# Wake – Round 2 vs. Samford MT (Aff)

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### Inherency

#### Observation One: Inherency

#### Nuclear renaissance now – US subsidizing the industry

Worthington 12 (David Worthington, February 9, 2012, The U.S. nuclear renaissance has begun , Smart Planet, <http://www.smartplanet.com/blog/intelligent-energy/the-us-nuclear-renaissance-has-begun/13058>) JD

There are cooling towers on the horizon in the United States. The nuclear renaissance is slated to begin in rural Georgia with new reactors being built over the next five years, and work is already underway to leap another generation ahead. The Nuclear Regulatory Commission (NRC) today announced that it has granted licenses to a consortium of utilities to erect two [Westinghouse AP 1000](http://www.ap1000.westinghousenuclear.com/) reactors at Southern Company’s existing Vogtle site, clearing a path to end a decades long hiatus in new construction. Westinghouse’s design incorporates passive cooling, which extends the duration under which a reactor can operate safely without outside intervention in the event of a disaster. The AP 1000 is classified as Generation III+ reactor. Generation III+ reactors have more [redundant systems](http://www.smartplanet.com/blog/intelligent-energy/americas-nuclear-future/6946) than older reactor designs. Those include emergency cooling systems, a double containment system, and an ashtray like cooling area to capture molten fuel in the event of a meltdown. Existing U.S. nuclear reactors require active cooling such as electric water pumps. Japan’s Fukushima used active cooling, and its reactors melted down last spring when external power was unavailable. There are a total of 104 nuclear plants in the U.S today that are dependent upon active cooling. The meltdown risk associated with those legacy reactors and the high capital requirements of nuclear power are some of the reasons why no new reactor has been built in the U.S since the late 1970’s, when the 1979 Three Mile Island incident soured public sentiment. For now, anti-nuclear sentiment has been marginalized. The U.S. is energy hungry and nuclear power is receiving generous government subsidies. The Vogtle reactors would power up to 1 million homes at a cost of US$14 billion, CNN [reported.](http://money.cnn.com/2012/02/08/news/economy/nuclear_reactors/index.htm?hpt=hp_t3)

#### But, the US is not reversing course on reprocessing.

Saillan 10 (Charles, attorney with the New Mexico Environment Department, Harvard Environmental Law Review, 2010, “DISPOSAL OF SPENT NUCLEAR FUEL IN THE UNITED STATES AND EUROPE: A PERSISTENT ENVIRONMENTAL PROBLEM”, Vol. 34, RSR)

The U.S. government’s position on reprocessing changed in 1974 when India exploded a nuclear weapon in the state of Rajasthan. 150 The weapon’s plutonium was isolated with reprocessing equipment imported for “peaceful purposes.” 151 Rightly concerned about the dangers of nuclear proliferation, President Ford announced that the United States would no longer view reprocessing as a necessary step in the nuclear fuel cycle. He called on other nations to place a three-year moratorium on the export of reprocessing technology. 152 In 1977, President Carter indefinitely deferred domestic efforts at reprocessing and continued the export embargo. 153 Although President Reagan reversed the ban on domestic reprocessing in 1981, 154 the nuclear industry has not taken the opportunity to invest in the technology. In 2006, the George W. Bush Administration proposed a Global Nuclear Energy Partner ship (“GNEP”) for expanded worldwide nuclear power production. 155 As a key component of the GNEP proposal, the United States would provide other nations with a reliable supply of nuclear fuel, and it would take back the spent fuel for reprocessing at a commercial facility in the United States, thus avoiding the spread of reprocessing technology. 156 However, the Obama Administration substantially curtailed GNEP in 2009, and is “no longer pursuing domestic commercial reprocessing.” 157

### Observation 2

#### Observation Two: Waste

#### In the short term US nuclear waste is stored on-site.

Galbraith 11 (Kate, Staff Writer, “A New Urgency to the Problem of Storing Nuclear Waste”, New York Times, 11-27-11, http://www.nytimes.com/2011/11/28/business/energy-environment/a-new-urgency-to-the-problem-of-storing-nuclear-waste.html, RSR)

Other countries are also looking at waste in new ways in the post-Fukushima world. Right now, worldwide, most spent fuel waste is stored on the site of the facility that produced it, in spent-fuel pools and, after it eventually cools, dry casks. Experts say dispersed storage is expensive and that central storage would be more secure. Few countries , apart from Sweden and Finland, have moved forward on centralized disposal sites, deep in the earth, designed to hold the waste permanently. France is evaluating a permanent disposal site for spent fuel , near the remote northeastern village of Bure.

#### On-site storage is dangerous – storage pools are vulnerable to accidents.

Alvarez 12 (Robert, Senior Scholar at IPS, where he is currently focused on nuclear disarmament, environmental, and energy policies, “Improving Spent-Fuel Storage at Nuclear Reactors”, Winter, ISSUES IN SCIENCE AND TECHNOLOGY, RSR)

Until the NAS completes its study, if it agrees to do so, the bulk of current attention is focused on the NRC’s analysis of the Fukushima disaster. As in Japan, U.S. spent-fuel pools are not required to have defense-in-depth nuclear safety features. They are not covered by the types of heavy containment structures that cover reactor vessels. Reactor operators are not required have backup power supplies to circulate water in the pools and keep them cool in the event of onsite power failures. Reactor control rooms rarely have instrumentation keeping track of the pools’ water levels and chemistry. (In one incident at a U.S. reactor, water levels dropped to a potentially dangerous level after operators simply failed to look into the pool area.) Some reactors may not have the necessary capabilities to restore water to pools when needed. Quite simply, spent-fuel pools at nuclear reactors are not required to have the same level of nuclear safety protection as required for reactors, because the assumption was that they would be used only for short-term storage before the rods were removed for reprocessing or permanent storage. In its interim report, the NRC task force recognized these shortcomings and recommended that the NRC order reactor operators to: • “. . . provide sufficient safety-related instrumentation, able to withstand design-basis natural phenomena, to monitor key spent fuel pool parameters (i.e., water level, temperature, and area radiation levels) from the control room.” • “. . . revise their technical specifications to address requirements to have one train of onsite emergency electrical power operable for spent fuel pool makeup and spent fuel pool instrumentation when there is irradiated fuel in the spent fuel pool, regardless of the operational mode of the reactor.” • “. . . have an installed seismically qualified means to spray water into the spent fuel pools, including an easily accessible connection to supply the water (e.g., using a portable pump or pumper truck) at grade outside the building.” Improving pool safety is certainly important. For decades, nuclear safety research has consistently pointed out that severe accidents could occur at spent-fuel pools that would result in catastrophic consequences. A severe pool fire could render about 188 square miles around the nuclear reactor uninhabitable, cause as many as 28,000 cancer fatalities, and cause $59 billion in damage, according to a 1997 report for the NRC by Brookhaven National Laboratory. If the fuel were exposed to air and steam, the zirconium cladding around the fuel would react exothermically, catching fire at about 800 degrees Celsius. Particularly worrisome are the large amounts of cesium-137 in spent-fuel pools, because nearly all of this dangerous isotope would be released into the environment in a fire, according to the NRC. Although it is too early to know the full extent of long-term land contamination from the accident at the Dai-Ichi station, fragmentary evidence has been reported of high cesium-137 levels as far away as metropolitan Tokyo. The NRC also has reported that spent-fuel fragments were found a mile away from the reactor site. The damage from a large release of fission products, particularly cesium-137, was demonstrated at Chernobyl. More than 100,000 residents from 187 settlements were permanently evacuated because of contamination by cesium-137. The total area of this radiation-control zone is huge: more than 6,000 square miles, equal to roughly two-thirds the area of New Jersey. During the following decade, the population of this area declined by almost half because of migration to areas of lower contamination.

#### The densely packed fuel is enough to trigger a full scaled meltdown – Fukushima proves.

Kinitisch 11 (Eli, Reporter at Science Magazine, “Waste Panel Expected To Back Interim Storage”, Science Magazine, Vol. 333, 7-8-11, RSR)

In any case, experts agree, some new plan for waste storage is essential. Waste currently stored in pools and casks at U.S. sites does not pose “unmanageable … safety or security risks,” says a subcommittee report. But every ton that stays at reactor sites makes those risks slightly greater. Fuel in U.S. spent fuel pools is packed four times as densely as it was 25 years ago, raising concerns about the risk of explosions or meltdown if the pools were to empty in an accident. The tsunami that devastated the Fukushima nuclear plant in Japan in March may have resulted in a loss of water in one of its ponds (Science, 1 April, p. 24). A draft commission report says the issue of the safety of keeping fuel densely packed in pools should be “reexamined,” although “it is still too early to draw deﬁ nitive conclusions” from the Fukushima accident. It calls for an expert panel at the National Academies to tackle the subject.

#### These catastrophic meltdowns cause extinction – reactors contain 100x the radiation of nuclear bombs.

Lendman 11 (Stephen, Research Associate of the Centre for Research on Globalization,

03/ 13, “Nuclear Meltdown in Japan,”, The People’s Voice <http://www.thepeoplesvoice.org/TPV3/Voices.php/2011/03/13/nuclear-meltdown-in-japan>, accessed 8-2-12, RSR)

Reuters said the 1995 Kobe quake caused $100 billion in damage, up to then the most costly ever natural disaster. This time, from quake and tsunami damage alone, that figure will be dwarfed. Moreover, **under a worst case** core **meltdown, all bets are off as the entire region and beyond will be threatened with permanent contamination**, making the most affected areas unsafe to live in. On March 12, Stratfor Global Intelligence issued a "Red Alert: Nuclear Meltdown at Quake-Damaged Japanese Plant," saying: Fukushima Daiichi "nuclear power plant in Okuma, Japan, appears to have caused a reactor meltdown." Stratfor downplayed its seriousness, adding that such an event "does not necessarily mean a nuclear disaster," that already may have happened - the ultimate nightmare short of nuclear winter. According to Stratfor, "(A)s long as the reactor core, which is specifically designed to contain high levels of heat, pressure and radiation, remains intact, the melted fuel can be dealt with. If the (core's) breached but the containment facility built around (it) remains intact, the melted fuel can be....entombed within specialized concrete" as at Chernobyl in 1986. In fact, that disaster killed nearly one million people worldwide from nuclear radiation exposure. In their book titled, "Chernobyl: Consequences of the Catastrophe for People and the Environment," Alexey Yablokov, Vassily Nesterenko and Alexey Nesterenko said: "For the past 23 years, it has been clear that there is a danger greater than nuclear weapons concealed within nuclear power. **Emissions from** this **one reactor** exceeded a hundred**-fold the radioactive contamination of** the bombs dropped on **Hiroshima and Nagasaki.**" "**No** citizen of any **country** can be assured that he or she **can be protected from radioactive contamination. One nuclear reactor can pollute half the globe.** Chernobyl fallout covers the entire Northern Hemisphere." Stratfor explained that if Fukushima's floor cracked, "it is highly likely that the melting fuel will burn through (its) containment system and enter the ground. This has never happened before," at least not reported. If now occurring, "containment goes from being merely dangerous, time consuming and expensive to nearly impossible," making the quake, aftershocks, and tsunamis seem mild by comparison. Potentially, millions of lives will be jeopardized. Japanese officials said Fukushima's reactor container wasn't breached. Stratfor and others said it was, making the potential calamity far worse than reported. Japan's Nuclear and Industrial Safety Agency (NISA) said the explosion at Fukushima's Saiichi No. 1 facility could only have been caused by a core meltdown. In fact, 3 or more reactors are affected or at risk. Events are fluid and developing, but remain very serious. The possibility of an extreme catastrophe can't be discounted. Moreover, independent nuclear safety analyst John Large told Al Jazeera that by venting radioactive steam from the inner reactor to the outer dome, a reaction may have occurred, causing the explosion. "When I look at the size of the explosion," he said, "it is my opinion that there could be a very large leak (because) fuel continues to generate heat." Already, Fukushima way exceeds Three Mile Island that experienced a partial core meltdown in Unit 2. Finally it was brought under control, but coverup and denial concealed full details until much later. According to anti-nuclear activist Harvey Wasserman, Japan's quake fallout may cause nuclear disaster, saying: "This is a very serious situation. **If the cooling system fails** (apparently it has at two or more plants), the super-heated **radioactive fuel rods will melt**, and (if so) you could conceivably have an explosion," that, in fact, occurred. As a result, **massive radiation releases may follow**, impacting the entire region. "**It could be**, literally, **an apocalyptic event.**

#### On-site waste storage is the EASIEST target for a terrorist attack – it’s the most vulnerable.

Rogers 6 (Ken, Professor and Chair of the Political Science Department at Coastal Carolina University, “Radioactive Waste Storage/Disposal Policy: A Paradigm for Homeland Security and Energy Security”, Midsouth Political Science Review, 2006, Vol. 8, RSR)

The inability of U.S. policymakers to come to grips with the problem of what to do with the continued generation of radioactive waste has both homeland security and energy security implications. Clearly, the events of 9/11 have focused attention on the potential for a terrorist attack on nuclear facilities. While much of this concern has been directed towards an attack on the reactors themselves, the radioactive waste stored on-site – especially the waste stored outdoors above ground in dry casks – is more problematic since it is far more vulnerable to any terrorist assault. Thus, the major terrorist threat to nuclear power facilities is not to the reactors, but the radioactive waste that they generate.

