key Countries*. The Hague: Kluwer Law International.
- Browne, D, Shetty, S and A Somerville. 2010. "The importance of political leadership in achieving a world free of nuclear weapons". *International Relations*, Vol 24, No 4.

- Bunn, M. 2008. *Securing the Bomb 2008*. Cambridge, Mass and Washington, DC: Project on Managing the Atom (Harvard University) and Nuclear Threat Initiative (NTI).
- DefenceWeb*. 2010. "NCACC report on way to Parliament", 20 September. (Internet: http://www.defenceweb.co.za/index.php?option=com_content&view=article&id=9688:ncacc-report-on-way-to-parliament&catid=54:Governance&Itemid=118 accessed 22 September 2010.)
- De Klerk, F W. 1993. "Matters relating to nuclear non-proliferation treaty, violence, negotiation and the death penalty. Statement by the State President to a Joint Sitting of Parliament". 24 March. *Hansard*, col 3465-3478.
- Denel. 2010. *Annual Report 2010*. Denel: Centurion.
- Diez, T. 2005. "Constructing the self and changing others: reconsidering 'normative power Europe'". *Millennium*, Vol 33, No 3.
- DFA (Department of Foreign Affairs). 2009. *Multilateral*. (Internet: <http://www.dfa.gov.za/foreign/Multilateral/inter/treaties/> accessed 9 April 2009.)
- DIRCO (Department of International Relations and Cooperation). 2011. *Wassenaar Arrangement*. (Internet: <http://www.dfa.gov.za/foreign/Multilateral/inter/wasse.htm> accessed 24 January 2011.)
- Dlamini-Zuma, N. 2007. *Statement by the Minister of Foreign Affairs of the Republic of South Africa at the Opening of the Plenary of the Nuclear Suppliers Group*. Cape Town, South Africa, 19 April. (Internet: <http://www.dfa.gov.za/docs/speeches/2007/dzum0423.htm> accessed 24 January 2011.)
- Early, B. 2009. "Explaining non-proliferation export controls". Presentation to the Belfer Centre for Science and International Affairs, John F Kennedy School of Government, Harvard University, Cambridge, Massachusetts, US. 14 July. (Internet: <http://belfercenter.ksg.harvard.edu/files/Nonproliferation-Export-Controls.pdf> accessed 28 September 2010.)
- Economic Sectors and Employment Cluster. 2010. *2010/11-2012/13 Industrial Policy Action Plan*. February. Pretoria: The Presidency.
- Feinstein, A. 2007. *After the Party: A Personal and Political Journey Inside the ANC*. Johannesburg: Jonathan Ball Publishers.
- Fig, D. 2010. *Nuclear Energy Rethink? The Rise and Fall of South Africa's Pebble Bed Modular Reactor*. Institute for Security Studies (ISS) Paper 210. Pretoria: ISS.
- Geldenhuys, D. 2006. "South Africa's role as international norm entrepreneur", in Carlsnaes, W and P Nel (eds), *In Full Flight. South Africa's Foreign Policy after Apartheid*. Midrand (Johannesburg): Institute for Global Dia-

logue (IGD).

