# Round 7 NDT – ASU RV vs. UNLV EJ (Aff)

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### Inherency

#### Observation One: Inherency

#### Obama pushing nuclear incentives now.

Northey 13 (Hannah, E&E reporter, 3-13-13, “Obama admin placing big bet on small reactors”, <http://www.eenews.net/public/Greenwire/2013/03/13/1>, RSR)

The Obama administration is promoting a bold, long-range plan for building dozens of small, factory-built reactors capable of replacing coal-fired power plants that are expected to be retired in the coming decades, a Department of Energy official said yesterday.¶ DOE's effort is aimed at establishing an industry that would manufacture as many as 50 small modular reactors (SMRs) a year by 2040 or sooner, said Rebecca Smith-Kevern, the director of light water reactor technology at the department's Office of Nuclear Energy, which oversees the licensing of tiny nuclear plants.¶ "We have a vision of having a whole fleet of [small modular reactors] produced in factories," Smith-Kevern told a regulatory conference in Bethesda, Md. "We envision the U.S. government to be the first users."¶ DOE this week announced a second wave of million-dollar cost-share grants to help the industry design and license the modular reactors, which the administration defines as factory-built plants of less than 300 megawatts that are shipped by truck, barge or rail to construction sites for assembly.¶ The department awarded the first grants under its $452 million cost-share program to veteran reactor designer Babcock & Wilcox, which is building two small units at the Clinch River site in Oak Ridge, Tenn. (Greenwire, Nov. 11, 2012).

#### Global nuclear renaissance now

Marketwire 12 (5/3/12, – Part of the Paragon Report on uranium ore stock future

<http://finance.yahoo.com/news/nuclear-renaissance-back-track-122000381.html>)

NEW YORK, NY--(Marketwire -05/03/12)- Last year the Fukushima disaster in Japan started a downward spiral for companies in the Uranium Industry. Approximately one year later the industry looks to be finally recovering as the Global X Uranium ETF (URA) is up nearly 12 percent year-to-date. "Fukushima put a speed bump on the road to the nuclear renaissance," Ganpat Mani, president of Converdyn, said at a nuclear industry summit. "It's not going to delay the programs around the world." The Paragon Report examines investing opportunities in the Uranium Industry and provides equity research on Cameco Corporation (CCJ - News) and Uranium One, Inc. (UUU.TO - News). Approximately 650 million people in China and India currently are living without electricity. With the high costs of fossil fuel the most viable options for these countries would be nuclear power. Indonesia, Egypt, and Chile are among some of the nations that have plans to build their first nuclear power station, the list of countries operating atomic plants currently stands at 30. According to numbers released by the World Nuclear Association there are 61 reactors that are presently under construction, and plans to build another 162. "In two years, there will be very strong demand on the market, as new reactors start operating, and as new contracts with the existing fleet kick in," Areva SA's Chief Commercial Officer Ruben Lazo said in a previous interview.

#### 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: Tritium

#### US will run out uranium now – demand outpaces supply, Russia will cut us off and nuclear power now.

Humphreys 12 (Tommy, 9-12-2012, editor of Business Insider, CEO of CEO.ca, “The US Is More Dependent On Foreign Uranium Than Foreign Oil”, Business Insider,

<http://www.businessinsider.com/the-us-is-more-dependent-on-foreign-uranium-than-foreign-oil-2012-9>)

Recently we sat down with Amir Adnani, CEO of Uranium Energy Corp. ($UEC), an American uranium mining company, for a conversation on the nuclear industry eighteen months after the catastrophe at Fukushima which devastated both Japan and most uranium miners’ share prices. One of the most critical issues we discussed in our interview was the severity of the US uranium supply and demand deficit. According to Adnani, “The US is consuming 55 million pounds of uranium per annum…to generate 20% of US electricity…[but] domestic production of uranium is only 4 million pounds per year…The US is more dependent on foreign uranium than it is on foreign oil.”Adnani says the supply deficit is global: “The world consumes…more uranium than the mining industry produces. In terms of real numbers, there’s global demand of about 180 million pounds per year, and supply from mining activity is roughly 140 million pounds per year–so you have a 40 million pound per year supply deficit, just to meet current reactor requirements.” How is that 40 million pound annual gap filled? The answer is retired Russian warheads. “Since the cold war ended,” Adnani continues, “we’ve relied heavily on military inventories of uranium–basically dismantling retired Russian nuclear warheads to feed this supply imbalance. This has taken place under a treaty called, “The Highly Enriched Uranium Treaty”, or the “HEU Treaty”, which is set to expire next year, in 2013. [Additionally], the Russian government has come out repeatedly, saying that after this agreement [expires] there’s no interest on their part to continue utilizing this source of supply…That’s a very important catalyst for recognizing why higher uranium prices are needed–in order to stimulate interest in new mine construction…to fill this secondary supply source.” When looking at future demand Adnani concludes: “There are roughly 430 nuclear reactors operating worldwide…over 60 [new reactors] in construction…and hundreds more planned between now and 2020-2030…What’s happening right now in the world in terms of new nuclear builds is unprecedented.”

