# 1AC

## Proliferation

#### Losing fuel leadership now

Rasp 11

(Gary Rasp, communications director for the Energy Institute at the University of Texas-Austin “Spent nuclear fuel is anything but waste”, Energy Institute at University of Texas at Austin, 2-20-2011, http://www.eurekalert.org/pub\_releases/2011-02/teia-snf021611.php)

Time has come revive long-dormant reprocessing program Failure to pursue a program for recycling spent nuclear fuel has put the U.S. far behind other countries and represents a **missed opportunity** **to** enhance the nation's energy security and **influence other countries**, the former chairman of the Nuclear Regulatory Commission said Sunday. Dale Klein, Ph.D., Associate Vice Chancellor for Research at the University of Texas System, said largely unfounded concerns and "long-held myths" about the reprocessing of spent fuel have prevented the U.S. from tapping into an extremely valuable resource. Spent nuclear fuel, which includes some plutonium, often is inaccurately referred to as waste, Klein said. "It is not waste," he said. "The waste is in our failure to tap into this valuable and abundant domestic source of clean energy in a systematic way. That's something we can ill-afford to do." Klein, who also serves as an associate director at UT Austin's Energy Institute, made his remarks Sunday morning at the American Association for the Advancement of Science's (AAAS) annual meeting, in Washington, D.C. Compared to other fuels used in the production of electricity, the energy density of uranium is remarkable, Klein said, noting that 95 percent of the energy value in a bundle of spent nuclear fuel rods remains available to be re-used. "The once-through nuclear fuel cycle, which is our practice in the U.S., is an enormous waste of potential energy," he said. Critics cite the potential for nuclear weapons proliferation as the biggest reason to oppose recycling. But such concerns are largely unfounded, Klein said. "While it is true that the plutonium in recycled nuclear fuel is fissionable, no country in the world has ***ever*** made a nuclear weapon out of low-grade plutonium from recycled high burn-up nuclear fuel," he said. "It just doesn't work for a strategic or a tactical nuclear weapon." While the U.S. has sat on the sidelines, other countries, including France, Japan, the United Kingdom, Russia, India, and China have dedicated **significant resources** toward their reprocessing programs, Klein added. "**U.S. leadership in this area has been lost, and the underlying technological capability and intellectual capital needed to compete internationally have diminished to near irrelevance**." Reprocessing not only recovers significant energy value from spent fuel, it substantially reduces the volume and radiotoxicity of high-level nuclear waste. Today, U.S. utilities operating nuclear power plants continue to store spent nuclear fuel rods on site in pools of water, before eventually moving them to dry cask storage. And while there is some debate over whether the casks should be located in one central storage site, the practice is widely accepted as safe and secure. "That's another myth – that we don't know how to safely store nuclear spent fuel," Klein said. Establishing a program to recycle nuclear fuel will require a public-private partnership that operates outside normal Congressional appropriations and has a charter to manage the fuel over a period of decades, he asserted. The government's Blue Ribbon Commission, chartered by the Department of Energy, is charged with making recommendations for the safe, long-term management of spent fuel. The 15-member commission is to issue a draft report this summer, with a final report to be completed in January 2012. "At a time when we are seeking ways to limit carbon emissions from the generation of electricity, the recycling of spent nuclear fuel would appear to be a particularly good fit."

#### Key to market standards

NNSA ‘8

(“Nonproliferation Impact Assessment for the Global Nuclear Energy Partnership Programmatic Alternatives”, December 2008, <http://nnsa.energy.gov/sites/default/files/nnsa/inlinefiles/GNEP_NPIA.pdf>)

Policy Impact: By taking an active role in spent fuel recycling, the United States would strengthen its ability to influence how other countries engage in recycling. In choosing to abstain from civil spent fuel reprocessing for the past 30 years, the United States aimed to influence other countries to make the same choice. However, some countries had already chosen to pursue civil reprocessing. The U.S. choice not to pursue that path reduces the U.S. ability to influence the policies and practices of those who do. Conversely, by choosing to pursue civil spent fuel recycling, the United States could increase its influence among those countries and over time establish a leadership role. Such leadership and influence could take several forms. First, the United States could define and build consensus on goals for spent fuel recycling. The GNEP Statement of Principles provides an example of successful U.S. leadership in this area (see text box below). Second, the United States could cooperate with international partners on Research And Development for technologies to achieve those goals, subject to constraints on the transfer of sensitive technologies (see Chapter 2). Third, by participating directly in developing the options for providing back-end fuel services, the United States could set standards that influence the choices of other countries, either as users or as providers of back-end services. By working to establish partnerships with other countries to offer a comprehensive package of nuclear energy and fuel cycle services, the United States could help define how those partnerships functioned to meet shared nonproliferation objectives through full actinide recycle.

#### Fuel cycle leadership is key to US global exports

ANS 12

(American Nuclear Society, “ANS adopts position statement on U.S. global nuclear leadership through export-driven engagement”, 7-2-2012, <http://ansnuclearcafe.org/category/nuclear-fuel-cycle/spent-nuclear-fuel-reprocessing/>)

ANS believes the U.S. should remain committed to facilitating an expansion of the peaceful use of nuclear energy through the export of U.S. nuclear goods and services. Exports of nuclear technology provide the U.S. with important nonproliferation advantages, including **consent rights** on U.S. manufactured nuclear fuel, the ability to **control the transfer** of nuclear technology, and **greater influence in** the nuclear policies of U.S. partner nations. The U.S. possesses a strong nuclear technology portfolio and supply chain. The federal government should be an active partner in helping U.S. industry maintain and increase its market share of nuclear goods and services, as U.S. nuclear exports have the attendant benefits of improving global standards of nuclear safety and security and minimizing the risk of proliferation. ANS believes that the U.S. should work with organizations such as the Nuclear Suppliers Group to limit the spread of enrichment and reprocessing (ENR) technology and that a **competitive global market** for fuel cycle **services** strongly discourages **the spread of ENR** technology. Reasonable assurance of access to fuel and other services needed to operate their nuclear plants can dissuade nations from domestic development and deployment of ENR technology. The U.S. is one of several nations that are capable of supporting the development of nuclear technology in emerging markets. Those nations are aggressively promoting their nuclear technology with bilateral nuclear trade agreements that generally do not contain ENR prohibitions. Many U.S. partner nations are unlikely to forswear their right to pursue ENR technologies, even if they have no intention to develop them. Any U.S. insistence that its bilateral nuclear trade agreements ban development of indigenous ENR technologies would be **counterproductive to its nonproliferation goals and put U.S. technologies at a competitive disadvantage**. In short, a U.S. nuclear export regime that restricts rather than promotes U.S. nuclear trade will ultimately reduce U.S. influence in shaping the safety and security norms of the global nuclear landscape. In order to enhance U.S. nonproliferation goals through its export policies, ANS recommends that the U.S. government should: maintain a flexible approach for negotiating bilateral nuclear trade agreements (also known as 123 Agreements); continue developing a coordinated approach to promoting U.S. technology to other nations; and ensure U.S. nuclear export policies and procedures are transparent and responsive to the needs of the U.S. nuclear industry.

#### Fuel cycle leadership key to solve fuel-leasing

NNSA ‘8

(“Nonproliferation Impact Assessment for the Global Nuclear Energy Partnership Programmatic Alternatives”, December 2008, <http://nnsa.energy.gov/sites/default/files/nnsa/inlinefiles/GNEP_NPIA.pdf>)

Direct Impact: The main drawback of a once-through fuel cycle in the United States involves opportunity costs and latent risks that are likely to be greater than under other alternatives. The main opportunity cost is that not having a spent fuel recycling program would make it difficult for the United States to play a leading role in offering the type of comprehensive fuel services that GNEP envisions. In particular, it would be difficult to obtain support for importing foreign commercial spent fuel into the United States without a plan for its disposition. Also, as noted in Chapter 4, a number of legal constraints would limit the ability of the United States to accept other nations’ spent fuel. The Yucca Mountain repository remains years away from approval to accept spent fuel, the NRC licensing process is pending, construction and operation are subject to future funding Draft 76 decisions, and repository capacity is limited by law 81 (legislation to adjust the limit is under consideration). Thus, direct U.S. participation in back-end fuel services under a once through fuel cycle would likely involve long-term storage pending identification of additional repository capacity. The latent risk comes from the accumulations of spent fuel around the world, which increase the likelihood that countries may pursue reprocessing on their own as a spent fuel management strategy, but with the possible motivation of developing a weapons capability. Another potential opportunity cost is the reduction in the U.S. share of the international fuel services market that could result from the inability to offer competitive and attractive fuel service arrangements, which would reduce the U.S. ability to influence fuel cycle practices through consent rights on U.S. exports. 82

#### Plan solves global demand for uranium enrichment

NNSA ‘8

(“Nonproliferation Impact Assessment for the Global Nuclear Energy Partnership Programmatic Alternatives”, December 2008, [http://nnsa.energy.gov/sites/default/files/nnsa/inlinefiles/GNEP\_NPIA.pdf)](http://nnsa.energy.gov/sites/default/files/nnsa/inlinefiles/GNEP_NPIA.pdf%29%5C)

Direct Impact: The most attractive feature of these fuel cycle alternatives is that they reduce dramatically the long-term radiotoxicity from spent fuel. As shown in Chapter 5, removing all the transuranics from the waste stream (except for very low process losses) would shorten dramatically the length of time for radioactive decay to reduce the radiotoxicity of the remaining waste below that of uranium ore (see Figure 6.2). This represents an advantage over other alternatives in facilitating acceptance of other countries’ spent fuel both in terms of technical options for waste management and in terms of public acceptance and political feasibility of such fuel services, though neither public acceptance nor political feasibility would be certain. The significance of this advantage depends on the relative availability and public acceptance of disposal capability for spent fuel or HLW. The ability to recycle spent fuel and minimize waste would broaden the range of possibilities for U.S. participation in the global nuclear energy and fuel market, particularly for back-end fuel services. Accordingly, these full actinide recycle alternatives could provide the greatest opportunities for the United States to influence international fuel cycle practices through direct engagement in the international market. If U.S. Government policy *permitted* U.S. nuclear vendors to offer an attractive range of products and services, that would strengthen the U.S. ability both to influence the policies of other supplier states and to influence the practices of customers through U.S. consent rights. To the extent that they displace LEU as nuclear fuel, full actinide recycle alternatives also reduce the demand for enrichment compared to the other alternatives (see Table 6.2), because the reprocessed materials (actinides) would be used as fuel to generate electricity. As noted above, this could reduce incentives and opportunities for additional countries to seek to enter the enrichment services business. The full actinide recycle alternatives would reduce demand for enrichment domestically in the advanced fuel cycle states, which could make it easier for existing suppliers to meet international demands. This would contribute to the ability of suppliers to provide comprehensive fuel services that include both assured supply at the front end and assured acceptance of spent fuel at the back end. It is reasonable to expect that any spent fuel recycling facilities in the United States would be dedicated primarily to meeting domestic nuclear energy and spent fuel management needs. Conceptually, a portion of the initial recycling capacity could be made available for reprocessing spent fuel from other countries under assured “take back” of spent fuel arrangements. Given the expected limits on initial recycling capacity the United States would have to decide on priorities for addressing those international needs.

#### Biggest internal link to proliferation

NNSA ‘8

(“Nonproliferation Impact Assessment for the Global Nuclear Energy Partnership Programmatic Alternatives”, December 2008, <http://nnsa.energy.gov/sites/default/files/nnsa/inlinefiles/GNEP_NPIA.pdf>)

The proliferation risk of once-through fuel cycles arises primarily at the front end, through the demand for large-scale enrichment to produce fresh fuel. This is a common feature of all the once-through fuel cycle alternatives under consideration. A possible variant of the HWR option could avoid the need for enrichment by using natural uranium fuel, as CANDU reactors have done historically, but this resulted in large amounts of spent fuel and less efficient use of uranium resources. The level of enrichment and the overall amount of enrichment (in terms of separative work units or SWU) required varies depending on the fuel cycle in question (see Table 6.2). The enrichment level is also relevant because it takes less effort to produce weapons-grade uranium starting from LEU reactor fuel than from natural uranium (which is significant only in the context of a very small enrichment capability – see Table 6.3) and because it may complicate safeguards at enrichment plants by making it harder to detect undeclared HEU production. For centrifuge enrichment, there is no significant technical barrier between commercial and military enrichment. A plant capable of producing LEU for power plants could also be used to produce high-enriched uranium (HEU) for use in weapons, either by enriching uranium in multiple passes or by reconfiguring the connections among the centrifuges to optimize for HEU production, or by diverting some of the LEU product to a clandestine enrichment facility. Effective international safeguards can be designed to detect such activities in a timely manner, and the risk of detection may also deter some countries from attempting them. 90 As with reprocessing, a small-scale enrichment program, for example a facility that provided fuel for a single large nuclear power reactor, would be sufficient to produce a significant quantity 91 of weapons-grade HEU in less than a month. Every programmatic alternative considered in the GNEP PEIS involves some growth in nuclear power and with that some growth in demand for enrichment services. However, the primary proliferation risk comes not from the total amount of enrichment. Rather, it arises from the possibility that additional countries might acquire an enrichment capability, which they could use to produce weapons-grade uranium (see Table 6.3). Furthermore, an increase in the number of countries holding sensitive enrichment technology would complicate efforts to prevent the further spread of enrichment capabilities. Therefore, if the demand for enrichment services is satisfied by an expansion of capacity at a competitive price in countries that already have commercial enrichment programs, there should be less proliferation risk associated with that expansion of enrichment capacity. At present, all planned new commercial enrichment plants would be built in countries that already have such plants. Nonetheless, a large and rapid expansion of demand for enrichment could encourage additional countries to enter the market, particularly if growing demand raises the price of enrichment services. This risk may be marginally greater for the once-through fuel cycle alternatives.

#### US Non-proliferation leadership is key

Ogilvie-White ’12

(Dr. Tanya, senior analyst in international strategy at the Australian Strategic Policy Institute “Position Vacant: Nonproliferation and Disarmament Leader, Asia”, PacNet, a publication of CSIS, Number 77A, 12-5-2012, <http://csis.org/files/publication/Pac1277A.pdf>)

During the past few weeks, there have seen some striking discussions in the international media about the future strategic order. One of the most interesting is an article by Ralph Cossa and David Santoro, which was originally published as a PacNet (PacNet #77, Nov. 26, 2012) and was then picked up by the Japan Times. Two short sentences half way through the piece particularly caught my eye: “The United States has limited power and influence to shape the major power agenda in the Asia-Pacific. The future of this agenda will be determined by decisions made in Beijing, New Delhi and Islamabad – not in Washington.” This is true over the longer-term, and the implications for world order are significant. It brings to mind William Walker’s new book, A Perpetual Menace, which raises concerns about the weaklydefined Asia-centric system of military engagement that is likely to replace the Eurocentric one. The big questions are: how will peace and stability be achieved as US preeminence wanes, and what values will underpin the new Asia-centric system? This discussion is becoming urgent, including in the nuclear context. One problem is that the existing nonproliferation regime has been largely shaped by the Eurocentric system (the Western powers and the Soviet Union/Russia) that is currently in decline. At the heart of this regime, the Nuclear Nonproliferation Treaty (NPT) has expanded and deepened its original role, achieved almost universal membership and withstood serious challenges, primarily because its strategic and political value has been recognized by the states that have dominated the Eurocentric system. Of these, the US has had the most significant impact on the Treaty’s success: when it has offered proactive support, great strides have been possible; when it has dropped the ball, as it did most dramatically during the George W. Bush years, the consequences have been serious. As power continues to shift eastward, it is likely that the nonproliferation regime will eventually slip out of the United States’ grip. Critics of the US may welcome this development, but the danger is that the leadership role will pass to a more ambivalent successor or be left vacant altogether. In a world in which states still dominate, and in which international governmental organizations, legal frameworks, and norms are dependent upon the support of the most powerful states, this would have huge implications, threatening to unravel a critical security regime that has taken nearly 50 years to build. At the moment, it is not clear whether the nuclear nonproliferation regime can be embedded into an Asia-dominated strategic order. It is not even clear that Asia’s potential superpowers want this to occur, or whether they would consider a future of further horizontal and vertical nuclear weapons proliferation as fairer, more equitable, and possibly even more stable than the current uneasy compromise between nuclear haves and have-nots. It’s a worrying situation, which in the worst-case scenario could trigger the same kind of short-sighted and dangerous nuclear brinkmanship that characterized the early years of the Cold War. Only this time there would be some appalling additions: more powerful weapons, new platforms, fragile nuclear-armed states, and nonstate actors that seek nuclear materials for use in terrorist acts. What Asia needs is leaders who possess the right combination of influence, vision, and courage to champion non-nuclear norms and create and sustain nonproliferation and disarmament momentum. What Asia has is rather different. China has often shown a blatant disregard for nonproliferation instruments and norms, and is expanding and modernizing its nuclear arsenal. India, which has steadfastly refused to join the NPT on the basis that it is discriminatory and does not serve its strategic interests, is linked into a nuclear triangle with China and Pakistan, from which it is unable and unwilling to detach itself. The only states in the region that currently show leadership potential lack the necessary strategic clout to back it up, and must rely on others. ASEAN is an important international actor in this respect, although it has not always been consistent where nonproliferation advocacy is concerned, and the organization’s future is increasingly vulnerable to divisive great power ambitions. Diplomatic coalitions that operate within the NPT review process are another important source of leadership, but – as Japan and Australia may discover in spearheading the Nonproliferation and Disarmament Initiative – they are notoriously difficult to manage and even harder to sustain over the longer-term.

#### We’re at the tipping point of global nuclear proliferation – global nuclear war

Rosenbaum 11

(Ron, journalist, graduated Yale’s English Literature Graduate Program, “How The End Begins: The Road To A Nuclear World War III,” March 2nd, <http://www.npr.org/2011/03/02/134203232/Ron-Rosenbaum-World-On-The-Brink-Of-World-War-III>)

And so by the time the Israeli jets reached the northeast corner of Syria and turned toward the Syrian reactor on the Euphrates, threats and counterthreats may well have been zapping through the ether and suddenly both nuclear superpowers with approximately five thousand land-based nuclear missiles on "hair-trigger" alert were on the verge of — only one misperception or hasty overreaction, one degree of separation away — being drawn into a potential regional **nuclear war**. Then there's the wild card, Pakistan, with its "Islamic bomb," which is shorthand for some sixty to one hundred warheads under the kind of loose, decentralized control that could allow a regional commander with ties to Islamic nations such as Iran and Syria to step in and set off another variety of **regional nuclear war** with equal **potential for escalation**. All those signals, threats, and counterthreats flashing through the night could easily have been known to the "very senior" British minister quoted in The Spectator, assuming he had access to GCHQ, Government Communications Headquarters, the legendary British signals interception facility, which, in tandem with the U.S. government's NSA (National Security Agency and its spy satellite system), can listen in to just about everything, even to secret military encryptions, in near real time. What the very senior minister was describing was perhaps the most perilous — and emblematic — crisis of the second nuclear age thus far: it is a new world in which the bipolar "stability" of the "balance of terror" has degenerated into a chaotic state of multipolar nuclear powers with less control and less restraint and a greater chance of touching off a regional nuclear war that could escalate to global scale. Nuclear proliferation scholar Benjamin Frankel tells us the "inherent complexity" of the new nuclear age "dooms multipolar systems to instability making them susceptible to crisis and war." "The world has arrived at **a nuclear tipping point**," a Carnegie Endowment for International Peace study warned. "We are at the tipping point," former Senator Sam Nunn, co-founder of the Nuclear Threat Initiative, has said, "and we are headed in the wrong direction." "The current global nuclear order," declared Harvard's Graham Allison, "is **extremely fragile**." Already India and Pakistan nearly used their nuclear arsenals against each other in 1999 and 2002. That was still bipolar. The Syria raid, however, was the most dramatic embodiment of the difference between the bipolar Cold War type of nuclear war close calls, and the new type of multipolar chain reactions that could reach critical mass in our new nuclear age.

