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OPINION – Manpreet Sethi

Entry into the NSG: Getting Past the Doorman

Doormen – big, burly individuals – at entrances of exclusive clubs impose entry regulations. They could deny you entry for not carrying the correct identity card, or for not entering as a couple. One particular country has assigned itself this role at the NSG door. Set and resolute, it has declared that you are not carrying the required NPT identity card and worse still, you are not ready to enter with a partner. So, China insists that India cannot be allowed entry into NSG, certainly not without Pakistan.

For a few NSG plenary meetings now, India has been hopeful that a decision on its membership would be taken, nearly eight years after the exceptionalisation was made for it to engage in international nuclear commerce. This task yet remains pending though the US agrees that India has the requisite credentials to join the NSG. Standing up to the US on its position, China thinks otherwise. Interesting insights can be gleaned from the Chinese position.

Firstly, this is a rare occasion that China has openly declared its objection to India's entry and has dared to stand alone on this. Beijing has traditionally been shy of taking a position where it

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would have to stand singly. It prefers instead to hide behind objections being made by others, giving them tacit support without being identified itself as the primary obstructionist. It consciously avoids being called a spoiler. This seems to have changed, perhaps for two reasons. One, China has perceived that the bulwark of states that it was banking upon to stop India's entry into the NSG is about to give up. So, it feels the need to step up itself. The other reason is that China's confidence in its own clout and influence has grown. Having amassed economic and military strength with the accompanying political weight, it believes it can

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afford to assert its position and get away with it. Consequently, it is no longer chary of standing alone.

Secondly, China's sense of assertiveness rises from the knowledge that its economic power is far above that of most of the NSG members. In fact, neither US, nor Russia can afford to offend the new China, and certainly not on the nuclear issue. Undertaking simultaneous construction of 22 nuclear power plants (accounting for more than one third of

China has deep nuclear pockets. Nearly every major nuclear supplier has a hand in it. China is importing from, as well as co-developing nuclear reactors with France, Russia, and the US. It is building nuclear reactors in the UK and Argentina. The nuclear industry of each of these states is invested in China, currently the largest nuclear market.

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Given the downturn in the fortunes of the nuclear industry after Fukushima, the nuclear marketplace today belongs to the buyer, not the seller. And China is the biggest buyer on the block. Who then can afford to upset it? Thirdly, China's objection to India's entry into the NSG is because of India, and not because it necessarily wants its all-weather friend to be an NSG member too. It is only using Pakistan as a proxy, as China always has, to box India in. What China finds difficult to

Given that Beijing still insists on UNSCR 1172 of 1998 that called for a roll back and elimination of an 'illegitimate' nuclear weapons programme, it cannot brook the idea of any semblance of 'legitimacy' being granted to India. Sharing space as a nuclear rule-maker with India is anathema to China.

digest is the accommodation of India that would, in its eyes, make it its nuclear equal. Given that Beijing still insists on UNSCR 1172 of 1998 that called for a roll back and elimination of an 'illegitimate' nuclear weapons programme, it cannot brook the idea of any semblance of 'legitimacy' being granted to India. Sharing space as a nuclear rule-maker with India is anathema to

China.

So, what should India do to get past the self-appointed doorman? For one, Indian nuclear diplomacy will have to work harder to chip away

at the objections being raised by China or its proxies. Secondly, the Indian nuclear market must once again appear to look lucrative. When it did so in the mid-2000s, President Bush (actively supported by the nuclear industry) managed to engineer the huge transformation in the US' nuclear relationship

with India, including convincing others to make the NSG exceptionalisation possible. Since then, and especially after Fukushima, the Indian nuclear market has started to look dull. The nuclear liability law perceptibly weighed against the supplier, public acceptance stalemates, etc. have taken the sheen off India's nuclear ambitions. Of the two poster boys of the nuclear industry, China is shining, while India appears to be falling behind.

Thirdly, India should seriously consider entering the nuclear market as a supplier itself. It has the capability and the capacity to do so. And once that

happens, it would change India's de facto position. Fourthly, for China, its 'face' is very important. India needs to look for concessions that it can make to provide China the face saving to back off from its strident position. One idea here could be to take up China's offer of nuclear

cooperation made by Premier Xi Jinping on a visit to India. This cooperation could take many forms - R&D on new generation of reactors, between their nuclear Centres of Excellence, nuclear safety and security, etc. Such collaborative ventures could be one way of subtly introducing it to India's strengths in the nuclear power sector.

Source: <http://www.ipcs.org>, 02 June 2016.

OPINION – Siddharth Varadarajan

The New York Times Trips Up on India and the NSG

The *New York Times* is free to take whatever position it likes on any issue and if it believes India should not be admitted into the NSG, it has every right to write an editorial advocating 'No Exceptions for a Nuclear India'. What it ought not to do is build its argument on faulty analysis, misrepresentation and factual inaccuracies. What follows is a paragraph-by-paragraph explanation of how the newspaper – that I have read and liked for years – has gone wrong, horribly wrong in this editorial.

Para 1

America's relationship with India has blossomed under President Obama, who will meet with Prime Minister Narendra Modi. Ideally, Mr. Obama could take advantage of the ties he has built and press for India to adhere to the standards on nuclear proliferation to which other nuclear weapons states adhere.

Here, the NYT makes a huge assumption: that there are "standards on nuclear proliferation to which other nuclear weapons states adhere" and to which India doesn't. The 'other nuclear weapons states' are the United States, Russia, China, France and Britain (the N-5). The main standard to which the N-5 are meant to adhere is the prescription set out in Article 1 of the Treaty on the NPT to not provide nuclear weapons or knowhow or assistance to non-nuclear weapon

states. Article 6 also applies to them but is non-binding: to "pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control." The Chinese assisted Pakistan's nuclear weapons programme before Beijing acceded to the NPT in 1992 but there are suspicions the relationship continued beyond that date, thus violating Article 1. The *New York Times* itself reported about this in

The Chinese assisted Pakistan's nuclear weapons programme before Beijing acceded to the NPT in 1992 but there are suspicions the relationship continued beyond that date, thus violating Article 1. The *New York Times* itself reported about this in 1996: China secretly sold nuclear-weapons technology to Pakistan last year and could face the loss of billions of dollars in business deals under United States law.

1996: China secretly sold nuclear-weapons technology to Pakistan last year and could face the loss of billions of dollars in business deals under United States law, Administration officials said. But, they said, President Clinton may waive the penalties to ease tensions with Beijing. "China sold Pakistan magnets used to refine bomb-grade uranium, the CIA told the Administration late last year. State Department officials said they had concluded that the evidence regarding the magnets was strong enough to trigger the penalties. We regard it as very serious," said a senior State Department official, who spoke on the condition of anonymity.

As for Article VI, the suggestion that the N-5 have adhered to the disarmament obligations prescribed by the NPT is, quite frankly, laughable. Even if the US and Russia have cut the size of their arsenals – retaining enough to destroy each other and the world – China, France and Britain have shown no inclination to pursue negotiations on disarmament. India, despite being outside the NPT, can hardly be accused of not adhering to the same standard as Article 1 of the treaty.

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be accused of not adhering to the same standard as Article 1 of the treaty. As for Article VI, it is the only nuclear weapon state to actively demand, each year at the UN, a series of arms control and disarmament measures, including a convention banning the use of nuclear weapons.

Para 2

The problem, however, is that the relationship with India rests on a dangerous bargain. For years, the United States has sought to bend the rules for India's nuclear program to maintain India's cooperation on trade and to counter China's growing influence. In 2008, President George W. Bush signed a civilian nuclear deal with India that allowed it to trade in nuclear materials. This has encouraged Pakistan to keep expanding a nuclear weapons program that is already the fastest growing in the world.

Pakistan's nuclear weapons programme is expanding, but it has nothing to do with the civilian nuclear deal India signed. A crucial part of that deal was a separation plan that India implemented in which it agreed to place several of its indigenous power reactors under international safeguards – thus surrendering the ability to use those reactors to produce fissile material for weapons. Six years after doing so, and after winning the right to import new (safeguarded) reactors, no new reactor has been built or operationalised following the 2008 deal, except for the Russian reactor at Kudankulam which predates the 2008 agreement. One could argue that a greater quantity of indigenous Indian uranium can now be used in its unsafeguarded pressurised heavy water reactors to produce fissile material, but these reactors are connected to the electricity grid and the publicly observable higher electricity output makes it clear they are not being run in 'low burn up mode'.

In other words, far from fearing that the US deal will increase the speed at which India can produce fissile material, Pakistan knows the deal is likely to either have a neutral or even dampening effect on India's nuclear arsenal. However, Islamabad finds it convenient to cite the deal as an alibi for ramping up its nuclear weapons programme. If Pakistan really believed India was now in a position to ramp up production of weapons-grade material, it would not be blocking

the negotiation of the FMCT at the Conference on Disarmament in Geneva. Way back in 2005, India committed to working with the US for the conclusion of the FMCT and the best way to limit the size of an arsenal that you fear will get bigger over time is surely to accelerate negotiations. Yet, Pakistan is doing the opposite.

Para 3

Now, India has Mr. Obama's strong support in its bid to join the Nuclear Suppliers Group, a 48-nation body that governs trade in nuclear-related exports and aims to ensure that civilian trade in nuclear materials is not diverted for military uses. Membership would enhance India's standing as a nuclear weapons state, but it is not merited until the country meets the group's standards.

The NSG's standards consist of export guidelines that India formally committed to adhere to in 2008 as part of the group's decision to allow nuclear commerce between its members and India. Not only has India aligned its export regulations with those of the NSG, it has also committed itself to implementing any new guidelines the group may adopt – even if this means hurting India's commercial interests – without having a formal vote on the framing of those changes. The only safeguard for New Delhi is that the 2008 agreement says the NSG chair is "requested to consult" with India on any future changes and that "Consultations with India regarding proposed

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amendments will facilitate their effective implementation by India.” The irony is that the NSG today has members, notably China, that do not meet the group’s standards, as this op-ed by Mark Hibbs in the NYT argued.

Para 4

All group members have signed the NPT, either as nuclear weapons states (the United States, Britain, France, Russia, China) or as non-nuclear weapons states (everybody else). India has refused, which means it has not accepted legally binding commitments to pursue disarmament negotiations, halt the production of fissile material for nuclear weapons and not test nuclear weapons.