#### Increased domestic production of uranium is key to our tritium supply – foreign sources cannot solve.

Rowny 12 (Edward, retired Lieutenant General, was chief negotiator with the rank of ambassador in the START arms control negotiations with the Soviet Union and has served as an arms control adviser and negotiator for five presidents, Roll Call, 3-29-2012,

http://www.rollcall.com/issues/57\_118/edward-rowny-safe-uranium-enrichment-should-be-us-priority-213505-1.html)

Oil may grab headlines, but nuclear power for civilian use is growing, as it should. It is efficient, extremely safe and friendly to the environment. As with oil, the U.S. would be wise to produce its own supply of enriched uranium, the fuel for nuclear power plants. Farming out the process to other nations — or to companies headquartered overseas — is risky and increases our vulnerabilities. The U.S. government should pay more attention than it has in recent years to the nation’s dwindling ability to enrich its own uranium. The consequences of doing otherwise could be dramatic. Our country could find itself at the mercy of foreigners who do not have our best interests at heart. Energy independence, a laudable aspiration for oil, is even more essential for nuclear power. Domestically produced supplies of enriched uranium are already running short. The U.S. once produced most of the world’s enriched uranium. Now we’re down to about a quarter of the world’s supply. For reasons of national security, we shouldn’t dip further. That’s why the president should be praised for requesting $150 million in next year’s National Nuclear Security Administration budget to keep uranium enrichment alive on our soil. In the meantime, Chu has asked Congress for the authority to reallocate his current budget resources for that purpose until next year’s budget is enacted. Without this cash infusion, American technology at a major facility in rural Ohio will face an uncertain future. We can’t afford the uncertainty. Military considerations also play a role here. Nuclear weapons, while thankfully on the decline, still exist and must be maintained and updated. International treaties mandate that tritium, a rare, radioactive isotope that’s a byproduct of enriched uranium use in nuclear reactors and is critical to the proper, safe functioning of nuclear weapons, must be made with U.S. technology. Unless U.S. technology is available to make the enriched uranium needed to produce tritium, our national security will be at risk.

#### That’s key to the usefulness of our nuclear weapons.

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.

#### Reliability underpins the effectiveness of our deterrent.

Caves 10 (John, Senior Research Fellow in the Center for the Study of Weapons of Mass Destruction at the National Defense University, “Avoiding a Crisis of Confidence in the U.S. Nuclear Deterrent”, January , Strategic Forum, No. 252, Institute for National Strategic Studies¶ National Defense University,

<http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ada514285>)