#### Proliferation is easy and fast

Heisbourg 12

[François, chairman of the International Institute for Strategic Studies, special adviser at the Fondation pour la Recherche Stratégique, “How Bad Would the Further Spread of Nuclear Weapons Be?” http://www.npolicy.org/article.php?aid=1171&rtid=2]

**Ongoing proliferation differs from that of the first half-century of the nuclear era** in three essential ways: on the demand side, the set of putative nuclear actors is largely focused in the most strategically stressed regions of the world; on the supply side, **the actual or potential purveyors of proliferation are no longer principally the first, industrialized, generation of nuclear powers; the technology involved in proliferation is somewhat less demanding than it was during the first nuclear age**. Taken together, **these changes entail growing risks of nuclear use**. Demand is currently focusing on two regions, the Middle East and East Asia (broadly defined) and involves states and, potentially, non-state actors. In the Middle East, Iran’s nuclear program is the focus of the most intense concerns. A potential consequence in proliferation terms would be to lead regional rivals of Iran to acquire nuclear weapons in term: this concern was vividly in 2007 by the then President of France, Jacques Chirac (19) who specifically mentioned Egypt and Saudi Arabia. The likelihood of such a “proliferation chain-reaction” may have been increased by President Obama’s recent repudiation of containment as an option (20): short of Iran being persuaded or forced to abandon its nuclear ambitions, the neighboring states would presumably have to contemplate security options other than a Cold War style US defense guarantee. Given prior attempts by Iraq, Syria and Libya to become nuclear powers, the probability of a multipolar nuclear Middle East has to be rated as high in case Iran is perceived as having acquired a military nuclear capability. Beyond the Middle East, the possibility of civil war in nuclear-armed Pakistan leading to state failure and the possibility of nukes falling out of the hands of an effective central government. There are historical precedents for such a risk, most notably, but not only(21)in the wake of the collapse of the Soviet Union: timely and lasting action by outside powers, such as the US with the Nunn-Lugar initiative, and the successor states themselves has prevented fissile material from falling into unauthorized hands in significant quantities. Pakistan could pose similar problems in a singularly more hostile domestic environment. As things stand, non-state actors, such as post-Soviet mafiya bosses (interested in resale potential) or Al Qaeda (22) have sought, without apparent success, to benefit from opportunities arising from nuclear disorder in the former USSR and Central Asia. Mercifully, the price Al Qaeda was ready to pay was way below the going rate (upwards of hundreds of $million) for the sorts of services provided by the A.Q.Khan network (see below) to some of his clients. Although North Korea’s nuclear ambitions appear to be both more self-centered and more containable than is the case for Iran, the possibility of state collapse in combination with regional rivalry leave no room for complacency. More broadly we are facing the prospect of a multipolar nuclear Middle East, linked to an uncertain nuclear Pakistan already part of a nuclear South Asia tied via China to the Korean nexus in which nuclear America and Russia also have a stake. More broadly still, such a nuclear arc-of-crisis from the Mediterranean to the Sea of Japan, would presumably imply the breakdown of the NPT regime, or at least its reversion to the sort of status it had during the Seventies, when many of its currently significant members had not yet joined (23), unloosening both the demand and supply sides of proliferation. On the supply side, “old style” proliferation relied on official cooperation between first-generation nuclear or nuclearizing powers, of which the Manhattan project was a forerunner (with American, British and Canadian national contributions and multinational scientific teams), followed inter alia by post-1956 French-Israeli, post-1958 US-UK, pre-1958 USSR-China cooperation. If India relied heavily on the “unwitting cooperation” , notably on the part of Canada and the US involved in the Atoms for Peace CIRUS research reactor, Pakistan set up the first dedicated, broad spectrum, cross-border trading network to make up for the weakness of its limited industrial base. This import-focused organization thus went beyond traditional espionage-aided efforts (as practiced by the USSR during and after the Manhattan project) or case-by-case purloining or diversion of useful material on the global market (as practiced by Israeli operatives). Even before the Pakistani network had fulfilled its primary task of supplying the national program, it began its transformation into an export-oriented venture. Libya, Iran, North Korea and a fourth country which remains officially unnamed became the main outlets of what became the world’s first private-sector (albeit government originated and ,presumably, supported)proliferation company which was only wound down after strong Western pressure on Pakistan after 9/11. Although **the** by-now richly documented **A.Q.Khan network** (24) appears to have ceased to function in its previous incarnation, it **has** powerfully **demonstrated that there is an** international market **for proliferation which other operators can expect to exploit**. Furthermore, budding, resource-weak nuclear powers have a strong incentive to cover the cost of their investment by selling or bartering their nuclear-related assets, including delivery systems. The fruits of state-to-state cooperation between Iran, North Korea and Pakistan are clearly apparent in the close-to-identical genealogy of their nuclear-capable ballistic missiles of the No-Dong/Ghauri/Shahab families displayed in military parades and test launches. Not all such cooperation consists of televised objects. Even in the absence of game-changing breakthroughs, technical trends facilitate both demand and supply-side proliferation. For the time being, the plutonium route towards the bomb remains essentially as easy and as difficult as from the earliest years of the nuclear era. Provided a country runs a (difficult-to-hide) research or a power reactor from which low-irradiated fuel can be downloaded at will (such as CANDU-type natural uranium reactors), **reprocessing is** a comparatively straightforward and **undemanding** task. Forging and machining a multiple-isotope metal which is notorious for its numerous physical states and chemical toxicity is a substantial challenge, with the companion complications of devising a reliable implosion mechanism. Nuclear testing is highly desirable to establish confidence in the end-result. **Opportunities for taking the plutonium-proliferation road may increase somewhat as new techniques** (such as pyro-processing) **come on stream**. Developments in the enriched uranium field have been more substantial in facilitating proliferation. **The development of lighter and more efficient centrifuges make it easier for a state to extract enriched uranium speedily in smaller and less visible facilities**. Dealing with the resulting military-level HEU is a comparatively undemanding task. **The long-heralded advent of industrially effective and reliable laser enrichment technology may eventually further increase ease of access**. Downstream difficulties would still remain. Although implosion-mechanisms are not mandatory, they are desirable in order both to reduce the critical mass of U235 for a nuclear explosion and to make for a lighter and smaller more-readily deliverable weapons package. In sum, incremental improvements increase the risk of proliferation. However, non-state actors are not yet, and will not be on the basis of known technical trends, in a position to master the various steps of the two existing military nuclear fuel cycles, which remain the monopoly of states. Non-state actors would need the active complicity from (or from accomplices within) states, or benefit from the windfall of state collapse, to acquire a military nuclear capability. The threat of nuclear terrorism continues to be subordinated to developments involving state actors, a remark which is not meant to be reassuring since such developments (see above) are increasingly likely as proliferation spreads to new states and as state failure threatens in the ‘arc of proliferation’ extending from the Mediterranean to North-East Asia. Furthermore, non-state actors can be satisfied with levels of nuclear reliability and performance which states could not accept. A difficult-to-deliver or fizzle-prone nuclear device would not provide a state with the level of deterrence needed to shield it from pre-emptive or retaliatory action, whereas a terrorist group would not be seeking such immunity. A road or ship-delivered imperfect device, which would be closer to a radiological bomb than to a fully-fledged atomic weapon would provide its non-state owners with immense potential. The road to a non-state device does not need to be as well-paved.

#### Proliferation risks nuclear war due to brinkmanship games- questions of deterrence miss the point.

Kroenig 12

(Matthew, assistant professor of Government at Georgetown University and a Stanton Nuclear Security Fellow at the Council on Foreign Relations, “The History of Proliferation Optimism: Does It Have A Future?” Non Proliferation Policy Center, <http://npolicy.org/article.php?aid=1182&tid=30#_ftn11>, SEH)

First and foremost, proliferation optimists do not appear to understand contemporary deterrence theory. I do not say this lightly in an effort to marginalize or discredit my intellectual opponents. Rather, I make this claim with all due caution and with complete sincerity. A careful review of the contemporary proliferation optimism literature does not reflect an understanding of, or engagement with, the developments in academic deterrence theory in top scholarly journals such as the American Political Science Review and International Organization over the past few decades.[35] While early optimists like Viner and Brodie can be excused for not knowing better, the writings of contemporary proliferation optimists ignore the past fifty years of academic research on nuclear deterrence theory. ¶ In the 1940s, Viner, Brodie, and others argued that the advent of Mutually Assured Destruction (MAD) rendered war among major powers obsolete, but nuclear deterrence theory soon advanced beyond that simple understanding.[36] After all, great power political competition does not end with nuclear weapons. And nuclear-armed states still seek to threaten nuclear-armed adversaries. States cannot credibly threaten to launch a suicidal nuclear war, but they still want to coerce their adversaries. This leads to a credibility problem: how can states credibly threaten a nuclear-armed opponent? Since the 1960s academic nuclear deterrence theory has been devoted almost exclusively to answering this question.[37] And, unfortunately for proliferation optimists, the answers do not give us reasons to be optimistic.¶ Thomas Schelling was the first to devise a rational means by which states can threaten nuclear-armed opponents.[38] He argued that leaders cannot credibly threaten to intentionally launch a suicidal nuclear war, but they can make a “threat that leaves something to chance.”[39] They can engage in a process, the nuclear crisis, which increases the risk of nuclear war in an attempt to force a less resolved adversary to back down. As states escalate a nuclear crisis there is an increasing probability that the conflict will spiral out of control and result in an inadvertent or accidental nuclear exchange. As long as the benefit of winning the crisis is greater than the incremental increase in the risk of nuclear war, threats to escalate nuclear crises are inherently credible. In these games of nuclear brinkmanship, the state that is willing to run the greatest risk of nuclear war before back down will win the crisis as long as it does not end in catastrophe. It is for this reason that Thomas Schelling called great power politics in the nuclear era a “competition in risk taking.”[40] This does not mean that states eagerly bid up the risk of nuclear war. Rather, they face gut-wrenching decisions at each stage of the crisis. They can quit the crisis to avoid nuclear war, but only by ceding an important geopolitical issue to an opponent. Or they can the escalate the crisis in an attempt to prevail, but only at the risk of suffering a possible nuclear exchange.¶ Since 1945 there were have been many high stakes nuclear crises (by my count, there have been twenty) in which “rational” states like the United States run a risk of nuclear war and inch very close to the brink of nuclear war.[41] By asking whether states can be deterred or not, therefore, proliferation optimists are asking the wrong question. The right question to ask is: what risk of nuclear war is a specific state willing to run against a particular opponent in a given crisis? Optimists are likely correct when they assert that Iran will not intentionally commit national suicide by launching a bolt-from-the-blue nuclear attack on the United States or Israel. This does not mean that Iran will never use nuclear weapons, however. Indeed, it is almost inconceivable to think that a nuclear-armed Iran would not, at some point, find itself in a crisis with another nuclear-armed power and that it would not be willing to run any risk of nuclear war in order to achieve its objectives. If a nuclear-armed Iran and the United States or Israel have a geopolitical conflict in the future, over say the internal politics of Syria, an Israeli conflict with Iran’s client Hezbollah, the U.S. presence in the Persian Gulf, passage through the Strait of Hormuz, or some other issue, do we believe that Iran would immediately capitulate? Or is it possible that Iran would push back, possibly even brandishing nuclear weapons in an attempt to deter its adversaries? If the latter, there is a real risk that proliferation to Iran could result in nuclear war.¶ An optimist might counter that nuclear weapons will never be used, even in a crisis situation, because states have such a strong incentive, namely national survival, to ensure that nuclear weapons are not used. But, this objection ignores the fact that leaders operate under competing pressures. Leaders in nuclear-armed states also have very strong incentives to convince their adversaries that nuclear weapons could very well be used. Historically we have seen that in crises, leaders purposely do things like put nuclear weapons on high alert and delegate nuclear launch authority to low level commanders, purposely increasing the risk of accidental nuclear war in an attempt to force less-resolved opponents to back down.¶ Moreover, not even the optimists’ first principles about the irrelevance of nuclear posture stand up to scrutiny. Not all nuclear wars would be equally devastating.[42] Any nuclear exchange would have devastating consequences no doubt, but, if a crisis were to spiral out of control and result in nuclear war, any sane leader would rather be facing a country with five nuclear weapons than one with thirty-five thousand. Similarly, any sane leader would be willing to run a greater risk of nuclear war against the former state than against the latter. Indeed, systematic research has demonstrated that states are willing to run greater risks and, therefore, more likely to win nuclear crises when they enjoy nuclear superiority over their opponent.[43] Proliferation optimists miss this point, however, because they are still mired in 1940s deterrence theory. It is true that no rational leader would choose to launch a nuclear war, but, depending on the context, she would almost certainly be willing to risk one. Nuclear deterrence theorists have proposed a second scenario under which rational leaders could instigate a nuclear exchange: a limited nuclear war.[44] By launching a single nuclear weapon against a small city, for example, it was thought that a nuclear-armed state could signal its willingness to escalate the crisis, while leaving its adversary with enough left to lose to deter the adversary from launching a full-scale nuclear response. In a future crisis between a nuclear-armed China and the United States over Taiwan, for example, China could choose to launch a nuclear attack on Honolulu to demonstrate its seriousness. In that situation, with the continental United States intact, would Washington choose to launch a full-scale nuclear war on China that could result in the destruction of many more American cities? Or would it back down? China might decide to strike hoping that Washington will choose a humiliating retreat over a full-scale nuclear war. If launching a limited nuclear war could be rational, it follows that the spread of nuclear weapons increases the risk of nuclear use. Again, by ignoring contemporary developments in scholarly discourse and relying exclusively on understandings of nuclear deterrence theory that became obsolete decades ago, optimists reveal the shortcomings of their analysis and fail to make a compelling case.

#### Proliferation draws major powers in to regional disputes

Kroenig 9

(Matthew, assistant professor of Government at Georgetown University and a Stanton Nuclear Security Fellow at the Council on Foreign Relations, “Beyond Optimism and Pessimism: ¶ The Differential Effects of Nuclear Proliferation” Harvard Kennedy School of Government, <http://belfercenter.ksg.harvard.edu/files/Beyond-Optimism-and-Pessimism.pdf>, SEH)

There is direct evidence that regional conflicts involving nuclear powers can ¶ encourage power-projecting states to become involved in nuclear disputes. Secretary of ¶ State Henry Kissinger was reluctant to aid Israel in the 1973 Yom Kippur War until Israeli ¶ Prime Minister Golda Meir threatened that, without U.S. assistance, she might be forced to ¶ use nuclear weapons against the Arab armies.¶ 52¶ In response, Kissinger reversed his decision ¶ and provided emergency aid to the Israeli Defense Forces.¶ 53¶ The Soviet Union also ¶ considered a military intervention to help its Arab proxies in the Yom Kippur War, causing ¶ the United States to go on nuclear alert, and leading leaders in both Moscow and ¶ Washington to consider the very real possibility that a conflict involving a regional nuclear ¶ power could spiral into a superpower war.¶ 54¶ Similarly, in 1999 and 2002, the United States became caught in diplomatic initiatives to prevent nuclear war in crises between the nuclear armed countries of India and Pakistan.¶ 55¶ ¶ Indeed, the expectation that powerful states will intervene in conflicts involving a ¶ nuclear-armed state is so firmly ingrained in the strategic thinking of national leaders that ¶ small nuclear powers actually incorporate it into their strategic doctrines. South Africa’s ¶ nuclear doctrine envisioned, in the event of an imminent security threat, the detonation of a ¶ nuclear weapon, not against the threatening party, but over the Atlantic Ocean in an attempt ¶ to jolt the United States into intervening on South Africa’s behalf.¶ 56¶ Israel’s nuclear ¶ doctrine was also constructed along similar lines. While the Israelis are notoriously silent ¶ about the existence and purpose of their nuclear arsenal, Francis Perrin, a French official ¶ who assisted in the development of Israel’s nuclear program in the 1950s and 1960s, ¶ explained that Israel’s arsenal was originally aimed “against the Americans, not to launch ¶ against America, but to say ‘If you don’t want to help us in a critical situation, we will require you to help us. Otherwise, we will use our nuclear bombs. Similarly, Pakistan’s surprise raid on Indian-controlled Kargil in 1999 was motivated partly by the expectation that Pakistan would be able to retain any territory it was able to seize quickly, because Pakistani officials calculated that the United States would never allow an extended conflict in nuclear South Asia.

#### That leads to great power war

Kroenig 9

(Matthew, assistant professor of Government at Georgetown University and a Stanton Nuclear Security Fellow at the Council on Foreign Relations, “Beyond Optimism and Pessimism: ¶ The Differential Effects of Nuclear Proliferation” Harvard Kennedy School of Government, <http://belfercenter.ksg.harvard.edu/files/Beyond-Optimism-and-Pessimism.pdf>, SEH)

Leaders in power-projecting states also fear that regional instability set off by nuclear¶ proliferation could entrap power-projecting states in a great power war. Other power projecting states, facing a mirror-image situation, may feel compelled to intervene in a crisis ¶ to secure their own interests, entangling multiple great powers in a regional conflict. In a¶ 1963 NIE, U.S. intelligence analysts assessed that “the impact of (nuclear proliferation in the¶ Middle East) will be the possibility that hostilities arising out of existing or future ¶ controversies could escalate into a confrontation involving the major powers.”¶ 67¶ President ¶ Johnson believed that a nuclear Israel meant increased Soviet involvement in the Middle¶ East and perhaps superpower war.¶ 68¶ If historical experience provides a guide, U.S. ¶ strategists at the time of writing are undoubtedly concerned by the possibility that China m¶ feel compelled to intervene in any conflict involving a nuclear-armed North Korea, making the Korean Peninsula another dangerous flash-point in the uncertain Sino-American strategic relationship.

### Russia

#### PMDA cooperation coming now ---- MOX fuel is key

DTRIP ’12

(Defense Treaty Inspection Readiness Program, “Plutonium Management and Disposition Agreement”, 2012, http://dtirp.dtra.mil/tic/synopses/pmda.aspx)

The Plutonium Management and Disposition Agreement (PMDA), [long title: Agreement Between the Government of The United States Of America and the Government of The Russian Federation Concerning the Management and Disposition of Plutonium Designated as no Longer Required for Defense Purposes and Related Cooperation] is designed to make arms reductions irreversible by ensuring that the United States and Russia transparently dispose of weapons-grade plutonium from their respective defense programs and, thereby, prevent the plutonium from ever being reused for weapons or any other military purpose. Under the PMDA the United States and Russia each agreed to dispose of no less than 34 metric tons of weapons-grade plutonium by converting it into fuel for use in civil reactors that produce electricity. Combined, this represents enough material for approximately 17,000 nuclear weapons. The PMDA also provides that additional weapons-grade plutonium declared in excess as arms reductions go forward should be disposed of under the same or comparable transparency terms. In 2006, Russia announced its nuclear energy strategy. This strategy was incompatible with the 2000 PMDA. In 2007, Russia provided clarification of its preferred approach to the disposition of weapons-grade plutonium. This clarification served as the basis for updating the PMDA via the protocol signed on April 13, 2010 by U.S. Secretary of State Hillary Clinton and Russian Foreign Minister Sergey Lavrov. The 2010 protocol enables each party to proceed with completing and operating the facilities needed to depose of weapons-grade plutonium. These facilities will use the plutonium to produce electricity for civilian purposes. In December 2010, the U.S. Deputy Secretary of Energy and the Russian Director General for the State Corporation "Rosatom” issued the Joint Statement on the Results of the Nuclear Energy and Nuclear Security Working Group Meeting, including the intent to create milestones by February 2011 for bringing the PMDA into force. On May 20, 2011, Russia's State Duma ratified the PMDA and its Protocols. Russian President Dmitry Medvedev approved the amendments to the PMDA on June 7, 2011. On July 13, 2011, Secretary Clinton and Foreign Minister Lavrov exchanged diplomatic notes in Washington, D.C., bringing the PMDA and its Protocols into force. Weapons-grade plutonium, unlike weapons-grade uranium, cannot be blended with other materials to make it unusable in weapons. However, weapons-grade plutonium can be fabricated into mixed oxide uranium-plutonium (MOX) fuel and irradiated in civil nuclear power reactors to produce electricity. This irradiation results in spent fuel – a form that is not usable for weapons or other military purposes. The protocol also prohibits spent fuel from being changed in the future unless it is subject to agreed international monitoring measures and is used only for civilian purposes. Both Russia and the United States plan to begin disposition activities by 2018. Potential Facility Impacts Key Verification Measures To provide confidence that the Parties are disposing of weapons-grade plutonium in accordance with the terms and conditions of the amended PMDA, disposition activities on both sides will be subject to monitoring and on-site inspection. The Parties met in the PMDA Joint Consultative Commission to clarify key elements of the PMDA’s compliance verification regime. Next steps include consulting with the International Atomic Energy Agency (IAEA) and negotiating an agreement whereby the IAEA will monitor the Party’s disposition activities and conduct on-site inspections to verify compliance with the PMDA. In August 2010, Secretary Clinton and Foreign Minister Lavrov submitted a joint request to IAEA Director General Amano for consultation regarding an agreement whereby the IAEA will monitor the Party’s disposition activities and conduct on-site inspections to verify compliance with the PMDA. As of July 2012, the two countries and the IAEA were making progress on appropriate IAEA verification measures for each country’s disposition program. back to top Current Activities Recent Developments The United States is expected to provide $400 million in assistance for the disposal of surplus Russian plutonium, according to the Russian Foreign Ministry. Moscow will fund the remaining balance, setting aside an estimated $3.5 billion for the effort. Next, the United States and Russia must reach an agreement on milestones for allocation of the U.S. contribution. To implement the PMDA in the United States, the National Nuclear Security Administration (NNSA) is building a Mixed Oxide (MOX) Fuel Fabrication Facility at the Savannah River Site (SRS) near Aiken, South Carolina. The facility will provide a capability to disassemble nuclear weapons pits and convert the resulting plutonium into a form suitable to be made into MOX fuel. A Waste Solidification Building will handle the waste resulting from pit disassembly and MOX operations. When operational, the facility will be capable of turning 3.5 metric tons of weapon-grade plutonium into MOX fuel assemblies annually. The facility will be licensed for 20 years, with operations to continue into the 2030s. The U.S. Nuclear Regulatory Commission is overseeing construction of the facility. It will be a hardened facility, similar to a nuclear reactor. As of June 2012, the MOX facility is scheduled to begin operation in 2016 and is more than 60 percent complete. Since construction began in 2007, more than 19,000 tons of rebar have been installed and over 118,000 cubic yards of concrete have been placed. More than 400,000 feet of process piping and nearly six million feet of electrical cable are currently being installed, while installation of the process tanks is 90 percent complete. Eleven of the sixteen auxiliary buildings needed to support construction and operation of the MOX facility have been finished, including a new electrical substation which was completed in September 2010.

#### MOX is key – only option

Wolfe '12

(Clinton R., PhD in Chemistry, executive director of Citizens for Nuclear Technology Awareness in Aiken, S.C. He formerly chaired the Technical Advisory Panel to the U.S. Department of Energy's Plutonium Focus Area, "Guest Column" The Augustana Chronicles, Augustana GA, 11/18/12 www.c-n-t-a.com/letters.htm#GN1208)

After the dissolution of the Soviet Union, the Clinton administration made treaty obligations with the Russians in 1993 to convert weapons of mass destruction into energy for peaceful purposes - an initiative dubbed "Megatons to Megawatts." As a result of that initiative, high-enriched uranium, which had been in Soviet weapons targeting the United States and our allies, was sold to the United States and blended down to make low-enriched uranium for fuel for U.S. nuclear reactors.¶ FULLY 50 PERCENT of our nuclear-generated electricity in recent years, or 10 percent of our total electricity generation in the United States, derives from former Soviet weapons. Negotiations between the United States and Russia as to the fate of plutonium-based weapons material resulted in 2000 in a plutonium management and disposition agreement, in which each country committed to dispose of 34 metric tons of plutonium.¶ The Russians were aware that many approaches that might environmentally immobilize the plutonium in some relatively intractable matrix, such as a ceramic puck, still left the plutonium in a form that could be processed and recovered for use in weapons if we ever changed our minds. All options for disposition of plutonium were multibillion-dollar projects, and in the end all options but one led to very expensive nonproliferation safeguards and security measures ad infinitum.¶ That one option was MOX. Exposure of the plutonium in a nuclear reactor fuel cycle changes the nature of the plutonium in such a way as to render it unattractive for use in a nuclear weapon.¶ In addition to the obvious benefit of reducing the attractiveness of the plutonium for weapons, thereby reducing concerns over proliferation and many of the costs associated with safeguards and accountability, MOX provides additional benefits. Thirty-four metric tons of plutonium can provide electricity for a million homes for 50 years, a product worth tens of billions of dollars.¶ NO OTHER OPTION has any cost recovery component, so MOX embodies the benefits of disposing of the weapons threat, creating clean electricity for 50 million homes, recovering at least partial cost of the program, eliminating the permanent costs of safeguarding the material, and representing an accomplishment achieved by two nations who were near nuclear war - allowing them to step back from the brink of unthinkable destruction and to instead use those instruments of war for peaceful purposes.¶ We made the right choice. We are more than halfway to completion of the MOX facility, and changing course would be much more expensive than staying the course. We need to demonstrate our commitment to our treaty obligations and bask in the comfort of knowing that mankind can make decisions of this importance and actually pull them off.