- George, A and R Keohane. 1980. "The concept of national interests: uses and limitations", in George, A (ed), *Presidential Decisionmaking in Foreign Policy*. Boulder: Westview.
- Gumbi, L. 2008. *Statement by H.E. Ambassador Leslie M. Gumbi (Permanent Representative to the United Nations in Vienna) during the First Committee General Debate*. United Nations, New York, US, 10 October. (Internet: <http://www.reachingcriticalwill.org/political/1com/1com08/statements/10OctSouthAfrica.pdf> accessed 11 May 2011.)
- HCOC (Hague Code of Conduct against Ballistic Missile Proliferation). 2011. *Hague Code of Conduct against Ballistic Missile Proliferation*. 21 January. (Internet: <http://www.hcoc.at/#> accessed 18 April 2011.)
- Henrikson, A. 2005. "Niche diplomacy in the world public arena: the global 'corners' of Canada and Norway", in Melissen, J (ed), *The New Public Diplomacy. Soft Power in International Relations*. New York: Palgrave Macmillan.
- Hounam, P and S McQuillan. 1995. *The Mini-Nuke Conspiracy: Mandela's Nuclear Nightmare*. London: Faber and Faber Limited.
- IAEA (International Atomic Energy Agency). 1957. *Statute of the IAEA*. (Internet: http://www.iaea.org/About/statute_text.html accessed 10 August 2010.)
- IISS (International Institute for Strategic Studies). 2007. *Nuclear Black Markets: Pakistan, A.Q. Khan and the Rise of Proliferation Networks. A Net Assessment*. London: IISS.
- Koch, A; Moodley, A and H Porteous. 1996. "Nuclear related trade and cooperation developments for selected states, July–October 1995". *The Nonproliferation Review*, Winter.
- Krasner, S. 2009. *Power, the State and Sovereignty. Essays on International Relations*. New York: Routledge.
- Liberman, P. 2001. "The rise and fall of the South African bomb". *International Security*, Vol 26, No 2.
- Maynier, D. 2009. *Arming Dictators All Over the World: The National Conventional Arms Control Committee in Crisis*. Report by Democratic Alliance Shadow Minister of Defence and Veterans Affairs submitted to the Portfolio Committee on Defence and Military Veterans. 2 August. (Internet: <http://www.pmg.org.za/report/20090812-consideration-report-submitted-hon-d-maynier-regarding-south-africas-> accessed 19 August 2009.)
- Markram, T. 2004. *A Decade of Disarmament, Transformation and Progress. An Assessment of the Development and Implementation of Policy on*

Disarmament, Non-Proliferation and Arms Control in South Africa 1994-2004. Pretoria: SaferAfrica.

- Minty, A. 2007. *Statement by South Africa at the IAEA Board: Update on the Illicit Network*. Vienna, Austria, 11 September. (Internet: <http://www.dfa.gov.za/docs/speeches/2007/mint0911.htm> accessed 10 August 2010.)
- MTCR (Missile Technology Control Regime). 2011. *The Missile Technology Control Regime*. (Internet: <http://www.mtcr.info/english/index.html> accessed 18 April 2011.)
- NCACC (National Conventional Arms Control Committee). 2008. *National Conventional Arms Control Committee's Annual Report 2008*. (Internet: http://www.cdpsp.mil.za/conv_arms_control/reports/2008exportscompressed.pdf accessed 11 May 2011.)
- Necsa (Nuclear Energy Corporation of South Africa). 2009. *Nuclear Reactor Uses Only Low Enriched Uranium (LEU) for the First Time*. Media release. Pelindaba, South Africa, 29 June. (Internet: <http://www.necsa.co.za/Portals/1/.../322e00a9-02e8-4522-8e29-947ef896d6e5.doc> accessed 20 April 2011.)
- NPA (National Prosecuting Authority of South Africa). 2007. *S v Gerhard Wisser*. 4 September. (Internet: http://www.npa.gov.za/UploadedFiles/S%20v%20Gerhard%20Wisser_%202004%20September%202007.pdf accessed 17 June 2009.)
- NPA. 2008. *S v Geiges. Annexure to the Plea and Sentence Agreement*. February. (Internet: http://www.npa.gov.za/UploadedFiles/GEIGES%20Annexure%20to%20Plea%20agreement%2016%201%2008%20_2_.pdf accessed 16 April 2012.)
- NPC (South African Council for the Non-Proliferation of Weapons of Mass Destruction). 2004. *Press release*. Pretoria, South Africa, 7 September. (Internet: <http://www.info.gov.za/speeches/2004/04090811151001.htm> accessed 28 September 2010.)
- NPC. 2007. *Conviction of Mr G Wisser for contraventions of nuclear control regulations*. Statement. Pretoria, South Africa, 5 September. (Internet: <http://www.dfa.gov.za/docs/2007/media0509a.htm> accessed 24 January 2011.)
- NPC. 2010. *Newsletter*. 3 February. (Internet: <http://www.dti.gov.za/nonproliferation/default.htm> accessed 10 August 2010.)
- NPC. 2011. *National Policy on Non-Proliferation, Disarmament and Arms Control*. Internet: <http://www.thedti.gov.za/nonproliferation/policy.htm> accessed 24 January 2011.)