#### On site storage vulnerable to terrorist theft – fewer security measures due to assumed radioactive safeguards.

Bunn 9 (Matthew, Associate Professor at Harvard University's John F. Kennedy School of Government, “Reducing the greatest risks of nuclear theft & terrorism”, Daedalus, American Academy of Arts and Sciences, Fall, RSR)

A building with nuclear material that terrorists could readily make into a nuclear bomb needs more security than a building with lower-quality material that would be very difficult for adversaries to use to make a bomb. But this sensible “graded safeguards” approach, used in national regulations and international recommendations around the world, must avoid slipping into what might be called “cliffed safeguards,” in which security falls off catastrophically if nuclear material is beyond some arbitrary threshold that has little relation to real risk. For example, under current Nuclear Regulatory Commission (nrc) rules in the United States, nuclear material that would normally require security measures costing millions of dollars a year requires none of that if it is radioactive enough to cause a radiation dose of one Sievert per hour at one meter– a level considered radioactive enough to make the material “self-protecting.” But studies at the national laboratories have shown that at this level of radiation, thieves who carried the material out to a waiting truck with their bare hands would not even receive a big enough dose of radiation to make them feel sick. In a world of suicidal terrorists, these rules–and similar, though less extreme, international rules– urgently need to be revised. More broadly, in-depth assessments of how different chemical, physical, isotopic, and radiological properties of a material affect the odds that adversaries would succeed in making a bomb from it should be used to determine how much security can be relaxed for particular types of material while keeping overall risks low. In making these assessments, it is important to remember that heu at enrichment levels far below the 90 percent U-235 level considered “weapons grade” can still readily be used in a bomb, at the cost of using somewhat more material. So past policies that have focused cooperative security upgrades only on sites whose heu is at least 80 percent U-235 should certainly be revised. Similarly, while weapons designers prefer weapons-grade plutonium, produced specifically to contain 90 percent or more Pu-239, the “reactor grade” plutonium produced in the spent fuel from typical power reactors can also be used to make fearsome explosives, despite the extra neutrons, heat, and radiation generated by the less desirable plutonium isotopes it contains. Indeed, repeated government studies have concluded that any state or group capable of making a bomb from weapons-grade plutonium would also be able to make a bomb from reactor-grade plutonium. 6

#### Nuclear terrorism is likely and causes extinction – security experts agree.

Rhodes 9 (Richard, affiliate of the Center for International Security and Cooperation at Stanford University, Former visiting scholar at Harvard and MIT, and author of “The Making of the Atomic Bomb” which won the Pulitzer Prize in Nonfiction, National Book Award, and National Book Critics Circle Award, “Reducing the nuclear threat: The argument for public safety” 12-14, <http://www.thebulletin.org/web-edition/op-eds/reducing-the-nuclear-threat-the-argument-public-safety>, RSR)

The response was very different among nuclear and national security experts when Indiana Republican Sen. Richard Lugar surveyed PDF them in 2005. This group of 85 experts judged that the possibility of a WMD attack against a city or other target somewhere in the world is real and increasing over time. The median estimate of the risk of a nuclear attack somewhere in the world by 2010 was 10 percent. The risk of an attack by 2015 doubled to 20 percent median. There was strong, though not universal, agreement that a nuclear attack is more likely to be carried out by a terrorist organization than by a government. The group was split 45 to 55 percent on whether terrorists were more likely to obtain an intact working nuclear weapon or manufacture one after obtaining weapon-grade nuclear material. "The proliferation of weapons of mass destruction is not just a security problem," Lugar wrote in the report's introduction. "It is the economic dilemma and the moral challenge of the current age. On September 11, 2001, the world witnessed the destructive potential of international terrorism. But the September 11 attacks do not come close to approximating the destruction that would be unleashed by a nuclear weapon. Weapons of mass destruction have made it possible for a small nation, or even a sub-national group, to kill as many innocent people in a day as national armies killed in months of fighting during World War II. "The bottom line is this," Lugar concluded: "For the foreseeable future, the United States and other nations will face an existential threat from the intersection of terrorism and weapons of mass destruction." It's paradoxical that a diminished threat of a superpower nuclear exchange should somehow have resulted in a world where the danger of at least a single nuclear explosion in a major city has increased (and that city is as likely, or likelier, to be Moscow as it is to be Washington or New York). We tend to think that a terrorist nuclear attack would lead us to drive for the elimination of nuclear weapons. I think the opposite case is at least equally likely: A terrorist nuclear attack would almost certainly be followed by a retaliatory nuclear strike on whatever country we believed to be sheltering the perpetrators. That response would surely initiate a new round of nuclear armament and rearmament in the name of deterrence, however illogical. Think of how much 9/11 frightened us; think of how desperate our leaders were to prevent any further such attacks; think of the fact that we invaded and occupied a country, Iraq, that had nothing to do with those attacks in the name of sending a message.

#### In the long term, waste will be stored at Yucca – only option.

Tollefson 11 (Jeff, former Knight fellow in science journalism at MIT, “Battle of Yucca Mountain rages on”, Nature, Vol. 473, No. 266, 5-19-11, RSR)

The commission intends to issue a draft report in July and a final one next January. With its recommendations in hand, the administration is expected to propose legislation that would establish a new process for identifying nuclear waste storage sites. Yet such a process could well take decades, the GAO report concludes, and the government’s reversal at Yucca Mountain could serve to galvanize public opposition at other candidate sites. Since the debate began, “no states have expressed an interest in hosting a permanent repository for this spent nuclear fuel ... including the states with sites currently storing the waste”, the report adds. The commission’s scheme for an interim storage facility may prove no more appealing, given fears that ‘interim’ means permanent as long as the present impasse continues. Such fears have in the past halted interim storage proposals in states such as Wyoming. And even if one community decides that it is willing to play host to the waste, that doesn’t mean others won’t challenge nuclear-waste transportation routes. Nevertheless, the nation will need to find a permanent repository at some point, and Yucca Mountain, it seems, is down but not out. “Yucca Mountain has nine lives,” says Ed Davis, a nuclear consultant who heads the Pegasus Group in Washington DC. “And nobody knows how many lives have been used up.”

#### Yucca explosion is likely - earthquakes, volcanoes, and ground water

Warrick 98 (Joby, Staff, At Nevada Nuclear Waste Site, The Issue Is One of Liquidity; Studies Citing Risk of Water Seepage Imperil Yucca Mountain Project, The Washington Post, December 15, p. A3)

More recent studies raised different kinds of concerns. A report in March by the California Institute of Technology found new evidence of geological instability in the region, including relatively rapid shifting of the Earth's crust near the mountain. The movement raises the probability of future earthquakes or volcanic eruptions.¶ And last week, a Russian geologist claimed that hot water from deep underground had flooded the mountain at least once in the geologically recent past. Yuri V. Dublyansky, of the Siberian branch of the Russian Academy of Sciences, said flooding could happen again, with potentially calamitous results.¶ "We can be reasonably sure that Yucca Mountain was at some point in the past saturated with water. The crucial question is when," said Dublyansky, who obtained rock samples from inside the mountain while working for Nevada state officials who hope to defeat the project. "Any decision on whether Yucca Mountain should be a repository for nuclear waste should be preceded by a resolution of that question."¶ The evidence of past flooding comes from crystals of calcite and other minerals that were formed when the mountain was already old, said Dublyansky, now a research fellow for the Maryland-based Institute for Energy and Environmental Research. Microscopic bubbles inside the rocks, known as "fluid inclusions," prove that the crystals were formed in the presence of hot water -- which could only have come from underground thermal springs, Dublyansky said.¶ At his request, the findings were reviewed by independent scientists from Austria, Great Britain and Nevada -- all of whom backed his basic conclusions. But U.S. government scientists ridiculed Dublyansky's research as unscholarly. "We are disturbed," said Joe Whelan of the U.S. Geological Survey in a written critique, "by Dr. Dublyansky's shrewd and nonscientific arguments that seem to be crafted for readers unfamiliar with the specific Yucca Mountain geologic relations."¶ Szymanski, the former Energy Department geologist, also had argued that a thermal upwelling had occurred at Yucca Mountain and sees the new evidence as vindication. He thinks a combination of water and the red-hot temperatures of the nuclear waste casks could spark an explosion that could spew lethal doses of radiation into the atmosphere.¶ "This is direct evidence," Szymanski said. "And if anybody doubts the results, they can go back and measure them again. They're very easy to verify."

#### Yucca explosion results in extinction – top geologists agree.

Broad 90 (William, NYT Staff, The New York Times, November 18)

One scientist, however, has quietly but persistently warned that this vision of a safe repository is little more than a delusion.¶ Jerry S. Szymanski (pronounced sha-MAN-ski) is a geologist who works on the Yucca Mountain project for the United States Department of Energy, which is in charge of evaluating the site and would run the repository. For years, he has argued that ground water under the mountain could eventually well up, flood the facility and prompt a calamity of vast proportions. The geological action is easy to visualize. Crustal stresses in the area slowly open fractures and faults under and within the mountain. Water seeps into them. An earthquake occurs, compressing the fractures and forcing the ground water upward into the dump. As the inrushing water comes into contact with the hot canisters of nuclear waste, the water is vaporized, threatening to cause explosions, ruptures and the release of radioactivity.¶ Szymanski has worked for the D.O.E. since 1983. He takes pains to distance himself from foes of nuclear power. "This report is not the act of a disgruntled employee or an antinuclear freak," he wrote in the preface of a study he made on Yucca Mountain. "Rather, it is the act of a deeply concerned scientist, a public servant and a pro-nuclear activist."¶ He chain-smokes Winstons and drinks Scotch, neither of which seems to impair his ability to take brisk hikes up the mountain with his dog Max, a fierce-looking but friendly creature that is half Labrador, half pit bull. Szymanski's eyes flash when he speaks of those who oppose his view of the evidence. "It's banality of thought," he growls, "absence of depth." That same kind of banality, he says, was responsible for the Holocaust, around which his earliest memories revolve, and for a brutal crackdown in his native Poland, which prompted him to flee that country two decades ago with his wife and 6-month-old son. Today, he says, banality is prompting the Federal Government to court disaster.¶ Squinting in the bright Nevada sunlight, a cigarette firmly in his mouth, Szymanski walks into Trench No. 8, a deep scar on the side of Yucca Mountain dug at the behest of the Energy Department. It runs across a fault. He bends down to examine a one-yard-wide vein of rock whose creamy color stands in contrast to the dark, surrounding earth tones. His fingers play over its surface. The vein was deposited, he says, by mineral-laden water that welled up and turned this desolate site into an oasis.¶ "This is above the repository level," he says with studied understatement. The implication is clear and troubling -- where water once flowed, it might flow again.¶ The repository would hold up to 70,000 metric tons of waste. A large release would have an environmental impact that, by some estimates, would exceed that of a nuclear war. For perspective, the explosion of the Chernobyl reactor in the Soviet Union shot into the atmosphere just a few dozen pounds of highly radioactive nuclear waste, one of the most dangerous components of which was cesium 137 (it would also be a significant part of the waste at Yucca Mountain). Various studies say the consequences of Chernobyl will eventually be somewhere between 17,000 and 475,000 deaths from cancer, as well as an alarming number of serious ailments.¶ For half a decade, Szymanski's was a lone voice. His grim appraisal was opposed by almost everyone else on the Yucca Mountain project, who let their displeasure be known in subtle and not-so-subtle ways. But recently, growing ranks of geologists have backed his view. The dispute is by no means resolved.¶ If Szymanski is right and his warnings are heeded, it could mark the end of the Yucca Mountain project. The retreat would be a stunning setback for the Government and the nuclear-power industry, which is poised for a revival. If he is right and his warnings go unheeded, some experts say it might be the beginning of the ultimate end.¶ "You flood that thing and you could blow the top off the mountain," says Charles B. Archambeau, a geophysicist at the University of Colorado who has reviewed Szymanski's work and found it persuasive. "At the very least, the radioactive material would go into the ground water and spread to Death Valley, where there are hot springs all over the place, constantly bringing water up from great depths. It would be picked up by the birds, the animals, the plant life. It would start creeping out of Death Valley. You couldn't stop it. That's the nightmare. It could slowly spread to the whole biosphere. If you want to envision the end of the world, that's it."