#### Any alternative doesn’t solve

Wolfe '11

(Clinton R., PhD in Chemistry, executive director of Citizens for Nuclear Technology Awareness in Aiken, S.C. He formerly chaired the Technical Advisory Panel to the U.S. Department of Energy's Plutonium Focus Area, " “July 6, 2011¶ Letter/column in¶ The Augusta Chronicle - Augusta GA¶ Examine big picture of MOX mission “ www.c-n-t-a.com/letters.htm#GN1208)

I would like to first consider his reference to cost vs. the alternative. The decision to make MOX fuel out of weapons-grade plutonium was reached after considering numerous disposition paths. Each of the alternatives had financial, technical or political shortcomings. Discussions with the Russians over how to dispose of plutonium became necessary after agreements between our countries in 1993 that provided for the dismantling of U.S. and Russian nuclear weapons.¶ Reciprocity was a given as a matter of trust, and the Russians would not consider treating highly enriched uranium and plutonium as wastes. They maintained, and correctly so, that these materials were valuable sources of energy. As a consequence, blend-down of highly enriched uranium from former Soviet nuclear weapons that were aimed at us and our allies now provides 50 percent of our nuclear generated electricity in the United States today.¶ This agreement already has netted a huge economic benefit to the United States and to any country with nuclear-generating capacity, as the cost of uranium for fuel has been moderated by this huge supply from the Russian and U.S. arsenals.¶ The plutonium portion of the weapons agreements was slower in coming to fruition, but each country committed to an initial disposition of 34 metric tons with more possibly to follow. This represents about 50 percent of all the weapons-grade plutonium ever produced in the United States. Conversion of this material into mixed-oxide fuel will power a million homes for more than 50 years, and that energy is worth tens of billions of dollars.¶ Choosing to delay or cancel the MOX project would require revisiting all the old alternatives, including surveillance, and all of them cost a lot of money. Add to that the potential for our treaty partners to take exception to our reneging, and we introduce the possibility of the loss of credibility in a crucial area of our foreign policy. The Russians were suspicious of proposed disposition paths that left the plutonium in a recoverable state.¶ So a big-picture look at the MOX project reveals advantages that can't be measured in mere dollars and cents. The project has helped kick-start a dormant nuclear manufacturing supply chain whose rebirth is a must if we are to build the next generation of nuclear power plants.¶ MOX represents the culmination of two superpowers stepping back from the unthinkable and converting an awesome amount of potential destruction into energy, while rendering the plutonium unusable for weapons for all time.¶ This modern example of "swords to plowshares" is an amazing achievement in our foreign policy and how we interact with our former adversary. Trashing that accomplishment in the name of tight budgets would be penny-wise and pound-foolish.

#### Parallel plutonium elimination is key

Wolfe 2/17

Clinton R., PhD in Chemistry, executive director of Citizens for Nuclear Technology Awareness in Aiken, S.C. He formerly chaired the Technical Advisory Panel to the U.S. Department of Energy's Plutonium Focus Area, "Too much is at stake to throw MOX nuclear project into jeopardy," 2/17/13 m.chronicle.augusta.com/opinion/opinion-columns/2013-02-17/too-much-stake-throw-mox-nuclear-project-jeopardy

In any event, it is reckless and foolish to talk about terminating the program because of costs since the facility is more that 60 percent complete. It will cost a lot less to finish than to start over on another multibillion-dollar program that can’t really eliminate the plutonium threat the way that MOX can. Russia currently is ahead of us in progress toward eliminating their plutonium, but it has made it clear that it will not eliminate its stockpile until America is ready to do likewise. The programs are, therefore, inextricably linked.¶ ¶ ON DEC, 3, 2012, barely two months ago, President Obama gave a talk at the National War College in Washington, D.C. His remarks were delivered on the occasion of the 20th anniversary of the Nunn-Lugar initiative, which the president called one of the smartest and most successful national security programs.¶ He lauded the visionary leadership of the two former senators, Nunn, D-Ga., and Richard Lugar, R-Ind. (Yes, in those days it was OK for members of opposite parties to work together for the good of the country.) He urged the nation to be vigilant with regard to the nonproliferation theme of Nunn-Lugar and to continue to invest in people and technology: “We have to sustain the partnerships we have, and that includes Russia.” The president also said, “It took decades – and extraordinary sums of money – to build those arsenals. It’s going to take decades – and continued investments – to dismantle them.”

#### MOX creates broader plutonium cooperation

Sokova ’10

Elena, research associate at the Monterey Institute of International Studies “Plutonium Disposition”, NTI, 9-16-2010, http://www.nti.org/analysis/articles/plutonium-disposition-14/

To ensure the plutonium subject to disposition is irreversibly removed from use in nuclear weapons, the September 2000 agreement specified the two sides would implement monitoring and inspection activities. The agreement also provides for International Atomic Energy Agency (IAEA) verification once appropriate agreements with the IAEA are concluded. These provisions were re-emphasized in the 2010 protocol, which states that each party will "begin consultations with the International Atomic Energy Agency (IAEA) at an early date and undertake all other necessary steps to conclude appropriate agreements with the IAEA to allow it to implement verification measures."[14] Nevertheless, much work on the establishment of a verification regime still needs to be done and this is unlikely to be completed before 2011, by which point the protocol should have entered into force.[15]¶ The 2010 protocol to the PMDA represents a significant step forward, but the agreement itself is limited in scope. Once the two countries have disposed of the required 34 metric tons, significant quantities will remain. The United States will continue to possess 16 tons of excess military plutonium in various waste and fuel forms, while Russia will retain at least 16 tons of weapons-grade plutonium declared excess to its defense program. These numbers are likely to increase once the two parties begin dismantling their nuclear arsenals under the 2010 START follow-on treaty. However, the United States and Russia can continue plutonium disposition beyond 34 metric tons should they wish to do so and the existence of an operational infrastructure for MOX fuel fabrication makes this possible.

#### Plutonium cooperation is key- need to focus on weapons-grade material

Clinton and Lavrov ’10

Secretary of State and Russian Foreign Minister, “Signing of the Plutonium Disposition Protocol”, Mission of the United States Geneva Switzerland, 4-13-2010, http://geneva.usmission.gov/2010/04/14/signing-pmda/

SECRETARY CLINTON: Well, good afternoon, and let me state the obvious. I am very pleased that Foreign Minister Lavrov and I are able to do this together. We have had many meetings over the past 15 months and I always look forward to a productive discussion, a candid exchange of views, and a determination to make progress together. This is an historic time for U.S.-Russian relations. Last week, our presidents signed the new START treaty, which will make our two countries and the world safer and more secure by reducing the number of strategic nuclear weapons in our stockpiles. And this week, we’ve gathered with representatives from more than 45 nations to address the urgent global threat posed by vulnerable nuclear material. And now, we are taking another step to increase our mutual security and deepen our bilateral cooperation. Under the agreement we are about to sign, the United States and Russia will each irreversibly and transparently dispose of no less than 34 metric tons of weapons-grade plutonium. Together, that is enough material for nearly 17,000 nuclear weapons. And we will put in place the framework and infrastructure needed to dispose of even more plutonium from defense programs in the future. The agreement provides for monitoring and inspections that will ensure that this material will never again be used for weapons or any other military purpose. By using civil nuclear reactors to dispose of the plutonium, we gain an added benefit – to produce electricity for our people, even as we remove a potential serious danger. And I want to thank the two teams from both Russia and the United States who worked together to hammer out this agreement. I see familiar faces, both from my country and now, after so many meetings, familiar faces from Russia. And Minister Lavrov and I could not be standing here without the extraordinary expertise and commitment that these teams brought to this occasion. Thank you very much. FOREIGN MINISTER LAVROV: Thank you. And I believe that the protocol which we are about to sign, the protocol to the agreement on utilization of weapon-grade plutonium, the agreement of the year 2000, actually, signed at that time but not implemented because of some technical reasons – the protocol which we are signing today is going to remove those technical impediments and obstacles, and the agreement would be implemented in practical terms. Thirty-four tons of plutonium, which the United States and Russia each would utilize, is a lot. It’s certainly a step in the direction of our shared goal of nuclear disarmament, because apart from actual limitations and reductions in nuclear strategic offensive arms, you need to do something about the plutonium which is released because of that process. And the event which you are witnessing here today is of – well, maybe not less important, but certainly it’s of very significant importance. And we would be doing this process, we would be doing these – implementing these obligations transparently, as the Secretary said, and in the way which would absolutely preclude military use of this plutonium in the future and which ensure its effective and safe usage for peaceful purposes to produce nuclear energy. And we certainly consider that this step is the contribution by the Russian Federation and the United States towards the implementation of Article Six of the fNonproliferation Treaty. When this mechanism starts working, we expect its positive influence on the process of nonproliferation, including making the process of nuclear disarmament multilateral at some point, hopefully not very far from today. And this is what we believe is the significance of this event. To utilize 34 metric tons of plutonium in Russia, the Russian Government will spend approximately $2.5 billion and we are grateful to the United States for contributing to this program by providing up to $400 million for this particular program. Thank you very much, and I join the Secretary in thanking the teams which negotiated this agreement.

#### Solves broader relations

Luongo ‘7

(Kenneth N., executive director of the Russian-American Nuclear Security Advisory Council “Improving U.S.-Russian Nuclear Cooperation”, Partnership for Global Security, 2007, <http://www.partnershipforglobalsecurity.org/publications/Articles%20and%20Commentary/improving_nuc_coop.html>)

Expediting fissile material disposition and elimination. Although programs that support the disposal of excess fissile materials in the United States and Russia have shown progress, there is room, and need, for improvement. The Highly Enriched Uranium Purchase agreement could be expanded to handle more than the current allotment of 500 metric tons. The plutonium disposition program, now in political limbo, could be put back on track so that implementation can proceed as scheduled. In addition, the United States and Russia should begin to determine how much more plutonium is excess and could be eliminated. Ending plutonium production in Russia. Continuing plutonium production for both military and commercial purposes adds to the already significant burden of improving nuclear material security in Russia. Steps should be taken to end this production expeditiously. Russia has three remaining plutonium-producing reactors, which currently produce approximately 1.5 metric tons of weapons-grade plutonium per year. However, the reactors also provide heat and energy for surrounding towns, and in order to shut them down, other energy sources must be provided. In 2000, Congress prohibited the use of funds to build alternative fossil-fuel energy plants at these sites, the method preferred by both Russia and the United States for replacing the nuclear plants. The estimated cost of the new plants is on the order of $420 million. Congress should lift its prohibition and provide funding for building the replacement plants. Also, Congress should provide funds to enable the United States and Russia to continue their work on an inventory of Russia's plutonium production. Finally, Congress should authorize and fund incentives to help end plutonium reprocessing in Russia. In 2000, program officials requested about $50 million for a set of projects to provide Russia with an incentive to end its continued separation of plutonium from spent fuel. But Congress approved only $23 million, and the Bush administration's proposed budget eliminated all funding. These programs should be reconstituted. There is no question that U.S.-Russian nuclear relations need to be adapted to the 21st century. The foundation for this transition has been laid by the endurance and successes of the cooperative security agenda. Today, each country knows much more about the operation of the other's weapons facilities. Technical experts cooperate on topics that were once taboo. And the most secretive weapons scientists in both nations have become collaborators on efforts to protect international security. Both nations must now recognize that more progress is needed and that it can be built on this *foundation* of achievement--if, in fact, elimination of the last vestiges of Cold War nuclear competition and the development of effective cooperation in fighting future threats is what the United States and Russia truly seek.

#### That solves nuclear war- key to avert global threats

Allison and Blackwill 11

[Graham Allison, Director, Belfer Center for Science and International Affairs; Douglas Dillon Professor of Government; Faculty Chair, Dubai Initiative, Harvard Kennedy School, Robert D. Blackwill, International Council Member, Belfer Center for Science and International Affairs 10-30, "10 Reasons Why Russia Still Matters"http://belfercenter.ksg.harvard.edu/publication/21469/10\_reasons\_why\_russia\_still\_matters.html]

That central point is that Russia matters a great deal to a U.S. government seeking to defend and advance its national interests. Prime Minister Vladimir Putin’s decision to return next year as president makes it all the more critical for Washington to manage its relationship with Russia through coherent, realistic policies. No one denies that Russia is a dangerous, difficult, often disappointing state to do business with. We should not overlook its many human rights and legal failures. Nonetheless, Russia is a player whose choices affect our vital interests in nuclear security and energy. It is key to supplying 100,000 U.S. troops fighting in Afghanistan and preventing Iran from acquiring nuclear weapons. Ten realities require U.S. policymakers to advance our nation’s interests by engaging and working with Moscow. First, Russia remains the only nation that can erase the United States from the map in 30 minutes. As every president since John F. Kennedy has recognized, Russia’s cooperation is critical to averting nuclear war. Second, Russia is our most consequential partner in preventing nuclear terrorism. Through a combination of more than $11 billion in U.S. aid, provided through the Nunn-Lugar Cooperative Threat Reduction program, and impressive Russian professionalism, two decades after the collapse of the “evil empire,” not one nuclear weapon has been found loose. Third, Russia plays an essential role in preventing the proliferation of nuclear weapons and missile-delivery systems. As Washington seeks to stop Iran’s drive toward nuclear weapons, Russian choices to sell or withhold sensitive technologies are the difference between failure and the possibility of success. Fourth, Russian support in sharing intelligence and cooperating in operations remains essential to the U.S. war to destroy Al Qaeda and combat other transnational terrorist groups. Fifth, Russia provides a vital supply line to 100,000 U.S. troops fighting in Afghanistan. As U.S. relations with Pakistan have deteriorated, the Russian lifeline has grown ever more important and now accounts for half all daily deliveries. Sixth, Russia is the world’s largest oil producer and second largest gas producer. Over the past decade, Russia has added more oil and gas exports to world energy markets than any other nation. Most major energy transport routes from Eurasia start in Russia or cross its nine time zones. As citizens of a country that imports two of every three of the 20 million barrels of oil that fuel U.S. cars daily, Americans feel Russia’s impact at our gas pumps. Seventh, Moscow is an important player in today’s international system. It is no accident that Russia is one of the five veto-wielding, permanent members of the U.N. Security Council, as well as a member of the G-8 and G-20. A Moscow more closely aligned with U.S. goals would be significant in the balance of power to shape an environment in which China can emerge as a global power without overturning the existing order. Eighth, Russia is the largest country on Earth by land area, abutting China on the East, Poland in the West and the United States across the Arctic. This territory provides transit corridors for supplies to global markets whose stability is vital to the U.S. economy. Ninth, Russia’s brainpower is reflected in the fact that it has won more Nobel Prizes for science than all of Asia, places first in most math competitions and dominates the world chess masters list. The only way U.S. astronauts can now travel to and from the International Space Station is to hitch a ride on Russian rockets. The co-founder of the most advanced digital company in the world, Google, is Russian-born Sergei Brin. Tenth, Russia’s potential as a spoiler is difficult to exaggerate. Consider what a Russian president intent on frustrating U.S. international objectives could do — from stopping the supply flow to Afghanistan to selling S-300 air defense missiles to Tehran to joining China in preventing U.N. Security Council resolutions. So next time you hear a policymaker dismissing Russia with rhetoric about “who cares?” ask them to identify nations that matter more to U.S. success, or failure, in advancing our national interests.

#### Effective relations solve nuclear war- prevents confrontation

Lukyanov ’11

(Fyodor, editor-in-chief of Russia in Global Politics magazine, “Nuclear destruction remains the basis of relations”, The Telegraph, 1-5-2011, <http://www.telegraph.co.uk/sponsored/russianow/opinion/8241050/Nuclear-destruction-remains-the-basis-of-Russia-US-relations.html>)

When President Dmitry Medvedev warned in his latest state-of-the-nation address that a new arms race could begin in the next decade, the hall erupted in applause. No wonder. For many of the Russian senators in the audience, that term calls to mind their younger years, something pleasant in and of itself. Added to which many people on both sides of the Atlantic, it seems, sorely miss those “good old days” when everything was clear: two worlds, two systems, and explicit rules of the game.¶ One finds oneself thinking of the advantages of a systemic confrontation, given the political and legal free-for-all into which the planet has been sinking ever since.¶ But reminiscences aside, what did the president mean? And we should consider that Prime Minister Vladimir Putin also said in his recent interview with Larry King that an arms race would lead not only to the failure of the anti-missile defence shield but also to the non-ratification of Start II. The latter is doubtful: that agreement is not of such calibre. But as for the anti-missile defences, Moscow’s logic is understandable.¶ The question remains: can Russia and the US break the vicious circle of mutual nuclear containment, or will this type of relationship, frankly absurd today, be preserved in future?¶ Whatever Moscow and Washington do, the material and technological basis of their relations remains not simply restraint, but Mutually Assured Destruction. Another use for the vast arsenals they amassed up to the late Eighties simply does not exist. No international problem requires such a quantity of nuclear charges and missiles. The political logic of that period has long since lost its force; the whole world has changed. But you can’t argue with weapons: the logic of arsenals still dictates, no matter how often Russia and the United States reiterate that they no longer see each other as adversaries.¶ A quick liquidation of stockpiles will not be achieved. First of all, strategic nuclear forces are mainly political weapons and a matter of status. No one will simply give these up. This is especially true of Russia, which no longer has any other features of a superpower. And, judging by discussions underway in Washington, idealists there are being squeezed on all sides, too.¶ Second, one needs at the very least a qualitatively different level of trust between Russia and the United States; the first shoots that appeared during the “reset” may very soon be trampled.¶ And finally, the time when these two giants set the tone in the nuclear sphere has long since past. Proliferation goes on, quietly. China’s nuclear arsenal, though only a fraction of Russia’s and America’s, is becoming an increasingly important factor in that country’s growing influence. Neither Washington nor Moscow can allow the other to be in the same “league” with Beijing because then the counterweights to its influence would be even less.¶ Nevertheless, the needlessness of assured destruction is obvious, and this situation must be somehow overcome. The only way is a gradual rapprochement in the strategic sphere which will make the nuclear containment of Russia and the United States an anachronism. And for this, joint work on anti-missile defences would be ideal. If this is undertaken in earnest, sooner or later it will become apparent that missiles aimed at each other are patently absurd given that the “adversaries” are building a joint shield. This is a long, hard road, the success of which, though not guaranteed, is none the less possible. Especially when one realises the real threats facing both countries in the 21st century.¶ On the other hand, it’s obvious what will happen if, in the sphere of anti-missile defence, nothing comes together and they each go their own way. In that case, the old type of relations will inevitably recur since that same nuclear rubicon will be preserved. An American missile defence system would be built against any other country possessing missile potential, including, of course, Russia – even if Russia were not the main object. Moscow would then automatically begin searching for ways of overcoming that anti-missile shield.¶ No one will abolish mutual nuclear deterrence as the basis of balance so long as the two nuclear superpowers are not engaged in a common cause. All of this goes beyond the bounds of rational argument, but the burden of arsenals aimed at one another will continue to return us to the confrontation of 30 years ago, even if in a farcical form.¶ One must not forget that all this is a game of nerves. These gigantic arsenals are inapplicable; the anti-missile system is virtual since most likely it will never be created. The paradox is that the political effect of the idea of an anti-missile shield is more than real since it touches the heart of the problem of strategic stability.¶ To imagine an arms race of the classic kind that existed in the latter half of the 20th century is impossible. The entire developed world is too concerned with budget deficits and national debt: in reality these problems represent a far greater threat to stability than do any classic threats. True, in that situation nuclear weapons regain the significance they seemed to be losing. Meanwhile, Nato’s just-published strategic conception clearly states that nuclear weapons, primarily American, are that alliance’s supreme guarantee of security. So say goodbye to a non-nuclear world. And in the United States, where only recently there was talk of investing in hi-tech conventional weapons of a new generation, cost estimates now show that preserving the nuclear component would be cheaper.¶ Be that as it may, anti-missile defence represents a fork in the road: one way leads to a new system of relations between Russia and the United States, with both sides ceasing to view the other as a strategic threat; the other leads back to a model of the Cold War – albeit a wittingly senseless one.

#### Plutonium cooperation uniquely key to prevent conflict with Russian neighbors

Pifer ‘9

(Steven, fellow at Brookings, “Russia and Eurasia”, Global Trends, October 2009, <http://www.brookings.edu/~/media/research/files/articles/2009/10/global%20trends%20russia%20eurasia%20pifer/10_global_trends_russia_eurasia_pifer>)

Monitoring Russian demographics and the Russian economy should be relatively straightforward. Following trends in societal attitudes will be more difficult but nevertheless possible. In watching trends within Russia, certain indicators could signal an increased likelihood of one of the strategic shocks described. Some examples include: • major growth in and an increasing political role for the Nashi movement, in combination with a general rise in ultranationalist sentiment • further concentration of political and economic power in the hands of a select elite that is out of touch with broader Russian society • increased tensions between ethnic Russians and other nationalities, such as Caucasians, or immigrants and guest workers • growing expressions of concern by ethnic Russians that their decline as a relative portion of total population is endangering their unique identity and culture • increased violence or open insurgency in the north Caucasus • persistent government failure to provide basic services to large segments of the population plus breakdowns in health, transport, housing, or other infrastructure • stagnation in Russia’s nonenergy sectors, leaving the economy little to fall back on in the event of a collapse in energy prices • construction of a gas pipeline allowing Russia to “swing” western Siberian gas to Asia without commensurate investment to increase gas production • increasing closure of certain branches of Russian science to collaboration or other contact with Western scientists. The trends that could lead to the strategic shocks described above are internal ¶ to Russia, which means that the ability of the United States or other countries to ¶ influence them is marginal at best. This is particularly true when even innocuous U.S. assistance programs are viewed in Russia with suspicion. Nevertheless, ¶ the Department of Defense (DOD), the Department of State, and other U.S. ¶ agencies should establish a monitoring system to track demographic, societal, ¶ and economic trends within Russia and consider actions that might influence ¶ those trends, particularly in shaping the attitudes of key segments of Russian ¶ society toward the United States.¶ Examples of such actions include deeper engagement with the Russian ¶ military by U.S. and NATO forces. The Pentagon might look for innovative ways ¶ to engage; for example, is there any standing U.S.-Russian or NATO-Russian ¶ military capability that would give both sides a tool that they do not now have to ¶ address certain contingencies? Continued and deeper cooperation with Russian ¶ security agencies against international terrorism is also important.¶ Expanded exchange programs—educational, professional, and military—¶ offer mechanisms to expose more Russians to American society and values. ¶ Broadened contacts with the Russian scientific community would also be useful ¶ (and might help provide early warning regarding new research directions with ¶ military applications). Finally, active public diplomacy targeted at Russia with ¶ the goal of blunting anti-Americanism should be considered, although designing ¶ such an effort will be tricky.¶ DOD and other U.S. agencies can also consider steps that would help mitigate ¶ the negative implications of a shock. For example, continued work in and funding ¶ for Cooperative Threat Reduction programs to secure and eliminate as much ¶ nuclear material in Russia as possible (via conversion to low-enriched uranium or ¶ plutonium disposition) would reduce the nuclear concern in a collapse scenario. ¶ Likewise, a renewed arms control/disarmament dialogue with Moscow to shrink ¶ the number of Russian nuclear weapons (which, of course, would require parallel ¶ reductions in U.S. systems) could alleviate the nuclear concern.