The Times editorial board has (1) mixed up the NPT, the CTBT and the FMCT, and (2) presented this treaty mash-up as “legally binding commitments to pursue disarmament negotiations, halt the production of fissile material for nuclear weapons and not test nuclear weapons.” So let us disentangle this mess for a second and set the record straight. The N-5 are part of the NPT but the pursuit of disarmament negotiations is not a legally binding commitment. The treaty does not say so and the closest we have to such an idea is the 1996 advisory opinion of the International Court of Justice that “there exists an obligation” for states to pursue and bring to a conclusion disarmament talks. As to what value these words have is another matter since the US, France and Britain opposed the ICJ exercising jurisdiction on the question.

A legally binding commitment not to test nuclear weapons is contained in the CTBT and not the

NPT but that treaty has yet to enter into force; that, in turn, will only happen if the remaining holdouts accede to the treaty, and in the following

order: the US, China, India and Pakistan, as well as Israel, Iran and Egypt, and North Korea. Until then, the best that one can insist on is that countries abide by a unilateral moratorium on testing. The US and China have done so, but so has

India. As for the FMCT, the treaty doesn’t even exist yet. The US, Russia, Britain and France formally announced a moratorium on the further production of weapon-grade fissile material. China, however, has not done so, but sent signals that it too has suspended production. None of these pledges are verifiable, which is why India and other countries have been demanding a verifiable and non-discriminatory FMCT. India in 2008 reiterated its commitment to work towards the conclusion of such a legally binding treaty but thanks to Pakistani (and Chinese) opposition, negotiations on the FMCT have yet to start.

Para 5

President Bush squandered an opportunity to demand more of India when he signed the 2008 deal, which opened the door to American trade in nuclear technology for civilian energy, something India had insisted was a prerequisite to more cooperation and lucrative business deals. As part of the 2008 deal, the Indians promised they would be “ready to assume the same responsibilities and practices” as other nations with advanced nuclear technology. But they have fallen far short by continuing to produce fissile material and to expand their nuclear arsenal.

Bush, in fact demanded, and received a lot more from India than it had originally been prepared to

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give and those demands are continuing. Apart from the separation plan and numerous foreign policy compromises that the erstwhile Manmohan Singh government made (on India's relations with Iran, for example), the US has insisted – and the Narendra Modi government has tamely accepted – that the Indian liability law must not apply to US nuclear suppliers even if defective equipment supplied by the latter is the cause of a major accident.

Neither in the bilateral agreement with the US nor in the agreement with the NSG was the demand made that India must stop producing fissile material and cap its nuclear arsenal. The editorial is right to remind readers of the Indian promise to “assume the same responsibilities and practices” as other nations with advanced nuclear technology. But what it fails to mention is that the July 18, 2005 joint statement from which that phrase is lifted actually enumerated what those obligations were: “These responsibilities and practices consist of identifying and separating civilian and military nuclear facilities and programs in a phased manner and filing a declaration regarding its civilian facilities with the IAEA, taking a decision to place voluntarily its civilian nuclear facilities under IAEA safeguards, signing and adhering to an Additional Protocol with respect to civilian nuclear facilities, continuing India's unilateral moratorium on nuclear testing, working with the United States for the conclusion of a multilateral FMCT, refraining from transfer of enrichment and reprocessing technologies to

Each and every one of these “responsibilities and practices” has been strictly adhered to by India and there has not been a single allegation by the US or any member of the NSG to the contrary. In any event, doesn't the Times know that all the five legacy states with “advanced nuclear technology” are busy refining their nuclear arsenals, designing and deploying new generations of nuclear weapons, missiles and delivery systems.

states that do not have them and supporting international efforts to limit their spread; and ensuring that the necessary steps have been taken to secure nuclear materials and technology through comprehensive export control legislation and through harmonization and adherence to MTCR and NSG guidelines.”

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Para 6

The NSG is to discuss India's application later this month. Mr. Obama is lobbying for India to win membership through a special exception. If he succeeds, India would be in a position to keep Pakistan, which has also applied for membership, from gaining membership because group decisions must be unanimous. That could give Pakistan, which at one time provided nuclear technology to North Korea and Iran, new incentives to misbehave.

Before Pakistan aspires to membership of the NSG, shouldn't it be encouraged to first sign on to the “responsibilities and practices” India did – and then some, given the legacy of A.Q. Khan – and get a waiver from the cartel's guidelines? That would be the constructive way of dealing with what the NYT itself called ‘Pakistan's nuclear nightmare’, especially since the Chinese seem hell-bent on giving Pakistan access to nuclear technology without demanding it adheres to any particular “responsibilities and practices”.

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would be the constructive way of dealing with what the NYT itself called 'Pakistan's nuclear nightmare', especially since the Chinese seem hell-bent on giving Pakistan access to nuclear technology without demanding it adheres to any particular "responsibilities and practices". In any event, Pakistani "misbehaviour" on the nuclear front in the past has had nothing to do with India. The A.Q. Khan network was driven not by concerns about an Indian arsenal but by avarice, lax safeguards and the irresponsible worldview of the Pakistani military. Does the New York Times seriously believe that denying India membership of the NSG will somehow give Pakistan "incentives to behave"?

Para 7

Opposition from China, which is close to Pakistan and views India as a rival, could doom India's bid for now. But the issue will not go away. India is growing in importance and seeking greater integration into organizations that govern international affairs. If it wants recognition as a nuclear weapons state, it should be required to meet the nuclear group's standards, including opening negotiations with Pakistan and China on curbing nuclear weapons and halting the production of nuclear fuel for bombs.

Unfortunately, the universe of nuclear threats does not just consist of Pakistan, India and China. If Pakistan sees India as a rival and India sees China as a challenge, then China also has to deal with the reality of the United States as a nuclear adversary. Just as it would be unreasonable for India to expect Pakistan to limit its nuclear arsenal unless India does too, India is unable to do so unless China is prepared to, while China will not be in a position to discuss disarmament with India unless the US is prepared to abandon and reverse its arms race. That is why the goal of nuclear disarmament has to be tackled by all 9 nuclear weapons states – the N-5, India, Pakistan, North Korea and Israel – and one way to do this is to back the Indian proposal for a Comprehensive Nuclear weapons Convention.

Source: <http://thewire.in>, 6 June, 2016.

OPINION – Rajesh Rajagopalan

As India's Power Grows, China's Containment Strategy will Get Frenetic

China's decision in Vienna to object to India entering the NSG should not come as too much of a surprise. China has been uncharacteristically open about opposing India's membership. This also makes it unlikely that it will change its view in the next 10 days, before the NSG meets in plenary in Seoul on June 24.

China's action has little to do with NSG, but is simply the latest indication of China's containment strategy against India. Understanding this reality is the first step to finding an appropriate strategy to managing India's relations with China.

The NSG membership is important for India but not so much for any material gain. Its importance is mostly that it strengthens the legitimacy of India's nuclear programme and permits India to have some say in making the rules of the global nuclear order, all without joining the NPT. Since the NSG, under American pressure, had in 2008 already permitted India to engage in nuclear commerce with other countries, what China's veto does mostly is hurt India's pride but not much more.

China's objections have little to do with its fidelity to NSG rules. NSG has admitted members who were not NPT members. Moreover, China's own actions after it joined the NSG demonstrate a completely dismissive attitude towards NSG rules. Against these rules, and its own solemn commitment, China agreed to supply additional nuclear power plants to Pakistan. China's actions are not about the NSG as much as an attempt to balance and contain India within South Asia. This is why it might not object if India and Pakistan join together, thus ensuring both their hyphenation and having someone inside to use as its cat's paw against India.

But this is not likely to happen for a while because Pakistan's terrible proliferation record makes other NSG members wary of letting it join. The policymakers in New Delhi need to recognise China's containment strategy against India and

respond accordingly. China's behaviour is a reflection of three factors. The first is the balance of power in Asia. It was clear since the 1950s that India and China would be the most powerful countries in Asia.

This led China to form an axis with Pakistan that is based on nothing but their common desire to balance India. India has never fully acknowledged or responded to this axis. The second is China's rise, which has led to greater aggressiveness with all of its neighbours and with the US. Though China initially attempted to portray its rise as "peaceful" and different from previous great powers, these are now distant memories. China's behaviour has become increasingly unyielding and pugnacious, as when the Chinese foreign minister told his Singaporean counterpart in 2010, in effect, that small countries should know their place. It is important to remember this because in the coming days there will be arguments that China's actions are the consequence of India getting closer to the US. That would be wrong. There is a certain uniformity in Chinese behaviour that applies to all of its neighbours, not just India.

These are, moreover, neighbours with which China has close economic ties, countries that tried hard to engage with China in order to integrate it into the regional order in the hope that this would tame any temptations of power. They have all reluctantly concluded that China's power can only be balanced, not tamed, and are seeking closer security ties with the US because it is the only country that can effectively provide such balance.

The US too tried hard to integrate China into the existing international order, seeking to partner with it rather than contain it. For almost a decade, the US was also diverted by its entanglements in the Middle East, giving China plenty of space to

grow. US President Barack Obama's initial instinct, as befits his liberal view of international politics, was also to frame the relationship as a partnership, the G-2.

None of this has helped keep China's rise peaceful. As China's power grew, its ambitions have also expanded. China, it turns out, is just another great power and its change in behaviour tracks well with its growing power.

Finally, China also has a paranoid strategic culture that automatically sees the world in conflictual terms, which is sometimes short-sighted. Indian leaders should be intimately familiar with this. It is this short-sightedness that unnecessarily antagonised a very pro-China Jawaharlal Nehru, helped cement the Indo-Soviet alliance, forced India to restart its nuclear programme by helping Pakistan's nuclear weapons quest and is driving an instinctively anti-American Indian strategic elite into reluctantly considering an alliance with the US.