#### Reprocessing would remove the waste problem – the waste we currently store can be reused

Bastin 8 (Clinton, Former Chemical Engineer at the Atomic Energy Commission, 21st Century Science and Technology, “We Need to Reprocess Spent Nuclear Fuel, And Can Do It Safely, At Reasonable Cost”, 2008, [http://www.21stcenturysciencetech.com/Articles%202008/ Summer\_2008/Reprocessing.pdf](http://www.21stcenturysciencetech.com/Articles%202008/Summer_2008/Reprocessing.pdf), RSR)

The concept of used nuclear fuel as “nuclear waste” is a fiction created by the opponents of nuclear energy. Used nuclear fuel isn’t waste at all, but a renewable resource that can be reprocessed into new nuclear fuel and valuable isotopes. When we entered the nuclear age, the great promise of nuclear energy wasitsrenewability, making it an inexpensive and efficient way to produce electricity. It was assumed that the nations making use of nuclear energy would reprocess their spent fuel, completing the nuclear fuel cycle by recycling the nuclear fuel after it was burned in a reactor, to extract the 95 to 99 percent of unused uranium in it that can be turned into new fuel. This means that if the United States buries its 70,000 metric tons of spent nuclear fuel, we would be wasting 66,000 metric tons of uranium-28, which could be used to make new fuel. In addition, we would be wasting about 1,200 metric tons of fissile uranium-25 and plutonium-29, which can also be burned as fuel. Because of the high energy density in the nucleus, this relatively small amount of U.S. spent fuel (it would fit in one small house) is equivalent in energy to about 20 percent of the U.S. oil reserves. About 96 percent of the spent fuel the United States is now storing can be turned into new fuel. The 4 percent of the socalled waste that remains—2,500 metric tons—consists of highly radioactive materials, but these are also usable. There are about 80 tons each of cesium-17 and strontium-90 that could be separated out for use in medical applications, such as sterilization of medical supplies. Using isotope separation techniques, and fast-neutron bombardment for transmutation (technologies that the United States pioneered but now refuses to develop), we could separate out all sorts of isotopes, like americium, which is used in smoke detectors, or isotopes used in medical testing and treatment. Right now, the United Statesmust import 90 percent of its medical isotopes, used in 40,000 medical procedures daily. The diagram shows a closed nuclear fuel cycle. At present, the United States has no reprocessing, and stores spent fuel in pools or dry storage at nuclear plants. Existing nuclear reactors use only about 1 percent of the total energy value in uranium resources; fast reactors with fuel recycle would use essentially 100 percent, burning up all of the uranium and actinides, the long-lived fission products. In a properly managed and safeguarded system, the plutonium produced in fast reactors would remain in its spent fuel until needed for recycle.Thus, there need be no excess buildup of accessible plutonium. The plutonium could also be fabricated directly into new reactor fuel assemblies to be burned in nuclear plants.

#### Reprocessing solves the blow up of Yucca Mountain.

Broad 95 (William, NYT staff, Scientists fear atomic explosion of buried waste, The New York Times, March 5, p. 1)

Dr. Bowman says the explosion thesis is alive and well. On Friday he finished an 11-page draft paper thick with graphs and equations that lays it out in new detail.¶ The team criticisms, he said in an interview, repeatedly fall flat. For instance, dispersal could happen relatively quickly, especially if water percolated through the dump. Even if slow, plutonium 239 decays into uranium 235, which harbors the same explosive risks but requires millions of years to decay into less dangerous elements.¶ So too with the other criticisms, he says. Water could aid the slowing of neutrons and make sure the reaction went forward rather than automatically slowing down. And a pile could explode, he insists, while conceding that the blast from a single one might have a force of a few hundred tons of high explosive rather than the thousand or more originally envisioned.¶ On the other hand, his new paper says plutonium in amounts as small as one kilogram, or 2.2 pounds, could be dangerous.¶ "We got some helpful criticism and that, combined with additional work, has made our thesis even stronger," he said.¶ The most basic solution, Dr. Bowman said, would be removing all fissionable material from nuclear waste in a process known as reprocessing or by transmuting it in his proposed accelerator. Other possible steps would include making steel canisters smaller and spreading them out over larger areas in underground galleries -- expensive steps in a project already expected to cost $15 billion or more.¶ A different precaution, Dr. Bowman said, would be to abandon the Yucca site, where the volcanic ground is relatively soluble. Instead, the deep repository might be dug in granite, where migration of materials would be slower and more difficult.

### Observation 3

#### Observation Three: Peak uranium

#### Peak uranium is coming by 2016.

Keen 12 (Kip, Uranium supply crunch by 2016 - nuclear expert says, Mineweb, 24 January 2012, http://www.mineweb.co.za/mineweb/view/mineweb/en/page72103?oid=143915&sn=Detail&pid=102055, da 8-27-12)

A nuclear expert gave uranium supply three more years - at most - before it seriously falls behind demand from the nuclear power industry.¶ "2016: We have to have supply in the market or the lights will gradually go out in the nuclear system," said Thomas Drolet, the president of Drolet & Associates Energy Services, during a presentation at Cambridge House's Vancouver Resource Investment conference on Monday.¶ A uranium supply crunch is widely anticipated to hit the nuclear industry starting next year as Cold War era sources of uranium dry up. To illustrate the severity of the shortage that the nuclear industry faces, Drolet highlighted 2010 uranium production from mining - 118 million pounds - versus consumption: 190 million pounds.¶ "You can do the delta difference yourself," Drolet said, referring to how much of a supply gap miners will have to make up for in coming years. ¶ That uranium is "going to have to come from somewhere," he said.¶ The Fukushima nuclear disaster in Japan, Drolet argued, only delayed the onset of the coming pinch on uranium supply. But even in his "downside" analysis the uranium deficit still comes by 2015.

#### And, domestic shortages of uranium are creating a supply problem for tritium production.

Holt and Nikitin 12 (Mark Holt (specialist in energy policy) and Mary Beth (specialist in nuclear nonproliferation), “Potential sources of nuclear fuel for tritium production”, CRS, 5-15-2012, <http://markey.house.gov/sites/markey.house.gov/files/documents/2012_0515_CRS_TritiumFuelOptions.pdf>)

Watts Bar 1 is refueled every 18 months, when about a third of its fuel is replaced. A load of replacement fuel contains about 30 metric tons of low-enriched uranium (LEU). If the Sequoyah plant were also used for tritium production, fuel requirements would double or triple. The National Nuclear Security Administration (NNSA), the DOE agency that runs the tritium program, is currently evaluating options for providing fuel for the tritium-production reactors. According to NNSAPs 2011 Stockpile Stewardship report, There is a potential strategic shortage in LEU. Therefore, the DOE/NNSA is pursuing identification of a source of 940 metric tons of unrestricted LEU or 1,800 metric tons for two reactors, for the life of the Tennessee Valley Authority (2048) agreement. The Stockpile Stewardship report classifies the fuel supply issue as green, indicating that existing and/or future capacity [is] estimated to be sufficient under current assumptions. 1 Therefore, although NNSA has flagged nuclear fuel supply as a potential problem, it appears optimistic that a solution can be found.

#### That’s key to the nuclear deterrent.

Gaffney 10 (Frank, founder and president of the Center for Security Policy, “There Goes the Nuclear Deterrent”, Breitbart, 10-14-2010, <http://www.breitbart.com/Big-Peace/2010/10/14/There-Goes-the-Nuclear-Deterrent>)

The House Armed Services Committee warned in 1993 that the deterrent was being subjected to “erosion by design” – and thanks to these sorts of deliberate actions – those chickens are coming home to roost today, with a vengeance. ¶ Now, we learn that the stockpile is literally running out of gas. ¶ A key ingredient used to boost the explosive power of thermonuclear devices is a gas called tritium. Unlike other radioactive materials used in such weapons (notably, plutonium and uranium), the usefulness of tritium degrades fairly quickly – its “half-life” is only about 12 years. As a result, the tritium reservoirs in our bombs and missile warheads must be regularly refueled in order for those weapons to remain operable.

#### Nuclear deterrence necessary to deter rogue states, CBW attacks, power challengers, and allied proliferation - impact is extinction.

Schneider 9 (Mark, Senior Analyst with the National Institute for Public Policy, May/April 2009 “The Future of the US Nuclear Deterrent” Comparative Strategy, p345-360)

According to the Pentagon’s Quadrennial Defense Review, the United States must maintain a “robust nuclear deterrent, which remains a keystone of U.S. national power.”98 The reason should be self evident—without a nuclear deterrent the United States could be destroyed as an industrial civilization and our conventional forces could be defeated by a state with grossly inferior conventional capability but powerful WMD. We cannot afford to ignore existing and growing threats to the very existence of the United States as a national entity. Missile defenses and conventional strike capabilities, while critically important elements of deterrence and national power, simply can’t substitute for nuclear deterrence. In light of the emerging “strategic partnership” between Russia and China and their emphasis on nuclear weapons it would be foolish indeed to size U.S. strategic nuclear forces as if the only threat we face is that of rogue states and discard the requirement that the U.S. nuclear deterrent be “second to none.” Ignoring the PRC nuclear threat because of Chinese “no first use” propaganda is just as irresponsible. Absent a nuclear deterrent to their WMD use, rogue states could defeat our forces by the combination of few nuclear EMP weapons and large chemical and biological attacks. The situation would be much worse if they build a more extensive nuclear strike capability as has been reported. Freezing U.S. nuclear forces at the technical level of the Reagan administration will assure that, within two decades, Russia, China, India, and probably others will be technically superior and U.S. deterrence ability against CBW attack will be reduced. United States nuclear forces must be modernized and tailored to enhance deterrence and damage limitation against the rogue WMD threat. WMD capabilities have given otherwise inconsequential states the ability to kill millions of people. The right combination of missile defense and conventional and nuclear strike capabilities provide the best deterrent and damage limiting capability against the rogue state threat. We must not ignore the requirement to provide extended deterrence to our allies. British and French nuclear forces are not large enough, and these nations are not perceived as tough enough, to provide a deterrent for NATO Europe against Russia. In the Far East, there is literally no nuclear deterrent capability against China other than that provided by the United States. Failure to provide a credible deterrent will result in a wave of nuclear proliferation with serious national security implications. When dealing with the rogue states, the issue is not the size of the U.S. nuclear deterrent but the credibility of its use in response to chemical or biological weapons use and its ability to conduct low collateral damage nuclear attacks against WMD capabilities and delivery systems including very hard underground facilities for purposes of damage limitation. We must also have the capability to respond promptly. The United States nuclear guarantee is a major deterrent to proliferation. If we do not honor that guarantee, or devalue it, many more nations will obtain nuclear weapons. If arms control really becomes a substitute for nuclear deterrence and defense, it may very well precipitate the most destructive war in history. Effective verification is essentially impossible, and verification is not a substitute for compliance. Today, arms control has become part of the problem rather than a solution to the problem. The abolition of the in-kind deterrent to CBW use—which deterred CBW use in World War II—is making the world more unsafe almost on a daily basis. The START and Intermediate-Range Nuclear Forces (INF) Treaties prevent or inhibit the development of conventional strike capabilities with enhanced ability to counter WMD. The demise of the ABM Treaty, while very useful, does not completely address the problem of legacy arms control and its constraints upon U.S. conventional capabilities.

#### Shorter flight times and lack of second strike capacity make miscalculation more likely.

Cimbala 8 (Stephen, Political Science Professor at the University of Pennsylvania, March, “Anticipatory Attacks: Nuclear Crisis Stability in Future Asia” Comparative Strategy, Vol 27 No 2, p 113-132, InformaWorld)