#### Extinction

AP ’11

(Associate press, “Top Russian general: NATO expansion raises danger of nuclear conflict,” <http://www.haaretz.com/news/international/top-russian-general-nato-expansion-raises-danger-of-nuclear-conflict-1.396185>)

Russia is facing a heightened risk of being drawn into conflicts at its borders that have the potential of turning nuclear, the nation's top military officer said Thursday.¶ Gen. Nikolai Makarov, chief of the General Staff of the Russian armed forces, cautioned over NATO's expansion eastward and warned that the risks of Russia being pulled into local conflicts have "risen sharply." Makarov added, according to Russian news agencies, that "under certain conditions local and regional conflicts may develop into a full-scale war involving nuclear weapons."¶ A steady decline in Russia's conventional forces has prompted the Kremlin to rely increasingly on its nuclear deterrent. The nation's military doctrine says it may use nuclear weapons to counter a nuclear attack on Russia or an ally, or a large-scale conventional attack that threatens Russia's existence.

#### MOX fuel key to solve terrorism

Reilly '12

(Bill, Bill Reilly, a retired colonel, formerly headed the U.S. Army's reactor program., "MOX offers a nuclear power boost," 7/1/12, updated 1/29/13 www.columbiatribune.com/opinion/op-ed/mox-offers-a-nuclear-power-boost/article\_4075b9c4-bd1c-5f22-99fb-0783224782cf.html#.USFCOOi1nn4)

As the Cold War receded, the United States and Russia reached a historic agreement to reduce their respective stockpiles of weapons plutonium by 34 metric tons each. Combined, 68 metric tons of plutonium is enough material for 17,000 nuclear weapons.¶ Disposing of excess weapons material has been a longstanding goal of the U.S. government. What's behind it is concern that plutonium and another weapons material, highly enriched uranium, could be stolen from stockpiles of dismantled Russian nuclear warheads and sold on the black market to rogue governments or terrorist groups.¶ A separate agreement with Russia has resulted in the down-blending of nearly 500 metric tons of Russia's excess highly enriched uranium into reactor fuel for use in U.S. nuclear plants. Today, half of the electricity generated at nuclear plants in the United States is produced with fuel derived from dismantled Russian warheads that were once aimed at U.S. targets.¶ Although the agreement on plutonium covered only a fraction of the stockpiles in both countries, it demonstrates the value of turning megatons into megawatts. Once plutonium is converted into MOX, it no longer is useful for weapons production. As more and more weapons plutonium is destroyed, the risk that some of it might fall into the wrong hands will lessen.¶ The shift to MOX fuel for everyday use reduces the cost of producing nuclear-generated electricity, a clean and affordable alternative to fossil fuels. Demonstrating the use of MOX at nuclear power plants is an important step toward a clean-energy economy.¶ And it could go a long way toward making the world a safer place by reducing the risk of nuclear proliferation.

#### Retaliation ensures extinction

Ayson 10

(Professor of Strategic Studies and Director of the Centre for Strategic Studies: New Zealand at the Victoria University of Wellington

Robert, “After a Terrorist Nuclear Attack: Envisaging Catalytic Effects,” Studies in Conflict & Terrorism, Volume 33, Issue 7, July, Available Online to Subscribing Institutions via InformaWorld)

But these two nuclear worlds—a non-state actor nuclear attack and a catastrophic interstate nuclear exchange—are not necessarily separable. It is just possible that some sort of terrorist attack, and especially an act of nuclear terrorism, could precipitate a chain of events leading to a massive exchange of nuclear weapons between two or more of the states that possess them. In this context, today’s and tomorrow’s terrorist groups might assume the place allotted during the early Cold War years to new state possessors of small nuclear arsenals who were seen as raising the risks of a catalytic nuclear war between the superpowers started by third parties. These risks were considered in the late 1950s and early 1960s as concerns grew about nuclear proliferation, the so-called n+1 problem. It may require a considerable amount of imagination to depict an especially plausible situation where an act of nuclear terrorism could lead to such a massive inter-state nuclear war. For example, in the event of a terrorist nuclear attack on the United States, it might well be wondered just how Russia and/or China could plausibly be brought into the picture, not least because they seem unlikely to be fingered as the most obvious state sponsors or encouragers of terrorist groups. They would seem far too responsible to be involved in supporting that sort of terrorist behavior that could just as easily threaten them as well. Some possibilities, however remote, do suggest themselves. For example, how might the United States react if it was thought or discovered that the fissile material used in the act of nuclear terrorism had come from Russian stocks,40 and if for some reason Moscow denied any responsibility for nuclear laxity? The correct attribution of that nuclear material to a particular country might not be a case of science fiction given the observation by Michael May et al. that while the debris resulting from a nuclear explosion would be “spread over a wide area in tiny fragments, its radioactivity makes it detectable, identifiable and collectable, and a wealth of information can be obtained from its analysis: the efficiency of the explosion, the materials used and, most important … some indication of where the nuclear material came from.”41 Alternatively, if the act of nuclear terrorism came as a complete surprise, and American officials refused to believe that a terrorist group was fully responsible (or responsible at all) suspicion would shift immediately to state possessors. Ruling out Western ally countries like the United Kingdom and France, and probably Israel and India as well, authorities in Washington would be left with a very short list consisting of North Korea, perhaps Iran if its program continues, and possibly Pakistan. But at what stage would Russia and China be definitely ruled out in this high stakes game of nuclear Cluedo? In particular, if the act of nuclear terrorism occurred against a backdrop of existing tension in Washington’s relations with Russia and/or China, and at a time when threats had already been traded between these major powers, would officials and political leaders not be tempted to assume the worst? Of course, the chances of this occurring would only seem to increase if the United States was already involved in some sort of limited armed conflict with Russia and/or China, or if they were confronting each other from a distance in a proxy war, as unlikely as these developments may seem at the present time. The reverse might well apply too: should a nuclear terrorist attack occur in Russia or China during a period of heightened tension or even limited conflict with the United States, could Moscow and Beijing resist the pressures that might rise domestically to consider the United States as a possible perpetrator or encourager of the attack? Washington’s early response to a terrorist nuclear attack on its own soil might also raise the possibility of an unwanted (and nuclear aided) confrontation with Russia and/or China. For example, in the noise and confusion during the immediate aftermath of the terrorist nuclear attack, the U.S. president might be expected to place the country’s armed forces, including its nuclear arsenal, on a higher stage of alert. In such a tense environment, when careful planning runs up against the friction of reality, it is just possible that Moscow and/or China might mistakenly read this as a sign of U.S. intentions to use force (and possibly nuclear force) against them. In that situation, the temptations to preempt such actions might grow, although it must be admitted that any preemption would probably still meet with a devastating response.

#### Terrorists would strike Moscow

Dunlop and Smith 6

(William, scientist at Lawrence Livermore National Laboratories and Harold, distinguished visiting scholar and professor at the Goldman School of Public Policy, University of California at Berkeley, “Who did it? Using international forensics to detect and deter nuclear terrorism,” Arms Control Today, October 1, <http://www.armscontrol.org/act/2006_10/CVRForensics>

Among these, Moscow perhaps presents the most compelling case for international cooperation on post-detonation nuclear forensics. Russia has the largest stockpile of poorly secured nuclear devices in the world. It also has porous borders and poor internal security, and it continues to be a potential source of contraband nuclear material and weapons, despite the best efforts of the Cooperative Threat Reduction (CTR) program. If terrorists obtained the nuclear material in Russia and set Moscow as their target, they would not have to risk transporting the weapon, stolen or makeshift, across international borders. Attacks by Chechen terrorists in Beslan and at the Dubrovka Theater in Moscow offer ample proof that a willingness to commit mass murder for fanatical reasons rests within Russian borders, and a foreign source of operatives, particularly from the neighboring Islamic states to the south, is by no means inconceivable.[2] Moscow is also a predominately Christian city where local authorities routinely discriminate against Muslim minorities. Furthermore, extremists might conclude that a nuclear blast in Moscow could inflict damage well beyond that directly stemming from the attack. The Soviet generation that came to power during the Cold War retained a memory of the United States as an ally in the Great Patriotic War. The present Russian generation has no such remembrance but seems to have retained the animosities and suspicions that were a part of the nuclear standoff. Hence, nuclear terrorists may well believe that they could cause another East-West cold war or even encourage Russia to retaliate against the United States. After all, the sinking of the Kursk was believed by some influential Russians to be the result of U.S. action.[3] How much more likely would be such a view if the Kremlin were destroyed? As long as the world is filled with suspicion and conflict, such reactions are to be expected and, more importantly, anticipated.[4] One has only to remember the early reactions and suspicions in the United States following the 1996 TWA Flight 800 airline disaster.[5]

#### Triggers the dead hand

CNANW 9

(Canadian Network to Abolish Nuclear Weapons, “Questions and Answers on "RLOAD" and De-alerting”, <http://www.web.net/~cnanw/index.htm>, Accessed 10/6)

On the Russian side**,** command of nuclear weapons is said to be very centralized and strictly controlled. However,they have notin recent timeshad both the radar and the satellite warning systems available all the time because too few satellites are orbiting and some of the radars built by USSR are now in independent States**;** sothey must berelyingon only one system for part of the time. They alsohave a "dead hand" system codenamed 'Perimetr', which comprises non-armed rockets that can be launched automatically and fly over Russia broadcasting launch codes and launch orders to the missile silos. This is meant to be activated automatically(after an enabling action by the high command)if Moscow is destroyed and communication by the high command to the nuclear forces is lost. It has been said that the system could be activated inadvertently at a moment of crisis.[The working of Perimetr is better described in our recent paper "Replace LoW Policy"]

#### Extinction

Rosenbaum 7

(Ron, award winning journalist and author, “The Return of the Doomsday Machine?”, 8/31/2007, Slate Magazine, <http://www.slate.com/id/2173108/pagenum/all/>)

In Strangelove, the doomsday machine was a Soviet system that automatically detonated some 50 cobalt-jacketed hydrogen bombs pre-positioned around the planet if the doomsday system's sensors detected a nuclear attack on Russian soil. Thus, even an accidental or (as in Strangelove) an unauthorized U.S. nuclear bomb could set off the doomsday machine bombs, releasing enough deadly cobalt fallout to make the Earth uninhabitable for the human species for 93 years. No human hand could stop the fully automated apocalypse. An extreme fantasy, yes. But according to a new book called [Doomsday Men](http://www.amazon.co.uk/Doomsday-Men-Strangelove-Dream-Superweapon/dp/0713998156) and several papers on the subject by U.S. analysts, it may not have been merely a fantasy. According to these accounts, the Soviets built and activated a variation of a doomsday machine in the mid-'80s. And there is no evidence Putin's Russia has deactivated the system. Instead, something was reactivated in Russia last week. I'm referring to the ominous announcement—given insufficient attention by most U.S. media (the Economist made it the opening of a lead editorial on Putin's Russia)—by Vladimir Putin that Russia has resumed regular "strategic flights" of nuclear bombers. (They may or may not be carrying nuclear bombs, but you can practically hear Putin's smirking tone as he says, "Our [nuclear bomber] pilots have been grounded for too long. They are happy to start a new life.") These twin developments raise a troubling question: What are the United States' and Russia's current nuclear policies with regard to how and when they will respond to a perceived nuclear attack? In most accounts, once the president or Russian premier receives radar warning of an attack, they have less than 15 minutes to decide whether the warning is valid. The pressure is on to "use it or lose it"—launch our missiles before they can be destroyed in their silos. Pressure that makes the wrong decision more likely. Pressure that makes accidental nuclear war a real possibility. Once you start to poke into this matter, you discover a disturbing level of uncertainty, which leads me to believe we should be demanding that the United States and Russia define and defend their nuclear postures. Bush and Putin should be compelled to tell us just what "failsafe" provisions are installed on their respective nuclear bombers, missiles, and submarines—what the current provisions against warning malfunctions are and what kinds of controls there are over the ability of lone madman nuclear bombers to bring on the unhappy end of history. As for the former Soviet Union, the possible existence of a version of a doomsday machine is both relevant and disturbing. In the Strangelove film, the Soviet ambassador tells the president and generals in the U.S. war room that the device was designed to deter a surprise attack, the kind of attack that might otherwise prevent retaliation by "decapitating" the Soviet command structure. The automated system would insure massive world-destroying retaliation even if the entire Soviet leadership were wiped out—or had second thoughts. As a result, some referred to it as the "dead hand" doomsday device. It is Dr. Strangelove himself, the madman U.S. nuclear strategist played by Peter Sellers, who detects the flaw in this plan. After being apprised of the system's existence by the Soviet ambassador, and the likelihood of its being triggered by a U.S. bomber on an unauthorized mission to nuke its Soviet target, Dr. Strangelove exclaims: Yes, but the ... whole point of the doomsday machine ... is lost ... if you keep it a secret! Why didn't you tell the world, eh? In other words, a doomsday machine kept secret is no good for deterrence, only for retaliation by extinction. Did the Soviets actually design a variation on a doomsday device and not tell us about it? And could an accidental or terrorist nuclear attack on Putin's Russia (by Chechens, for instance) trigger an antiquated automated dead-hand system and launch missiles capable of killing tens, maybe hundreds, of millions at unknown targets that might include the United States? Up until Aug. 10 of this year, I would have thought these questions were best consigned to the realm of apocalyptic film fantasy. But on that day I came upon a startling essay in the London Times Literary Supplement. It was a review (titled "Deadly Devices") of a book recently published in the United Kingdom: Doomsday Men: The Real Dr. Strangelove and the Dream of the Superweapon by nuclear-age historian P.D. Smith of University College London. (It will be out in the United States in December.) The TLS reviewer, Christopher Coker (who is on the faculty of the London School of Economics), asserted that the book demonstrates that "only after the Berlin Wall had been breached and ... the Cold War began to thaw did military analysts realize the Russians had actually built a version of the [doomsday] device. The details of this top-secret Soviet system were first revealed in 1993 by Bruce G. Blair, a former American ICBM launch control officer, now one of the country's foremost experts on Russian arms. Fearing that a sneak attack by American submarine-launched missiles might take Moscow out in 13 minutes, the Soviet leadership had authorized the construction of an automated communication network, reinforced to withstand a nuclear strike. At its heart was a computer system similar to the one in Dr. Strangelove. Its code name was Perimetr. It went fully operational in January 1985. It is still in place."

## Solvency

#### TVA solves

Wolfe '12

Clinton R., PhD in Chemistry, executive director of Citizens for Nuclear Technology Awareness in Aiken, S.C. He formerly chaired the Technical Advisory Panel to the U.S. Department of Energy's Plutonium Focus Area, "Guest Article" The Greenville News, Greenville, SC, 8/10/12www.c-n-t-a.com/letters.htm#GN1208

As the need for nuclear power grows, we must pursue serious efforts toward converting nuclear-weapons materials into fuel for power reactors. In particular, reactors can use a Mixed-Oxide fuel made from plutonium to generate enormous amounts of electricity for homes and businesses. A substantial amount of excess plutonium in the U.S. stockpile is now available for this purpose. The Tennessee Valley Authority is considering the use of the mixed-oxide fuel, known as MOX, at its Sequoyah plant near Chattanooga, Tenn., and at its Browns Ferry plant in northern Alabama. TVA's switch from conventional low-enriched uranium to MOX could occur as early as 2018-2020, timed to coincide with the start of MOX production at a facility under construction at the Savannah River Site here in South Carolina. Now half completed, the MOX Fuel Fabrication Facility is one of the largest construction projects in the United States, with 2,200 workers at the site. This project, which is the size of eight football fields, is blazing the trail for the resumption of nuclear quality construction in the United States after a hiatus of 35 years. The idea of using weapons plutonium to make fuel for power reactors was a key factor in an historic arms-control agreement between the United States and Russia. That pact requires the elimination of 34 metric tons of plutonium by each country, under strict non-proliferation conditions. Combined, that's enough plutonium to arm 17,000 nuclear weapons. Converting that amount of plutonium into MOX fuel, thereby rendering it unsuitable for future military use, will take about 15 years. Though the agreement with Russia calls for eliminating 34 metric tons from each country's weapon stockpile it envisions the elimination of more of the weapons material in the future. Once TVA begins using MOX fuel, other nuclear utilities are likely to do the same. MOX is safe and nonthreatening; and the technology for its production and use is well-proven. Developed in this country in the 1960s, MOX was produced from plutonium in spent fuel that is left over from electricity production. MOX was pursued in this country until the mid-1970s, when it was abandoned in the U.S. on grounds that its production could lead to nuclear proliferation. Other countries such as France and Great Britain did not follow the U.S. example, and have continued to recycle plutonium. MOX has been manufactured and used safely and efficiently, with no diversion of plutonium for illicit purposes. Today MOX is used in about 30 power reactors around the world, with more planned units in the licensing stage. And that's the point. TVA's use of MOX could pave the way for a resumption of spent-fuel reprocessing in the United States. Indefinite storage of spent fuel in water pools and dry casks at nuclear plant sites around the country is senseless, considering that the material could be converted into MOX for the production of clean energy. When that happens, the amount of nuclear waste for each unit of energy will be reduced by 50 percent.

#### Commercialization keeps South Carolina running the SRS

Bunn '07

Matthew Bunn is a senior research associate in the Managing the Atom project at Harvard University's Kennedy School of Government. Previously, he served in the White House Office of Science and Technology Policy where, among other responsibilities, he staffed the interagency working group on plutonium disposition. He was the study director for the two-volume National Academy of Sciences study Management and Disposition of Excess Weapons Plutonium, published in 1994 and 1995., "Troubled Disposition: Next Steps in Dealing with Excess Plutonium," April 2007, www.armscontrol.org/act/2007\_04/Bunn

A wide range of other obstacles have contributed to these slowing schedules and escalating costs. After delays resulting from a year-long Bush administration policy review, the Bush team delayed matters further by demanding that Russia accept liability provisions that would make Russia liable even for damage caused by intentional sabotage by U.S. personnel, a provision Russian negotiators predictably rejected. Because construction of the U.S. and Russian MOX plants had been linked, this dispute resulted in years of delay in both countries. A liability protocol for plutonium disposition, in which the Bush administration effectively abandoned its earlier demands, was finally signed in September 2006, ironically not long after the linkage between U.S. and Russian construction was dropped.¶ Most U.S. officials believe that the U.S. excess plutonium stockpile poses few security issues and see getting rid of Russia 's excess plutonium stockpile as the main reason to bother with getting rid of the U.S. excess stockpile. The other major driver for the U.S. disposition effort is South Carolina , which would only allow the Energy Department to consolidate many of its plutonium stockpiles at Savannah River if there was a clear plan to do something with these stocks that would provide jobs and ultimately take them back out of the state. Congress has passed legislation that requires the Energy Department to pay substantial fines to the state if it does not meet plutonium disposition deadlines.

## Plan

#### The Tennessee Valley Authority should increase procurement contracts for mixed oxide fuel for its electricity generation in the United States.

## No DA

## No Disads

#### Public wants more nuclear power and it’s expanding globally

Westenhaus 9/30

(Brian, “Confidence in Nuclear Power is on the Rise Again”, Oil Price, 9-30-2012, <http://oilprice.com/Alternative-Energy/Nuclear-Power/Confidence-in-Nuclear-Power-is-on-the-Rise-Again.html>)

This latest survey found that Americans strongly favoring nuclear energy outnumber those strongly opposed by a two-to-one ratio, 29% versus 14%. The new numbers improve on a poll conducted in September 2011, six months after the Fukushima accident, when 62% of American favored nuclear energy, with 35% opposed. The new survey shows confidence is improving. Just over three quarters of respondents agree that nuclear energy facilities operating in the United States are ‘safe and secure,’ while only 19% think they are not. Eighty percent of Americans opposed to 16% believe “we should learn the lessons from the Japanese accident and continue to develop advanced nuclear energy plants to meet America’s growing electricity demand.” In a shock to the political system and the anti nuclear crowd a large majority (81%) of those surveyed favor the renewal of operating licenses of facilities that continue to meet federal safety standards, while 74% believe electric utilities should prepare now so they will be ready to build new nuclear power plants in the next decade if needed. The U.S. is not alone. New nuclear plants are coming in Asia and even in Europe. Nuclear generating capacity is projected to grow 38% in the next eight years. These kinds of numbers wake up the uranium commodities speculators – even while the market is in the doldrums.

#### Nuclear power’s expanding in the U.S. now

Ferguson ’12

(Charles D., Federation of the American Scientists, Public Interest Report, “Making the Case for Nuclear Power in the United States”, Summer 2012, <http://www.fas.org/pubs/pir/2012summer/Summer2012_PresidentMessage.pdf>)

Will nuclear power in the United States flourish or fade away? To paraphrase Mark Twain, “The news of nuclear power’s demise has been greatly exaggerated.” The United States still has the largest number of nuclear reactors in the world with 104 and almost 20 percent of its electricity is generated from nuclear power. Moreover, four new reactors are under construction: two at the Vogtle plant in Georgia and two at the Summer plant in South Carolina. One big reason these plants are moving forward is because the utilities can recoup some of the costs during construction. The regional regulatory authorities in the Southeastern United States have allowed such cost recovery. Four new reactors, however, will not be enough to keep nuclear power on pace to continue to generate about 20 percent of the nation’s electricity.

#### Nuclear now and inevitable

Tirone 12

Jonathan, AP, “Nuclear Power Production Set to Grow Even After Japan Phase-Out (Vienna)”, 9/19, <http://www.northjersey.com/news/international/170334006_Nuclear_Power_Production_Set_to_Grow_Even_After_Japan_Phase-Out__Vienna_.html?page=all>

Nuclear power is set to grow over the next four decades even after Japan shuts down its reactor fleet, the International Atomic Energy Agency says. Global installed capacity is set to rise to at least 469 gigawatts of energy by 2050 from 370 GWe today, according to the IAEA's most pessimistic scenario. Nuclear capacity may reach as much as 1,137 GWe in a more favorable investment climate, the Vienna-based agency said. "We are a little bit more optimistic," said Holger Rogner, IAEA head of planning and economic studies, late Tuesday in the Austrian capital. "There is still a case for nuclear power." Japan has about 46 GWe of capacity at 50 reactors and plans to phase out nuclear power in the next three decades in response to the Fukushima Dai-ichi reactor meltdowns last year. The IAEA, established in 1957 to promote the peaceful uses of atomic power, sees growth driven by new reactor projects in China and in newcomer nations such as Turkey and the United Arab Emirates A gigawatt is equivalent to 1 billion watts of electricity. The driving forces that brought about the renaissance in nuclear power — growing demand in emerging economies, energy security, elevated fossil-fuel prices and climate pressures — haven't changed, Rogner said. The IAEA presented its findings to the organization's 155 members, meeting at their general conference in Vienna. "The feedback we receive is that there is no real retraction from most national power programs," Rogner said. "What we do see is that some newcomer states have a much better understanding for the need to get things right. Before Fukushima they were a little too optimistic how fast you can move forward the technology." Japan's new policy follows public pressure since the Fukushima disaster caused mass evacuations and left areas north of Tokyo uninhabitable for decades. Germany and Switzerland announced plans to phase out nuclear power after the meltdowns.