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Strategic Blindness: That Beijing's behaviour is so self-defeatingly short-sighted should provide no comfort to New Delhi because it has led to a policy that has consistently sought to balance and contain India. China's decision to object to India's entry into the NSG is no different. China is reacting not so much to India's behaviour as much as to India's power. As India's power grows, India should prepare for China's containment strategy to become even more frenetic. In New Delhi, there is almost a wilful blindness to this. The dangers of such strategic blindness cannot be overstated. If there is one positive outcome of the NSG issue, it is that it provides a further demonstration of China's containment strategy. If India's strategic community and decision-makers continue to sleep on, they will have no one to blame but themselves.

Source: The Economic Times, 12 June 2016.

OPINION – W.P.S Sidhu

India's NSG Prospects not So Good

There is a common perception that the extraordinary plenary meeting of the NSG on 9-10 June in Vienna to consider India's membership is solely about New Delhi's non-proliferation record in general and it being a non-signatory to the NPT in particular. But it is not.

In reality, it is a contestation between the US and China to determine the future of the nuclear and world order. China's public declaration to oppose New Delhi's formal NSG application is more about keeping India out rather than bringing its "all-weather friend" Pakistan (which belatedly also put in an application) in; it is more about securing the existing nuclear and world order rather than strengthening the non-proliferation regime; and, above all, it is a blatant challenge to Washington's leadership in shaping the evolving world order.

So far, the indications are that China is likely to win this round, despite its flawed arguments. Consider the following: China asserts that membership of the NPT is a prerequisite for NSG membership. This was never the case. In fact, one of the reasons the NSG was set up in 1974 was to accommodate France—a nuclear weapon state that had not signed the NPT. Similarly, even Japan was a founder member of the NSG before it ratified the NPT. Later, Argentina and Brazil were also invited into the NSG before they had joined the NPT.

Insisting on this criteria is designed at worse to either keep India out even at the cost of sacrificing Pakistan's membership or at best to hyphenate India with Pakistan in the hope that Islamabad can

piggyback on New Delhi's membership bid. This effort to allow Pakistan gatecrash the exclusive club along with India is a desperate attempt to fudge Islamabad's lack of membership credentials.

While India formally applied for NSG membership on 12 May, the process began more than a decade ago with the 2005 US-India civil nuclear cooperation agreement, passed through the gruelling US Congress 123 agreement test, plus a painful civil-military nuclear separation plan, and was finally vetted by a safeguards agreement with the IAEA. Pakistan has not accomplished a single one of these steps so far.

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Moreover, China's attempt to portray itself as a NPT champion and exemplar is suspect given that it chose to stay outside the treaty for nearly three decades, even though the NPT recognized its nuclear weapon status. In 2004, the year that China joined the NSG, the annual report to the Congress by the US-China Economic and Security Review Commission noted: "Continuing intelligence reports indicate that Chinese

cooperation with Pakistan and Iran remains an integral element of China's foreign policy." Indeed, Beijing finalized an agreement with Pakistan to build nuclear reactors just days before joining the NSG.

Even after joining the NSG, China's behaviour has been a cause of proliferation concern and Beijing's fingerprints have appeared

on proliferation activities from Libya to North Korea.

China's NSG gambit is only part of a broader strategy to constrain India's role in the evolving global order. Beijing's lukewarm support for India's permanent membership of the UNSC, coupled with

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Against this backdrop, India needs a three-pronged approach: first, to continue strengthening its non-proliferation credentials and to engage those members of the NSG—countries such as Ireland, Mexico, Switzerland and others—who are really concerned about preventing proliferation; second, to encourage Washington to sustain its leadership of the evolving global order, especially in the face of challenges from China; and, third, in case it cannot be accommodated in the existing regime and institution, to consider shaping and building alternative arrangements and institutions with other like-minded countries. So far, India has committed most of its efforts on the first two approaches. It might now be time to consider the third way.

Source: <http://www.livemint.com/Opinion/ilCavq2BmCjyXz00vFpqPK/Indias-NSG-prospects-not-so-good.html>, 06 June 2016.

OPINION – T.P. Sreenivasan

Quest for Another Holy Grail

India's 30-year-old effort to secure a permanent seat on the UN Security Council has been characterised as the pursuit of a diplomatic holy grail. The chance of success in that pursuit has been receding like a mirage, though there have been tantalising signs of progress. A similar, but less intense effort is on to seek admission to the APEC, a body which should have included India in the first place. Here again, there is no sign of India being invited, even as the 10-year moratorium on new membership has expired. India has now embarked on another quest, this time to seek membership of the NSG. The Prime Minister himself has travelled to Switzerland to seek support and he will also go to Mexico for the same

purpose. It is surprising that India is investing much diplomatic effort on this issue when there is little chance of India being invited to the group.

An American Initiative: India seeking membership of the NSG is like Russia seeking membership of NATO: the NSG was invented to prevent Indian advance towards possession of nuclear weapons after the technology demonstration test of 1974. If India joins it, the very nature of the NSG will change and dilute its fundamental position that all members should be

signatories to the NPT. Though the US has stated repeatedly that it would like to see India in the NSG, it cannot be expected to be a party to the fundamental alteration of the NPT regime.

Interestingly, it was a US think tank which brought up the topic in a Track II discussion with some of us in 2007. The suggestion

was not that India should be given membership of the NSG, but that India should join all multilateral export control regimes like the NSG, MTCR (which it is set to join later this year), the Wassenaar Arrangement for control of conventional weapons and the Australia Group for control of chemicals that could contribute to chemical and biological weapons. It appeared then that the whole proposal was to drag us into Wassenaar Arrangement and the Australia Group by presenting them as a package. We had refrained from joining both, though they were open for us from the beginning, for our own reasons. Our response to the US proposal was guarded as we did not want a bargain on all the groups together. We did, however, emphasise that India's membership of the NSG would be helpful as it had received an exemption from the NSG guidelines. As a member of the group, we could contribute to the discussion if it sought to amend the guidelines in any manner. In other words, it was not an Indian initiative to press for admission to the NSG.

India seeking membership of the NSG is like Russia seeking membership of NATO: the NSG was invented to prevent Indian advance towards possession of nuclear weapons after the technology demonstration test of 1974. If India joins it, the very nature of the NSG will change and dilute its fundamental position that all members should be signatories to the NPT.

US President Barack Obama formalised the proposal in 2010, as though it was a concession to India, in his bid to win various contracts, including nuclear supplies. Perhaps, he was aware that a decision on the NSG was not in his hands, but promised to take up the matter with the others just to win some goodwill in the process. As was expected, the fundamental requirement that every member should be a signatory to the NPT was brought up not only by China but several others. There was similar opposition in the case of the exemption from NSG guidelines at the time of the nuclear deal also, but our bilateral efforts and heavy lifting by the U.S., including a final phone call from the US President to his Chinese counterpart, resulted in the exemption. The strength of the argument was that this would be a one-time exemption with no strings attached.

The NSG did not even challenge the supply of two new reactors to Pakistan by China. The NSG's ineffectiveness in countering proliferation makes it even less attractive as a group India should join.

No Great Gains in the Offing: Interestingly, the NSG is an informal grouping, which is referred to in the IAEA documents only as "certain states", and there is no precise procedure for seeking admission. But since the group takes all its decisions by consensus, it follows that new members should also be by consensus. For those outside the group, there is an outreach programme which is being pursued vigorously. The outreach programme is meant merely for conveying information and not for consultation. New Delhi hosted an outreach meeting a few years ago, but it was found that the exercise was not of much use in influencing the guidelines.

The pursuit of membership of the NSG by India at the highest level has aroused suspicion that India is aiming to be in the group to deny entry to Pakistan. Such an interpretation is the result of lack of any clarity as to the benefits that will accrue to India by joining the NSG. In fact, membership of the group will not immediately open up nuclear trade as India has already pledged not to transfer nuclear know-how to other countries. If we attempt to dilute the guidelines to liberalise supply, it will be resisted by the others. Membership of the NSG will only mean

greater pressure on us to sign the NPT and the CTBT and commit in advance to a FMCT, which would impose restrictions on existing stockpiles of fissile material.

China has given scant attention to the NSG guidelines and has violated them in the case of Pakistan by claiming to act under an agreement reached before China joined the NSG. Unlike India, Pakistan has not even sought an exemption from the NSG. To say, therefore, that India and Pakistan should be equated on nuclear matters is unreasonable, to say the least. But the NSG did not even challenge the supply of two new reactors to Pakistan by China. The NSG's ineffectiveness

in countering proliferation makes it even less attractive as a group India should join.

The green signal for India to join the MTCR came when Mr. Modi was in Washington purely by coincidence, as the last

date for filing objections happened to be that day. Italy had held up its approval on account of the Italian marines issue, but did not file a formal objection because of the decision to let the marines go home. Membership of the MTCR, which restricts the weight and range of missiles, is being projected as clearing the way for NSG. This is not likely because of China except that we can now threaten to veto China if it applies for membership of the MTCR.

When India is not anywhere near the permanent membership of the Security Council and even APEC membership remains elusive, the high-level pursuit of NSG membership may give the impression that India is unrealistic in its expectations from the international community. Support by Switzerland and Mexico will not make any difference as there will not be a vote on the issue. The US may reiterate its support, but the objection will come from China and even some others. It will be better for India to concentrate on one or two fundamental objectives rather than fritter away our diplomatic resources on matters of marginal interest.

Source: The Hindu, 09 June 2016.

OPINION – Arka Biswas

Why Beijing is Wrong about Indian Accession to the Nuclear Suppliers Group

With the annual plenary of the NSG coming up this month, Beijing's objection to India's inclusion into the Group has become a concern for New Delhi. Debate on the prospects of India's entry into the 48-member, consensus-based NSG has heated up over the fact that India is not a signatory to the Treaty on the NPT. The NSG coordinates export control policies of its members in an effort to curb the proliferation of nuclear weapons, and is perceived to be helping uphold the NPT. Noting that the inclusion of a non-NPT-signatory to the Group could weaken the Treaty, Beijing has recently flagged objections to India's efforts to join the NSG. The objection raises questions about the relationship between the Group and the Treaty. If the NSG was established to go beyond the NPT in contributing to the goals of nuclear non-proliferation, then the argument to restrict its membership to just NPT signatories is weak.