As an emerging nuclear-armed near peer like China narrows the wide military power gap that currently separates it from the United States, Washington could find itself more, rather than less, reliant upon its nuclear forces to deter and contain potential challenges from great power competitors. The resulting security dynamics may resemble the Cold War more than the U.S. “unipolar moment” of the 1990s and early 2000s. Concerns about Longterm Reliability With continuing U.S. dependence upon nuclear forces to deter conflict and contain challenges from (re-)emerging great power(s), perceptions of the reliability, adequacy, and credibility of those forces will determine how well they serve those purposes. Perception is all important when it comes to nuclear weapons, which have not been operationally employed since 1945 and not tested (by the United States) since 1992, and, hopefully, will never have to be employed or tested again. If U.S. nuclear forces are to deter other nuclear-armed great powers, the individual weapons must be perceived to work as intended (reliability), the overall forces must be perceived as adequate to deny the adversary the achievement of his goals regardless of his actions (adequacy), and U.S. leadership must be perceived as prepared to employ the forces under conditions that it has communicated via its declaratory policy (credibility) These perceptions must be, of course, those of the leadership of adversaries that we seek to deter (as well as of the allies that we seek to assure), but they also need to be those of the U.S. leadership lest our leaders fail to convey the confidence and resolve necessary to shape adversaries’ perceptions to achieve deterrence. Weapons reliability is the essential foundation for deterrence since there can be no adequacy or credibility without it. Reliability is a serious emerging issue for U.S. nuclear weapons. As Secretary of Defense Robert Gates observed, “No one has designed a nuclear weapon in the United States since the 1980s, and no one has built a new one since the early 1990s.” 8 Indeed, the United States is the only nuclear weapons state party to the Nuclear Nonproliferation Treaty (NPT) that does not have the capability to produce a new nuclear warhead. 9 Russia, China, and France currently are modernizing their nuclear weapons systems, and the United Kingdom has decided to replace its current Vanguard-class ballistic missile submarines and is investing in the sustainment of its nuclear warhead maintenance and replacement capabilities. 10 In lieu of a nuclear weapons production infrastructure and nuclear testing, the United States relies upon its Stockpile Stewardship Program (utilizing computer simulation and component testing) to evaluate and validate the continued viability of existing warheads; service life extension programs to prolong the operational life of warheads (and delivery vehicles); and a stockpile of nonoperationally deployed warheads to provide spares for destructive component testing under the Stockpile Stewardship Program and a reserve to be pressed back into service to augment operationally deployed warheads, if deemed necessary. The Achilles’ heel of this current approach to ensuring the reliability of U.S. nuclear forces is the possible advent of critical systemic failure(s) in entire classes of aging warheads. That such failures could occur can be anticipated as a general matter for any aging system, particularly one that is no longer physically tested as a complete assembly. Specific failures, however, cannot be accurately forecast since the United States has no prior experience with warheads of this age. The potential for such failures emerging is increased by the relatively narrow performance margins to which the warheads were engineered by Cold War nuclear weapons designers tasked with maximizing the number and explosive power of warheads that could be delivered by a ballistic missile. 11 U.S. nuclear weapons scientists have warned of this problem for years. 12 The preceding administration proposed to address this problem by reconstituting and exercising the infrastructure needed to develop and produce nuclear weapons. The proposal involved both facilities (consolidation, refurbishment, and replacement), work force (maintenance of highly specialized nuclear weapons skills), and nuclear weapons design, development, and production work (for refurbishment and replacement of existing warheads). The Department of Energy’s National Nuclear Security Administration, which is responsible for the nuclear weapons infrastructure, expected that the infrastructure transformation plan could be implemented within its existing budget projections if the savings realized from the plan were allowed to be reinvested into the infrastructure. 13 While some aspects of the proposed new infrastructure have moved forward (for example, the National Ignition Facility), much of the plan has not because Congress has declined to provide the requisite funding.

#### 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.

#### Adoption of reprocessing solves U.S. uranium needs

Sayre 11 (Edwin, engineering consultant, “Commercial Value of Used Nuclear Fuel Reprocessed with Elements Separated, Purified and Reduced to Metals”, NIST, 2011, <http://www.nist.gov/tip/wp/pswp/upload/164_commercial_value_used_nuclear_fuel_reprocessed.pdf>)

The commercial value of the elements in the used fuel as indicated in Table 1 is a big ¶ surprise for most people. The commercial value of over twenty million dollars a year each 1000 MW reactor is based on today’s value for the rare metals in the fission ¶ products and the fissile metals to be recycled in fuel. The accelerated use of these ¶ elements with future technology will probably make them worth more than double that ¶ commercial value in 2050.¶ The United States should be interested in determining the cost of reprocessing the used ¶ fuel and preparing the elements for commercial use. It is estimated roughly that there ¶ will be a considerable profit in the processing of the elements in the used fuel. DOE is ¶ supporting technical proposals for the Advanced Fuel Cycle Initiative (AFCI) for ¶ computing and simulating the operations required for processing the used fuel and ¶ separating out the commercial elements to determine the cost. There will be further ¶ programs to optimize the technology for the processing and establishing the required ¶ facilities. It would be economically ideal to start up the first reprocessing facilities by ¶ 2020 to start using the used fuel with over 50 years of aging. ¶ Many other countries are moving forward in the reprocessing and recycling the actinides ¶ in fast breeder reactors to make fuel from all low enriched fuel for the future use in the ¶ thermal reactor power plants. There is enough used nuclear fuel and the uranium 238 ¶ stored away to meet all of the US energy requirements for the next 500 years with the ¶ proper technical planning and program operation.

### Observation 3

#### Observation 3: Radiostopes

#### Massive radioisotope shortage now – leaves the US vulnerable to shocks.

Trager 12

[Rebecca, “US vulnerable to a shortage of critical isotopes”, Royal Society of Chemistry, 7-5-12,

<http://www.rsc.org/chemistryworld/2012/07/us-vulnerable-shortage-critical-isotopes>, RSR]

Significant weaknesses in how the US Department of Energy (DOE) manages its isotope programme could leave the country vulnerable to surprise shortages, an investigation launched by legislators a year ago concludes.¶ The DOE Isotope Program – which is the US’s only domestic supplier for many of the more than 300 different isotopes that are critical to medical, commercial, research and national security applications – continues to face significant challenges, according to the congressional Government Accountability Office (GAO) report.¶ The problems confronting the DOE’s Isotope Program, such as difficulties assessing demand for certain isotopes, have been highlighted in recent years by earlier reports from the GAO and others. In addition, previous shortages of isotopes like helium-3, which is used in radiation detectors at ports and border crossings, have underscored the importance of managing supplies of, and demand for, critical isotopes.¶ The new report revisits the issue to determine whether the DOE is appropriately assessing and mitigating such risks. It found that the department has identified five lists of high-priority isotopes that are at risk of supply problems, which are used to set its Isotope Program priorities.¶ Overall, 104 different isotopes appear on the five lists. The GAO said the DOE has failed to indicate which of these lists take precedence over the others and instead programme officials consider all five when making isotope production and research decisions. But this lack of clarity creates confusion, the GAO suggested.