#### More evidence

Westenhaus 9/30/12

Brian, editor of the popular energy technology site New Energy and Fuel, “Confidence in Nuclear Power is on the Rise Again,” <http://oilprice.com/Alternative-Energy/Nuclear-Power/Confidence-in-Nuclear-Power-is-on-the-Rise-Again.html>, AM

The U.S. is not alone. New nuclear plants are coming in Asia and even in Europe. Nuclear generating capacity is projected to grow 38% in the next eight years. These kinds of numbers wake up the uranium commodities speculators – even while the market is in the doldrums.

#### Here’s a list of countries expanding nuclear programs

John P **Banks and** Charles K **Ebinger 11**, John is a fellow with the Energy Security Initiative at the Brookings Institution, Charles is senior fellow and director of the Energy Security Initiative at the Brookings Institution, “Business and Nonproliferation”, googlebooks

Second, many developing countries are further along in their commitment to nuclear power development than those in the industrialized world. The emerging markets, especially in Asia, account for most of the current reactor construction planned expansion in the coming decades. Of all reactors now being built, 75 percent are located in China, Russia, South Korea, lndia. China alone accounts for 42 percent of total global construction. Some national nuclear plans are very ambitious: China is aiming to increase its nuclear capacity from the current 10.8 gigawatts to 90 gigawatts by 2020. South Korea hopes to export eighty nuclear power plants over the next two decades, Russia wants to increase reactor sales from $17 billion to $50 billion in the next twenty years. Those looking to build their ﬁrst nuclear reactors in the next several decades include Egypt, Indonesia, jordan, Kazakhstan, Saudi Arabia, South Africa, Turkey, the United Arab Emirates, Vietnam. While a change of nuclear energy policy in the United States Europe is largely a matter of rearranging energy planners' drawing boards, emerging markets have far more to lose from a reversal of their positions. Third, nuclear power expansion in emerging markets is led mainly by the state: governments directly plan implement civilian nuclear energy pro- grams, support their state-owned nuclear companies in becoming international vendors, partner with international companies (many also state-owned). Rosatom in Russia, the China National Nuclear Corporation, the Nuclear Power Corporation of lndia are examples of these nuclear “national champions.“ State hacking lowers transaction capital costs, government commit- ments—iF not outright mandates—Facilitate streamline project implementation. According to recent estimates, it costs two times as much to build a nuclear power plant in the United States Europe as in China, while France's EPR reactor costs 2.5 times as much as South Korea's 1\PRl400. Under such active state participation, political considerations not purely commercial Factors play a major role in determining the future of nuclear power. In the wake ol Fukushima, emerging market countries will also l'ace increased challenges to a continued policy of civilian nuclear power expansion. Whetlier augmenting existing capacity or building reactors for the ﬁrst time, countries will be under closer international scrutiny to ensure that appropriate infrastructure, Financial resources, human capacity, legal regulatory Frameworks are in place. These considerations apply equally to plant safety to proliferation prevention. Countries also will Face louder public opposition to nuclear power. As the events of the Arab Spring” populist uprisings in the Middle East :Iiri"'l North Africa demonstrate, countries that have hitherto been used to centralized decisionmaking ignore public opinion at their peril. Nongovernment groups in India, Turkey, Jordan, Malaysia, Indonesia, elsewhere have already started to question their country’s nuclear plans. Some governments are responding: partly because of public concerns, lndia has indicated it will seek to establish a new independent regulator to oversee the nuclear industry. While the full impacts of Fukushima will not be known for some time. developing countries are likely to continue expanding nuclear capacity, but at a slower rate in the short term as they review sale measures at their existing plants, reexamine plans, or delay licensing, siting, other decisions. At the same time, most have reaffirmed their long-term commitment to nuclear power. Ofﬁcials in Turkey and Indonesia, both earthquake-prone countries, as well as Brazil, India, Russia, South Africa, and Vietnam have pronounced that plans for nuclear power will stay on track. Even though China's suspension of approvals for new reactors is expected to slow nuclear development for two to three years, the deputy secretary ofits Nuclear Energy Association says that “in the medium and long-term China’s nuclear strategy cannot he shaken.” The accident at Fukushima does not alter the fundamental theme of this vol- ume. A global expansion of nuclear power is very likely to continue over the long term. This expansion will require continued enhanced proliferation prevention efforts—especially from the commercial nuclear industry.

# 2AC

## Case

### Generic Answer to Alt Cause

#### Cooperation on nuclear energy is the key issue – it builds stakeholders, leverage, and bridges the trust gap – solves alt causes, and this evidence assumes Putin

Weitz 12

(Richard, senior fellow at the Hudson Institute, World Politics Review Senior Editor, “Global Insights: U.S.-Russia Arms Control Prospects Under Putin”, World Politics Review, 3-6-2012, <http://www.worldpoliticsreview.com/articles/11681/global-insights-u-s-russia-arms-control-prospects-under-putin>)

This weekend’s election in Russia has unsurprisingly returned Vladimir Putin to the country’s presidency. In contrast to the preordained outcome of the Russian voting, the winner of this November’s U.S. presidential election is not yet known. But whoever occupies the White House in 2013 will need to consider the bilateral arms control relationship with Russia in coming years. And although the implementation of the New START agreement is going well, there are sharp differences in Washington and Moscow over where to go next. Moscow’s main concerns focus on U.S. missile defense and U.S. superiority in conventional forces. Both conditions work against Russia’s willingness to cut its offensive nuclear forces even further, which is the U.S. priority, especially with regard to the issue of Russian tactical nuclear weapons. In his recent Moscow News article on Russian foreign policy, Putin railed against what he called the U.S. quest for “absolute security.” In his words, the problem is that “absolute invulnerability for one country would in theory require absolute vulnerability for all others.” Instead, Putin again insisted on the right of all states to equal security, as well as Russia’s right to maintain the capacity to attack the United States with nuclear weapons if necessary. Putin argued that faced with U.S. plans for deploying a European-based missile defense system, Russia had two options: a symmetrical response of creating its own system or an asymmetrical strategy of strengthening Russia’s offensive strategic weapons to ensure that they are capable of overcoming any NATO system and thereby preserving mutual deterrence. The first choice being too costly and technically challenging, he said Russia would follow the second course. In Moscow’s view, the problem of equal security also applies to the imbalance in conventional forces in Europe. The United States recently followed Russia’s lead in ending implementation of the original Conventional Forces in Europe (CFE) Treaty. Russian officials have also given up on the idea of ratifying the Adapted CFE Treaty, since NATO insists that Russia withdraw its military forces from Georgia as part of its Istanbul Commitments. Given these complications, Russians are uninterested in various U.S. proposals for a “grand bargain” that would seek to address the CFE and tactical nuclear weapons in Europe simultaneously. Russian policymakers have also expressed a new complaint in the form of their open doubt over the United States’ ability to ratify the kinds of binding legal agreements that Moscow demands. They note the difficulties that the Obama administration had in securing U.S. Senate ratification of New START, which required a White House commitment to modernize the U.S. nuclear arsenal, even if that is now falling victim to budgetary pressures. Russians insist that they want another legally binding agreement to constrain U.S. missile defenses. The Obama administration has been offering a politically binding agreement on missile defense, but has refused to accept legally binding constraints on how the missile defense program might develop. Although U.S. officials stress that they will not try to negate Russia’s nuclear deterrent, whose massive size and great sophistication would make such an effort impossible in any case, Congress would never accept a legally binding agreement that commits the United States to deliberately constrain its ability to protect Americans and their allies from foreign missile attacks. At best, the administration is willing to offer nonbinding political guarantees that they will not seek to negate Russia’s strategic nuclear deterrent. Russian officials refuse to accept mere political declarations on such important issues. They claim the United States earlier violated such agreements when it enlarged NATO after the Cold War and moved NATO forces into former Soviet-bloc states. In contrast, they note that even when the United States withdrew from the Anti-Ballistic Missile Treaty in 2001, the predictable and legal manner in which the withdrawal was carried out reassured Putin and others in Moscow who opposed the U.S. decision. Russians also point out that political agreements lend themselves to different interpretations depending on who is viewing the issue. Although they do not seem to worry about another Obama presidency, they claim to fear that some future U.S. administration will try to expand U.S. missile defenses to be able to intercept Russian strategic missiles. These differences highlight the uncertain climate surrounding the nuclear arms control agenda, which is compounded by Russian concerns about U.S. space, cyber and other weapons. But progress could be possible in several other areas. First, Russians are eager to help counter nuclear terrorism through the mechanisms of the Nuclear Security Summit forums and the Global Initiative to Combat Nuclear Terrorism. Both countries want to revive the civilian use of nuclear power under safe and secure conditions, making sure that those countries now considering starting nuclear energy programs receive training and guidance on how to avoid accidents and protect the nuclear material at their facilities. Second, Russian-U.S. collaboration on regional proliferation challenges is important, since both countries are veto-wielding members of the U.N. Security Council. Russian officials are unlikely to accept any more U.N. sanctions on Iran given their different assessment of Iranian motives, unless incontrovertible evidence that Tehran is seeking a nuclear weapon emerges. But cooperation is possible regarding North Korea, where Russia and the United States share the goal of stabilizing the Korean Peninsula. Third, the Carnegie Endowment and other institutions have been developing a number of potential informal confidence and transparency-building measures that the two sides could pursue. These would help to lead toward a new strategic arms control treaty in a few years if the bilateral relationship improves, but could serve a valuable stabilizing function even without one. These measures include renewed efforts to expand the application of restrictions in the Intermediate Nuclear Forces Treaty and other bilateral arms control agreements to other countries, as well as measures to increase transparency regarding the capacity of each sides’ nuclear weapons-production complexes to construct new nuclear forces in any attempt to rapidly break out of a strategic arms control agreement. Finally, Russians are eager to work on civilian nuclear energy cooperation with the United States. The two sides’ recently ratified 123 agreement allows Russian and U.S. firms to cooperate to produce new types of civilian power reactors that would be less prone to proliferation than existing models. Such collaboration could prove very useful in helping develop new commercial stakeholders in both countries that have an interest in maintaining good Russian-U.S. relations. The economic relationship between Russia and the United States remains relatively undeveloped, since Americans buy Russia’s main exports -- oil, gas and weapons -- elsewhere, while various impediments hobble mutual investments. At present, the constituencies favoring strong bilateral ties in both countries are small, consisting mainly of arms control advocates and foreign policy experts. As a result, the Russian-U.S. agenda is still dominated by *Cold War*-type issues, including nuclear arms control, which position the two parties in an adversarial relationship. Only by moving away from this orientation can both sides begin to overcome the mutual confidence gap that *exacerbates* many of their other differences. Though Putin’s return to the presidency could augur a hard line on a number of issues where the U.S. and Russian positions diverge, his pragmatism and opportunism could lead to progress in the areas where the two sides’ interests overlap.

## Immigration

### Procure Now

#### TVA definitely producing SMRs now

Patterson 3/25

(Gene, Chanel 6 news reporter in Knoxville Tennessee, “Nuclear power advancements in Virginia could come to Tennessee” http://www.wate.com/story/21790592/nuclear-power-advancements-in-virginia-could-come-to-tennessee)

A new generation of nuclear reactors called SMRs could be producing power in the U.S. within the next ten years.¶ A lot of it though will depend on what happens on the Clinch River in Oak Ridge.¶ It is there that manufacturer Babcock and Wilcox, the Tennessee Valley Authority, and the Department of Energy have partnered to build the nation's first small modular reactor, an SMR.¶ A lot is at stake, and not just for the partners. Tennessee Valley consumers will be impacted too.

### Drones

#### Drones thumps

The Hill 3-24

“White House Moves to Let Pentagon take Over CIA armed Drones Sparks Concern,” <http://thehill.com/blogs/defcon-hill/policy-and-strategy/290049-white-house-plan-to-let-pentagon-take-over-cia-armed-drones-sparks-concern>

A White House plan to make the administration's armed drone program the sole domain of the Pentagon is creating concern among congressional lawmakers.¶ Senate Intelligence Committee Chairwoman Dianne Feinstein (D-Calif.) last week said lawmakers have closely monitored the intelligence community’s management of the drone program. She expressed confidence with the CIA’s handling of drone attacks, and questioned if the Defense Department (DOD) would exercise the same restraint with the controversial program.

### Guns

#### Guns thumps

The Frontrunner 3-26

“Obama to Campaign Across the Country for Gun Measures,” lexis

The Hill (3/26, Sink, 21K) reports President Obama "will hit the road to rally Senate support for new gun controls in coming weeks, seeking to frame upcoming votes on an assault weapons ban and universal background checks as tests of political courage for skittish Democrats." White House spokesman Josh Earnest said on Monday, "I do anticipate that you will see the president using the power of the bully pulpit, as you describe it, by traveling across the country a little bit and talking about some of these issues."

### PC Not Key

#### PC not key to immigration

Hirsch 2-7

Michael is Chief Correspondent for National Journal, “There’s no Such Thing as Political Capital,” <http://www.nationaljournal.com/magazine/there-s-no-such-thing-as-political-capital-20130207>

On Tuesday, in his State of the Union address, President Obama will do what every president does this time of year. For about 60 minutes, he will lay out a sprawling and ambitious wish list highlighted by gun control and immigration reform, climate change and debt reduction. In response, the pundits will do what they always do this time of year: They will talk about how unrealistic most of the proposals are, discussions often informed by sagacious reckonings of how much “political capital” Obama possesses to push his program through.¶ Most of this talk will have no bearing on what actually happens over the next four years.¶ Consider this: Three months ago, just before the November election, if someone had talked seriously about Obama having enough political capital to oversee passage of both immigration reform and gun-control legislation at the beginning of his second term—even after winning the election by 4 percentage points and 5 million votes (the actual final tally)—this person would have been called crazy and stripped of his pundit’s license. (It doesn’t exist, but it ought to.) In his first term, in a starkly polarized country, the president had been so frustrated by GOP resistance that he finally issued a limited executive order last August permitting immigrants who entered the country illegally as children to work without fear of deportation for at least two years. Obama didn’t dare to even bring up gun control, a Democratic “third rail” that has cost the party elections and that actually might have been even less popular on the right than the president’s health care law. And yet, for reasons that have very little to do with Obama’s personal prestige or popularity—variously put in terms of a “mandate” or “political capital”—chances are fair that both will now happen.¶ What changed? In the case of gun control, of course, it wasn’t the election. It was the horror of the 20 first-graders who were slaughtered in Newtown, Conn., in mid-December. The sickening reality of little girls and boys riddled with bullets from a high-capacity assault weapon seemed to precipitate a sudden tipping point in the national conscience. One thing changed after another. Wayne LaPierre of the National Rifle Association marginalized himself with poorly chosen comments soon after the massacre. The pro-gun lobby, once a phalanx of opposition, began to fissure into reasonables and crazies. Former Rep. Gabrielle Giffords, D-Ariz., who was shot in the head two years ago and is still struggling to speak and walk, started a PAC with her husband to appeal to the moderate middle of gun owners. Then she gave riveting and poignant testimony to the Senate, challenging lawmakers: “Be bold.”¶ As a result, momentum has appeared to build around some kind of a plan to curtail sales of the most dangerous weapons and ammunition and the way people are permitted to buy them. It’s impossible to say now whether such a bill will pass and, if it does, whether it will make anything more than cosmetic changes to gun laws. But one thing is clear: The political tectonics have shifted dramatically in very little time. Whole new possibilities exist now that didn’t a few weeks ago.¶ Meanwhile, the Republican members of the Senate’s so-called Gang of Eight are pushing hard for a new spirit of compromise on immigration reform, a sharp change after an election year in which the GOP standard-bearer declared he would make life so miserable for the 11 million illegal immigrants in the U.S. that they would “self-deport.” But this turnaround has very little to do with Obama’s personal influence—his political mandate, as it were. It has almost entirely to do with just two numbers: 71 and 27. That’s 71 percent for Obama, 27 percent for Mitt Romney, the breakdown of the Hispanic vote in the 2012 presidential election. Obama drove home his advantage by giving a speech on immigration reform on Jan. 29 at a Hispanic-dominated high school in Nevada, a swing state he won by a surprising 8 percentage points in November. But the movement on immigration has mainly come out of the Republican Party’s recent introspection, and the realization by its more thoughtful members, such as Sen. Marco Rubio of Florida and Gov. Bobby Jindal of Louisiana, that without such a shift the party may be facing demographic death in a country where the 2010 census showed, for the first time, that white births have fallen into the minority. It’s got nothing to do with Obama’s political capital or, indeed, Obama at all.¶ The point is not that “political capital” is a meaningless term. Often it is a synonym for “mandate” or “momentum” in the aftermath of a decisive election—and just about every politician ever elected has tried to claim more of a mandate than he actually has. Certainly, Obama can say that because he was elected and Romney wasn’t, he has a better claim on the country’s mood and direction. Many pundits still defend political capital as a useful metaphor at least. “It’s an unquantifiable but meaningful concept,” says Norman Ornstein of the American Enterprise Institute. “You can’t really look at a president and say he’s got 37 ounces of political capital. But the fact is, it’s a concept that matters, if you have popularity and some momentum on your side.”¶ The real problem is that the idea of political capital—or mandates, or momentum—is so poorly defined that presidents and pundits often get it wrong. “Presidents usually over-estimate it,” says George Edwards, a presidential scholar at Texas A&M University. “The best kind of political capital—some sense of an electoral mandate to do something—is very rare. It almost never happens. In 1964, maybe. And to some degree in 1980.” For that reason, political capital is a concept that misleads far more than it enlightens. It is distortionary. It conveys the idea that we know more than we really do about the ever-elusive concept of political power, and it discounts the way unforeseen events can suddenly change everything. Instead, it suggests, erroneously, that a political figure has a concrete amount of political capital to invest, just as someone might have real investment capital—that a particular leader can bank his gains, and the size of his account determines what he can do at any given moment in history.

### No PC

**No PC now**

**Vespa 3-22**

[Matt, Writer for NewsBusters, “CBS Political Director Now: Obama Shouldn't Agitate GOP; Back in January: 'Go For The Throat,' Mr. President” http://www.newsbusters.org/blogs/matt-vespa/2013/03/22/180-turn-cbs-political-director-says-obama-shouldnt-agitate-gop-said-go-]

Don't look for Dickerson's colleagues in the liberal media to examine this stunning reversal. Doing so would highlight that **Obama fatigue is slowly but surely setting in, not just in Washington but in the hinterland**. The **president won a second term, but he lacks the political capital to set the agenda on his terms. He cannot negotiate from a position of strength because he has none**. Dickerson now sees it, and surely others in the media do as well. The question is when will the media start to note openly that the emperor has no clothes.

**Parties Vote Based National Best Interest**

**Uniqueness Overwhelms the Link**

**Kroger 3-12**

Gregory is Associate Professor of Political Science at the University of Miami, “The Hastert Rule: It’s More like a Guideline,” <http://mischiefsoffaction.blogspot.com/2013/03/the-hastert-rule-its-more-like-guideline.html>

Last week the U.S. House passed a bill supported by a majority of the Democratic party and a minority faction of the Republican members, even though the Republicans are the majority party and control access to the House floor. This has occurred three times in the last three months:¶ Jan. 1, Extending and revising tax breaks, passed 257-167 (Dems 172-16; GOP 85-151)¶ Jan. 15, Hurricane Sandy Relief, passed 241-180 (Dems 192-1, GOP 49-179)¶ Feb. 28, Violence Against Women Act, passed 286-138 (Dems 199-0; GOP 87-138)¶ These are rare violations of the Hastert Rule, which states that bills should only come to the floor of the U.S. House if they are supported by "a majority of the majority." But the fact that these rare events occurred at all has sparked much consternation among political scientists seeking to understand these rare cracks in the House majority party's hegemony, and conservatives flabbergasted that the GOP party leaders are not blocking progressive legislation from the floor of the House.¶ The Logic of the Hastert Rule¶ The implicit premise of the Hastert rule is that the majority party in the U.S. House is best understood as an organizational conspiracy. Majority party members are expected to vote for their party's Speaker candidate (sorry, Seth), support the adoption of the majority-proposed chamber rules, and vote for the "special rules" that bring major bills to the House floor on terms dictated by the majority party. "Special rules" are as oxymoronic as they sound: each major bill gets its own set of debate terms as proposed by the Rules Committee. By buying into leaders that they may not love, rules and special rules that constrain them, the members of the majority party gain the power to keep bills off the floor entirely and to screen the amendments that come to a roll call vote.¶ The primary academic account of legislative parties as organizational conspiracies is provided by the research of Gary Cox and Mathew McCubbins. The theoretical basis of the Hastert rule is provided in chapter 3 of their 2005 book Setting the Agenda. Chapter 2 of the book, however, lays out the more fundamental logic of legislative parties: just win [elections], baby. **Parties are organizations striving to win elections by protecting and enhancing the "brand name" of the party**.¶ How do they do this? Usually, they try to keep their "sharpest conflicts" out of public view. The Hastert Rule is an expression of this goal: all else equal, the majority party looks bad when it brings up legislation that reveals its internal divisions. A vote that divides the members of the majority party is usually a tough vote, one that forces members to choose between their base constituencies and the general public (e.g. pro-life activists and the median voter), or between subconstituencies they do not wish to offend (e.g. Kansas Republicans voting on government payments to farmers).¶ Elections, not Policy¶ BUT: policy outcomes are secondary to the true goals of political parties. **While individual House members may be true conservatives and sincerely desire to implement conservative policies, this is not why the House Republican party exists. Its true purpose is to win elections. If it is in the electoral interests of the Republican party to bring up legislation opposed by most of the House GOP and allow it to pass, it is their job to do so**. **What kinds of bills are good for the GOP brand but unworthy of GOP members' votes?**¶ **must-pass legislation**, e.g. reauthorization bills, debt limit increases, and arguably the January 2013 tax deal. **Even if the members are disappointed by the outcome of bargaining with the Senate and White House, it is usually in their interest to allow these bargains to pass rather than bear responsibility for the chaos of blocking such bills.**¶Proposals advanced by the opposing party that are so popular--and marketed so effectively--that killing them would be more costly than letting them pass. Note that "letting the Wookiee win" can be a very effective electoral strategy because the majority party deprives its opposition of a major campaign issue. Possible case: minimum wage increase. ¶ **Proposals that are in the long term interests of the party coalition but not the short term interests of current majority party officeholders. Current example: immigration reform.**¶ At the same time, there are proposals that would get the support of most House Republicans but would NOT be in the political interests of the Republican party. At the risk of being uncharitable, it would seem from the 2012 cycle that eliminating the rape exception for an abortion could get the votes of many House GOP conservatives but be harmful to the party brand.¶ Still confused? Maybe a Venn diagram will help:¶ Ideally, the GOP leaders schedules bills from the intersection of the two circles. They probably have to deal with activists and interest groups who swear that their idea is in the intersection, and not just popular with conservatives. And if the Democrats are organized and strategic (that's an IF), they work to move their favorite proposals from outside the circles into the blue circle, so that the GOP either allows their bills to come to the floor (a win) or keeps popular legislation off the floor (also a win). But the lesson of the last three months is that there are bills in the blue circle outside of the intersection; sometimes it is in the electoral interests of the House GOP to let themselves lose.