India has expressed its interest in joining the NSG with the broader objective of becoming an active participant in the global non-proliferation architecture. From once being an outlier and a target of this system, India has come a long way, and is now increasingly being recognised as a 'like-minded' partner in addressing the threat of the proliferation of weapons of mass destruction, including nuclear weapons. India's approach to the existing mechanisms of nuclear non-proliferation, in particular the NPT, underwent a significant shift in 2000. New Delhi had traditionally expressed its dissatisfaction with the Treaty that divided the world into nuclear haves and have-nots. This is because the only way India could have signed the NPT was as a non-nuclear weapon state, which was against New Delhi's

interest owing to the threat it perceived, since NPT's inception in 1970, from a recognised nuclear-China and, later, from a nuclear-Pakistan. This led New Delhi to call for a Nuclear Weapons Convention that would replace the NPT and implement global nuclear disarmament.

However, as NPT signatories gathered for the 2000 review conference, then Indian Foreign Minister Jaswant Singh, in an address to the Indian parliament, noted that though India could not join the NPT, it would support the principles and objectives of nuclear non-proliferation enshrined therein. To date, India has harmonised its export

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control policies with the NSG guidelines and its record on nuclear non-proliferation remains impeccable. Yet, New Delhi's status outside the Treaty has been used to diminish its prospects of gaining entry into the NSG. While European countries like The Netherlands, Austria and Ireland appear to be genuinely concerned, China has arguably used this debate to block India's

entry as a favour to its 'all-weather' friend and ally Pakistan. Islamabad has repeatedly argued against New Delhi's inclusion in the NSG, stating that it would disturb the strategic balance in South Asia. Thus, it is vital to objectively assess the NSG's relationship with the NPT in order to resolve the debate.

Article III of the NPT says its mandate is to control exports of nuclear materials and related sensitive items which could be used in the construction of a nuclear weapon. Under the NPT the Zangger Committee was established in 1971 to identify those items in a trigger list and issue export control guidelines which NPT signatories were obligated to follow. The Committee published export control guidelines and the trigger list on 3 September 1974, two months after India conducted its first nuclear test, an event marked as the point of inception of the NSG. In essence,

the NPT had the provision to enforce nuclear export controls among its signatories and, following India's nuclear test, it issued measures intended to coordinate export controls among NPT signatories. What then was the rationale for setting up a separate group in 1974 with the exact same objectives?

The NPT in the 1970s had limited membership and some major suppliers of nuclear materials were not party to it. The case of France, which has also been flagged recently by the Indian Ministry External Affairs and refuted by the Chinese Government, is a case in point. In the early 1970s a French company, SGN, negotiated a deal with Pakistan to construct reprocessing facility that would have allowed Islamabad to amass stockpiles of weapons-grade plutonium. France joined the NPT only in August 1992 and it therefore was not violating any obligation in pursuing such a deal with Pakistan in the 1970s. According to declassified US Government documents, it was under the insistence and pressure from the US that France agreed to join in setting up the London Club in 1974, which eventually became the NSG. Soon after establishment of the London Club, France terminated the contract to construct the reprocessing facility in Pakistan.

The argument to keep NSG membership restricted to NPT signatories thus stands weak, given that one of the primary objectives with which the Group was set up was to include non-NPT signatories. This would help allow NPT signatories to control the exports of nuclear supplier countries which had no

obligations to abide by the guidelines issued by the Zangger Committee under the NPT. While the NPT has now become a nearly-universal treaty, there remain countries outside of it that have or

are known to have active nuclear weapons programs. The NSG, therefore, has the unique opportunity to contribute to the objectives of nuclear non-proliferation by including those non-NPT signatories that help it strengthen both its credibility and efficiency.

On the contrary, if the NPT's primacy on all nuclear non-proliferation activities is to be retained, then the NSG's mandate could be handed over to the Zangger Committee and the Group can be dissolved. It is true that the Zangger Committee and NSG's scopes of export controls differ, but the Committee has the ability to take over the mandate of the Group. This, however, has not happened, firstly because it would make adherence to export control guidelines an NPT obligation, which for now remains a voluntary commitment under the NSG, and secondly because such a move would seriously restrict the ability of the nuclear non-proliferation architecture to control nuclear exports that do not fall under the NPT's purview.

The NSG has a unique position in the nuclear non-proliferation architecture. It can contribute to the goals of nuclear non-proliferation where the NPT has limitations. Members of the NSG must, therefore, admit countries based on their merits and not hold NPT membership as a mandatory criterion for inclusion. New Delhi's entry into the NSG would be less an exception and more a reflection of the Group's pragmatism in strengthening the nuclear

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New Delhi's entry into the NSG would be less an exception and more a reflection of the Group's pragmatism in strengthening the nuclear non-proliferation architecture. The NSG stands to gain credibility by including India, a potential supplier of nuclear and related items which has upheld the norms of nuclear non-proliferation through decades.

non-proliferation architecture. The NSG stands to gain credibility by including India, a potential supplier of nuclear and related items which has upheld the norms of nuclear non-proliferation through decades. On the other hand, by limiting its membership to the NPT, the Group will fail to live up to the potential for which it was designed.

Source: <http://www.lowyinterpreter.org>, 07 June 2016.

OPINION – Suhasini Haider

After Switzerland, Mexico Extends Support to India for NSG Membership

With hours to go for a special session of the NSG meeting in Vienna on June 9-10, to discuss India's application for membership, India scored another vote of support from Mexico. "As a country we are going to be positively and constructively supporting India's (membership at the NSG) in recognition of the commitment by PM Modi to the International agenda of disarmament and non proliferation of nuclear weapons." Mexican President Enrique Peña Nieto said after a meeting with Prime Minister Narendra Modi.

The China Concern: India's biggest concern from the 48-nation group comes from China, that argues that NSG members must be signatories to the NPT. India, Pakistan, North Korea, Israel and South Sudan are amongst the countries that aren't signatories to the NPT, which India believes is discriminatory. Given China's public opposition, India has been working on whittling down other countries in the NSG in a bid to isolate China.

... A report by a prominent news agency on 9 June also indicated that a few other countries remain skeptical of India's membership chances during the session that leads up to a plenary in Seoul on June 24, 25. Quoting "three diplomats" aware of proceedings, the Bloomberg news service reports said that some NSG countries still want "tighter monitoring by international nuclear inspectors as well as iron-clad assurances that Indian activities in its civilian nuclear program won't be used for military purposes."

US Commitment: The report also quoted a letter

US Secretary of State John Kerry sent out to NSG members appealing for support to India, "India has shown strong support for the objectives of the NSG and the global nuclear nonproliferation regime and is a 'like-minded' state deserving of NSG admission," Kerry wrote, as a part of the US's commitment from the 2008 civilian nuclear deal to help India win access to international nuclear regimes. Mr. Kerry is on his way back from meetings in Beijing, although it was unclear if he had raised the NSG issue with the Chinese leadership. Significantly Mr. Kerry's letter indicated that India would not oppose Pakistan's membership on the basis of its "regional" issues, but would take a merit-based approach to all other applications to the NSG.

India decided in 2012 to pursue full membership to the NSG, which gave it an exceptional "country-specific" waiver in 2008. Over the past few years, the government has stepped up its campaign for the membership and hosted current NSG chair Rafael Grossi in Delhi last year. "This [membership of NSG] has been an objective that we have pursued for many years now. We believe we made a lot of progress and that has led us to formally apply to NSG some days ago. We are engaging all NSG members regarding this issue," S. Jaishankar, Foreign Secretary, told the media at the MEA in Delhi before the PM left for his tour. Mr. Modi arrived in Mexico city from Washington for a visit that lasted a few hours, before he returns to New Delhi on 10 June morning.

Source: <http://www.thehindu.com>, 09 June 2016.

OPINION – Moshe Kantor

We Must Face Up to the Threat of Nuclear Terrorism

We live in uncertain and troubling times. We are rightly on red alert against the threat of what has now become conventional terrorist acts of indiscriminate suicide bombings, gun and knife attacks. But we are seemingly blind to the much more catastrophic and all too real threat of nuclear weapons falling into the hands of the Islamic State (ISIL) and other terrorist groups. It is hard for us to imagine, but terror groups are alarmingly close to

acquiring nuclear weapons. Security experts believe the Jihadi brothers Khalid and Ibrahim el-Bakraoui were plotting to make a radioactive bomb by kidnapping Belgium's nuclear programme chief in order to force him to let them into one of Belgium's two atomic facilities to steal nuclear material.

Nuclear proliferation, either by terrorist groups such as Isil or state actors like North Korea, mean we are living in a world confronted with a threat level the likes of which we have not seen since the Cold War. It is worth noting then that this year marks the thirtieth anniversary of the 1986 Reykjavik Summit on nuclear arms reduction. Although the talks between President Ronald Reagan and Soviet leader Mikhail Gorbachev collapsed at the last minute, the progress achieved during the negotiations proved seminal in curbing the arms race between the two sides, and paving the way for the signing of the INF Treaty the following year.

That agreement saw both sides agree to eliminate their respective stockpiles of intermediate and shorter-range nuclear missiles. Since Reykjavik, further progress on nuclear-arms reduction and non-proliferation has been made. In 2010 President Obama signed a strategic-arms-control-treaty (New Start) with Russia, which, together with the establishment of a new inspection and verification regime, will see the number of strategic nuclear missile launchers reduced by half. More significantly, last July saw a deal reached to constrain Iran's nascent nuclear programme. The accord will keep Iran from producing enough material for a nuclear weapon for at least 10 years and impose new provisions for inspections of

Iranian facilities, including military sites.

Despite these achievements, it is frustrating greater progress on nuclear arms reduction has not been achieved. As the attacks on Brussels demonstrate, the threat of nuclear proliferation remains very real. North Korea, long a belligerent regional player, already has the capacity to launch a nuclear attack on Seoul and Tokyo. Experts predict that within the next decade they will have the ability to strike at the heart of the US. Meanwhile, tensions between Pakistan and India, both nuclear armed states, remain high. As former US Defence Secretary Robert McNamara explained, unlike the application of traditional forms of military power, there can be

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As former US Defence Secretary Robert McNamara explained, unlike the application of traditional forms of military power, there can be no learning period with nuclear weapons. One mistake can destroy nations. Furthermore, fissile material stored in ailing research facilities in the former Soviet Union, combined with an ever-growing contingent of disaffected young men and women hellbent on perpetrating mass murder in the name of misguided ideological beliefs, mean the threat of a so-called "dirty bomb" attack in the heart of Europe is greater than ever.