- NSG (Nuclear Suppliers Group). 2010. *What are the Guidelines?* (Internet: <http://www.nuclearsuppliersgroup.org/Leng/02-guide.htm> accessed 10 August 2010.)
- NTI (Nuclear Threat Initiative). 2010. *South Africa Profile: Nuclear Overview*. January. (Internet: http://www.nti.org/e_research/profiles/SAfrica/Nuclear/index.html accessed 9 April 2010.)
- Pabian, F V. 1995. "South Africa's nuclear weapons program: Lessons for U.S. non-proliferation policy". *The Nonproliferation Review*, Fall.
- Pahad, A. 2008. *Notes following briefing to media by Foreign Affairs Deputy Minister, Aziz Pahad, on developments of concern in the African continent*. Pretoria, South Africa, 5 September. (Internet: <http://www.info.gov.za/speeches/2008/08020711151001.htm> accessed 28 September 2010.)
- Römer-Heitman, H. 2010. "South Africa's defence industry: turning the corner?" *Armada International*. 1 August. (Internet: <http://www.faqs.org/periodicals/201008/2132314051.html> accessed 3 October 2010.)
- Serrão, O and P Bischoff. 2009. "Foreign policy ambiguity on the part of an emergent middle power: South African foreign policy through other lenses". *Politikon*, Vol 36, No 3.
- Schoeman, M. 2000. "South Africa as an emerging middle power". *African Security Review*, Vol 9, No 3.
- South Africa. 2005. *Note verbale dated 31 January 2005 from the Permanent Mission of South Africa to the United Nations addressed to the Chairman of the Committee*. (Internet: http://www.nti.org/e_research/official_docs/inventory/pdfs/N0635655.pdf accessed 11 May 2011.)
- Tannenwald, N. 2008. *The Nuclear Taboo: The United States and the Non-Use of Nuclear Weapons Since 1945*. Cambridge: Cambridge University Press.
- Tsygankov, A and P A Tsygankov. 2010. "National ideology and IR theory: Three incarnations of the 'Russian idea'". *European Journal of International Relations*, Vol 16, No 4.
- UN (United Nations). 1994. *The United Nations and Apartheid 1948-1994*. New York: United Nations.
- UN. 2012. *Export controls*. (Internet: http://www.un.org/disarmament/WMD/Export_Controls/ accessed 26 February 2012.)
- Ungerer, C. 2007. "Influence without power: Middle powers and arms control diplomacy during the Cold War". *Diplomacy and Statecraft*, 18.
- US (Government of the United States of America). 2005. "South African resident

- sentenced for trafficking in nuclear detonators and other commodities controlled for nuclear non-proliferation reason". *Press release by the US Department of Justice*. Washington, US, 5 August. (Internet: http://www.bis.doc.gov/news/2005/karniasher_sen_pre.pdf accessed 20 April 2011.)
- Von Baeckmann, A, Dillon, G and D Perricos. 1995. "Nuclear verification in South Africa". *IAEA Bulletin*, 1.
- WA (Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies). 2011. *Introduction*. (Internet: <http://www.wassenaar.org/introduction/index.html> accessed 18 April 2011.)
- Wendt, A. 1999. *Social Theory of International Politics*. Cambridge: Cambridge University Press.
- Young, O R. 1991. "Political leadership and regime formation: On the development of institutions in international society". *International Organization*, Vol 45, No 3.
- ZC (Zangger Committee). 2010. *Multilateral Nuclear Supply Principles of the Zangger Committee*. Submission to the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons. 12 March. New York, US. (Internet: <http://www.reachingcriticalwill.org/legal/npt/revcon2010/papers/WP1.pdf> accessed 11 May 2011.)