The spread of nuclear weapons in Asia presents a complicated mosaic of possibilities in this regard. States with nuclear forces of variable force structure, operational experience, and command-control systems will be thrown into a matrix of complex political, social, and cultural crosscurrents contributory to the possibility of war. In addition to the existing nuclear powers in Asia, others may seek nuclear weapons if they feel threatened by regional rivals or hostile alliances. Containment of nuclear proliferation in Asia is a desirable political objective for all of the obvious reasons. Nevertheless, the present century is unlikely to see the nuclear hesitancy or risk aversion that marked the Cold War, in part, because the military and political discipline imposed by the Cold War superpowers no longer exists, but also because states in Asia have new aspirations for regional or global respect.12 The spread of ballistic missiles and other nuclear-capable delivery systems in Asia , or in the Middle East with reach into Asia, is especially dangerous because plausible adversaries live close together and are already engaged in ongoing disputes about territory or other issues.13 The Cold War Americans and Soviets required missiles and airborne delivery systems of intercontinental range to strike at one another's vitals. But short-range ballistic missiles or fighter-bombers suffice for India and Pakistan to launch attacks at one another with potentially “strategic” effects. China shares borders with Russia, North Korea, India, and Pakistan; Russia, with China and North Korea; India, with Pakistan and China; Pakistan, with India and China; and so on. The short flight times of ballistic missiles between the cities or military forces of contiguous states means that very little time will be available for warning and attack assessment by the defender. Conventionally armed missiles could easily be mistaken for a tactical nuclear first use. Fighter-bombers appearing over the horizon could just as easily be carrying nuclear weapons as conventional ordnance. In addition to the challenges posed by shorter flight times and uncertain weapons loads, potential victims of nuclear attack in Asia may also have first strike-vulnerable forces and command-control systems that increase decision pressures for rapid, and possibly mistaken, retaliation. This potpourri of possibilities challenges conventional wisdom about nuclear deterrence and proliferation on the part of policymakers and academic theorists. For policymakers in the United States and NATO, spreading nuclear and other weapons of mass destruction in Asia could profoundly shift the geopolitics of mass destruction from a European center of gravity (in the twentieth century) to an Asian and/or Middle Eastern center of gravity (in the present century).14 This would profoundly shake up prognostications to the effect that wars of mass destruction are now passe, on account of the emergence of the “Revolution in Military Affairs” and its encouragement of information-based warfare.15 Together with this, there has emerged the argument that large-scale wars between states or coalitions of states, as opposed to varieties of unconventional warfare and failed states, are exceptional and potentially obsolete.16 The spread of WMD and ballistic missiles in Asia could overturn these expectations for the obsolescence or marginalization of major interstate warfare. For theorists, the argument that the spread of nuclear weapons might be fully compatible with international stability, and perhaps even supportive of international security, may be less sustainable than hitherto.17 Theorists optimistic about the ability of the international order to accommodate the proliferation of nuclear weapons and delivery systems in the present century have made several plausible arguments based on international systems and deterrence theory. First, nuclear weapons may make states more risk averse as opposed to risk acceptant, with regard to brandishing military power in support of foreign policy objectives. Second, if states' nuclear forces are second-strike survivable, they contribute to reduced fears of surprise attack. Third, the motives of states with respect to the existing international order are crucial. Revisionists will seek to use nuclear weapons to overturn the existing balance of power; status quo-oriented states will use nuclear forces to support the existing distribution of power, and therefore, slow and peaceful change, as opposed to sudden and radical power transitions. These arguments, for a less alarmist view of nuclear proliferation, take comfort from the history of nuclear policy in the “first nuclear age,” roughly corresponding to the Cold War.18 Pessimists who predicted that some thirty or more states might have nuclear weapons by the end of the century were proved wrong. However, the Cold War is a dubious precedent for the control of nuclear weapons spread outside of Europe. The military and security agenda of the Cold War was dominated by the United States and the Soviet Union, especially with regard to nuclear weapons. Ideas about mutual deterrence based on second-strike capability and the deterrence “rationality” according to American or allied Western concepts might be inaccurate guides to the avoidance of war outside of Europe.19

#### Uranium scarcity causes Russia and China to compete for Kazakh uranium – hurts relations.

Muzalevsky 11 (Roman, International Affairs Expert, Global Struggle for Kazakh Uranium Resources, 15 April 2011, The Jamestown Foundation, http://www.jamestown.org/single/?no\_cache=1&tx\_ttnews%5Bswords%5D=8fd5893941d69d0be3f378576261ae3e&tx\_ttnews%5Bany\_of\_the\_words%5D=uranium&tx\_ttnews%5Btt\_news%5D=37802&tx\_ttnews%5BbackPid%5D=7&cHash=eff36581a33138a4b57613d1f285d205, da 9-13-12)

Kazakhstan is interested in profiting from its energy exports to diverse suppliers and strengthening its geopolitical position vis-à-vis its two large neighbors – Russia and China. A rapidly emerging China is a prospective partner for Kazakhstan, wary of Moscow’s economic interests and strategic imperatives to retain its great power status in the post-Soviet space.¶ Russia is the world’s third and fourth largest source and producer of uranium, respectively. However, it confronts major production difficulties due to geographic conditions, pushing it to seek uranium deals with countries such as Australia and Kazakhstan. Russia needs to produce about 20,000 tons of uranium annually to meet its nuclear power needs by 2025. In 2007, it produced 3,413 tons of uranium. After the launch of a joint Russian-Kazakh venture in Kazakhstan, Russia’s uranium production climbed to 3,527 tons. In 2006, the two countries agreed to launch three nuclear joint ventures worth $10 billion to develop, enrich, and build nuclear reactors, including with a view to construct nuclear power stations in Kazakhstan and other countries (www.newsru.com, June 26, 2008; www.thebulletin.org, April 28, 2008).¶ Kazakhstan relies on Russia, which enjoys 45 percent of the global uranium enrichment capacity, for uranium enrichment. However, Mukhtar Dzhakishev, the former executive of the Kazakh nuclear state company Kazatomprom, cautions against Kazakhstan’s overall cooperation with Russia (www.inosmi.ru, February 26, 2010).¶ Kazakhstan has tried to avoid this by collaborating with Japan and China. Technologically-strong Japan is expected to generate 41 percent of its electricity production from nuclear energy by 2017. It runs 55 nuclear power reactors, planning to construct 11 more in the future. This offers lucrative prospects for Kazakhstan as it wants to obtain a 40 percent share of Japan’s uranium market. Companies such as Marubeni, Tokyo Electric Power, Chubu Electric Power, and Tohoku Electric Power have already contracted with Kazatomprom to develop Kharasan-1 and Kharasan-2 uranium deposits in Kazakhstan, aiming to produce 160,000 tons of uranium by 2050. Kazatomprom and Japan’s Sumitomo Shoji and Kepko also develop the Zapadny Munkuduk uranium deposit in the country. Kazatomprom also has a 10 percent share of the Japanese-owned Westinghouse Electric, one of the world’s largest suppliers of nuclear power reactors. Astana and Tokyo are currently exploring the possibility of building a nuclear power station in Kazakhstan (EDM, August 2, 2010).¶ Kazakh-Chinese cooperation is especially notable. China, as a leading global nuclear power developer is already the largest buyer of Kazakh uranium (www.trend.az, November 11, 2010). In 2007, Kazatomprom and China Guangdong Nuclear Power Group agreed to produce nuclear fuel (www.thebulletin.org, April 28, 2008). In April 2009, China and Kazakhstan created the Semizbay-U enterprise at Irkol, planning to produce 750 tons of uranium annually (EDM, March 23). Deputy Head of State Energy Management of China, Tian Zhiming, commented on Beijing’s appetite for nuclear energy: “The PRC will become the world’s largest consumer of uranium by 2030, overtaking the US. It is a question of time.” In 2011, the two sides agreed on the supply of 55,000 tons of uranium over the next 10 years. “Nineteen nuclear complexes will be built in China and 25 more are being planned. This is a huge potential market. In the long term, Kazakhstan can supply up to 40 percent of nuclear fuel. This is tens of billions of dollars in profit,” stated Kazakh President Nursultan Nazarbayev (www.eurasia.org.ru, March 17). ¶ In this light, security risks associated with a struggle by major powers over access to Kazakh uranium resources are not inconceivable, making it imperative for Kazakhstan not to overplay its external balancing strategy as it seeks to consolidate its sovereignty and maintain an economic modernization drive. Kazakhstan must address domestic risks. Its ambitions to supply nuclear power and fuel at home and abroad already raise environmental, health, and proliferation concerns given the lack of a professional cadre and environmental and safety standards. Many people still suffer from more than 450 nuclear weapons tests conducted in the country during the Soviet era. Nuclear incidents in Japan after the recent tsunami and potential Russian-Kazakh plans to build a nuclear power plant in Aktau are already generating an anti-nuclear backlash in the country (EDM, March 23; www.thebulletin.org, April 28, 2008). Many fear that widespread corruption and the country’s location in an unstable region increases the risk that Kazakhstan might possibly become a major proliferator (www.newsland.ru, October 17, 2009; www.thebulletin.org, April 28, 2008).¶ ¶ Mitigating these risks is a major challenge for Kazakhstan and others as the world confronts the surge in nuclear energy demand and the struggle over the precious uranium resources.

#### That escalates to global nuclear war.

Blank 2k (Stephen J, Expert on the Soviet Bloc for the Strategic Studies Institute, “American Grand Strategy and the Transcaspian Region”, World Affairs. 9-22)

Thus many structural conditions for conventional war or protracted ethnic conflict where third parties intervene now exist in the Transcaucasus and Central Asia. The outbreak of violence by disaffected Islamic elements, the drug trade, the Chechen wars, and the unresolved ethnopolitical conflicts that dot the region, not to mention the undemocratic and unbalanced distribution of income across corrupt governments, provide plenty of tinder for future fires. Many Third World conflicts generated by local structural factors also have great potential for unintended escalation. Big powers often feel obliged to rescue their proxies and proteges. One or another big power may fail to grasp the stakes for the other side since interests here are not as clear as in Europe. Hence commitments involving the use of nuclear weapons or perhaps even conventional war to prevent defeat of a client are not well established or clear as in Europe. For instance, in 1993 Turkish noises about intervening on behalf of Azerbaijan induced Russian leaders to threaten a nuclear war in that case. Precisely because Turkey is a NATO ally but probably could not prevail in a long war against Russia, or if it could, would conceivably trigger a potential nuclear blow (not a small possibility given the erratic nature of Russia's declared nuclear strategies), the danger of major war is higher here than almost everywhere else in the CIS or the "arc of crisis" from the Balkans to China. As Richard Betts has observed, The greatest danger lies in areas where (1) the potential for serious instability is high; (2) both superpowers perceive vital interests; (3) neither recognizes that the other's perceived interest or commitment is as great as its own; (4) both have the capability to inject conventional forces; and (5) neither has willing proxies capable of settling the situation.(77)

#### And escalation’s guaranteed – it’s a geopolitical hub.

Saghal and Anand10 (Arun (former Army officer who created the Office of Net Assessment in the Indian Joint Staff, Senior Fellow at the Institute for Defense Studies and Analyses and ‘Distinguished Fellow’ School of Geo-Politics at the Manipal Academy of Higher Education) and Vinod (postgraduate in defence and strategic studies and is an alumnus of Defence Services Staff College and College of Defence Management), “Strategic Environment in Central Asia and India”, <http://www.silkroadstudies.org/new/docs/publications/1004Joshi-V-Strategic.pdf>)

The geo-strategic salience of Central Asia today has been underscored by two main factors. First, Central Asia has become important because of the discovery of hydrocarbon reserves and second, it has become a major transportation hub for gas and oil pipelines and multi-modal communication corridors connecting China, Russia, Europe, the Caucasus region, the Trans-Caspian region and the Indian Ocean. Furthermore, whether it was Czarist Russia or the Soviet Union or even the present Central Asian regimes, there has always been a strategic ambition in the north to seek access to the warm waters of the Indian Ocean. Thus Afghanistan, which links Central Asia and South Asia, is a strategic bridge of great geopolitical significance. Central Asia and South Asia are intimately connected not only geographically but also strategically. The Central Asian republics of Turkmenistan, Uzbekistan and Tajikistan have borders with Afghanistan, Iran lies to its west and Pakistan to the east and south. Therefore, the geostrategic significance of Afghanistan is enhanced even though it may not be an oil- or gas-rich country. With the control of Afghanistan comes the control of the land routes between the Indian subcontinent and resource-rich Central Asia, as well as of a potential corridor to Iran and the Middle East. Thus, stability and peace in Afghanistan, and for that matter Pakistan, are a geostrategic imperative. Central Asia has never been a monolithic area and is undergoing a turbulent transitional process with a diverse range of ethnicities and fragmented societies throughout the region. These societal divisions and lack of political maturity compound the social, economic and political challenges. Security and economic issues are the two most important components of the Central Asian states’ engagement with outside powers. Among the states themselves there are elements of both cooperation and competition. Historical legacies, their geo-strategic locations, and above all their perceived national interests profoundly influence the political choices of Central Asian nations. The weaknesses of the new nations in Central Asia pave the way for outside powers to interfere in their internal affairs.

#### Nuclear reprocessing could allow US reactors to run for 30 years without new uranium.

WNA 12 (Processing of Used Nuclear Fuel, World Nuclear Association, May 2012, http://www.world-nuclear.org/info/inf69.html, da 8-30-12)

Reprocessing used fuel to recover uranium (as reprocessed uranium, or RepU) and plutonium (Pu) avoids the wastage of a valuable resource. Most of it – about 96% – is uranium, of which less than 1% is the fissile U-235 (often 0.4-0.8%); and up to 1% is plutonium. Both can be recycled as fresh fuel, saving up to 30% of the natural uranium otherwise required. The materials potentially available for recycling (but locked up in stored used fuel) could conceivably run the US reactor fleet of about 100 GWe for almost 30 years with no new uranium input.¶ So far, almost 90,000 tonnes (of 290,000 t discharged) of used fuel from commercial power reactors has been reprocessed. Annual reprocessing capacity is now some 4000 tonnes per year for normal oxide fuels, but not all of it is operational.¶ Between now and 2030 some 400,000 tonnes of used fuel is expected to be generated worldwide, including 60,000 t in North America and 69,000 t in Europe.

#### US nuclear reprocessing lead to a spillover of the technology internationally.

Acton 9 (James, J. associate in the Nonproliferation Program at the Carnegie Endowment for International Peace, Survival, Vol. 51, No. 4, “Nuclear Power, Disarmament and Technological Restraint”, RSR)

Thus, not only does reprocessing clearly not help with facilitating take back, but if advanced nuclear states adopt it as a tool for waste management, it will be virtually impossible for them to argue against others doing likewise. Today, waste management is probably the most important driver for reprocessing. Indeed, the Bush administration’s interest in this technology was born out of a desire to stretch the capacity of Yucca Mountain as far as possible. If the United States and others reprocess they will hand a powerful argument to lobbies within a state – typically the nuclear R&D community – that support the development of reprocessing.