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It is for precisely these reasons that the International Luxembourg Forum on Preventing Nuclear Catastrophe convened. Established in 2007, the Luxembourg Forum aims to promote international peace and security by developing practical policy solutions aimed at limiting nuclear arms and countering the threat of nuclear terrorism. The two day conference involved a host of participating

experts developing a credible blueprint of recommendations to be presented to and hopefully implemented by the world's major nuclear powers – US, Russia, China, UK and France. Irrespective of the outcome of November's US Presidential election, it is vital that the victor takes heed of these recommendations and picks up the mantle of tackling the threats posed by nuclear armed rogue states and extremist groups. The current stalemate in discussions between the super powers cannot be allowed to continue.

As former President Gorbachev explained in his address to the Luxembourg Forum on 7 June, 2016: "[Thirty years on from Reykjavik] we cannot be satisfied with the current situation. The window to a nuclear-free world, first opened in Reykjavik, is being shut and locked before our eyes. New types of nuclear weapons are being created. Missile defence systems are being deployed. The nuclear powers' military doctrines have been changed for the worse."

He is right - the threat of nuclear terrorism and proliferation is greater than ever. But as we have seen from Reykjavik and subsequent summits, dialogue and cooperation between key states, together with effective leadership, remain the best remedy to countering the nuclear threats we face.

Source: <http://www.telegraph.co.uk>, 08 June 2016.

NUCLEAR STRATEGY

PAKISTAN

Pakistan has Developed a Robust Nuclear Deterrent System: Sartaj Aziz

Advisor on Foreign Affairs Sartaj Aziz has said, Pakistan will take all possible measures to augment its defense capability. He was winding up discussion on an adjournment motion moved by Javed Abbassi in the Senate over the recent Indian test fire of supersonic Interceptor missile. He said, Pakistan is not oblivious to its

defense requirements and upgrading its capabilities through suitable technologies without entering into arms race.

The advisor said, our effort for peace and friendship must not be interpreted as our weakness. We are fully capable to defend our people and territory. He said Pakistani scientists and experts constantly monitor and evaluate the strategic threats that Indian nuclear doctrine poses to Pakistan's security. Despite limited resources, Pakistan has developed a robust nuclear deterrent system whose safety and security is acknowledged. On the diplomatic front, the Advisor said Pakistan is planning to highlight the dangerous implications of India's plan to nuclearize the Indian Ocean at all the relevant international fora.

He said one specific proposal under consideration is to move resolution in the next session of the UN General Assembly to declare the Indian Ocean nuclear

free zone. We will approach other countries as well to co-sponsor this resolution. This, he said, will be an important initiative. About the NSG membership, the Advisor said Pakistan has undertaken a proactive diplomatic offensive in all the member countries of the group. He was confident that our efforts towards non-discriminatory approach will pay off. He said our lobbying in the United States is quite active. We have short listed lobbying firms. He said our missions are also very active to protect the country's interests.

Source: <http://nation.com.pk>, 07 June 2016.

BALLISTIC MISSILE DEFENCE

SOUTH KOREA-USA

S Korea, US Discuss THAAD Anti-Ballistic Missile System Deployment Sites

South Korea and the United States have started discussing the possible locations for deploying a US THAAD anti-ballistic missile system on the

The threat of nuclear terrorism and proliferation is greater than ever. But as we have seen from Reykjavik and subsequent summits, dialogue and cooperation between key states, together with effective leadership, remain the best remedy to countering the nuclear threats we face.

Korean peninsula, the Yonhap news agency said on 6 June. Sites in the city of Daegu in the North Gyeongsang Province and the city of Pyeongtaek in the Gyeonggi Province are being considered for the THAAD deployment, the news agency reported, citing South Korean military sources. Several other sites in rural areas are also being considered, according to other sources cited by the media outlet.

The United States has been in discussions with South Korea for several months over the proposed deployment of the THAAD system amid increased tensions on the peninsula over North Korea's nuclear program. Pyongyang said on January 6 that it had successfully carried out a hydrogen bomb test and put a satellite into orbit on February 7, violating UNSC resolutions and triggering condemnation from the international community in both cases. North Korea was slammed for using the satellite launch to allegedly conceal a ballistic missile test. The THAAD system is designed to intercept short, medium, and intermediate ballistic missiles at the terminal incoming stage. The system's potential deployment on the Korean Peninsula has caused concern in North Korea, as well as China and Russia. In April, Chinese Foreign Minister Wang Yi said after a meeting with his Russian counterpart Sergei Lavrov that both states are concerned the THAAD system's deployment would go beyond defense necessities and damage the strategic security of China and Russia.

Source: <http://sputniknews.com>, 06 June 2016.

NUCLEAR ENERGY

FINLAND

Finland Raises its Bet on Nuclear Power

The last one in Finland is almost a decade late, and the participating companies are now

embroiled in multibillion-euro lawsuits. The current one in the UK has caused intense ructions at the top of one of Europe's largest utilities and piled huge pressure on the French and British governments. So it hardly seems like the most auspicious moment for Finland to build a nuclear power plant. But Fennovoima, the company

behind the project worth up to €7bn, is bullish. The 1,200 megawatt power plant — known as Hanhikivi 1 and due to be completed by 2024 — could provide Finland with about 10 per cent of its electricity, boost the country's economic growth,

and be a boon for a group of local companies as well as Russia's Rosatom.

Fennovoima thinks it can avoid the problems that have dogged the Olkiluoto 3 nuclear project in Finland and Hinkley Point in the UK. Unlike the former, Rosatom is not just a supplier but also a big shareholder, with a 34 per cent stake in

Fennovoima. And the cost of the proposed new Finnish reactor is well below the £18bn (€24bn) estimate for Hinkley Point, even if the UK plant is bigger, at 3,200MW. "There are challenges. But we hope that we can show the way for others," says Minttu Hietamäki, a nuclear engineer at Fennovoima, which hopes to secure a construction licence for Hanhikivi in 2018. It comes at a critical

time for Finland and the rest of Europe in the search for the right energy policy. Like most countries, Finland is looking to boost considerably its share of renewable energy — in its case, mostly from wood-based biomass — and wants nuclear power, not coal, to play the anchor role despite the Fukushima disaster in Japan in 2011. But the extraordinary problems at Olkiluoto have cast doubts over Finland's ability to manage such projects, while Fennovoima was hit by a farcical hunt for European investors for Hanhikivi.

And all of that is not counting the furore

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surrounding the participation of Rosatom, the Russian state-controlled nuclear company. As well as providing the reactor and serving as the main shareholder in Fennovoima, Rosatom is also supplying all the finance and the atomic fuel. Worries about Russian involvement almost brought down the previous Finnish coalition government. The Green party left the administration, accusing its former partners, some of whom are still in power, of pursuing a policy of "Finlandisation" — an extremely loaded term locally meaning the accommodation of Russian views in Finnish policy. ...

The deal is also of huge importance to Rosatom and its international ambitions to play a leading role in any revival of nuclear power outside the former Soviet Union. Finland is not just in the EU but it is also home to the "strictest regulator in the world", says Roman Dyukarev, director of corporate communications for Rosatom Energy International, the company's overseas business.

... If the Russian side of the project has been stable since Rosatom joined in 2013, the Finnish side has been anything but. A requirement that at least 60 per cent of Fennovoima's shares be owned by EU companies reached a slapstick conclusion last year when Finland's government rejected the participation of a mysterious Croatian company with alleged links to Moscow. ...

The situation was rescued by the late participation of Fortum, Finland's main utility. More than 20 Finnish companies — mostly local utilities but also steelmaker Rautaruukki — are shareholders. Under the Finnish model commonly used in building power plants, investors will each receive their own share of the electricity from Hanhikivi at cost — so, for instance, Rosatom will get 34 per cent of the power generated and is able to use it or sell it on. Several challenges remain. Diplomatic relations with Russia remain tense, and could get more so if Finland decides to join Nato. However, Ms Forsström notes that Russia has always maintained its energy supply, including

to Ukraine, even after Moscow's annexation of Crimea in 2014.

... Possible changes in safety requirements are the biggest potential problem, according to Ms Hietamäki. The reactor is designed to withstand a direct aircraft crash and still have its safety systems work, due to two separate one-metre thick concrete walls. But regulators are exacting with Fennovoima, holding about 30 meetings a month with the company.

More worrying to some Finnish shareholders is something entirely different: how subsidised renewable power is hurting the maths of the nuclear project. Standard & Poor's

last month downgraded the credit rating of TVO, the company behind Olkiluoto, as its cost of production is expected to be above future power prices. ...

Source: <http://www.ft.com>, 05 June 2016.

TAIWAN

Lin Looks to Restart First Nuclear Power Plant Generator

Premier Lin Chuan's remarks regarding plans to resume operations of the No. 1 generator at the First Nuclear Power Plant in order to meet electricity demands in the summer sparked debate among activists and parties on 12 June, 2016. Restarting the No. 1 generator would require meeting safety guidelines first, Lin told reporters before attending an event at the Taipei Municipal Haoran Senior Citizen Home in early celebration of the Dragon Boat Festival. "The government would also need to consider that restarting the power generator would not extend the power plant's service beyond schedule," Lin stated, answering questions as to whether restarting the generator would contradict the Tsai administration's goal of phasing out nuclear power in Taiwan by 2025.

The Executive Yuan stands by its commitment to

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see necessary safety precautions carried out before it would approve the restart of the No. 1 generator at the First Nuclear Power Plant, it was stated in a later press release. Executive Yuan spokesperson Tung Chen-yuan stated that the government has established plans for phasing out nuclear power plants. "A nuclear-free homeland by 2025 is a social consensus," Tung said. "The existing nuclear power plants in Taiwan will definitely be phased out by 2025, but they will not go offline ahead of schedule," the spokesman stressed. However, problems surrounding Taiwan Power Co.'s (Taipower) spent fuel storage plans for the First and Second Nuclear power plants have yet to be resolved. Coupled with the setbacks that hindered existing energy development plans, Tung pointed out that power supply for the summers of this year and 2017, Taipower will face "extreme challenges."