### Link Turn and Shield

#### TVA avoids the link to politics

Barker 9 - reporter for the Knoxville News Sentinel

Scott, “Tennessee Gets a Lesson in Unaccountable Government,” WSJ, Proquest

The problem is that it isn't really accountable to anyone. It is not scrutinized by shareholders and, unlike traditional government agencies, it is self-funded, so it doesn't have to justify itself to Congress to win annual appropriations.¶ TVA is the nation's largest public utility, selling power to distributors that serve 8.8 million people and 650,000 businesses and industries in most of Tennessee and portions of Alabama, Georgia, Kentucky, Mississippi, North Carolina and Virginia. It runs three nuclear plants and scores of gas-turbine, coal-fired and hydroelectric power plants. Its revenues in 2008 were $10.4 billion.¶ Established in 1933, its New Deal mission, in a nutshell, was to modernize a backward nook of the country. TVA dammed the Tennessee River and its tributaries, created a series of reservoirs, and built coal-fired plants. The Kingston Fossil Plant was the largest in the world when it was completed at taxpayer expense in 1955.¶ In 1959, Congress forced the utility to pay for its energy production with the proceeds of electricity sales. In 1997, Congress cut off TVA's tax dollars completely after Duke Energy, Southern Company and others lobbied for the government to stop paying for the utility's environmental initiatives, economic development plans, and other nonpower programs. Except for lawmakers from states where it operates, Congress then pretty much forgot TVA existed.¶ California Democrat Sen. Barbara Boxer admitted as much in January. At a hearing on the Kingston spill, she apologized for ignoring the utility over the past two years -- she is head of the Environment and Public Works Committee, which is supposed to provide oversight of TVA.¶ But she isn't the only one in Washington who wasn't watching. The Federal Energy Regulatory Commission (FERC) regulates private power companies, but doesn't have jurisdiction over TVA. The Treasury Department oversees government-issued bond sales. But because TVA's bonds are backed up by its own power sales, there is little immediate concern in Washington with its debts. According to the Federal Emergency Management Agency, TVA, as a federal corporation, is exempt from emergency response protocols required of government agencies. A nine-member board of presidential appointees oversees a chief executive officer who runs TVA's day-to-day operations, but the board doesn't answer to a cabinet official. In practice, TVA reports to no one.

**A2: Debt**

#### No Debt impact- reserve currency and special status

O’Brein 3-7

Matthew is an associate editor at the Atlantic, “No, the United States Will Never, Ever Turn into Greece,” <http://www.theatlantic.com/business/archive/2013/03/no-the-united-states-will-never-ever-turn-into-greece/273748/>

Not all debt is created equal. Countries that borrow in a currency they control play under a different set of rules. They can never run out of money to pay back what they owe, since they can always print what they need as a last resort. That's not to say they actually do or should turn to the printing-press to finance themselves. But the option to do so calms markets. After all, inflation is a lot less bad than default for creditors. That's why it's no so easy for countries that don't borrow in a currency they control. They can default. And this is a case where thinking can make things so. Indeed, as Paul De Grauwe points out, countries that don't have their own central bank, like euro members, can fall victim to self-fulfilling panics that push them into bankruptcy. In other words, markets force up interest rates because they fear default -- which then pushes them into default. It's a bank-run on a country.¶ So we have to answer one big question. How much of Greenlaw & Co.'s results are driven by euro countries that have completely different debt dynamics than non-euro countries? ¶ Well, as Paul Krugman points out, 12 of the 20 countries they look at are either part of the euro, or, in Denmark's case, pegged to it. The remaining ones show no signs of anything resembling debt tipping points. Often the reverse. That's simple enough to see if we break up their sample. The chart below looks at the pre-crisis years from their sample, and shows the non-euro countries in red, the core-euro countries in green, and the (later) troubled PIIGS countries in blue. Back then, at least, there wasn't any difference between -- except for Japan, which had far more debt, and far lower borrowing costs. Nor was there much of any discernible relationship between debt and interest rates. But then Lehman failed, and the world changed. Debt went up and borrowing costs came down -- except for the PIIGS. I decided to go back and see what kind of results I'd get if I looked at the non-euro countries and PIIGS separately. I started by trying to recreate the Greenlaw & Co. result for the entire 20-country sample over the 12 years -- which I was able to do, with some very slight differences due to slightly different data sources. (I couldn't find IMF data on long-term interest rates for every country, so I used OECD data to fill in the blanks). Next, I ran a regression with country and time-fixed effects on the non-euro countries -- Australia, Canada, Japan, Norway, Sweden, Switzerland, the U.K., and the U.S. -- from 2000 to 2011. I got coefficients of .00743, .00575, and -0.0695 for gross debt, net debt, and current account, respectively. None of them were statistically significant at the 95 percent level. (The P>t values were 0.13, 0.18, and 0.087). ¶ To translate from stats-speak: our equation for non-euro countries tells us increasing debt by 1 percentage point of GDP only increases borrowing costs by 1.3 basis points. And that result isn't even statistically significant. In other words, there is no evidence of a debt tipping point for countries that borrow in money they can print.¶ But what about Europe's troubled economies? The Greenlaw & Co. results should hold up there, if nowhere else, right? Well, kind of. I ran another regression with country and time fixed effects on the PIIGS -- Portugal, Italy, Ireland, Greece, and Spain -- from 2000 to 2011, and I got coefficients of 0.0605, 0.0209, and -.8952 for gross debt, net debt, and current account. The coefficients for gross debt and the current account were statistically significant (the latter highly so), but not for net debt, since the PIIGS mostly have the same amount of gross and net debt. (The P>t values were 0.046, 0.342, and 0). I went back and ran the regression again, this time without net debt, and got coefficients of 0.0843 and -0.9157 for gross debt and the current account. Both were highly significant. (The P>t values were 0 for both).¶ Translated: our equation for the PIIGS tells us increasing debt by 1 percentage point of GDP increases borrowing costs by 8.4 basis points -- but increasing the current account deficit by 1 percentage point of GDP increases borrowing costs by 91 basis points! The PIIGS do have a serious problem, but that problem is borrowing too much from foreigners, not too much government borrowing, in general. Of course, this isn't exactly new information. Paul Krugman, among others, has been pointing out for years that the euro crisis is really a balance of payments crisis that just looks like a debt crisis because of the common currency.¶ \*\*\*¶ Beware economists bearing regressions -- and journalists too. My sample sizes here are so ridiculously small that the results are hardly dispositive. So don't pay attention to the evidence. Pay attention to the lack of evidence.¶ There isn't any evidence that the U.S., or other countries that borrow in currencies they control, face some debt tipping point after which borrowing costs spiral out of control. There isn't even much evidence this is true of Europe's troubled economies. Borrowing costs fell for § Marked 14:29 § the PIIGS in 2012 (one year after Greenlaw & Co.'s sample ended), not because those countries reduced their debt burdens, but because the ECB promised to do "whatever it takes" to save the euro. A monetary backstop matters more than the amount of debt. Reducing debt isn't as empirically urgent as we hear.¶ Our Greek chorus are more Chicken Littles than Cassandras.

## Russia DA

### Reprocessing

#### Reprocessing inevitable- European countries

Darin 3/11

(Paul, Writer for Epoch Times, “Nuclear Waste, Nuclear Recycling, and the US” http://www.theepochtimes.com/n2/united-states/nuclear-waste-nuclear-recycling-and-the-us-360682.html)

Other countries have dealt with nuclear waste in different ways. France, for example, ships their nuclear waste to reprocessing facilities where desirable elements like plutonium and uranium are separated and utilized. ¶ The great majority of nuclear waste consists of spent fuel rods. When other countries, including Italy and Germany, need to dispose of spent fuel rods, they send them to France’s specialized facility near the English Channel, where they sit and cool for about three years in a bath of demineralized water. Afterward, they are mechanically broken apart and dissolved in nitric acid, where the elements are separated. Undesirable elements, byproducts of the fission process including americium, curium, cadmium, and iodine, which are still very radioactive, are immobilized in thick logs of glass where they will sit for thousands of years before they are safe. ¶ “Old fuel in, new fuel out. A pretty elegant solution,” said Mike McMahon, according to The New York Times. McMahon is currently working at a French fuel fabrication facility so that he can bring the knowledge back to the states for prospective companies.

#### Reprocessing inevitable- China and Pakistan

Gertz 3/26

(Bill, Free Beacon, “China confirms nuclear deal with Pakistan”

China confirmed this week it will sell a new 1,000-megawatt nuclear reactor to Pakistan that the United States says would violate Beijing’s obligations under a nuclear supplier control group.¶ Chinese Foreign Ministry spokesman Hong Lei was asked Monday about a report in the Free Beacon March 22 that first disclosed the secret agreement for the reactor reached last month in Beijing between the China National Nuclear Corp. and the Pakistan Atomic Energy Commission.¶ “China has noted the relevant report,” Hong told reporters in Beijing.¶ Normally, Chinese government spokesmen deny such reports and label them “groundless” as a way to avoid comment. The spokesman’s use of the phrase “noted the relevant report” is unusual and a tacit admission the report is accurate.¶ U.S. intelligence and diplomatic officials privately said the agreement was reached in Beijing during a visit by a high-level Pakistani delegation of nuclear industry officials from Feb. 15 to 18.¶ The Chinese at the meeting urged Pakistan to keep the deal secret to avoid expected international opposition by states that say the sale violates China’s commitment to the Nuclear Suppliers Group, a 46-member association aimed at preventing the spread of nuclear weapons.¶ China agreed in 2004 not to sell additional reactors to Pakistan’s Chashma nuclear facility beyond the two reactors that began operating in 2000 and 2011.¶ However, Hong denied the sale violates the voluntary NSG guidelines.¶ “The cooperation between China and Pakistan does not violate relevant principles of the Nuclear Suppliers Group,” he said. “In recent years, China and Pakistan do indeed carry out some joint projects related to civilian use of nuclear energy. These projects are for peaceful purpose only, in compliance with the international obligations shared by both countries, and they are subject to guarantee and monitor by international atomic energy organization.”¶ However, U.S. intelligence officials said the China National Nuclear Corp. (CNNC) is Beijing’s main nuclear weapons producer and is working to modernize Pakistan’s nuclear arsenal in addition to the civilian reactor construction at Chashma.¶ China also is working to develop Pakistan’s nuclear fuel reprocessing capabilities, the officials said.

### DA Proper

#### Collapse inevitable

Brinded 1-25

Lianna, “WEF Paints Bleak Outlook for Russia's Economy,” <http://www.ibtimes.co.uk/articles/427882/20130125/wef-russia-report-oil-energy-vladimir-putin.htm>

In WEF's benchmark Scenarios for the Russian Federation report, the group outlined three scenarios for the Russian economy, which all paint a bleak outlook unless significant changes in its domestic institutional environment are made as the country's GDP is so closely tied to oil prices. Russia has enjoyed record growth rates and a dramatic rise in living standards for much of its urban population after the spectacular rise in oil prices from 2000 to 2008, in tandem with economic reforms of the early 2000s, fostered a more stable environment [Figure 1]. Despite being hit hard by the global economic crisis in 2008 and 2009, the country even managed to rebound from an 8 percent drop in the economy, within a couple of years. But as IBTimes UK detailed in December last year, Russia faces a drop in 2013 GDP to 2.5 percent, from 3.4 percent in 2012. Forecasts also detail a 1.6 percent rise in inflation to reach 6.7 percent by the end of this year for Russia. Supporting this, WEF says that this growth trajectory is not sustainable and significant challenges remain, particularly in reducing the country's strong reliance on its oil and gas exports and in revitalising the economy [Figure 2] "The price of oil and gas on global and regional markets, and developments in the global energy landscape more generally, are critical to Russia's future economic development. For the most part, Russia is a price-taker and cannot mould the global energy environment in which it operates nor the energy prices that ensue," says the report. "Yet a thorough analysis of the dynamics within the global energy landscape is important for Russia to maximise benefits while this external context is favourable, and prepare for less auspicious times in the future," it adds. (Pic: WEF Scenarios for the Russian Federation report) In each of its Three Scenarios for Russia [Figure 3], WEF identifies potential hazards for the country and says they can "be used to form new policies, new strategies and forging new connections, by freeing thought from past constraints." In one of the scenarios, WEF warns that "a sudden and sustained drop in oil prices creates a crisis in Russia's economic foundations that threatens the country's social stability. Paralysed by the threat of popular resistance to cutbacks in entitlements and social spending, the government is compelled to strengthen its hold on the economy, using state companies as vectors of social spending. "While compromising its fiscal position, Russia preserves at least the illusion of economic stability for most of its population. Eventually the sustainability of these measures comes into question and opens a range of uncertainties about the country's long-term economic future," it adds. However, WEF adds that if Russia does not reform its institutions and finances in times of growth, doing so will be near impossible at a time of crisis.

#### Falling prices cause diversification – it’s try or die

Gorst, writer for Financial Times, 12/14/2012

(Isabel, “EBRD to Russia: diversify,” <http://blogs.ft.com/beyond-brics/2012/12/14/ebrd-to-russia-diversify/#axzz2HH7AWJbz>)

Russia has talked a lot about economic diversification over the past two decades but it **has made little progress** in weaning itself off revenues from natural resources. A new report by the European Bank for Reconstruction and Development sets out recommendations that might stimulate industrial modernization and tries to make sense of Russia’s abiding addiction to oil.

Although diplomatically worded, the EBRD’s 88 page “Diversifying Russia” report published on Friday will make uncomfortable weekend reading for Vladimir Putin’s administration. Despite a series of high profile government initiatives to stimulate economic modernization, **Russia is more hooked on oil today than at any time over the last 15 years**.

As the report says:

Oil and gas now account for almost 70 per cent of total goods exports and the structure of exports has narrowed somewhat since the mid-1990s. Oil and gas revenues also contribute about half of the federal budget. The non-oil fiscal deficit has averaged more than 11 per cent of GDP since 2009, while the oil price consistent with a balanced budget is now in the region of $115 a barrel and rising. The economy also remains highly energy-intensive , not least because of the persistent under-pricing of energy seen until recently.

Delving into the problem, the EBRD report says Russia’s poor business environment, failures in the education system and a lack of skilled managers – exacerbated by restrictive immigration policies – have combined to stymy government efforts to modernise and kick its addiction to oil.

Russia is not the only oil-rich country facing such challenges. Indeed, possession of large oil and gas reserves is widely regarded as at best a mixed blessing and at worst a curse.

**Petro-economies are inherently vulnerable to boom bust cycles** driven by swings in world oil prices. Excessive reliance on natural resources tends to **corrode economic and political institutions and undermine the competitiveness of other sectors weakening productivity growth**.

Although the EBRD gives the Russian government credit for admitting the scale of the problem, the report warns that top down efforts to modernise are not the solution.

A series of government initiatives such as the creation in 2006 of Rusnano, the state nanotechnology company and, more recently, the Skolkovo innovation hub outside Moscow, have absorbed billions of dollars of public funds. But efforts might have been better directed into fostering education and skills and encouraging private investment in new industries.

Russia invests only 1 per cent of its GDP in research and development, lagging way behind developed countries. Multinationals, the biggest contributors to R&D in developed countries, are under represented in Russia largely because of the difficulty in finding qualified managers locally – a problem compounded by restrictive immigration policies that limit the hiring of highly-skilled foreign personnel.

The report urges Russia to improve its business climate by **reducing red tape** and **cracking down on bureaucratic rent seeking**:

Effective reform in this area is difficult, as it involves the state reforming itself – akin to a man pulling himself up by his own bootstraps. This is hard to achieve in any country, but is particularly difficult – as research shows – in countries with significant revenues from natural resources.

Erik Berglof, chief economist at the EBRD, said **a fall in oil prices could have beneficial side effects in Russia**, **stimulating the government to crank up the economic diversification drive**.

“**Russia will battle very strong head winds as long as oil prices are high**,” he told a breakfast meeting organized by the American Chamber of Commerce in Moscow on Friday. “It’s very frustrating. I have been involved in these discussions [about economic diversification] for two decades … A fall in oil prices would be an incentive.”

### Add On

#### And, U.S.-Russia nuclear cooperation would accelerate Rosatom’s nuclear modernization plans

Dewey et al ’10

(Taylor, Logan Ensign, Stanford University, Natalya Matytsyna, The Higher School of Economics, Polina Beresneva, Moscow State University, Stanford U.S. Russia Forum Journal 2009-2010, <http://joinsurf.com/news/62/16/SURF-2009-2010-Journal-Article-4-of-8>)

Russia is currently pursuing the strategy of expanding its global role as an energy provider. This role will necessitate expanding the domestic production of nuclear energy as a way of freeing up fossil fuels, particularly natural gas, for export. Inherent in this strategy is the expansion of Russia’s nuclear export business to transform Rosatom into a major player in the world nuclear energy market and Russia into the default country for nuclear fuel-cycle services. Russia’s interest in concluding a nuclear cooperation agreement with the United States is grounded, in large part, in its desire to implement this strategy. Although Russia is not dependent on obtaining access to US technology and is already actively pursuing its nuclear energy goals regardless, cooperation with the US could help to render Russia’s strategy more efficient. While Russia’s nuclear industry has been far more active than its US counterpart over the past several decades, there are still gaps in the Russian nuclear engineering chain and areas where US technical expertise could improve the outlook for Russian exports. This is especially true in the area of control and safety systems, known as automated control and technical processes (ACPS). To improve their ability to pursue nuclear exports in larger, more lucrative and more internationally acceptable markets, Russian officials and industry are increasingly interested in developing joint initiatives with the United States and other countries. In the past, China and other countries have asked that some reactors purchased from Russia be equipped with non-Russian made ACPS. Partnering with German and French companies appears to have helped Russian firms win bids to build two reactors in Bulgaria. Complete control systems cannot be exported from the United States unless the recipient or partner has a 123 Agreement in place. Beyond the export market, Russian officials have expressed interest in enhancing cooperation with US companies to increase the efficiency and safety of reactors already operating in Russia. In addition, the United States has valuable expertise in the area of reactor life extension. Russia is also eager to reduce the maintenance costs of its nuclear reactor operations. According to official Russian government projections, Russia’s nuclear operators are hoping to reduce their maintenance costs by 20 percent by the year 2015. The United States nuclear industry has already reduced its maintenance costs by almost half (from 3.4 to 1.68 cents/kilowatt hour) since the mid- 1980s. The US experience may be of real value as Russia works to meet its targets.

#### That’s key to Russia’s economy

World Nuclear News ’12

(“Russia speeds up nuclear investment”, 11-22-2012, http://www.world-nuclear-news.org/NP\_Russia\_speeds\_up\_nuclear\_investment\_2211121.html)

Russian leaders have affirmed the strategic and economic importance of nuclear technology to the country, announcing that spending will rise and a major development program will be accelerated.¶ Nuclear power was praised extensively by prime minister Dmitry Medvedev at Novovoronezh nuclear power plant yesterday when he chaired a special meeting on economic modernisation and innovation. Nuclear technology is one of Russia's leading industries, said Medvedev, with applications in all spheres of life: "the economy, the power industry, space exploration, aviation, medicine, agriculture, production of composite materials and informatics."¶ Accordingly, as the state nuclear corporation, Rosatom invests in research and development to the tune of RUB23 billion ($737 million) per year, as part of an annual state budget for nuclear programs of RUB60 billion ($1.9 billion). The head of Rosatom, Sergei Kiriyenko, told the meeting that plans foresee the figure for research and development reaching RUB42 billion ($1.3 billion) in 2020. This is about ten times its value in 2007 when the country began consolidating its nuclear activities within Rosatom. One key program for the country is being brought forward by a decade. Kiriyenko said the federal target program up to 2020 had been intended to demonstrate incoming fast reactor technology and associated fuel-cycle infrastructure by that date so that it can come into use by 2030. Now, he said, the goal is to have 'not individual elements' being demonstrated, 'but a full range' in operation by 2020.¶ Two months ago Rosatom confirmed a plan to install the pilot BREST-300 lead-cooled fast reactor at the Siberian Chemical Combine (SCC) at Seversk in the Tomsk region. This would also mean the construction of the first plant to make the reactor's dense nitride fuel elements. Plans would see the construction of this 300 MWe reactor start in 2016 so that it could generate power from 2020. It would be the forerunner of a nationwide series of 1200 MWe versions.¶ The SCC already hosts a uranium enrichment plant with capacity of 3 million separative work units per year that is able to handle uranium recovered from reprocessing. This is complimented by a mixed-oxide (MOX) fuel plant, while a uranium conversion plant is also being built and planned for operation after 2016 to meet all Russian demand.¶ 'We will gather everything at the site,' said Kiriyenko, referring to the SCC. He added that Rostom would soon ask the government for funding so that it can create an 'experimental circuit to close the nuclear fuel cycle', also to be set up at the SCC.¶ Rosatom's long-term strategy up to 2050 involves moving to inherently safe nuclear plants using fast reactors with a closed fuel cycle and MOX fuel. The country's federal target program envisages nuclear providing 45-50% at that time, with the share rising to 70-80% by the end of the century.