#### Nuclear reprocessing solves peak uranium internationally.

Berry and Tolley 10 (R. Stephen and George S., Professors at the University of Chicago, Nuclear Fuel Reprocessing: Future Prospects and Viability, University of Chicago, 29 November 2010, http://humanities.uchicago.edu/orgs/institute/bigproblems/Team7-1210.pdf, da 8-29-12)

Uranium prices have also been rising due to increased demand, a trend that may¶ have long-term repercussions. Identified uranium deposits can fuel existing nuclear plants¶ for about 80 years without reprocessing. Reprocessing can extend the life of current¶ uranium resources for an additional 15 to 20 years.¶ 91¶ Total conventional uranium¶ resources, including undiscovered deposits that are estimated using indirect geological¶ evidence and extrapolated values, can fuel existing plants for around 200 years.¶ 92¶ In the¶ short-term, however, prices have risen sharply because of an announced increase in nuclear¶ plants that will require fuel: China is intending to increase nuclear power as a source of¶ national energy by 7% in the next ten years, and countries such as Russia, Pakistan, and¶ South Korea are all building new reactors.¶ 93¶ Another benefit of reprocessing is the¶ additional plutonium and uranium recovered per kilogram of spent fuel reprocessed; this¶ amount replaces a portion of the raw material that goes into the fuel cycle. The amount of¶ recovered uranium is .94 kg/kgHM, and the amount of recovered plutonium is .01014¶ kg/kgHM.¶ 94

### Plan Text

#### Thus the plan: The United States Federal Government should provide a twenty-percent investment tax credit for the deployment of domestic nuclear fuel recycling.

### Solvency

#### Observation Four: Solvency

#### Tax incentives would solve for reprocessing – makes it commercially more desirable

Lagus 5 (Todd, 2005 WISE Intern, University of Minnesota, WISE, “Reprocessing of Spent Nuclear Fuel: A Policy Analysis” <http://www.wise-intern.org/journal/2005/lagus.pdf>, RSR)

The economic analysis shows that the reprocessing or even the once through nuclear cycle is not yet economically desirable to investors. However, changes in government policies, including environmental regulations already mentioned and economic policies, could improve the competitiveness of both technologies. The University of Chicago nuclear power study analyzes the effects of government involvement in the future of the once through cycle using several different forms of support: loan guarantees, accelerated depreciation, and investment tax credits. Loan guarantees in this case refer to the obligation of the government to repay part of the loan should a utility company not be able to repay. The 2005 Energy Bill, which passed in July 2005, would make advanced nuclear power plants eligible for federal loan guarantees and provide a tax credit for nuclear power production. This would lessen the risks associated with capital costs for investors, and according to the Chicago study, reduce the LCOE for a nuclear reactor by 4 mills/kWh to 6 mills/kWh. The next financial subject, accelerated depreciation, refers to the ability of an investor to utilize the investment tax deductions early on in the lifetime of the payment rather than receive the same deduction each year in a linear fashion. Accelerated depreciation helps investors absorb capital costs, which for nuclear power generation are large. The University of Chicago study calculates a reduction in the LCOE for a 7 year depreciation policy of 3 mills/kWh to 4 mills/kWh. Tax incentives for nuclear power production are the final policies that could make nuclear power and reprocessing more desirable. An investment tax credit of 10 percent would create an LCOE reduction between 6 mills/kWh and 8 mills/kWh, while a 20 percent credit could create cost reductions between 9 mills/kWh and 13 mills/kWh. 39 Production tax credits on a per kWh basis may also be used. Since reprocessing and the once through cycle are not appreciably different for the price, it is sufficient to assume 12 that similar effects for all three of these government policies would occur with policies applied to reprocessing. While it is no secret that monetary incentives would help the nuclear reprocessing investments, there is still the question of whether or not the government should provide economic support to the industry. As with any government funding, it is politically important not to be viewed by other energy generation industries, i.e. gas and coal, as favoring nuclear power over other sources. Given the recent concerns for global warming, tax incentives and loan guarantees for nuclear technologies seem like a realistic option especially in the absence of emission regulations. Accelerated depreciation also is an unobtrusive option that could help the industry by easing capital costs.

#### Government investment key – necessary to mitigate risks from government regulations.

Selyukh 10 (Alina, Staff Writer, “Nuclear waste issue could be solved, if...”, 8-17-10, Reuters,

<http://www.reuters.com/article/2010/08/17/us-nuclear-waste-recycling-idUSTRE67G0NM20100817>, RSR)

Since the U.S. agency declared spent fuel reprocessing too costly, U.S. research into new technologies has slowed. President George W. Bush offered federal backing for nuclear waste management alternatives, but over the years the policy has meandered and had few incentives to lure companies, said Steven Kraft, senior director of used-fuel management at the Nuclear Energy Institute, the industry's trade organization. Being able to burn through rather inexpensive uranium to produce energy, companies are wary of investing millions into recycling technology that may go against the national policy. Still, industry support for the ideas is strong, if not for the procedure itself then for allowing the market -- not the government -- to determine its cost-effectiveness and fate. Duke Energy, which operates seven nuclear plants, would support nuclear recycling if there was a cost-effective national policy, spokeswoman Rita Sipe said. GE Hitachi has proposed a new generation of fast reactors that, they say, could return to the grid up to 99 percent of energy contained in the uranium, compared to recovering 2 or 3 percent from a common light water reactor. But they want federal support for more research and, ultimately, commercialization of the technology, said chief consulting engineer Erik Loewen. That support, in essence, would have to come in a form of subsidies such as cost sharing or loan guarantees, said Jack Spencer, nuclear energy policy research fellow at the Heritage Foundation think tank. "What the industry needs... is something to mitigate government-imposed risks," he said of the regulatory regime.

#### Government investment necessary – provides appropriate risk mitigation and shortens the timeframe for completion.

IAEA 8 (International Atomic Energy Agency, “Spent Fuel Reprocessing Options”, August 2008, RSR)

With the expected high costs and significant risks involved in constructing new nuclear facilities, e.g., reprocessing facilities, the impact of various ownership options need to be considered. These options include government funding, regulated funding, private funding, and combinations of public and private funding. These different funding approaches may significantly impact the costs of fuel cycle services. Given the very long time frames associated with building reprocessing facilities, there exist risks other than technological or economic, which need to be dealt with. These include evolving government policy, public and political acceptance, and licensing risks. As a result, private investors are unlikely to provide capital unless the initial high risks factors are mitigated through appropriate risk sharing agreements (e.g., loan guarantees, equity protection plans, tax credits, etc.) with government entities.

## 2AC

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#### We meet: Nuclear fuel recycling is energy production.

World Nuclear Association 12 [Processing of Used Nuclear Fuel, http://www.world-nuclear.org/info/inf69.html]

Used nuclear fuel has long been reprocessed to extract fissile materials for recycling and to reduce the volume of high-level wastes. ¶ New reprocessing technologies are being developed to be deployed in conjunction with fast neutron reactors which will burn all long-lived actinides. ¶ A significant amount of plutonium recovered from used fuel is currently recycled into MOX fuel; a small amount of recovered uranium is recycled. ¶ A key, nearly unique, characteristic of nuclear energy is that used fuel may be reprocessed to recover fissile and fertile materials in order to provide fresh fuel for existing and future nuclear power plants. Several European countries, Russia and Japan have had a policy to reprocess used nuclear fuel, although government policies in many other countries have not yet addressed the various aspects of reprocessing.¶ Over the last 50 years the principal reason for reprocessing used fuel has been to recover unused uranium and plutonium in the used fuel elements and thereby close the fuel cycle, gaining some 25% more energy from the original uranium in the process and thus contributing to energy security. A secondary reason is to reduce the volume of material to be disposed of as high-level waste to about one fifth. In addition, the level of radioactivity in the waste from reprocessing is much smaller and after about 100 years falls much more rapidly than in used fuel itself.¶

#### Counter interpretation:

#### The aff has to affect both resource extraction and conversion into energy

Australian Government, Department of Climate Change and Energy Efficiency 2011 [“Energy Production and Consumption,” http://www.climatechange.gov.au/government/initiatives/national-greenhouse-energy-reporting/publications/supplementary-guidelines/energy-production-consumption.aspx]

Production of energy: in relation to a facility, means the:

1. extraction or capture of energy from natural sources for final consumption by or from the operation of the facility or for use other than in the operation of the facility
2. manufacture of energy by the conversion of energy from one form to another form for final consumption by or from the operation of the facility, or for use other than in the operation of the facility (regulation 2.23(3) NGER Regulations).

#### We meet the counter-interpretation: recycling involves both the act of reprocessing the used fuel and using it to create new nuclear energy.

#### Prefer our interp:

A. Predictability – Only our interpretation guarantees link arguments to both extraction and the burning of resources to produce energy. This is crucial link ground for pollution DAs and domestic/foreign energy tradeoff DAs.

B. Limits: Requiring the aff to both extract and convert the energy is necessary to eliminate affs that only extract, like capture carbon or methane or stockpile oil as a strategic military reserve with heg advantages. Also key to prevent affs that only burn fuels like Bataille-style affs that encourage rapid consumption or R&D affs that incentivize new ways to burn the same resources.

#### Competing interpretations are bad: Race to the bottom: they’re just trying to limit out one more case

#### Prefer reasonability: as long as we’re reasonably topical, there’s no reason to pull the trigger. Don’t vote on potential abuse.

### Waste

#### World of the aff is safer than the SQUO. Spent fuel is the most vulnerable to prolif since there are less safeguards due to assumed radioactive protection. That’s Bunn. Plan solves that.

#### No prolif concerns – new tech does not separate the plutonium preventing it from theft or usability.

Lagus, 2005 WISE Intern, ‘5

[Todd, University of Minnesota, WISE, “Reprocessing of Spent Nuclear Fuel: A Policy Analysis”

<http://www.wise-intern.org/journal/2005/lagus.pdf>, RSR]

In the case of the newer UREX+ technology, the long-lived fission products create more steps in weapons deployment. The new technologies for reprocessing including transmutation would not involve separating pure plutonium, but rather a plutonium/ actinide mixture that would increase the toxicity of the material and protect it from theft and handling. The International Atomic Energy Agency’s (IAEA) standard for self protection requires 1 Sievert/hr (100 rems/hr) at one meter. Five Sieverts is a median lethal dose. 45 This technology again has been demonstrated in laboratories, but a great deal of research is still underway. The actinides also contaminate the plutonium such that it would not be usable as a weapon without sophisticated chemical separation technologies, which few countries, if any, possess. 46 Some argue that there are many other weapons options which are cheaper and easier to fabricate should an enemy decide to strike. 47

### Fiscal Cliff

#### No IL between the deal reached in uniqueness and the deal needed to prevent the impact - just saying that a deal will be reached does not establish that we will reach an effective deal in preventing the impact.

#### No fiscal cliff resolution now – everyone is too divided among party lines. And, deal takes too long so the impact is triggered anyway.

Cook, budget and tax correspondent for National Journal, 11-8

[Nancy, “To Avert a Fiscal-Cliff Catastrophe, Someone Has to Blink”, National Journal, 11-8,

http://www.nationaljournal.com/magazine/to-avert-a-fiscal-cliff-catastrophe-someone-has-to-blink-20121108, RSR]

The far more likely scenario for both parties is a swan dive over the fiscal cliff. The election gave Obama some leverage, especially since the Democrats retained control of the Senate. But House Republicans also kept their majority. Both parties view the status quo as an affirmation of their power. “The president feels like his mandate from a slim margin of victory is to raise taxes,” says a Republican Senate aide privy to GOP discussions. “A razor-thin margin will not change the principles of the Republicans.” A plunge would follow weeks of behind-the-scenes negotiations, public political posturing, and pressure from outside groups—both political and business ones. And it would surely shake the nation’s confidence. But it might not be all bad. True, from an economic standpoint, it would turn deficit reduction into a de facto program of austerity, just as the unemployment rate is sinking and the economy is recovering. But from a purely political standpoint, the cliff dive would allow lawmakers to negotiate with a clean slate. Neither party likes a recession per se, but they may both dislike one less than they dislike surrendering their entrenched tax positions. The fresh start would allow Republicans and Democrats to cut a deal appealing to both parties. As soon as the Republicans reinstated a majority of the 2001 and 2003 tax cuts, they could sell it to their base as a huge windfall: They succeeded in cutting taxes! They could also nudge the Democrats to tweak entitlement programs such as Medicare and potentially Social Security—another selling point with the GOP base. (Democrats may agree to some changes there, but they will be most reluctant to cut programs for the poor, such as Medicaid and food stamps.) Similarly, the Democrats could use the fiscal-cliff jump as a way to enact Obama’s campaign promises to tax top earners. The Republicans would have to agree to an increase in revenues—not just from future economic growth—and this, in turn, would allow Democrats to say they had fulfilled their campaign pledge and helped to level the playing field. It’s even possible that, if both parties concoct a deal quickly, they can mitigate the economic effects. But a prolonged battle (during which the spending cuts and tax hikes stay in place) would enervate the economy and sap the confidence of consumers, businesses, creditors, and other countries. It’s hard to see the route to a quick deal—especially one before the New Year’s deadline—because the players remain the same and the party lines are as extreme as ever. The president did call all four congressional leaders after the election to talk about the fiscal cliff; Obama, Boehner, and Reid spoke this week in a much friendlier tone than they have in the past about the need to compromise. But the substance has not shifted at all since the failed super committee and the epic battle in 2011 over the debt ceiling.