The Executive Yuan has instructed both the Economics Ministry and Taipower to provide a written report on safety issues at the First Nuclear Power Plant, and responses to anti-nuclear power activist groups, the spokesman said. He added that the Executive Yuan has also instructed the Atomic Energy Council (AEC) to present the results of a safety assessment completed last year to the Legislative Yuan. The Legislative Yuan's Education and Culture Committee has listed the AEC's report on its agenda for the June 8 interpellation session.

Parties Conflicted: Political parties were divided over the issue of restarting the plant. Opposition Kuomintang (KMT) caucus leader Lin Te-fu criticized the majority Democratic Progressive Party (DPP) for "saying one thing and doing another." The DPP should clearly explain its policy to the people, Lin said. The DPP's caucus leader, Wu Ping-jui on the other hand, proposed that the premier's statements have not "gone against plans to phase out the First Nuclear Power Plant."

The First Nuclear Power Plant's lifespan has yet to expire, Wu pointed out. "The DPP's nuclear-free homeland plan stipulates that operations for the First and Second plants cannot be extended."

People First Party (PFP) caucus whip Lee Hung-chun argued that the new government should first consider discussing energy industry developments instead of looking at reactivating the power plant. On the other hand, New Power Party (NPP) Chairman, Huang Kuo-chang, called the First Nuclear Power Plant in question the "most dangerous nuclear power plant in the world. There are no safety precautions being taken," he said. "Therefore we are adamantly against reactivating the First Nuclear Power Plant."

Source: <http://www.chinapost.com.tw>, 06 June 2016.

THAILAND

Thailand Closer to Generating Nuclear Power than We Thought

Problems surrounding Taiwan Power Co.'s (Taipower) spent fuel storage plans for the First and Second Nuclear power plants have yet to be resolved. Coupled with the setbacks that hindered existing energy development plans, Tung pointed out that power supply for the summers of this year and 2017, Taipower will face "extreme challenges."

Over 100 journalists from around the globe were among 4,500 participants from 55 countries gathered in Moscow for the 8th International Forum Atomexpo 2016. The forum is hosted annually by Russia's nuclear energy agency, Rosatom. The journalists were from countries that have clinched

deals with Rosatom for development of their own budding nuclear power programmes.... During the three-day event, countries also signed around 30 different agreements with Rosatom. One example was the deal to establish a new atomic research centre in Nigeria, bringing the number of such facilities around the world to 53. The estimated value of agreements signed was US\$10 billion, according to former Russian Prime Minister and now head of Rosatom Sergey Kiriyenko....

According to the IAEA, 30 developing countries have nuclear-power ambitions, three of which have reached the preparatory stage. As a

journalist from a country where public resistance to nuclear energy is sky-high, I couldn't help feeling surprised. If all these countries follow through on their plans, nuclear power plants will mushroom all over the world. Countries considering building plants must comply with the IAEA's 19 safety standards. Last year the atomic agency carried out compliance checks in Kazakhstan and Malaysia, with more planned this year in Indonesia, Poland and Bangladesh. "We have different programmes for newcomer countries to prepare for safe operations for many, many years without accidents," said IAEA deputy director general Mikhail Chudakov.

Those words are unlikely to reassure environmentalist, for whom the conference was a nightmare come true. This year marks the 30th anniversary of the meltdown at Chernobyl's Reactor No 4, when radioactive particles released into the atmosphere destroyed the environment for hundreds of villages in what was then Russia and is now part of Ukraine. The death toll from that accident is incalculable. It also marks the fifth anniversary of the meltdowns at Fukushima in Japan, dubbed the biggest nuclear disaster since Chernobyl. Though no deaths or cases of radiation sickness were reported this time, over 100,000 people were displaced and the clean-up operation will continue for decades. For most Thai environmentalists, the risks of nuclear energy remain too high; our country cannot afford to adopt the technology without a far better guarantee of safety than is currently available.

... In Thailand, the national Power Development

Environmentalists in Thailand are especially concerned at the potential for human-related nuclear accidents, given the poor record of accountability here. Novovoronezh boasts that its five accident-free decades are down to extensive staff training. Operatives don't get access to the control room until they have worked on the ground for at least three years and earned a licence from regulator.

renewable energy including hydro (15-20 per cent). Environmentalists in Thailand are especially concerned at the potential for human-related nuclear accidents, given the poor record of accountability here. Novovoronezh boasts that its five accident-free decades are down to extensive staff training. Operatives don't get access to the control room until they have worked on the ground for at least three years and earned a licence from regulator.

...

Source: <http://www.nationmultimedia.com>, 07 June 2016.

USA

Costs for Proposed South Carolina Nuclear Units Rise \$800M

South Carolina Electric & Gas Co. (SCE&G) has informed state regulators that its share of the development of two new nuclear units has increased significantly, rising about \$852 million to reach \$7.7 billion. SCE&G and Santee Cooper have been working for years to develop the units at the existing V.C. Summer nuclear plant, but the bid has been delayed and costs continue to rise.

South Carolina Electric & Gas Co. (SCE&G) has informed state regulators that its share of the development of two new nuclear units has increased significantly, rising about \$852 million to reach \$7.7 billion. SCE&G and Santee Cooper have been working for years to develop the units at the existing V.C. Summer nuclear plant, but

the bid has been delayed and costs continue to rise. Last year, the companies inked a deal to have Westinghouse Electric Co. come onboard in an effort to speed construction. SCE&G owns a 55% stake in the project with Santee Cooper's

share totaling the remaining 45%. Most of the price increase resulted from SCE&G selecting a fixed-price option for reactor construction. The units are expected to be complete in 2019 and 2020.

New nuclear construction is known for its high costs, and the latest cost increase for SCE&G's proposed nuclear units underscores the hazy future for profitable operations of such new facilities. The decision to go with a fixed-price option for development of two new nuclear units about 20 miles outside Columbia, S.C., will be a long-term gain for customers, according to leadership at SCE&G's parent company. In the short-term, however, it adds significantly to costs. "Completing these plants is imperative to bring clean, safe, and reliable electricity to meet the long-term energy needs of South Carolina," SCANA Chairman and CEO Kevin Marsh said in a statement. ...Marsh said that \$505 million in the announced cost increases was attributable to the fixed-price option. He added that construction "continues to progress" and said Fluor Corp. "has proven to be an asset to the project team and the vast majority of the major components and equipment have been received onsite."

Under the terms of an agreement between SCANA and Santee Cooper inked last year, Westinghouse purchased the firm which had been constructing the reactors, Stone & Webster, and replaced the company with Fluor as the construction manager. SCE&G said its total project cost is now estimated at approximately \$7.7 billion, including owner's cost, transmission, escalation and allowance for funds used during construction.

Source: <http://www.utilitydive.com>, 06 June 2016.

NUCLEAR COOPERATION

CHINA-PAKISTAN

Work to Begin on China-Backed Karachi N-Plant

Work on a China-backed nuclear power plant will begin in Karachi next month, a move that will ease

power shortages in Pakistan's port city, said state-owned China National Nuclear Corporation (CNNC) that supplied the reactor. Known as K1, this is one of the 30 nuclear plants that China plans to establish by 2030 along its planned Silk Road that, it hopes, will link the country with nearly two dozen nations with new roads and ports. This will be the second nuclear power project in Pakistan to use China's 'Hualong One' technology, after construction started at K2 in August last year, CNNC spokesman Pan Jianming said. ... CNNC is also promoting this technology in other countries such as Algeria and Sudan. In Algeria, the

company expects to bag a deal covering technical and training services, besides supplying the reactor. In Sudan, CNNC signed a deal to build a 600-megawatt atomic reactor, its first project in the African country.

"One reactor may be worth several billion dollars, but there could be deals worth

hundreds of billions of dollars further down the industrial chain," State media quoted Li Zhuoqun, deputy director of CNNC's nuclear power division, as saying. China National Nuclear Power, a CNNC subsidiary, currently has 14 nuclear reactors in operation, with 11 under construction in China. The CNNC chairman admits it faces 'very strong competition' in selling its technology. Sun Qin, president of China National Nuclear Corp., recently said that there were 70 countries already planning or developing their own nuclear power projects, and it is estimated that 130 more nuclear power units will be ready by 2020. ... Countries such as Russia, South Korea, Japan and the United States are all exploring the global nuclear market aggressively."

Source: <http://timesofindia.indiatimes.com>, 04 June 2016.

INDIA-JAPAN

India-Japan N-deal Stuck on Technical Details

It may take more than a year for the India-Japan civil nuclear agreement to fructify. This is because

Known as K1, this is one of the 30 nuclear plants that China plans to establish by 2030 along its planned Silk Road that, it hopes, will link the country with nearly two dozen nations with new roads and ports. This will be the second nuclear power project in Pakistan to use China's 'Hualong One' technology, after construction started at K2 in August last year.

the National Diet, the Japanese legislature, failed to take up the agreement in the summer legislative session that ended on June 1, Japanese diplomats further told The Hindu, adding that even the “technical details” were yet to be finalised. The pact, firmed up during the visit of Prime Minister Shinzo Abe in December 2015, needs the legislative approval as the Japanese government wants to convince parties in the Diet that “nuclear cooperation by Japan shall be carried out only for peaceful purposes,” Yasuhisa Kawamura, Press Secretary of Ministry of Foreign Affairs of Japan said.

“The summer session of the Diet ended on June 1 and the nuclear agreement was not taken up for discussion. The next session of the Diet is in autumn,” Japanese ambassador to India Kenji Hiramatsu said on 7 June in Delhi indicating that the agreement failed to make it to the Diet despite growing expectation that Japan would fast track the legislative approval for the same which came up after India concluded similar agreements with several major nuclear energy producing countries including the US. Bilateral discussion on the nuclear deal is likely to take place during the visit of External Affairs Minister Sushma Swaraj to Tokyo. However, the visit has not been finalised so far. Talking about the defence cooperation, Mr. Hiramatsu stated that both sides had agreed on transfer of military technology and are in the process of identifying which technologies and platforms to be transferred to New Delhi.

Source: <http://www.thehindu.com>, 08 June 2016.