## Counterplan

#### The plan would build government-industry coordination between the U.S. and Russia

Pifer et al ’10 – brookings

(Steven, Joseph Cirincione, Clifford Gaddy, “Resetting U.S.-Russian Leadership on Nuclear Arms Reductions and Non-Proliferation”, Brookings Institution, January 2010, http://www.brookings.edu/~/media/research/files/papers/2010/1/us%20russia%20nuclear%20pifer/01\_us\_russia\_nuclear\_pifer.pdf)

Vice President Biden announced the Obama administration’s intention to reset relations with Russia in a February 7, 2009 speech to the Munich Security Conference. Reset thereafter became the watchword as the administration set about restoring a U.S.-Russian relationship that, by the end of 2008, had fallen to its lowest point since the collapse of the Soviet Union in 1991. During their first meeting in London on April 1, 2009, Presidents Obama and Medvedev discussed ways to build a more positive relationship. They attached particular importance to nuclear arms reductions and non-proliferation: “As leaders of the two largest nuclear weapons states, we agreed to work together to fulfill our obligations under Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and demonstrate our leadership in reducing the number of nuclear weapons in the world. We committed our two countries to achieving a nuclear free world… We agreed to pursue new and verifiable reductions in our strategic offensive arsenals in a step-by-step process… We intend to carry out joint efforts to strengthen the international regime for non-proliferation of weapons of mass destruction and their means of delivery… Together, we seek to secure nuclear weapons and materials, while promoting the safe use of nuclear energy for peaceful purposes.” 1 The focus on nuclear weapons is understandable. Detonation of a nuclear device in an American or Russian city would be a catastrophic event, to say nothing of the consequences of large-scale use of nuclear weapons in an inter-state conflict. The risk increases with the spread of nuclear weapons and the threat that they could fall into the hands of a terrorist group that might not be deterrable. It is difficult to imagine anything that would pose a greater threat to American national security. Broadened and sustained U.S.-Russian leadership on nuclear arms reductions and nuclear non-proliferation is necessary to strengthen global security and the NPT regime. As the United States and Russia control 95 percent of the world’s nuclear weapons, their efforts to enhance the NPT regime at the May 2010 NPT review conference will have little credibility if they are not reducing their nuclear arsenals. U.S.-Russian leadership on nuclear issues can also be good for the broader bilateral relationship between Washington and Moscow. U.S. and Russian interests coincide on many issues regarding nuclear non-proliferation, including finding ways to make civil nuclear energy available while minimizing the attendant proliferation risks. Expanding cooperation on these issues, including leading joint efforts in the non-proliferation field, can contribute to a more positive and cooperative bilateral relationship as well as reducing the risks of nuclear proliferation.

### China Add-On

#### Plan solves U.S.-China reprocessing cooperation

Lyons et al ‘9

(Blythe J. Lyons, John R. Lyman, Mihaela Carstei, and General Richard L. Lawson (USAF), “United States-China Cooperation On Nuclear Power: An Opportunity for Fostering Sustainable Energy Security”, Atlantic Council, 3-4/3-6 2009, <http://www.acus.org/files/publication_pdfs/65/AtlanticCouncil-USChinaNuclearPower.pdf>)

Cooperation on the development of advanced fuel cycle technologies, already underway in U.S.-China working groups, will provide significant opportunities to share rather than duplicate knowledge and funding. Generation IV (Gen IV) international collaboration on R&D is necessary and beneficial for all participants to share costs, facilities and experience. Specific fuel cycle R&D opportunities proposed by the State Nuclear Power Technology corporation (SNPTC) include the following: Advanced fuel, such as mixed oxide (MOX) fuel, and metal fuel; Transmutation technology, such as fast reactor and accelerator driven systems; Reprocessing technologies, such as MOX spent fuel reprocessing, dry processing, on-site recycle; and, Repository design technology. 14 . The Generation IV International Forum (GIF) will provide a good framework to deal with intellectual property issues. If prototype or demonstration plants were to be built under the aegis of the GIF, it could also provide experience in dealing with legal and regulatory issues. Issues such as design ownership, who would build the facility, cost sharing would have to be addressed. As countries have vested interests in certain types of technologies, resolution of such issues may be difficult. • • • 15 . The Global Nuclear Energy Partnership (GNEP): The U.S., which led the way in establishing the international collaborative effort to develop proliferation-resistant technologies and institutions, should take advantage of its leadership position to nurture and expand GNEP’s international activities. As in GIF, there are advantages to sharing technical expertise and pooling financial resources. GNEP is already in place and the Obama Administration can take advantage of the years of effort it took to set up the framework for international collaboration while adapting GNEP goals to current realities and domestic nuclear development policies. Consistency in U.S. nuclear energy policies, especially in relation to international efforts, is crucial to foster global acceptance of a safe, secure and sustainable nuclear power. The Chinese participants signaled their desire to improve both government-to-government cooperation and commercial sector ties. It appears that the U.S. government is equally interested in working with China to tackle the overarching challenges of developing a safe and secure commercial nuclear fuel cycle. By supporting and participating in this Dialogue, U.S. industry and government participants have demonstrated their commitment to dealing with the challenges to realize the burgeoning nuclear trade between the two countries.

#### Solves U.S.-China relations

Gardner and Rascoe 11

(Timothy Gardner and Ayesha Rascoe, “Clean energy seen as ‘bright spot’ in U.S.-China relations”, Reuters, 1-19-2011, <http://www.reuters.com/article/2011/01/19/us-usa-china-energy-idUSTRE70H5WB20110119>)

Cooperation on clean energy could be a high point in U.S.-China relations leading to benefits for both countries, government and business officials said ahead of a summit between Chinese President Hu Jintao and President Barack Obama. Disputes between the world's two largest economies and energy consumers over China's wind power subsidies and its slowdown in exports of rare earths minerals, used in everything from wind turbines to cell phones, have dominated headlines in recent months. The countries are also having wider arguments. The United States says China's currency, the yuan, is undervalued and Washington is pushing Beijing for help in persuading North Korea to abandon nuclear weapons. But with rising concerns about oil prices, now above $90 a barrel, energy security, and global warming, officials said the world's biggest developed country and the biggest developing country have much to learn from each other. Progress can be made on sharing technologies on efficiency, cleaner coal, and development of renewables like wind and solar power, they said. As China tries to transform its economy from the manufacturing of cheap goods into one developing and distributing sophisticated technologies, such as clean energy, spats over intellectual property rights have already troubled trade relations between the two countries. But pressure on both countries to reduce greenhouse gas emissions and reel in fossil fuel demand may push them to overcome these differences. Still, China's Minister of Science and Technology Wan Gang said at a forum on U.S-China clean energy cooperation hosted by the Brookings Institution that common interests between the two countries make clean energy an issue ripe for nurturing close ties. "I'm sure that this is one of the best points of convergence and cooperation between our two countries, and will be one of the bright spots in our future cooperation," Wan said on Tuesday.

#### Prevents extinction

Wittner 11 – professor of history emeritus at SUNY Albany

(Lawrence Wittner, Huffington Post World, 11-30-2011, <http://www.huffingtonpost.com/lawrence-wittner/nuclear-war-china_b_1116556.html>)

While nuclear weapons exist, there remains a danger that they will be used. After all, for centuries international conflicts have led to wars, with nations employing their deadliest weapons. The current deterioration of U.S. relations with China might end up providing us with yet another example of this phenomenon. The gathering tension between the United States and China is clear enough. Disturbed by China's growing economic and military strength, the U.S. government recently challenged China's claims in the South China Sea, increased the U.S. military presence in Australia, and deepened U.S. military ties with other nations in the Pacific region. According to Secretary of State Hillary Clinton, the United States was "asserting our own position as a Pacific power." But need this lead to nuclear war? Not necessarily. And yet, there are signs that it could. After all, both the United States and China possess large numbers of nuclear weapons. The U.S. government threatened to attack China with nuclear weapons during the Korean War and, later, during their conflict over the future of China's offshore islands, Quemoy and Matsu. In the midst of the latter confrontation, President Dwight Eisenhower declared publicly, and chillingly, that U.S. nuclear weapons would "be used just exactly as you would use a bullet or anything else." Of course, China didn't have nuclear weapons then. Now that it does, perhaps the behavior of national leaders will be more temperate. But the loose nuclear threats of U.S. and Soviet government officials during the Cold War, when both nations had vast nuclear arsenals, should convince us that, even as the military ante is raised, nuclear saber-rattling persists. Some pundits argue that nuclear weapons prevent wars between nuclear-armed nations; and, admittedly, there haven't been very many -- at least not yet. But the Kargil War of 1999, between nuclear-armed India and nuclear-armed Pakistan, should convince us that such wars can occur. Indeed, in that case, the conflict almost slipped into a nuclear war. Pakistan's foreign secretary threatened that, if the war escalated, his country felt free to use "any weapon" in its arsenal. During the conflict, Pakistan did move nuclear weapons toward its border, while India, it is claimed, readied its own nuclear missiles for an attack on Pakistan. At the least, though, don't nuclear weapons deter a nuclear attack? Do they? Obviously, NATO leaders didn't feel deterred, for, throughout the Cold War, NATO's strategy was to respond to a Soviet conventional military attack on Western Europe by launching a Western nuclear attack on the nuclear-armed Soviet Union. Furthermore, if U.S. government officials really believed that nuclear deterrence worked, they would not have resorted to championing "Star Wars" and its modern variant, national missile defense. Why are these vastly expensive -- and probably unworkable -- military defense systems needed if other nuclear powers are deterred from attacking by U.S. nuclear might? Of course, the bottom line for those Americans convinced that nuclear weapons safeguard them from a Chinese nuclear attack might be that the U.S. nuclear arsenal is far greater than its Chinese counterpart. Today, it is estimated that the U.S. government possesses over 5,000 nuclear warheads, while the Chinese government has a total inventory of roughly 300 . Moreover, only about 40 of these Chinese nuclear weapons can reach the United States. Surely the United States would "win" any nuclear war with China. But what would that "victory" entail? An attack with these Chinese nuclear weapons would immediately slaughter at least 10 million Americans in a great storm of blast and fire, while leaving many more dying horribly of sickness and radiation poisoning. The Chinese death toll in a nuclear war would be far higher. Both nations would be reduced to smoldering, radioactive wastelands. Also, radioactive debris sent aloft by the nuclear explosions would blot out the sun and bring on a "nuclear winter" around the globe -- destroying agriculture, creating worldwide famine, and generating chaos and destruction. Moreover, in another decade the extent of this catastrophe would be far worse. The Chinese government is currently expanding its nuclear arsenal, and by the year 2020 it is expected to more than double its number of nuclear weapons that can hit the United States. The U.S. government, in turn, has plans to spend hundreds of billions of dollars "modernizing" its nuclear weapons and nuclear production facilities over the next decade. To avert the enormous disaster of a U.S.-China nuclear war, there are two obvious actions that can be taken. The first is to get rid of nuclear weapons, as the nuclear powers have agreed to do but thus far have resisted doing. The second, conducted while the nuclear disarmament process is occurring, is to improve U.S.-China relations. If the American and Chinese people are interested in ensuring their survival and that of the world, they should be working to encourage these policies.

### Uranium

#### Plan solves uranium importation

**Humi ’11 –** professor at Worcester Polytechnic University

(Mayer Humi, professor at Worcester Polytechnic, “Assessment of Alternative Energy Technologies and Recommendations for a National Energy Policy”, Interactive Qualifying Project Report by undergraduates, 3-9-2011, http://www.wpi.edu/Pubs/E-project/Available/E-project-030811-183047/unrestricted/Assesment\_of\_Alternative\_Energy.pdf)

Once the Uranium has been used in the nuclear reactor until it is deemed as depleted, no longer have the U-235 concentration to undergo fission, the spent fuel rods are placed in on-site water tanks for several years. Even though the Uranium is no longer undergoing fission, it is still emanating heat from the radioactive elements decaying that were created as a result of the fission process. The water pools not only cool the rods, but also protect plant operators from any radiation from the decay occurring. As of 2002, there were 165,000 depleted fuel rod assemblies, stored at 70 locations in the U.S. 76 This is a major concern in the U.S. as our current nuclear waste policy does not allow for reprocessing/recycling of the spent fuel. In 1977, President Carter announced, “We will defer 30 indefinitely the commercial reprocessing and recycling of plutonium produced in the U.S. nuclear power programs.” 77 At the time the rationale was based upon India testing a nuclear weapon made from weapons-grade fuel produced from a civilian energy plant. The movement to eliminate the possibility of further nuclear war was not followed by the rest of the world. Later the Nuclear Waste Policy Act of 1982 would be placed into effect, the result of which is a direct disposal of commercial reactors and government defense waste and research. 78 As a result of President Carter’s decision to no longer recycle/reprocess nuclear waste, the only means of disposal is storage. A majority of depleted nuclear fuel is stored at the nuclear power plant for several years, after which time it could then be moved to a dry cask storage container with air-cooling for further on-site storage, they are typically special concrete or steel containers. The final step in the U.S. is to collect the on-site storage depleted fuel rods and transport them to a permanent underground repository. There is currently no satisfactory location for this within the U.S. To date there is 60,000 metric tons of commercial used fuel, 13,000 tons of government held used fuel and defense-related high level radioactive waste, and 2000 metric tons produced by the 104 nuclear power plants currently in operation in the U.S. 79 With the primary storage being on-site a permanent storage facility needs to be found, or the policy for reprocessing/recycling needs to be revisited so that future Uranium does not need to be imported. “Owners and operators of U.S. civilian power reactors purchase the equivalent of 53 million pounds [24,000 metric tons] of uranium during 2008.” 80 In 1987 congress amended the Nuclear Waste Policy Act such that the only site for the Department of Energy to conduct a characterization of the geology of Yucca Mountain, Nevada. The site seemed promising as a deep geological repository for high level nuclear waste, as it contains volcanic ash material that is believed to be suitable to store radioactive waste for hundreds of thousands of years required to make radiation levels of the waste projected to be disposed there safe. High opposition in the state of Nevada made any plans to place a facility in the mountains very difficult and as of 2009 the site was deemed unacceptable by the Obama administration, 81 funding was cut to the project in the 2010 budget.31 The other nuclear waste management site currently located in the U.S. is the Waste Isolation Pilot Plant. It has been in operation since 1999, and is licensed to dispose of transuranic waste and mixed waste generated from the Department of Defense. Transuranic waste consists of radioactive waste with chemical elements that have atomic numbers past Uranium (92). Waste is placed 2150 feet below the surface of the earth in a 3000 foot thick salt formation which has been stable for 250 million years. The site is located in the Salado and Castile Formations 26 miles east of Carlsbad, New Mexico in Eddy County. The site has a permit to dispose of waste for 10,000 years that has been left from research and the production of nuclear weapons. 82 As with crude oil, nuclear power is a limited resource with Uranium as the basis of the energy production as opposed to oil. In contrast, Uranium is semi-renewable in that once the Uranium rods have been depleted by the fission they can then be re-enriched or used in a breeder reactor which produces more nuclear fuel than it consumes. As mentioned above the U.S. does not partake in the reusing of nuclear waste due to the concerns for creation of nuclear weapons observed in other countries.

#### U.S. uranium dependence causes nuclear war

**Konstantiov 12 –** professor of math at Moscow State and member of numerous scientific/geological councils

(Mihail Konstantiov, Professor of Mathematics with the University of Architecture, Civil Engineering and Geodesy (UACEG), Bulgaria, Vice-Chancellor of UACEG (1999-2003), Member of scientific councils and commissions, Member of the Board of IICREST. He has authored 30 books and over 500 scientific papers. He has participated in international scientific projects of EU and NATO and realized research and lecturing visits in British, German and French universities. Prof. Konstantinov has been Member and Vice Chair of the Central Election Commission of Bulgaria and Voting coordinator of OSCE (1997-) as well as the Bulgarian representative at the Council of Europe on electronic voting. In addition to his scientific publications, he has authored more than 300 articles in Bulgarian editions devoted to social and political issues with emphasis on election practice and legislation., “Uranium time bomb ticking”, Europost, 2-11-2012, http://www.europost.bg/article?id=3763)

In 1945, the US had three nucle­ar bombs - two plu­to­ni­um-based devi­ces and a ura­ni­um-based one. The first one was det­o­nat­ed on a test site in New Mex­i­co, and the sec­ond and third ones over Jap­a­nese ter­ri­to­ry. On 6 August 1945, the then-only ura­ni­um-based bomb was thrown over the Jap­a­nese city of Hiro­shi­ma. What hap­pened is well known and I will not re-tell it. More­over, this sto­ry deals with nucle­ar weap­ons but they are not the main char­ac­ters. Almost 20 years ago, an agree­ment was inked under which the US under­took to help dis­man­tle Rus­sian nucle­ar war­heads and con­vert the ura­ni­um from them into fuel for nucle­ar reac­tors. The rea­son is sim­ple - the pro­ce­dure is expen­sive, Rus­sia was weak and poor at the time, and in addi­tion, Amer­i­can tech­nol­o­gy back then was sig­nif­i­cant­ly ahead of the Rus­sian one. The amounts of con­vert­ed ura­ni­um are mas­sive - more than 500 ton­nes. Thus Rus­sian ura­ni­um turns into fuel for US nucle­ar pow­er plants. At present, this fuel is used to pro­duce 10% of the elec­tri­cal pow­er in the US. This is more than the ener­gy pro­duced from renew­a­ble sour­ces, such as sun, wind and water, there. This idyll, how­e­ver, is com­ing to its end. First, the US-Rus­sia agree­ment for Rus­sian war­heads con­ver­sion expires next year and Rus­sia is high­ly unlike­ly to extend it. More­over, Rus­sians now have good tech­nol­o­gy for that pur­pose and will prob­a­bly want to leave their ura­ni­um for them­selves. And sec­ond, if the agree­ment is extend­ed, the amounts of war­heads sub­ject to dis­man­tling will soon be exhaust­ed any­way as the agreed lim­its are reached. Glob­al mar­kets have already start­ed sus­pect­ing what is going to hap­pen with the expir­ing US-Rus­sia agree­ment for war­head ura­ni­um. And not only with it. Indeed, ura­ni­um oxide pri­ces have gone wild sur­ging to almost $70/lb (1lb is 454 gr.) in Jan­u­ary this year from $40/lb in Sep­tem­ber 2011. Such a 70% ral­ly in ura­ni­um price over just 3-4- months is not sus­tain­a­ble and even a cer­tain edg­ing down can be expect­ed. Still, the **trend** is clear - ura­ni­um dearth is loom­ing, as well as dearth of oth­er stra­te­gic nat­u­ral resour­ces. We have repeat­ed­ly stat­ed this but let us under­score it again. The glob­al cri­sis is **most of all** a resource cri­sis. It is finan­cial inso­far as it has became clear that the sys­tem allow­ing some peo­ple to print mon­ey while oth­ers work and bring them oil and oth­er goods will not last for good. The antic­i­pat­ed ura­ni­um short­age in the com­ing dec­ade is tru­ly strik­ing and is esti­mat­ed at 500m lb! One of the rea­sons is the fast devel­op­ing econ­o­mies of Chi­na and India, along with oth­er coun­tries like Bra­zil and Tur­key. It is where the bulk of the 147 reac­tors expect­ed to become oper­a­tion­al in these 10 years will be locat­ed. **A major consum­er** of ura­ni­um, the US cur­rent­ly has a demand for 60m lb a year but pro­du­ces only 3m lb. Still, this is the way things are at present. And what will hap­pen aft­er the US Nucle­ar Reg­u­la­to­ry Com­mis­sion reviews and poten­tial­ly approves new nucle­ar reac­tor pro­pos­als? They are 26 or so. And more are in the pipe­line. The sit­u­a­tion in India is even more dra­mat­ic - an increase in the share of nucle­ar ener­gy in elec­tric­i­ty pro­duc­tion is expect­ed from 2.5% at present to 25%. In oth­er words, India will need 10 times as much ura­ni­um as it does now if the far-reach­ing plan is put to prac­tice. Chi­na has more hum­ble aspi­ra­tions and is gear­ing to raise the share of nucle­ar facil­i­ties in elec­tric­i­ty pro­duc­tion only ...three times. And Chi­na, much like the US, does not have suf­fi­cient domes­tic sup­ply. We can con­tin­ue with sta­tis­tics, but things are evi­dent any­way. A war is around the cor­ner. In the best-case sce­nar­io, this will be a price war over ura­ni­um and in par­tic­u­lar ura­ni­um oxide. Pri­ces in the order of $100 or even $200/lb no longer seem far-fetched. Price lev­els of $500-$1000-$2000/lb have even been men­tioned and this will have its swift and dras­tic impli­ca­tions. Still, if a reac­tor costs $4bn, why not pay $1000/lb of ura­ni­um? Or else, the 4-bil­lion invest­ment will go down the drain. Anoth­er explod­ing glob­al mar­ket is the one for rare earth ele­ments with hard-to-pro­nounce Lat­in names such as Neo­dym­i­um, Ceri­um, Lan­tha­num, Gal­li­um, Gado­lin­i­um, Thu­li­um… If we have a look at Men­de­leev's peri­od­ic table, they are squeezed some­where at the bot­tom. But then, all the elec­tron­ics around us, all com­put­ers, fibre optics, all sat­el­lites and in gen­er­al every­thing under­ly­ing our high-tech civ­il­i­za­tion would be utter­ly impos­si­ble but for these exot­ic hard-to-extract ele­ments. The price of each of them has dou­bled and tri­pled in a year alone. And the pri­ces of some of them have soared six­fold in the same peri­od. Com­pared with rare earth ele­ments, gold and plat­i­num are like a tame kit­ten. It nat­u­ral­ly eats and swells but at a rate of only up to 40% a year. And what about the lith­i­um under­ly­ing the idea of elec­tric vehi­cles stag­ing a mass entrance into our dai­ly life and econ­o­my if and when oil is exhaust­ed? But it is in rare ele­ments where the secret of future skir­mish­es over resour­ces lies. Because across the world, they are real­ly hard to extract but Chi­na holds 97% of their glob­al pro­duc­tion! No mis­take, Chi­na pro­du­ces 33 times as much rare met­als as the rest of the world. This may as well be changed some day as cur­rent­ly huge efforts and mon­ey are put into look­ing for rare met­als around the globe. Hypo­thet­i­cal­ly, only a third of the res­erves is in Chi­na with the oth­er two thirds lying some­where else. Too bad it is any­one's guess where, although Cana­da, South Afri­ca and some Afri­can coun­tries are con­sid­ered prom­is­ing in this regard. Still, for the time being this is how things are: Chi­na has almost every­thing and the rest of the world hard­ly any­thing. Does any­one have any doubts why Chi­na has the ambi­tion to become the top dog? Of course, the world is by no means tread­ing water in one oth­er respect: sub­sti­tute tech­nol­o­gies are sought for that would not be so crit­i­cal­ly depend­ent on rare earth ele­ments, yet, more in the long rath­er than short run. By the way, why are we dis­cuss­ing ura­ni­um pri­ces along with all oth­er sorts of pri­ces in US dol­lars? The answer is clear: because the dol­lar is the glob­al reserve cur­ren­cy. The rea­son for this, though, is more com­pli­cat­ed. True, the US is the larg­est econ­o­my for the time being. But it is also among the most indebt­ed coun­tries in the world. And its debt is increas­ing­ly sur­ging. Still, this is not the most impor­tant. The most impor­tant thing is that the US has the most pow­er­ful, most mobile and one of the most effect­ive armies in the world. Lit­tle like­ly is it for some­one to reject the US dol­lar as a reserve cur­ren­cy while the 82nd Air­borne Divi­sion of the US Army, based at Fort Bragg North Car­o­li­na, is the holy ter­ror it is at the moment. And there is much more to it than the 82nd Divi­sion. So the time bomb of ura­ni­um and rare earth ele­ments dearth is tick­ing. And lit­tle idea do we have of the time it is set for. Or wheth­er, when it final­ly goes off, some­body might remem­ber the first mas­sive appli­ca­tion of ura­ni­um, which turned thou­sands into ash­es some 67 years ago. **And be temp­ted to use it again**. For 67 years now, we have been show­ing rea­son and sur­viv­ing. Let us hope fierce defi­cien­cy of nat­u­ral resour­ces, food and water that is loom­ing will not take it away from us.