#### No compromise – tax rates

McAuliff 11/9 (Michael, http://www.huffingtonpost.com/2012/11/09/john-boehner-fiscal-cliff\_n\_2101648.html)

WASHINGTON -- House Speaker John Boehner (R-Ohio) offered conciliatory words but no actual signs of compromise Friday at his first post-election press conference, reiterating the Republican Party's opposition to raising any taxes to deal with the country's debt and deficit.¶ His postion raises the likelihood of another bitter showdown in Congress over the same fundamental issues of taxes and fairness that roiled the legislature in 2010, when the nation nearly defaulted on its debts.¶ This time, the country faces a "fiscal cliff" at the start of 2013, when the Bush-era tax cuts expire and the government has to start implementing a decade-long budget-cutting program worth about $1 trillion.¶ Democrats, who used to favor the expiration of most of the tax cuts, have refined their position in recent years in favor of retaining all but those on income above $250,000, which would affect about 2 percent of the population.¶ Republicans have opposed letting any taxes go up, and that remains their position, Boehner said in a speech Wednesday.

#### No link – Congress made a deal on funding that they will discuss all funding appropriations in March after the fiscal cliff.

#### Immigration reform thumps.

Fox News, 11-9

[Fox News Latino, “GOP opens door to immigration reform after election loss”,

http://latino.foxnews.com/latino/news/2012/11/09/gop-opens-door-to-immigration-reform-after-election-loss/, RSR]

Republicans are warming to the idea of reforming the "broken" U.S. immigration system in the wake of their defeat in this week's presidential election by Democratic incumbent Barack Obama, who was the choice of 70 percent of Hispanic voters. Among those raising the issue after Tuesday's loss at the polls is the GOP's highest-ranking elected official, House Speaker John Boehner, who speaks of the need for a plan to deal with the estimated 11 million undocumented immigrants now in the country. "What I'm talking about is a common-sense, step-by-step approach to secure our borders, allow us to enforce the laws and fix a broken immigration system," he said Friday at a press conference. "It's just time to get the job done," Boehner said, though declining to offer any specific ideas. Expressing Republicans' willingness to work with Democrats, the speaker stressed that "on an issue this big, the president has to lead."

#### Link is NUQ. Funding now. Worthington ev. says subsidies now. Even if no new reactors, there’s already the perception of Obama pushing.

#### Cantor and House Republicans support nuclear power

Politico 11 (Cantor: nuclear power 'essential' for U.S. energy needs, http://www.politico.com/blogs/glennthrush/0311/Cantor\_nuclear\_power\_essential\_for\_US\_energy\_needs.html)

House Majority Leader Eric Cantor defended nuclear energy production Monday, after a series of explosions at a nuclear reactor in Japan, calling it “essential” to meeting American energy needs. The problems at the Fukushima plant 150 miles north of Tokyo have reignited the debate over the safety of nuclear energy production. Cantor told reporters Monday that the tsunami that ravaged Japan last week is to blame, not the reactor itself. “As far as we know, this is the result of a tsunami,” he said. “Nuclear power is an essential mix of the energy economy in this country.” The tsunami caused technical problems at the Japanese plant, which left nuclear rods exposed, raising the specter of Chernobyl-style meltdown. The timing couldn’t have been worse for House Republican leaders, who demanded last week that President Barack Obama speed up approval of new nuclear energy facilities.

#### House Republicans key to the deal – blocking it in the SQUO.

Tucker 11/9 (Sean Tucker is assistant managing editor for GovWin from Deltek, the network that helps government contractors win new business every day., http://govwin.com/seantucker\_blog/fiscal-cliff-deal-whats-planned/742506)

In fact, CNN notes, "Boehner and Republicans oppose raising taxes on anyone, and instead back a broad reform of the tax system that would lower rates further for everyone while eliminating some deductions and loopholes. While Boehner said this week that his side was open to increasing revenue from such reforms, he made clear that such increases should come from resulting economic growth instead of higher tax rates."¶ President Obama, meanwhile, has sent signals that he would veto any sequestration plan that did not include tax increases on the wealthiest Americans.¶ Senate negotiators, it seems, could agree to a compromise that would avert the fiscal cliff and could pass the Senate – but it would likely run into opposition in the House of Representatives. That, in fact, is precisely the scenario that created the sequestration problem in the first place – when a battle between the White House and House leaders over raising the nation's debt ceiling proved intractable, the two sides agreed to sequestration in its place. The Senate was willing to compromise. The Administration and House Republicans weren't.

#### Logical policymaker can do both – CP intrinsic test of USFG action. This justifies intrinsicness tests of the DA. As a congress person, you can vote aff and pass a fiscal cliff compromise.

#### Mark Warner and Democrats support nuclear power

Right Democrat 8 (http://rightdemocrat.blogspot.com/2008/11/mark-warner-says-nuclear-power-can-help.html)

A growing number of Democratic candidates and elected officials are in favor of building more nuclear power plants to reduce carbon emissions and help meet our nation's energy needs. Democratic U.S. Senate nominee and former Virginia Governor Mark Warner is a proponent of atomic energy.¶ "Nuclear power should be expanded and should play a role in addressing our energy and environmental needs. Nuclear power generates one-fifth of America's electricity. It holds the potential to provide clean, relatively inexpensive power and lessen our dependence on fossil fuels at a time when prices are rising."¶ "France gets 80% of its electricity from nuclear power and Japan is aggressively building new reactors. If they can do it, so can we. While safety around using nuclear power has improved greatly, we need to invest in research to find a long term solution to storing nuclear waste. And as we look to increase our nuclear energy, nuclear plant security also must be a top priority."¶ Another leading Democrat - Senator Thomas Carper of Delaware has stated: "I am a strong supporter of safe and secure nuclear power and believe it must be a prominent part of any global warming solution. The resurgence of nuclear power in the United States gives us a unique opportunity to rebuild a carbon-free energy industry, and creating tens of thousands of highly-skilled jobs."¶ Senator Mary Landrieu of Louisiana says that it is "very important for our country to move forward in a very deliberative direction" toward building more nuclear power plants.

#### Mark Warner is key to negotiations on the fiscal cliff – leader of the gang of eight

Tucker 11/9 (Sean Tucker is assistant managing editor for GovWin from Deltek, the network that helps government contractors win new business every day., http://govwin.com/seantucker\_blog/fiscal-cliff-deal-whats-planned/742506)

¶ In a press conference yesterday, Senator Mark Warner (D-VA) told reporters, "In the lame duck, my hope is that we’ll be able to make enough of a down payment to avoid the sequester cuts, to avoid the fiscal cliff." ¶ Warner is emerging as a key figure in negotiations. The [National Journal](http://govwin.com/news/gang-eight-regroups-postelection/742420) reports that the "gang of eight," a "bipartisan group of senators" who have ironed out compromises on difficult issues in the past, "is meeting in an unofficial capacity to try and reach agreements on how to head off the fiscal cliff." ¶ Members include Democratic Senators Kent Conrad of North Dakota, Dick Durbin of Illinois, and Mark Warner of Virginia; and Republican Senators Saxby Chambliss of Georgia, Tom Coburn of Oklahoma, and Mike Crapo of Idaho, and a pair of newly elected members, Democrat Michael Bennet of Colorado and Republican Mike Johanns of Nebraska.

### Ban Nuke CP

#### Perm ban fission based nuclear power and do the plan. Avoids all fission bad arguments. Resolves the net benefit

#### Perm do both

#### Doesn’t solve the aff:

#### a.) Advantage one. Even if we banned nuclear power, we would still have the waste sitting around either on-site or in Yucca.

#### b.) Advantage two. Tritium shortage in SQUO due to lack of uranium. Need more LEU in order to maintain our deterrent. That’s Holt and Nitikin

#### c.) Advantage two. Central Asia war – no reason why US banning of nuclear power resolves Russia and China supply shortages that creates war.

#### Conditionality is a voting issue – being able to kick positions at will destroys argumentative responsibility, skews the 2AC, the focal point of all aff offense, because we have to spend more time answering things than they do kicking them, and justifies aff conditionality to be reciprocal. Counter interpretation is dispositionality. Allows us to stick them to positions. Solves all their offense.

#### Reprocessing good:

#### a.) Lack of federal reprocessing hurts relations with South Korea – cornerstone of relations.

Yurman, Staff Writer, ‘12

[Dan, “Revisiting Reprocessing in South Korea”, ANS Nuclear Café, 8-2-12,

<http://ansnuclearcafe.org/2012/08/02/revisiting-reprocessing-in-south-korea/>, RSR]

Comes now the request by the South Korean government, first aired in October 2010, to revise the bilateral cooperation treaty with the U.S. It has been in place for more than 40 years and it is a cornerstone of U.S./South Korean diplomatic relations. Many specialists in the field of nonproliferation see a “hard and fast” policy against any expansion of uranium enrichment and spent fuel reprocessing as a key to stopping states like North Korea from pursuing these activities. That strategy hasn’t worked and, as a result, South Korea wants relief from the restriction in the now-decades-old treaty. Negotiations over changes to the treaty have been going on since last December, but appear to be stalemated around a key set of issues. It is a delicate dance, as diplomats like to say, because if the U.S. leans too heavily on South Korea, it could sour relations between the two countries and spawn nationalist sentiment that might lead to a nuclear weapons program. Since the 1950s, South Korea has depended on the U.S. nuclear arsenal as a shield against aggression from its neighbor to the north.

#### US-SoKo relations k2 regional stability and global security

Clinton 10 [Hillary Rodham Clinton, “America’s Engagement in the Asia-Pacific”, October 28, 2010, http://www.state.gov/secretary/rm/2010/10/150141.htm]

This year also marked a milestone with another ally: the 60th anniversary of the start of the Korean War, which Secretary Gates and I commemorated in Seoul this past summer. And in two weeks, our presidents will meet in Seoul when President Obama travels there for the G-20 summit. Our two countries have stood together in the face of threats and provocative acts from North Korea, including the tragic sinking of the Cheonan by a North Korean torpedo. We will continue to coordinate closely with both Seoul and Tokyo in our efforts to make clear to North Korea there is only one path that promises the full benefits of engagement with the outside world – a full, verifiable, and irreversible denuclearization.The alliance between South Korea and the United States is a lynchpin of stability and security in the region and now even far beyond. We are working together in Afghanistan, where a South Korean reconstruction team is at work in Parwan Province; in the Gulf of Aden, where Korean and U.S. forces are coordinating anti-piracy missions. And of course, beyond our military cooperation, our countries enjoy a vibrant economic relationship, which is why our two Presidents have called for resolving the outstanding issues related to the U.S.-Korea Free Trade Agreement by the time of the G-20 meeting in Seoul.

#### East Asian instability leads to World War III

Knight Ridder 2k

(Jonathon S. Landay, “Top administration officials warn stakes for U.S. are high in Asian conflicts”, 3-11, L/N)

Few if any experts think China and Taiwan, North Korea and South Korea, or India and Pakistan are spoiling to fight. But **even a minor miscalculation by any of them could destabilize Asia, jolt the global economy and even start a nuclear war**. India, Pakistan and China all have nuclear weapons, and North Korea may have a few, too. **Asia lacks the kinds of organizations, negotiations and diplomatic relationships that helped keep an uneasy peace for five decades in Cold War Europe. "Nowhere else on Earth are the stakes as high and relationships so fragile**," said Bates Gill, director of northeast Asian policy studies at the Brookings Institution, a Washington think tank. "**We see the convergence of great power interest overlaid with lingering confrontations with no institutionalized security mechanism in place. There are elements for potential disaster**."

### Oil DA

#### Price collapse inevitable – diversification is only way to survive.

Paikin, Columnist for Canada’s iPolitics and contributes research on international affairs to several Washington-based think tanks and institutes, ‘12

[Zach, “Coping in an increasingly competitive global economy”, http://www.ipolitics.ca/2012/04/11/zach-paikin-coping-with-less-revenues-in-an-increasingly-competitive-global-economy/]

It gets worse. The price of oil is about to collapse due to the increasing extraction of unconventional oil. Roughly 250 billion barrels of oil shale — and possibly as much as twice that figure — have been discovered in Israel and will begin to flow into the global market in about a decade at an estimated $30-40 per barrel, merely one third of the current price of oil. This gives Israel the third largest oil shale reserves in the world after the United States and China. The U.S. has already become a net exporter of gasoline and could surpass both Russia and Saudi Arabia as the world’s largest supplier of oil in the near future thanks to its unconventional oil reserves.¶ The upcoming decline in the price of oil will result in the near-total collapse of non-diversified economies, such as the Middle East’s oil-exporting countries. For instance, roughly 75 per cent of Saudi Arabia’s governmental revenue and 90 per cent of its export earnings come from the oil industry. Natural gas doesn’t provide these Mid-East states with much solace: Canadian exports of natural gas to the United States last year alone accounted for half the rate of all natural gas exports from the Middle East and North Africa.