INDIA-USA

The summer session of the Diet ended on June 1 and the nuclear agreement was not taken up for discussion. The next session of the Diet is in autumn,” Japanese ambassador to India Kenji Hiramatsu said on 7 June in Delhi indicating that the agreement failed to make it to the Diet despite growing expectation that Japan would fast track the legislative approval for the same which came up after India concluded similar agreements with several major nuclear energy producing countries including the US.

and Indian Prime Minister Narendra Modi, who are seeking closer cooperation as Washington wants to boost New Delhi’s role in counterbalancing China. ...

The warming Indian relationship is backed by the lure of accelerating growth in that country, signs of improvement in the business climate, shared democratic values and some overlapping strategic goals. By contrast, recent US interactions with China, a far bigger Asian economy and US trading partner whose growth appears to be slowing down, have been marked by strains and warnings over economic and security issues. Under the new atomic-power agreement, NPCIL and Westinghouse Electric Co., a US unit of Toshiba Corp., will begin engineering and site-design work for the reactors, though the final contract won’t be completed until June 2017, White House officials said.

The deal marked a significant step in resolving obstacles to the sale of nuclear reactors and fuel to India. “Culminating a decade of partnership on civil nuclear issues, the leaders welcomed the

US Firm to Build Six Nuclear Reactors in India

The US and India agreed to move ahead with the construction of six nuclear reactors in India by an American company, the first such move since the countries signed a landmark civil nuclear deal in 2008. The breakthrough capped a wide-ranging White House meeting on 7 June, 2016 between President Barack Obama

Culminating a decade of partnership on civil nuclear issues, the leaders welcomed the start of preparatory work on-site in India for six AP 1000 reactors to be built by Westinghouse and noted the intention of India and the US Export-Import Bank to work together toward a competitive financing package for the project Once completed, the project would be among the largest of its kind.

start of preparatory work on-site in India for six AP 1000 reactors to be built by Westinghouse and noted the intention of India and the US Export-Import Bank to work together toward a competitive financing package for the project Once completed, the project would be among the largest of its kind." The ability for US companies to invest in nuclear-power plants in India has been a point of contention. At issue was a 2010 law passed in India that would make US firms liable for accidents at power plants they help build.

"The leaders clearly understand that the parties are working diligently toward an agreement and they're clearly supportive of an agreement in the near term," said Courtney Boone, a spokeswoman for Westinghouse Electric in Cranberry Township, Pa. "Westinghouse wants to be able to provide the government of India clean, reliable energy for its people." The announcement follows earlier talks between Messrs. Obama and Modi. Both leaders said last year in New Delhi that they had begun to resolve issues that have prevented US companies from investing in nuclear-power plants in India. "We continue to discuss a wide range of areas where we can cooperate more effectively in order to promote jobs, promote investment, promote trade, and promote greater opportunities for our people, particularly young people, in both of our countries," Mr. Obama said.

Source: <http://www.wsj.com>, 07 June 2016.

RUSSIA-MYANMAR

Russia and Myanmar to Establish Working Body for Nuclear Technology

Russia and Myanmar will establish a working body this year for using nuclear technology, Russian officials said at an exhibition and forum in Moscow. The two countries signed an MoU to

cooperate in nuclear technology for peaceful purposes in June 2015. This was the first step to building a legal foundation for interaction between Russia and Myanmar in the area of nuclear technology including research, radioisotopes production, nuclear medicine, radio immunotherapy, nuclear safety, radiation risk assessment, and training scientists and administrators, according to Russian state-owned Rosatom Corporation. Nikolay Drozdov, director of

international business at Rosatom, told *The Myanmar Times* in Moscow, "We are planning to create a working body and are making a roadmap for the realisation of our project." Russia and Myanmar first signed an inter-governmental agreement to cooperate in nuclear technology and build a nuclear research centre in

2007, Mr Drozdov said. Russia has trained a large number of Myanmar students in nuclear technology over the past 10 years. ...

The Russian state corporation is seeking potential investment opportunities in the Southeast Asian region, and is offering comprehensive nuclear technology and experience, according to a statement on the company's website. Rosatom opened its regional headquarters in Singapore in 2012, and has since organised a number of visits to Russian nuclear power plants, for officials from the region, it said. ... "We are not sure yet which ASEAN country will be the next newcomer to develop a nuclear power plant after Vietnam. We are also discussing possible participation in nuclear programs with Indonesia and Malaysia." Regionally, the company has signed cooperation agreements with Thailand, Myanmar, Laos and Cambodia for nuclear technology, said Mr Drozdov. The next steps depend on the country's needs.

Source: <http://www.mmmtimes.com>, 06 June 2016.

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NUCLEAR PROLIFERATION

NORTH KOREA

Kerry: ‘Successful’ Iran Nuclear Deal a ‘Model’ for how to Deal with North Korea

The “successful” achievement of a nuclear deal with Iran was a “model” for how the international community should deal with North Korea, Secretary of State John Kerry said in Beijing on 6 June. He was speaking on the same day IAEA reported that satellite imagery appears to confirm the Kim Jong-un regime has resumed operations at a previously-disabled facility that reprocesses plutonium.

Touting examples of US-China cooperation, Kerry said the two had helped to negotiate the agreement that “resolved the international community’s 10-year-long concern about Iran’s nuclear program, and we together removed a major threat to the stability of the Middle East and to the danger of proliferation.” Kerry said the US and China need to “stand firmly and strongly together in the same way” in dealing with North Korea. Noting that the UNSC had adopted tough sanctions earlier this year – in response to a fourth nuclear test in January and a long-range rocket launch the following month – Kerry said it was vital to keep applying pressure. “We believe it is imperative to keep the pressure on North Korea in order to halt any and all actions that threaten its neighbors and threaten the peace and security of the region,” he said. “We were able to be successful with Iran. We’ve set the model. We can be successful ultimately with North Korea.”

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IAEA director-general Yukiya Amano said recent images show a resumption of “activities related to the five-megawatt reactor, expansion of enrichment facilities and activities related to reprocessing.” Experts estimate the reactor, some 60 miles north of Pyongyang, is capable of producing enough plutonium for about one nuclear bomb per year.

The Obama administration has declared that the deal with Tehran, which began to be implemented last January, “will block all of Iran’s pathways to a nuclear weapon,” and reports that Iran has met its commitments to date. Critics are more circumspect, and some independent experts caution that the agreement could lay the groundwork for Iran to pursue a nuclear weapons capability once sunset provisions expire, after 10-15 years.

Meanwhile in Vienna on 6 June, the IAEA – whose monitoring in North Korea has been limited to satellite observation since it was expelled in 2009 – said it

looks like North Korea’s five-megawatt nuclear reactor at Yongbyon, is again operational. IAEA director-general Yukiya Amano said recent images show a resumption of “activities related to the five-megawatt reactor, expansion of enrichment facilities and activities related to reprocessing.” Experts estimate the reactor, some 60 miles north of Pyongyang, is capable of producing enough plutonium for about one nuclear bomb per year. It was decommissioned in 2007, in what was a high point of a drawn-out “six-party talks” process: North Korea pledged to disable the Yongbyon reactor, as well as an associated reprocessing plant and nuclear fuel rod fabrication facility, in exchange for economic and diplomatic concessions.

.... In a statement to the board, Amano said he was “seriously concerned” about North Korea’s program, using an acronym for the country’s formal name, the Democratic People’s Republic of Korea. “It is deeply regrettable that the DPRK has shown

no indication that it is willing to comply with the Security Council resolution adopted in response to its nuclear test earlier this year," he said. Amano urged North Korea to comply fully with its obligations under Security Council resolutions and resume cooperation with the agency. The IAEA, he said, was "ready to contribute to the peaceful resolution of the DPRK nuclear issue by resuming its verification activities once a political agreement is reached among countries concerned."

Source: <http://cnsnews.com>, 07 June 2016.

North Korea has Reopened Plutonium Plant: IAEA

The IAEA says there are "indications" that North Korea has relaunched plutonium production from spent reactor fuel at a major nuclear facility near the country's capital. "Resumption of the activities of the five-megawatt reactor, the expansion of centrifuge-related facility, reprocessing, these are some of the examples of the areas (of activity indicated at Yongbyon)," IAEA Director General Yukiya Amano said at a news conference during a quarterly IAEA Board of Governors meeting on 6 June 2016.

Later in the day, an IAEA spokesman also said there are "indications the reprocessing plant at Yongbyon has been reactivated. It is possible that it is reprocessing spent fuel." The UN nuclear watchdog, which has no access to North Korea, mainly uses satellite technology to monitor its activities. In September last year, Pyongyang announced that Yongbyon had been restarted and was working towards

Life extensions to nuclear plants in Europe and North America are repeatedly being granted by safety regulators. But, according to nuclear plant owners, 25 percent of parts are now obsolete, so keeping the reactors going is becoming an increasing problem as components wear out.

improving the "quality and quantity" of arms which it could use against Washington at "any time."

Source: <http://www.presstv.ir>, 06 June 2016.

NUCLEAR SAFETY

GENERAL

Nuclear Industry Worldwide Faces Escalating Battle to Keep Aging Reactors Running

Life extensions to nuclear plants in Europe and North America are repeatedly being granted by safety regulators. But, according to nuclear plant owners, 25 percent of parts are now obsolete, so keeping the reactors going is becoming an increasing problem as components wear out. This is the background to the Nuclear Power Plant Optimisation Summit being held in Brussels on 7 and 8 June, 2016...

In theory, it makes economic sense to keep running a nuclear reactor well beyond its original design

life, so long as it does not pose safety problems. With the capital cost of building the reactor written off decades earlier, profits can be substantial if the running costs can be kept low.

Life Extensions: In France, where 75 percent of electricity supply comes from 58 reactors, the government announced in February that it was prepared to raise the limit on the life of reactors from

40 to 50 years. Also in February, two reactors in the UK that began generating in 1983 and are due to close in 2019 had their lives extended to 2024.

But nuclear power plants built across the world in the 1970s and 80s rely on computer technology and components now long out of production. Replacing worn-out parts is becoming a serious problem, causing an increasing number of unplanned and expensive shutdowns while components are updated. Low prices for electricity have put increasing pressure on nuclear generators to make their operations more efficient and to prevent outages, so that they can still squeeze a profit out of these reactors.