## Japan

### ENR not Key

#### 123 agreements are prolif-resistant enough—no ENR pledge not key

McGoldrick 10

Fred McGoldrick, CSIS, spent 30 years at the U.S. State and Energy Departments and at the U.S. mission to the IAEA, negotiated peaceful nuclear cooperation agreements with a number of countries and helped shape the policy of the United States to prevent the spread of nuclear weapons, 11/30/10, The U.S.-UAE Peaceful Nuclear Cooperation Agreement: A Gold Standard or Fool’s Gold?, http://csis.org/files/publication/101130\_McGoldrick\_USUAENuclear.pdf

Finally, while we have many ways to promote nonproliferation objectives, one important nonproliferation tool that we cannot afford to lose is our ability to enter into peaceful nuclear cooperation agreements with other countries. This capability, among others, has allowed the United States to promote widespread acceptance of nonproliferation norms and restraints, including international safeguards and physical protection measures and the NPT. U.S. agreements for cooperation in peaceful nuclear energy with other states require strict nonproliferation controls that go beyond those of other suppliers, such as consent rights on reprocessing, enrichment, and storage of weapons-usable materials subject to our agreements. They also provide a framework for establishing invaluable person-to-person and institution-to-institution contacts and collaboration that can help advance our nonproliferation objectives.

###  Obama Won’t Do

#### Your authors assume measures supported by nonprolif cred advocates—not what Obama would do

Grossman 12

Elaine Grossman, Global Security Newswire, 1/12/12, U.S. Nuclear Trade Talks with Vietnam, Jordan Moving Forward, www.nti.org/gsn/article/us-nuclear-trade-talks-vietnam-jordan-moving-forward/

Nonproliferation proponents have argued that the United States should advocate in nuclear trade negotiations with nations such as Vietnam, Jordan and potentially Saudi Arabia that any agreement contain a pledge not to enrich uranium or reprocess plutonium on their territory. ¶ These activities are useful for civil energy programs but could also open the door to the clandestine development of nuclear weapons, if a nation opts to move in that direction. ¶ The United Arab Emirates volunteered in its 2009 atomic trade pact with Washington to renounce a right to enrich or reprocess, but the Obama administration has been reluctant to necessarily demand this type of “no-ENR” pledge from every other cooperative-agreement partner with whom it negotiates.

### 1NC- Japan Prolif Frontline

#### Alliances and deterrence check japan prolif

Hughes ’7

(Llewelyn, poly sci phd candidate at MIT, International Security, CSIS and MIT, April, lexis)

Japan's status as a nonnuclear weapons state remains of ongoing interest to policy analysts and scholars of international relations. For some, Japanese nuclearization is a question not of whether but of when. This article reassesses the state of the evidence on the nuclearization of Japan. It finds that support in Japan for the development of an independent nuclear deterrent remains negligible. Evidence demonstrates that ministries and agencies with responsibility for foreign and security policy have sought to consolidate Japan's existing insurance policies against nuclear threats--multilateral regimes and the extension of the U.S. nuclear deterrent to Japan--rather than seeking an indigenous nuclear deterrent.

#### Technical constraints cripple Japan’s nuclear capabilities- no risk of rapid rearm

Kamiya ‘3

Matake, Assoc. Prof of IR @ Japan University, Winter, “Nuclear Japan…” <http://www.twq.com/03winter/docs/03winter_kamiya.pdf>,)

Those who emphasize the potential for Japan to go nuclear in the foreseeable future argue that, of all the elements required to be a nuclear power, the only one that Japan lacks is the will. The proponents of this view are mistaken, however, because Japan currently has only latent, not immediate, nuclear capability. In other words, even if Japan decided to build its own nuclear arsenal tomorrow, it could not achieve that goal overnight. First, Japan has intentionally avoided acquiring the necessary weapons grade plutonium to make bombs; Japan’s plutonium stockpile consists only of reactor-grade plutonium. Although some kind of small-scale nuclear bomb production with reactor-grade plutonium may be possible, experts generally agree that bomb production with this kind of plutonium involves an extremely dangerous technological process and that such bombs are likely to be too unstable and too militarily unreliable to be deployed as actual warheads. In fact, no country has ever tried to produce nuclear weapons with reactor-grade plutonium. If Japan decided to develop its own nuclear weapons, it would surely choose to do so with weapons-grade plutonium because the process would be much easier, safer, and cheaper. The amount of weapons-grade plutonium, however, that Japan could obtain from existing nuclear power plants would be limited. For a major power such as Japan, having a small number of nuclear warheads is militarily meaningless. A militarily meaningful nuclear arsenal would require production of hundreds of warheads, which would first necessitate that Japan spend at least a decade constructing new facilities to extract the grand amount of weapons- grade plutonium required.23 These facts clearly demonstrate that Japan’s plutonium program and its plutonium stockpile are unrelated to the possibility of nuclearization. Japan’s acceptance of comprehensive International Atomic Energy Agency (IAEA) safeguards further assures that Japan operates its plutonium program strictly for peaceful purposes. Moreover, since 1994, Japan has disclosed specific figures on its plutonium stock as part of its effort to promote the transparency of the country’s nuclear-fuel recycling program, to help assuage any inevitable suspicion of Japanese intentions. The second technological hurdle that Japan must clear before claiming to possess a militarily meaningful nuclear arsenal entails ballistic missile development.

§ Marked 14:44 §

 For Japan, tactical nuclear weapons would be useless in practical terms; as an island nation, it would find few meaningful targets for such weapons. But Japan would have to devote many years to developing a ballistic missile program before achieving deployment capability. Among other difficulties, converting Japan’s H-2 rocket into a form for military use is not realistic. Liquid oxygen and liquid hydrogen, the fuels used to power Japan’s H-2, must be maintained at extremely low temperatures. Because maintaining the huge H- 2 at these temperatures for extended periods of time is practically impossible, technicians must first cool the H-2’s fuel tanks before they are filled, shortly before launch, a process that requires at least a few hours. Finally, Japan lacks the technology necessary to build an accurate inertial guidance system and the reentry mechanisms that are essential for ballistic missiles. Even if Japan technologically mastered ballistic-missile development, its small physical size (in territorial square miles) would still make it vulnerable to a first strike. Land-based missiles on such a small territory would not ensure a retaliatory capability, and air-launched missile systems would not nec essarily receive adequate warning time to allow the deploying aircraft to scramble to secure locations. Japan would have to deploy submarines to possess a credible second-strike capability. For that purpose, Japan would be faced with building nuclear engines as well as an extensive terrestrial or satellite communications grid to support their activities. The time needed for Japan to make this extensive list of technological strides can more realistically be measured in decades than years. In conclusion, for all its latent nuclear potential, Japan is not capable now, nor will it be anytime soon, of going nuclear quickly. The likelihood that Japan would secretly pursue nuclear weapons development without the world knowing about it, even if Japan had the desire, is minimal. Japan is an open society; all of its nuclear power activity is subject to IAEA regulation; and it is practically incapable of surmounting all the technological hurdles without international assistance.

# 1AR

## Russia

#### Gas shipments are already being diverted from the US---Russia is in trouble

Riley 12, professor of energy law at The City Law School at City University London, 12/31, <http://www.thehindu.com/opinion/op-ed/the-shale-revolutions-shifting-geopolitics/article4256348.ece>

The incentives to develop shale oil and natural gas are very great. But so far, the United States has only experienced the first stage of low natural-gas prices and the reimportation of energy intensive industries such as chemicals and steel because of low gas prices. The next stage of the shale revolution’s impact is going to be felt as major stimulus gets under way from lower oil prices. More broadly, the shale revolution will grant the United States a greater range of options in dealing with foreign states.¶ For the Europeans, the shale revolution is also largely positive. A greater variety of gas supplies from liquefied natural gas **originally destined for the U**nited States has been dumped in European markets; by 2020, shale gas in the form of liquefied natural gas is likely to begin arriving in Europe in significant quantities, and there is also the prospect of some domestic shale gas becoming available. Europe will also benefit from the second stage of the shale revolution as oil prices come under pressure.¶ However, American self-sufficiency in oil is of greatest concern to the European Union. The danger is that the United States will no longer have any direct interest in ensuring supply flows out of the Gulf. At the very least this will mean that Washington is likely to demand greater European investment in its own energy security. One option for the European Union is to develop natural gas transportation as an energy security hedge. This would also increase pricing pressure on oil producers.¶ About China¶ China has even greater incentives to develop its shale gas resources. According to the U.S. Energy Department’s Energy Information Administration, the country’s recoverable resources are larger than those of the United States at 36 trillion cubic meters. The main geostrategic reason for Beijing to develop shale gas for transportation is that the U.S. Navy controls the Pacific and most Chinese oil arrives by tanker. Large-scale use of natural gas for transportation would protect China from much of the effect of a U.S. blockade.¶ By contrast, **the outlook for Russia** and Saudi Arabia **seems bleak**. As the decade progresses, shale will be developed worldwide and natural gas infrastructures will be constructed. It is difficult to see how the markets will avoid dropping oil prices.

#### China fills in

Levine 9/24/12

Steve, Quartz’s Washington correspondent, writes about the intersection of energy, technology and geopolitics, a juncture of some of the most important and quickly developing events and trends on the planet. LeVine teaches the subject as an adjunct professor in Georgetown University’s Security Studies Program in the Graduate School of Foreign Service. He is a Schwartz Fellow at the New America Foundation. LeVine comes to the beat after 18 years as a foreign correspondent in the former Soviet Union, Afghanistan, Pakistan and the Philippines, where he wrote for The Wall Street Journal, The New York Times, the Financial Times, and Newsweek. Most recently, LeVine founded and ran The Oil and the Glory, a blog on energy and geopolitics at Foreign Policy magazine. He is the author of two books: The Oil and the Glory, a history of oil told through the 1990s-2000s oil rush on the Caspian Sea; and Putin’s Labyrinth, a profile of Russia through the lives and deaths of six Russians, “Five ways a new age of cheap energy could shift the power balance on the planet,” <http://qz.com/3416/five-ways-a-new-age-of-cheap-energy-could-shift-the-power-balance-on-the-planet-2/>, AM

On current industry forecasts, global energy consumption should rise by some 39% by 2030, and China alone will account for about 40% of the jump. But two things could change China’s energy consumption enough to alter the geopolitical status quo. One, according to Bernstein, is if the Chinese economy weakens so much that GDP growth drops below 4.5% (though it hasn’t been even close to that low in more than 20 years), and oil consumption drops with it. Second, China could simply change its fuels mix. Right now it burns a lot of coal, and will account for two thirds of the global growth in coal-burning through 2030, according to the BP Statistical Review. But the country is already shifting towards gas-burning power plants, and that could happen faster if gas gets cheaper, as it very well could. Asian liquefied natural gas (LNG) is the most expensive in the world by far—$17 and more per 1,000 cubic feet compared with about $3 in the US. A vast new natural gas supply will flow into Asia in the 2020s from east Africa, and possibly the United States, Cyprus and Israel. That could push down Asian gas prices, and be a tipping point for China to cut its use of coal much faster. Domestic politics could especially motivate China to embrace this cheaper gas. Public protests have been growing over air and water pollution, in part caused by the burning of coal and oil. On current trends, that pollution is going to get considerably worse, and so might the unrest. The Communist Party first decreed a reduction of emissions in 2005, partly because of the political fallout. Now, China’s rulers are doing “everything they can” to reduce CO2, among other pollution, says David Fridley, a scientist in the China Energy Group at Lawrence Berkeley National Laboratory. The impact of China’s reducing its oil consumption and CO2 emissions would be far reaching. The OPEC countries would weaken, as would their rulers’ grip on power. The global economy would surge, as energy-consuming countries right their balance of payments thanks to lower energy prices across the board. And slower-growing CO2 emissions are a geopolitical impact in themselves, since global warming affects the economics, the way of life and even the very survival of certain nations.

### SMR

#### SMR’s revive the American nuclear industry.

Loudermilk 11

(Micah J. Loudermilk is a Research Associate for the Energy & Environmental Security Policy program with the Institute for National Strategic Studies at National Defense University, “Small Nuclear Reactors and US Energy Security: Concepts, Capabilities, and Costs” Journal of Energy Security, May 2011, <http://www.ensec.org/index.php?option=com_content&view=article&id=314:small-nuclear-reactors-and-us-energy-security-concepts-capabilities-and-costs&catid=116:content0411&Itemid=375>, SEH)

In recent years, though the “renaissance” has yet to occur, thinking on the nuclear power development front has begun to shift away from traditional gigawatt-plus reactors and towards a new category of small modular reactors (SMRs). Boasting an unprecedented degree of reactor safety and multiple applications in the power-generation process, these reactors could revolutionize the nuclear power industry and contribute to US energy security while also reviving the flagging American nuclear industry. Though they have yet to be built and deployed, years of SMR research, including a two-decade experiment with the Experimental Breeder Reactor-II (EBR-II), a 20 MWe reactor at Argonne-West in Idaho, demonstrate the potential of such technology.

#### Waste confidence rule/NRC regs don’t prevent new reactor licensing

Milmoe 7/6/12

(Cornelius Milmoe is a lawyer and nuclear energy expert who has worked in the government and private sector. “Hope Is Not Enough: The Path to Waste Confidence” July 6, 2012 at 2:00 pm <http://blog.heritage.org/2012/07/06/hope-is-not-enough-the-path-to-waste-confidence/>, TSW)

The ruling means that hope is not enough to provide reasonable assurances of waste removal, so the NRC must conduct impact studies for new reactor licenses.¶ Moving forward, the NRC has several options to respond to the court’s remand:¶ Appeal. It seems unlikely that any court would rehear the case, since the NRC offered no assurance that the waste would be removed.¶ Conduct studies. Anti-nuclear groups have petitioned the NRC to abandon the WCD approach and conduct waste impact studies before approving any licenses. The WCD was intended to express confidence that waste will be removed. Jaczko, the update proponent, seems to have endorsed this approach. But studies could interfere with existing and pending licenses. Studies won’t provide assurances of removal. A repository license would.¶ Rely on the NWPA. The NWPA did not exist when the courts required the WCD. Whether good or bad policy, the NWPA is the law, and it mandates federal responsibility for waste disposal at Yucca subject to an NRC license. A WCD that assumes that the Department of Energy (DOE) and NRC will implement the NWPA mandates is a more reasonable assurance of removal to an offsite repository than the remanded update, which assumed that the agencies would defy the NWPA.¶ Forget the update. The court vacated the WCD update but not the existing WCD. So the NRC could issue reactor licenses based on the existing WCD without any “update” or studies. In 2009, former NRC chairman Dale Klein warned that it was a mistake for the NRC to update the WCD until the Yucca controversy is resolved. Klein’s recommendation is better than Jaczko’s.¶ Restart Yucca. As long as the outcome of the Yucca license remains in doubt, the NRC should not update the WCD based on speculation about what Congress and DOE might do. The court has rejected that approach. Restarting the Yucca licensing proceeding would provide a solid basis for waste confidence; justify continuation of the nuclear waste fee, prevent actions in the courts and Congress that disrupt reactor and repository licensing, and restore trust in the integrity and independence of the NRC.

## Immigration

### No Cyber War

**Impossible—defense systems air gapped and private ones resilient**

**Weimann‘4** (Gabriel, senior fellow, United States Institute of Peace, Professor of Communication, University of Haifa, Israel, December (Cyberterrorism: How Real Is the Threat?, Special Report, United States Institute of Peace, p. http://www.usip.org/ pubs/specialreports/sr119.pdf)

Many computer security specialists believe it is virtually impossible to use the Internet to inflict death on a large scaleand scoff at the notion that terrorists would bother trying. The resilience of computer systems to attack, they point out, isno accident but rather the result of significant investments of time, money, and expertise. Nuclear weapons and other sensitive military systems enjoy the most basic form of Internet security. They are "air-gapped," meaning that they are not physically connected to the Internet and are therefore inaccessible to outside hackers. The Defense Department has been particularly vigilant in protecting key systems by isolating them from the Internet and even from the Pentagon's internal computer network. All new software must be submitted to the National Security Agency for security testing.

**Uq O/W Immigration**

**Immigration inevitable- 2016 field**

**Chait 3-19**

Jonathan is a commentator for New York Magazine and Former Senior Editor at the New Republic, “GOP Candidates Form Pro-Immigration Cartel,” <http://nymag.com/daily/intelligencer/2013/03/gop-candidates-form-pro-immigration-cartel.html>

Rand Paul has always supported immigration reform in general, but he is delivering a speech today forcefully advocating reform in a manner that would seem to block off any potential avenue for retreat. What makes this more interesting is that Paul has been openly floating a presidential campaign. And **immigration reform is** probably **going to shape** the **2016** Republican presidential campaign, **and the presidential campaign will** in turn help **determine the fate of immigration reform**.¶ Here is the lay of the land. **The Republican Party’s leadership has collectively decided** that **its political future requires the party to support immigration reform. Republicans made a similar calculation under George W. Bush, but a conservative grassroots revolt killed the legislation. Now the party elite is attempting to tamp down a potential revolt and allow a bill to pass**.¶ Almost certainly there will be some kind of conservative revolt. Stirring of it could be heard at CPAC, where figures like Jim DeMint, Donald Trump, and Ann Coulter issued fiery denunciations. What’s interesting is that, as of now**, anti-reform conservatives have no standard bearer. All** of **the major 2016 figures** — Paul, Marco Rubio, Jeb Bush, Paul Ryan, Scott Walker — support comprehensive reform. Somebody will surely emerge to represent the conservative base in an open field, but so far the political marketplace has not supplied a candidate to fill that anticipated demand.¶ Instead, the field looks a lot like a kind of cartel. **All of the major candidates support reform, so none of them can undercut each other by appealing to anti-reform sentiment**. Whichever candidate eventually emerges to speak for the anti-reform base — and one will; the lure of a mass followership and free time on Fox News is too great to pass up — will probably be a Herman Cain–esque huckster running a protest race rather than a serious candidacy.¶ **And that potential dynamic, in turn, will shape the prospects for the passage of a** bill. The key factor in passing a law is for leading Republicans in Congress, especially Rubio, to stay solid in their support. They’ll continue to support a bill as long as they feel secure that fellow Republicans won’t attack them as an Obama-loving sellout willing to let hordes on Mexicans pour forth over the border. If figures like Rubio look around and see other Republicans edging for the exits, they’ll in turn beat a retreat.¶ As of now, though, **all the 2016 contenders can support a bill in the anticipation that their major rivals will be locked in to the same stance.** The most plausible vehicle for a grassroots insurgent candidacy was Paul, who had harnessed his father’s grassroots appeal with shrewd cultivation of the party elite. **With Paul signed up with the pro-reform cartel, nobody is going to make Rubio, Bush, or Ryan nervous**, **which means there’s little right now to stop a bill from passing the House this summer.**

**Republicans have to do it**

**Khimm 3-19**

Suzy is a Budget and Economy reporter for the Washington Post, “Five Reasons Why Immigration Reform is Moving Forward,” <http://www.washingtonpost.com/blogs/wonkblog/wp/2013/03/19/five-reasons-why-immigration-reform-is-moving-forward/>

2) **Republicans have a political imperative to keep things moving: Top strategists from both parties agree that the tide really began to turn after Election Day**, when it became clear that Republicans lost the vast majority of Hispanic and Asian voters. While there’s certainty a desire to pass immigration reform because on its policy merits, “**it’s also driven by survival**,” says Kevin Madden, a former Romney adviser. “**If we don’t change on this issue the party is going to lose its ability to grow.”**

### UQ O/W A2: Temporary Workers

#### It’s passing- temporary workers are irrelevant

Politico 3-27

“Immigration Talks Back on Track, Union Says,” <http://www.politico.com/story/2013/03/immigration-talks-back-on-track-union-says-89398.html?hp=r3-> Quotes Avendano who is immigration chairperson of the AFL-CIO

Avendaño likened the Republican proposal that included three bands where two-thirds of new workers would be paid below the median wage as “congressionally sanctioned poverty.”¶ But on Wednesday, Avendaño said she expects Congress to move forward on a bill regardless of whether the Chamber of Commerce and labor unions can reach a deal on the future flow of low-skilled workers.¶ “There is momentum — and I would argue it is unstoppable momentum — on getting a bill done and details are not going to hold up this bill,” Avendaño said. “We are going to see something and we will see what happens during the political process.”¶ She said a temporary worker program shouldn’t be necessary for lawmakers to take up comprehensive immigration reform legislation — a position that puts her at odds with Senate Republicans, who insist that any bill include such a program.¶ “It is the call for legalization that is driving this whole process and anything that distracts from that is really either irrelevant or is certainly not strong enough to be able to support the momentum behind this bill,” Avendaño said.

### AT Funding Links

#### No link and turn – TVA is self-funded but *returns* cash to the government

TVA 12

“Budget Proposal and Management Agenda, http://www.tva.com/abouttva/pdf/budget\_proposal\_2013.pdf

TVA is a corporation of the federal government. TVA is self-funded almost entirely from the sale of electricity and ¶ financings that provide capital for the power program. Additionally, TVA makes annual returns to the U.S. Treasury ¶ on the government’s original $1.4 billion appropriated investments in the power program. Through fiscal year (FY) ¶ 2013, TVA expects to have returned approximately $3.7 billion, including interest, to the U.S. Treasury. ¶ TVA sells electricity wholesale to 155 local power distributors and sells power directly to large industries and ¶ government entities. As the nation’s largest public power system, TVA is committed to meeting the region’s growing ¶ needs for reliable, affordable, and environmentally-sound energy. The power system includes three licensed nuclear ¶ sites, eleven coal-fired sites, twenty-nine conventional hydroelectric sites, twelve natural gas and/or oil fired sites, two ¶ diesel generator sites, and one pumped storage hydroelectric site. TVA’s renewable energy program, Green Power ¶ Switch®, includes fourteen solar sites, one wind-energy site, one digester gas site and biomass co-firing capability at ¶ one of its coal-fired sites. In FY 2013, TVA expects sales of about 161 billion kilowatt-hours of electricity.