#### Global movement to renewables now should have triggered the link.

Bapna, Interim President at the World Resources Institute, ‘12

[Manish, “2012: A Breakthrough for Renewable Energy?,” Huffington Post, February 12, 2012, http://www.huffingtonpost.com/manish-bapna/2012-a-breakthrough-for-r\_b\_1263543.html]

Despite conventional wisdom, there is a growing body of evidence showing that renewables are no longer decades away from being a viable and affordable alternative to fossil fuels. Instead, onshore wind and solar photovoltaics are close to a tipping point to compete head-to-head with coal and natural gas in many countries. In fact, it’s likely that 2012 could be the year when investment in renewable energy (not counting hydropower) will surpass fossil fuels, signaling a profound shift toward a global clean energy economy. Investors are leading the charge toward a clean energy future, betting heavily on renewable energy. Global investment in clean energy generation capacity reached a record high of $260 billion in 2011, Bloomberg New Energy Finance announced last month. That was up 5 percent above 2010 levels and almost five times the 2004 total. The United States, surprisingly, led the world in renewable energy investment at nearly $56 billion, and China was second with more than $47 billion. Wind farms in China and solar panels on rooftops in Europe are the biggest signs of growth. But the renewables boom is a global phenomenon. In South and Central America, investments rose 39 percent to $13 billion. In India, they rose by 25 percent to almost $4 billion; and in the Middle East and Africa, by 104 percent to $5 billion. So what is getting investors– from asset financiers to venture capitalists— so excited? The answer is simple: wind and solar energy is becoming increasingly cost competitive with coal and natural gas. In the past few years, the costs of PV modules and wind turbines have tumbled, driven mainly by technology innovations and a maturing supply chain. The results are evident in falling clean energy prices around the world. Take just a few examples: In the United States, the authoritative National Renewable Energy Laboratory forecasts that solar PV residential electricity prices could be cost competitive by 2015 across two-thirds of the country. In Italy, Spain, Greece, Portugal, and Japan, solar PV is on course to match retail electricity fossil fuel prices next year, without the benefit of subsidies, according to Pike Research. In Brazil, wind power plants undercut natural gas competitors in bidding for government power contract tenders last summer. And in China, wind power prices are expected to be competitive with coal within two years. But before rushing to invest your entire pension in clean energy, there are some important caveats. Renewable power is not yet a mainstream global industry. It made up only a little over 3 percent of total world electricity generation, as of 2009. While its future seems bright, the outcome may hang on how two key issues play out: First is the unpredictable effect of the shale gas boom. In countries, like the United States, where low electricity prices already make it tough for renewables to become cost competitive, abundant and cheap shale gas may drive energy prices down even further and divert investment from wind and solar power. Low-priced natural gas is good for consumers, but it could slow the growth of renewable. This could have additional negative environmental consequences, including on greenhouse gas emissions. The second key issue is whether governments will keep up their investor-friendly commitments to clean energy policy and incentives. The BNEF report, Global Trends in Renewable Energy Investment 2011, showed significant progress on that front. By early 2011, some 119 countries had policies or targets in place to support renewables, more than half of them in the developing world. But given the turbulent global economy, it is likely that fiscal and political constraints will continue to bite across much of the globe in 2012. Governments may see support for wind and solar as tempting for budget cuts. In the United States, for example, wind power developers are nervous about the potential expiration of the Production Tax Credit in December 2012. If Congress fails to renew or replace it, the industry’s robust growth will likely falter. President Obama acknowledged as much during State of the Union, when he called on Congress to extend support for wind power and solar power. So the outlook for the year is still sunny, but not cloudless for renewables. Given the significant strides the industry has made, it would be unfortunate if governments and investors turned their backs now. If they forge ahead, 2012 could indeed see global investment surpass that for fossil fuels, crossing an important threshold toward a clean energy future.

#### Nuclear renaissance now. Worthington says nuclear is already receiving subsidies and building plants.

#### Nuclear power is globally expanding and is catching on in the U.S.

WNA 11 (World Nuclear Association, The Nuclear Renaissance , August 2011, <http://www.world-nuclear.org/info/inf104.html>) JD

Since about 2001 there has been much talk about an imminent nuclear revival or "renaissance" which implies that the nuclear industry has been dormant or in decline for some time. Whereas this may generally be the case for the Western world, nuclear capacity has been expanding in Eastern Europe and Asia. Globally, the share of nuclear in world electricity has showed slight decline from about 17% to 13.5% since the mid 1980s, though output from nuclear reactors actually increased to match the growth in global electricity consumption. Today nuclear energy is back on the policy agendas of many countries, with projections for new build similar to or exceeding those of the early years of nuclear power. This signals a revival in support for nuclear power in the West that was diminished by the accidents at Three Mile Island and Chernobyl and also by nuclear power plant construction cost overruns in the 1970s and 1980s, coupled with years of cheap natural gas. The March 2011 Fukushima accident has set back public perception of nuclear safety, despite there being no deaths or serious radiation exposure from it (while the direct death toll from the tsunami which caused it is some 25,000). Also the advent of shale gas has adversely changed the economics of nuclear power in places such as North America.

#### Nuclear doesn’t tradeoff with oil---electricity not liquid fuel.

Styles, Managing Director of GSW Strategy Group, LLC, an energy and environmental strategy consulting firm, ‘12

[Geoffrey, “How Helpless Are We in the Face of Rising Oil Prices?", February 24, energyoutlook.blogspot.com/2012/02/how-helpless-are-we-in-face-of-rising.html]

To see why requires a sense of how the oil market works, as well as the uses to which we put oil today, rather than a generation ago. For starters, although the President has worked hard to improve conditions for renewable energy sources like wind and solar power--sources that certainly have an important role to play in our long-term energy mix--these technologies, along with nuclear power, are out of place in a conversation about oil prices in 2012. That's because they produce electricity rather than liquid fuels, and less than 1% of US electricity is generated from oil today, compared to more than 10% in 1980. Electricity from renewable and nuclear power doesn't compete with imported oil or any other kind of oil; it competes with domestic energy sources like coal and natural gas, most of which now comes from conventional and unconventional gas fields, rather than as a byproduct of producing oil. So by all means lets have a conversation about renewables in the context of reducing greenhouse gas emissions today and displacing oil from transportation when there are tens of millions of electric vehicles on the road in the future, but in terms of oil prices now and in the near future, they are a rhetorical diversion.

#### Low oil prices usher necessary economic and political reforms.

[Andrew E. Kramer, New York Times, “Rise in Oil Price Eases Push for Reform in Russia”, 6/3/2009, <http://www.nytimes.com/2009/06/04/business/global/04ruble.html>]

The two previous major oil price slumps in the last quarter-century were followed by significant economic and political changes in Moscow that paved the way for future growth. For a time, it seemed the current oil shock would follow the same path. Indeed, the mood was so glum last winter, when oil dipped below $40 a barrel, that some advisers close to the government suggested that the country might be compelled to open up politically to spur development. At the least, policies encouraging Russia to diversify beyond oil were seen as imminent. What is needed to diversify the economy and stabilize the financial system, critics of the Russian government say, is an overhaul of the courts and a crackdown on corruption to improve property rights and separate the bureaucracy from the economy. But with oil prices now above $60 a barrel, the pressure on the government of Prime Minister Vladimir V. Putin to change has eased, even though the stock market remains 44 percent off its high in December 2007. Instead, an economic strategy that amounts to essentially waiting out the downturn is beginning to take shape.

### Heidegger K

#### Our interpretation is that debate should be a question of the aff plan versus a competitive policy option or the status quo.

#### This is key to ground and predictablity – infinite number of possible kritik alternatives or things the negative could reject explodes the research burden. That’s a voting issue.

#### Their infatuation with ontology is politically debilitating – focusing on ontology divests politics of its emancipatory potential and devolves into a self-justifying cycle of never-ending critique.

Yar, Ph.D in the Department of Sociology at Lancaster University, 2k

[Majid, “Arendt's Heideggerianism: Contours of a `Postmetaphysical' Political Theory?,” Cultural Values, Volume 4, Issue 1, January, Available Online to Subscribing Institutions via Academic Search Complete]

Similarly, we must consider the consequences that this 'ontological substitution' for the essence of the political has for politics, in terms of what is practically excluded by this rethinking. If the presently available menu of political engagements and projects (be they market or social liberalism, social democracy, communitarianism, Marxism, etc.) are only so many moments of the techno-social completion of an underlying metaphysics, then the fear of 'metaphysical contamination' inhibits any return to recognisable political practices and sincere engagement with the political exigencies of the day. This is what Nancy Fraser has called the problem of 'dirty hands', the suspension of engagement with the existing content of political agendas because of their identification as being in thrall to the violence of metaphysics. Unable to engage in politics as it is, one either [a] sublimates the desire for politics by retreating to an interrogation of the political with respect to its essence (Fraser, 1984, p. 144), or [b] on this basis, seeks 'to breach the inscription of a wholly other politics'. The former suspends politics indefinitely, while the latter implies a new politics, which, on the basis of its reconceived understanding of the political, apparently excludes much of what recognizably belongs to politics today. This latter difficulty is well known from Arendt's case, whose barring of issues of social and economic justice and welfare from the political domain are well known. To offer two examples: [1] in her commentary on the U.S. civil rights movement in the 1950s, she argued that the politically salient factor which needed challenging was only racial legislation and the formal exclusion of African-Americans from the political sphere, not discrimination, social deprivation and disadvantage, etc.(Arendt, 1959, pp. 45-56); [2] Arendt's pronounceraent at a conference in 1972 (put under question by Albrecht Wellmer regarding her distinction of the 'political' and the 'social'), that housing and homelessness were not political issues, that they were external to the political as the sphere of the actualisation of freedom as disclosure; the political is about human self-disclosure in speech and deed, not about the distribution of goods, which belongs to the social realm as an extension of the oikos.[20] The point here is not that Arendt and others are in any sense unconcerned or indifferent about such sufferings, deprivations and inequalities. Rather, it is that such disputes and agendas are identified as belonging to the socio-technical sphere of administration, calculation, instrumentality, the logic of means and ends, subject-object manipulation by a will which turns the world to its purposes, the conceptual rendering of beings in terms of abstract and levelling categories and classes, and so on; they are thereby part and parcel of the metaphysical-technological understanding of Being, which effaces the unique and singular appearance and disclosure of beings, and thereby illegitimate candidates for consideration under the renewed, ontological-existential formulation of the political. To reconceive the political in terms of a departure from its former incarnation as metaphysical politics, means that the revised terms of a properly political discourse cannot accommodate the prosaic yet urgent questions we might typically identify under the rubric of 'policy'. Questions of social and economic justice are made homeless, exiled from the political sphere of disputation and demand in which they were formerly voiced. Indeed, it might be observed that the postmetaphysical formulation of the political is devoid of any content other than the freedom which defines it; it is freedom to appear, to disclose, but not the freedom to do something in particular, in that utilising freedom for achieving some end or other implies a collapse back into will, instrumentality, teleocracy, poeisis, etc. By defining freedom qua disclosedness as the essence of freedom and the sole end of the political, this position skirts dangerously close to advocating politique pour la politique, divesting politics of any other practical and normative ends in the process.[21]

#### Case outweighs: Let beings be allows waste currently stored on-site that culminates in extinction. Ontological concerns of Being are irrelevant in a world without Beings. Our impacts come first because thoughts about thinking are impossible without people to think them.

#### Permutation do both: Heideggerian releasement is an affirmative argument: we can establish a free relation to technology through thinking, so the action of the plan is not implicated by their link.