Two others commissioned in 1988 will now work on until 2030. In all four cases, the owner can apply for further life extensions after that. But nuclear power plants built across the world in the 1970s and 80s rely on computer technology and components now long out of production. Replacing worn-out parts is becoming a serious problem, causing an increasing number of unplanned and expensive shutdowns while components are updated. Low prices for electricity have put increasing pressure on nuclear generators to make their operations more efficient and to prevent outages, so that they can still squeeze a profit out of these reactors.

The alternative is to close them down and face the vast cost of decommissioning them—which, in accountancy terms, turns the power station from an asset into a very large liability. This would be enough to make some power companies technically bankrupt. A survey of those employed in the industry found nine out of 10 people agreeing that the industry needed to improve its efficiency and 86 percent thought the age of the plants was having a moderate or significant effect on efficiency.

Increasingly Critical: Three-quarters of the problems were caused by ageing equipment, partly because buying replacement parts proved impossible. And finding people with the expertise to operate obsolete equipment is a problem as experienced staff retire. Although some countries, notably China and South Korea, have a nuclear building program and relatively young reactors, the situation elsewhere is increasingly critical for the industry. In Europe, there is little chance of replacing the obsolescent fleet with new plants. Perhaps the starkest example is France, with its 58 ageing reactors. It is building only one new replacement reactor. This plant, at Flamanville in Normandy, should already be in operation, but is years late and three times over budget. Plans to build others have been shelved. Unless France can keep granting life extensions to its existing plants, the country will have to invest in renewables on a vast scale to keep its carbon emissions in check.

Source: Article by Paul Brown, <https://ecowatch.com>, 06 June 2016.

JAPAN

Ships with Plutonium from Japan Arrive in US

Two ships loaded with plutonium and highly enriched uranium from the Japan Atomic Energy Agency's Fast Critical Assembly reactor arrived 7 June at the US Department of Energy's Savannah River Site near Aiken, South Carolina. The British-flagged Pacific Egret and Pacific Heron were carrying 331 kg of weapon-usable plutonium. About 236 kg, used for nuclear-reactor testing in Japan, originated in the United Kingdom, while around 93 kg is of US origin and 3 kg is of French origin, according to Savannah River Site Watch, a nongovernmental organization tracking the shipment.

The two ships, which are usually used to transport spent nuclear fuel between Japan and Europe for reprocessing, departed the village of Tokai, Ibaraki Prefecture, in March and were originally expected to reach their destination last month. Their impending arrival had been the subject of heated debate in South Carolina, with that state's governor, Nikki Haley, in March demanding in a letter to Energy Secretary Ernest Moniz that the shipment be turned back or sent elsewhere. In April, the US NNSA announced that the plutonium, already en route from Japan, will be disposed of at a nuclear waste repository in New Mexico after being processed at the Savannah River Site facility.

Savannah River Site Watch Director Tom Clements said in a statement on 7 June that the arrival of the ships appeared to have been delayed for security reasons. "The removal of the material from Japan represents a significant accomplishment in our broader global nuclear security efforts to secure highly enriched uranium and plutonium worldwide," Lt. Gen. Frank G. Klotz, Under Secretary for Nuclear Security and a National Nuclear Security Administration official, said in a statement after the ships had arrived. ... The plutonium material will first be prepared for disposition at the Savannah River Site and will sent

for eventual disposal to a facility near Carlsbad, New Mexico. The highly enriched uranium from Japan will be sent to separate storage facilities in Oak Ridge, Tennessee, and will be turned into low enriched uranium.

The nuclear material has been returned to the US under a deal struck between Prime Minister Shinzo Abe and US President Barack Obama in 2014, and reaffirmed at the 2016 Nuclear Security Summit. At the beginning of 2015, Japan's total stockpile of plutonium generated by its nuclear power plants was estimated at about 47.8 tons, of which about 10.8 tons was in Japan. The rest was stored in France and the United Kingdom, where it had been sent for reprocessing. Disposing of plutonium and highly enriched uranium remains one of Japan's greatest challenges as the government and power companies seek to restart idled nuclear power plants.

Currently, only two reactors, Kyushu Electric Power Co.'s Sendai No. 1 and 2 reactors, are generating electricity. The remaining 43 commercial-use reactors are offline in the wake of the Fukushima crisis. Estimates show that even if more restarts take place, the spent fuel pools at most reactors will be filled to capacity within about a dozen years. However, for some, this could be in as little as six years. Questions also remain over what should happen to the spent nuclear fuel currently sitting in the UK and France if it is not returned to Japan.

Source: <http://www.japantimes.co.jp>, 07 June 2016.

Former Nuclear Regulatory Body Official Calls for Review of Safety Screening Method

Japan needs to review its current method for screening nuclear plant safety, seismologist and

former senior regulator Kunihiro Shimazaki said in a recent interview. The current method risks underestimating the magnitude of possible earthquakes that may hit nuclear plants, Shimazaki, former acting chairman of the Nuclear Regulation Authority, said.

... Shimazaki said that he has confirmed the need for such a review after

examining data on powerful quakes that hit Kumamoto Prefecture and other areas in Kyushu in April. "The NRA has to be aware that the current screening procedures have shortcomings," he said, adding it is "very dangerous to keep using the method."

The current method risks underestimating design basis quakes when it is applied to vertical faults found mainly in western Japan, according to him.

The design basis quakes for Kansai Electric Power Co.'s Takahama and Oi nuclear plants, both in Fukui Prefecture, and Kyushu Electric Power Co.'s Genkai nuclear plant in Saga Prefecture, should be recalculated based on a different method, he said. The NRA should draw up a revised method by taking into account new data, including on strong tremors such as the Kumamoto quakes, Shimazaki said.

The Nos. 3 and 4 reactors at the Takahama plant have passed the NRA's safety screening. The NRA is expected to approve Kansai Electric's request

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for extending operational periods at the plant's Nos. 1 and 2 reactors beyond 40 years, a basic lifetime for nuclear reactors in Japan.

Source: *The Japan Times*, 12 June 2016.

NUCLEAR TERRORISM

EUROPE

ISIS is Plotting a Dirty Bomb Strike on a Major European City, Nuclear Experts Warn

ISIS terror fanatics – who have been working to bolster their ranks with a team of jihadi scientists capable of creating a dirty bomb – have already launched chemical attacks in Syria and Iraq. And now experts have said the jihadi death cult are looking to develop nuclear weapons that mark the biggest threat to Europe since the cold war.

Moshe Kantor, head of the Luxembourg Forum on Preventing Nuclear Catastrophe, warned: "ISIS has already carried out numerous chemical weapons attacks in Syria. "We know it wants to go further by carrying out a nuclear attack in the heart of Europe. "This, combined with poor levels of security at a host of nuclear research centres in the former Soviet Union mean the threat of a possible 'dirty bomb' attack on a Western capital is high."

The threat of ISIS developing a nuclear arsenal of its own was brought to a terrifying reality when it was discovered two of the Brussels suicide bombers had filmed the routine of the head of the country's nuclear research and development programme. Brothers Khalid and Ibrahim El Bakraoui had originally planned to strike a nuclear site in Belgium before committing the horrific attack, murdering 32 innocent civilians.

And 25 years on from the end of the Cold War, the nuclear expert called on Russia and the US to merge their technological prowess to monitor the trafficking of illegal nuclear materials. Earlier this

year, David Cameron raised fears that the Jihadis are ready to launch a horrific nuclear attack on the West. ... It comes as it was revealed that the security of Britain's nuclear arsenal is at risk as the Government threatens to slash the already overstretched workforce charged with protecting the Trident missile system. The Government is considering a further 15 per cent cut to staff within the Ministry of Defence Police force. But Chairman of the Defence Police Federation Eamon Keating claimed the strained security unit is already "at the limits of its resources".

Source: Article by Vincent Wood, <http://www.express.co.uk>, 10 June 2016.

FRANCE

The threat of ISIS developing a nuclear arsenal of its own was brought to a terrifying reality when it was discovered two of the Brussels suicide bombers had filmed the routine of the head of the country's nuclear research and development programme. Brothers Khalid and Ibrahim El Bakraoui had originally planned to strike a nuclear site in Belgium before committing the horrific attack.

The French Government has an App to Warn People Nuclear Disasters

France is fielding almost 100,000 soldiers and police to protect the month-long European soccer championship, but in preparation for Euro 2016 the government has launched another, and thoroughly more modern,

tool: a smartphone app to warn the public in case of an attack.

The Population Alert and Information System (SAIP in its French acronym) app will alert users "in the event of a suspected terror attack or exceptional circumstances [...] that could lead to an attack," the Ministry of the Interior said in a statement. Speaking to officials from the Euro 2016 host cities back in March, Interior Minister Bernard Cazeneuve called on the government to "improve its public information [systems] during times of crisis."

The general public, he argued, should be able to access government alerts and instructions "without necessarily having to call the emergency hotlines," which are frequently overloaded during a terror attack. ... The new app — which is available in both French and English — relies on geolocation

to warn users of nearby attacks. For those who would prefer not to grant the app access to their location, there is the option to “follow an area” for updates on specific cities.

A green banner displayed on the screen signifies there are no reported incidents. In the event of an attack or incident, the screen turns red. Notifications are silent and there is no vibration, so as not to alert any potential attackers to the presence of users. After issuing an

alert, the app also provides the user with advice on emergency procedures and up-to-date

information on the situation. The app also allows users to share alerts on social media.

The app is also designed to send out warnings in the event of an incident at a nuclear site or a dam, or in situations involving “dangerous chemicals.” In the event of a “dangerous chemical alert,” the app advises users not to sit or lie down, even if they feel unwell. During a nuclear alert, the app advises parents not to pick up their children from school, as “they will be taken care of by educators and first responders at the school.

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Centre for Air Power Studies

The Centre for Air Power Studies (CAPS) is an independent, non-profit think tank that undertakes and promotes policy-related research, study and discussion on defence and military issues, trends and developments in air power and space for civil and military purposes, as also related issues of national security. The Centre is headed by Air Marshal Vinod Patney, SYSM PVSM AVSM VrC (Retd).

Centre for Air Power Studies

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