Godzinski 5(Ronald Jr., Southern Illinois University at Carbondale, “(En)Framing Heidegger’s Philosophy of Technology,” Essays in Philosophy, Vol. 6, No. 1, humboldt.edu/~essays/godzinski.html)

In a related vein, the previous claim that everything within the natural world gives itself over to us, as standing-reserve is, for Heidegger, a phenomenological claim. As a purely phenomenological claim, Heidegger is not making an evaluative assertion about the status of modern technology and our comportment toward things that are treated as standing-reserve. Perhaps following the regressive method that Husserl used in *The Crisis of European Sciences and Transcendental Phenomenology*, Heidegger presents us with a purely descriptive account of modern technology that seems to be value neutral. In truth, he acknowledges that technology is not intrinsically dangerous or evil.[17](http://www.humboldt.edu/~essays/godzinski.html#17) Even Heidegger’s infamous “Memorial Address”[18](http://www.humboldt.edu/~essays/godzinski.html#18) supports this idea:¶ For all of us, the arrangements, devices, and machinery of technology are to a greater or lesser extent indispensable. It would be foolish to attack technology blindly. It would be shortsighted to condemn it as the work of the devil.[19](http://www.humboldt.edu/~essays/godzinski.html#19) ¶ When understood within this particular context, Heidegger is neither praising nor demonizing modern technology. Of course the same would have to be said about technological objects that were purported to be intrinsically good, as well. Hence, the potential value that any technical device might have would be contingent upon its context of use. From a Heideggerian standpoint, it would be inappropriate to claim that any technical device is intrinsically good or evil.[20](http://www.humboldt.edu/~essays/godzinski.html#20) ¶ In “The Question Concerning Technology,” Heidegger makes the phenomenological observation that we master nature because we respond to nature’s call to requisition it. We do this primarily because this is how we have been *called* by Being. We use things as standing-reserve since they give themselves as standing-reserve—everything gives itself to be used. Even when we are not openly trying to master nature, Heidegger would nonetheless contend that we are still responding to its call. The revealing is not something that we do strictly on our own accord, without first hearing nature’s call. In this sense, we cannot be held accountable for modern technology, since this is something that just happens in the context of western culture: ¶ When man…reveals that which presences, he merely responds to the call of unconcealment even when he contradicts it. Thus when man, investigating, observing, ensnares nature as an area of his own conceiving, he has already been claimed by a way of revealing that challenges him to approach nature as an object of research, until even the object disappears into the objectlessness of standing-reserve. Modern technology as an ordering revealing is, then, no merely human doing.[21](http://www.humboldt.edu/~essays/godzinski.html#21) ¶ The challenge which directs us to order the self-revealing as standing-reserve, is nothing other than what Heidegger calls “enframing” [*Gestell*].[22](http://www.humboldt.edu/~essays/godzinski.html#22) Enframing, or *Gestell*, is the essence of modern technology. From Heidegger’s perspective, enframing is the way in which truth reveals itself as standing-reserve. We simply cannot avoid its influence or sway. One is already in a relationship with it, so it is not a matter of whether or not I will respond to it. Rather, it is a matter of how I will respond to it. More importantly, our response to the challenge that enframing emits, is neither completely predetermined nor free.¶ Heidegger recognizes that an authentic notion of freedom will be open to the essencing of technology. Thus, a genuine and free relationship to technology will be one that is open to the essencing of technology. This type of openness to the presencing of technology is called Gelassenheit, or releasement:¶ We can use technical devices, and yet with the proper use also keep ourselves so free of them, that we may let go of them at any time…. We can affirm the unavoidable use of technical devices, and also deny them the right to dominate us, and so to warp, confuse, and lay waste our nature…. I would call this comportment toward technology which expresses “yes” and at the same time “no,” by an old word, *releasement toward things*.[23](http://www.humboldt.edu/~essays/godzinski.html#23) ¶ In the movement of Gelassenheit, one enters into a free relationship with technology which is not founded upon domination and mastery.[24](http://www.humboldt.edu/~essays/godzinski.html#24) On the contrary, an authentic relationship to technology is one that is simply beyond our control.[25](http://www.humboldt.edu/~essays/godzinski.html#25) Paradoxically, a relationship which is exemplified by releasement continually uses things as standing-reserve, while avoiding the danger of being taken as standing-reserve, although Heidegger certainly keeps a watchful eye out for the ultimate danger that rests within the ordering of standing-reserve. That is, if we, ourselves, get ordered or dominated by the things that we in turn are trying to order and dominate, then we will encounter the danger, to the extent that the sending or presencing of Being gets closed off and concealed from us.[26](http://www.humboldt.edu/~essays/godzinski.html#26)

#### **Plan is a net benefit to the permutation.**

#### **a.) The very idea of housing in Yucca Mountain is the standing reserve mentality.**

Bloomfield and Vurdubakis, ‘5

[Brian and Theo (Centre for the Study of Technology and Organisation, Lancaster University Management School), “The secret of Yucca Mountain: reflections on an object in extremis”, Environment and Planning D: Society and Space 2005, volume 23, page 741]

The Yucca Mountain project has been officially trumpeted as the long sought after solution to nuclear waste, but for many others in US society (and beyond) the repository has a very different meaning. If Heidegger (1977) bemoaned what the siting of a hydroelectric plant had done to the Rhine, the technological revealing of nature as standing reserve, the outcry over Yucca Mountain by various US native peoples is no less notable. Indeed, for them the repository implies an act not of purification but, rather, one of defilement. Yucca Mountain has ``long been a place of powerful spiritual energy for the Shoshone and the Paiute. The water in the area is sacred, too, as it is with many desert peoples'' (http://www.sacredland.org/endangered sites pages/ yucca mountain.html). Further, Erikson observes: ``Shoshone and Paiute natives \_ see that whole tract as part of an ancient claim and view its use by federal agencies as `willful trespass'. They have been using Yucca Mountain for at least twelve thousand years ... . The very idea of injecting the most virulent poisons ever known into the body of a mountain seems to them an insult to the earth, an affront to ancestors, and a violation of natural good sense'' (1994, pages 208 ^ 209). Clearly, then, the object Yucca Mountain as well as the idea of turning it into a repository for nuclear waste are perceived within a variety of interpretative horizons. Their meaning and value are formed in relation to a number of different historical, cultural, economic, and political contexts.

#### **b.) SQUO treats atomic energy as an standing reserve, concealing the problems with waste.**

Rawles, Lecturer at the University of Edinburgh, 2k

[Richard, “Coyote Learns to Glow”, Part of “Learning to Glow: A Nuclear Reader”, RSR]

Humans, having gathered uranium from the New Mexican desert not all that far from Yucca Mountain, have harnessed the energy within the atom, for commercial and security purposes, in effect by “tricking" nature out of its secret power. We are aided in our industry by this supposedly "free” energy source. As Martin Heidegger observed, we regard the natural world as a “standing reserve:’ there for the plundering-the military metaphor is more than apt in this case. Having stolen from nature its hidden fire, we delude ourselves into believing that there’s no reckoning, no balancing of accounts, despite even the scientific evidence, which tells us there are no free meals in nature’s unforgiving cycles. We are burdened by the waste from this virtual cornucopia, much as the Greeks of the early classical period projected into Pandora's box of woes the burdens of civilizing fire—its destructive aspects, along with the rituals needed to maintain the fire.

#### Heidegger’s privileging of ontology is complicit in atrocities.

Committee on Public Safety 96 (The writers subsume their individual names within the denomination of "Committee" in deference to the indivisibility of the work presented Levinasian Scholars "My Place in the Sun" Reflections On The Thought Of Emmanuel Levinas Diacritics 26.1 (1996) 3-10 Project Muse) TBC 7/7/10

At the heart of Levinas's critique of Heidegger is the reproof that the question of man has become submerged in the question of being, and thus that the recovery of the meaning of being entails the forgetting of the meaning of the human. Heidegger's Letter on Humanism (Brief über den Humanismus), published in 1947, in which he claims that "what is essential is not humanity, but being" [Brief 24] is offset by the title of Levinas's work, published in the same year, in which he shows how the anonymity of existence, or being, is redeemed only by the existent, or be-ing; hence, De l'existence à l'existant, from existence to the existent--denoting a sense of direction, lost needlessly in Lingis's translation of the title as Existence and Existents. Levinas depicts the anonymity of being through the il y a, in which the impersonality of the verb mirrors the subjectless horror of existence. The anonymity of the il y a is "saved" ultimately only through the face of the other for whom one is always inescapably responsible. It is not that Levinas retreats from the ontological (the domain of Sein or being) to the ontic (the domain of the Seienden or be-ings), or that he rejects being in favor of some pre-Heideggerian idealist notion of the subject. Rather, his emphasis on the passage from the bare meaning of être or existence to l'étant or existent gropes toward what finally comes to signify the ethical, whereby the anonymity of the infinitive is overcome by the priority of the participial being-for-another-existent and the subject deposed rather than posed [EI 50]. "I am wary of that debased word 'love,'" he remarks again to Nemo, "but the responsibility for the other, being-for-the-other, seemed to me, even at that time [1947], to put an end to the anonymous and senseless rumbling of being" [EI 51]. Only in the most practical and mundane of obligations to the other is ontology rendered ethical and humane. This horror invoked by the anonymous il y a is not to be confused with Heideggerian anguish before death, or care for being. Levinas describes how the original De l'existence appeared in a cover on which were inscribed the words "where it is not a question of anxiety" [EI 47]. One could scarcely ask for a more explicit derangement of fundamental ontology, in the light of a horror of the il y a which had become historically incarnated for him: "None of the generosity which the German counterpart of the 'there is,' the 'es gibt,' is said to contain was displayed between 1933 and 1945," he writes later [DL 375]. There is no mistaking his imputation of ideological implications of complicity between Heideggerian Sein and modern genocide. They are related, not by happenstance but as the fundamental possibility of each other. Invoking the Platonic concept of the good beyond being (epekeina ts ousias), Levinas contests the notion that nothingness is a privation of being and that evil is a privation of the good, insisting that evil itself is a positive mode of being. Being can be more primally terrible than simply not-being. In brief, the distance between Heideggerian ontology and Levinasian ethics can be measured by the difference between an inquiry into being qua being (ti to on) and an inquiry into humanity itself (ti bioteon)--a distance which, as Heidegger himself observes in his Letter [Brief 22], is paradoxically both farther away than any individual be-ing and yet nearer than any be-ing could ever be.

#### Vague alts bad and that’s a voting issue - the neg can shift the alt in the block and moot the 2AC, killing fairness.

## 1AR

### Oil DA

#### Oil price volatility now – futures look bleak.

Powell, Staff Writer, 10-3

[Barbara, “Oil Options Volatility Jumps as Crude Sinks to Two-Month Low”, 10-3-12, Businessweek,

http://www.businessweek.com/news/2012-10-03/oil-options-volatility-jumps-as-crude-sinks-to-two-month-low, RSR]

Crude oil options volatility jumped to a 10-day high as the underlying futures sank to the lowest level in two months in the biggest retreat since June. Implied volatility for options expiring in November, a measure of expected price swings in futures and a gauge of options prices, was 31.9 percent as of 2:40 p.m. in New York, up from 28.7 percent yesterday. “The lower we go, the firmer volatility becomes,” said Ray Carbone, president of Paramount Options Inc. in New York.

#### Nuclear power does not compete with oil – they show little overlap with market.

Toth and Rogner, ‘6

(Ferenc (Senior Energy Economist in the IAEA's Planning and Economic Studies Section) and Hans-Holger (Section Head, Planning and Economic Studies Section at the IAEA), “Oil and nuclear power: Past, present, and future”, Energy Economics 28, 2006, pg. 22, RSR)

While the past expansion of nuclear energy occurred to the detriment of oil in the power sector, this is no longer the case today and highly unlikely to reoccur in the future. The respective market structures in which nuclear and oil operate now display little overlap and an expansion of nuclear power would not impinge on oil sales to power generation. Nuclear supplies base load to large grid-integrated markets where oil provides some peak supply, back-up capacity, small-scale and non-grid applications. Oil’s main markets are the low energy demand intensity rural and remote areas usually with little or no grid integration. In an environmentally unconstrained future, nuclear power competes primarily against coal and possibly natural gas, depending on how closely natural gas prices track oil market prices and whether or not gas infrastructures are in place. However, current trends towards electricity market liberalization relying more on private sector shareholder value maximization create economic barriers to the expansion of present-day nuclear plants because of their high up-front capital costs and long amortization periods. In the absence of public policy support and/or the emergence of innovative reactor designs that lower the costs and further improve operating safety, nuclear power’s market share might indeed follow a downward trajectory. Yet there is some evidence to the contrary. The order of the new Olkiluoto reactor in Finland is based on several studies, each confirming that nuclear generation is the best economic option to satisfy increasing demand for electricity (WNA, 2004).

### Heidegger

#### The plan is not the dangerous technological mindset that Heidegger warns against – using technology is not the same as relying on tech enframing.

Dreyfus 96 [Hubert, “Being and Power: Heidegger and Foucault” University of California Berkeley <http://socrates.berkeley.edu/~hdreyfus/html/paper_being.html>]

Heidegger and Foucault are clear, then, that what is uniquely oppressive in our current practices is not that they are illegitimate nor that they cause ecological devastation. According to Foucault legitimacy is a red herring; our current society becomes more oppressive as it becomes more protective of rights and more permissive, and productive. Heidegger, on his part, distinguishes the current problems of technology -- ecological destruction, urbanization, nuclear danger, etc. -- from the devastation that would result if technology solved all our problems. What threatens [hu]man in [its]his very nature is the ... view that [hu]man, by the peaceful release, transformation, storage, and channeling of the energies of physical nature, could render the human condition, [hu]man's being, tolerable for everybody and happy in all respects. Their common critique of techno/bio-power does not, however, lead Heidegger or Foucault to oppose the use of technological devices, nor specific welfare practices. Heidegger is clear that it is the essence of technology -- the technological understanding of being -- not technology, that causes our distress. That the technological understanding of being can be disassociated from technological devices is clear if one looks at contemporary Japan where a traditional, non-technological understanding of being -- or, perhaps better, no single understanding of being at all, but a pluralistic understanding of multiple realities -- exists alongside the most advanced high-tech production and consumption.