#### The threat of a supply crunch is real – high demand, dependence on foreign suppliers and short half-lives.

Science Daily 10 [“Worldwide Shortage of Isotopes for Medical Imaging Could Threaten Quality of Patient Care”, 8-23-10,

<http://www.sciencedaily.com/releases/2010/08/100822104822.htm>, RSR]

Each day more than 50,000 patients in the United States receive diagnostic and therapeutic procedures using medical isotopes, particularly individuals with heart problems and cancer. Eight out of every 10 procedures require one specific isotope, technetium-99m, which has a "half-life" of only six hours. Half-life is the time it takes for 50 percent of a given quantity of a radioactive substance to "decay" and disappear. Thus, like other radioactive isotopes, technetium-99m can't be stockpiled. It must be constantly made fresh, and distributed quickly to medical facilities.¶ Wolfgang Runde, Ph.D., who works with Atcher at the Los Alamos National Laboratory in New Mexico and presented a report on the situation here, said that an unexpected shut down of a major isotope production facility in Chalk River, Ontario, Canada, in 2009 precipitated the shortage. Los Alamos also is part of the U.S. Department of Energy. The Chalk River facility was scheduled to restart this summer but remained closed as of early August. The Chalk River facility produces 50 percent of the U.S. supply of the isotope used to make technetium-99m. Production problems occurred at other isotope facilities, compounding the problem. Remaining isotope suppliers have not been able to make-up for the resulting shortage, leaving the United States in an isotope supply crunch.¶ "Shortage of this key medical isotope makes it more difficult to carry out important medical procedures, such as finding out whether cancer has spread to the bones," Atcher said. "Doctors have been trying everything they can think of to meet the needs of patients, including the use of other less-than-ideal isotopes, but it has been a real struggle."¶ Atcher also noted that the United States is highly dependent on foreign suppliers of medical isotopes. Only about 10-15 percent of the isotopes used in medicine are produced domestically. The nuclear medicine community has been pressuring the U.S. government to develop improved domestic capability for producing these materials to reduce this dependence, Atcher said.

#### Radioactive isotopes are key to efficient fertilizer usage – empirics.

Lamm 79 [C.G., Former Deputy Director of the Joint FAO/IAEA Division of Atomic Energy in Food and

Agriculture, Department of Research and Isotopes, IAEA, “Applications of Isotopes and Radiation in Agriculture”, IAEA Bulletin, Vol. 21, No.2/3, RSR]

The efficient use of fertilizer is of great importance because fertilizers are not only¶ expensive, but for many countries they mean a great expenditure in foreign currency. The¶ incorrect use of fertilizers is costly, and may damage the environment. It is therefore¶ essential that a maximum amount of the applied fertilizer finds its way into the plant and¶ that the minimum is lost due to poor placing, bad timing, etc.¶ Fertilizers labelled with radioactive isotopes such as phosphorus-32 or with stable isotopes¶ such as nitrogen-15 provide a means of determining how much of the fertilizer is taken up¶ by the plant and how much is lost to the environment. Nitrogen-15 also provides a direct¶ assessment of the amount of nitrogen being fixed from the atmosphere under field¶ conditions.¶ In one country that took part in a research programme on nitrogen fertilization of maize,¶ which was organized by the Joint FAO/IAEA Division, it was estimated that the benefit¶ to that country amounted to 36 million US dollars per year after its farmers had adopted¶ the findings of the research programme for the most efficient placement of fertilizer. In a¶ similar programme involving coconut palms in Sri Lanka, it was found that the efficient¶ use of fertilizer not only yielded direct savings in the cost of fertilizer but also an estimated¶ potential saving in production cost. Similar programmes on crops such as rice have yielded¶ savings of millions of dollars in decreased fertilizer costs. Additional savings are possible.¶ A group of experts recently estimated that up to 50 per cent of the fertilizer used at¶ present in all countries could be saved by improved fertilizer, better water management¶ and better cropping methods.¶

#### Fertilizer shortages now will trigger massive worldwide food shortages.

Bradsher and Martin 8 [Keith and Andrew, Staff Writers, “Shortages Threaten Farmers’ Key Tool: Fertilizer”, The New York Times,<http://www.nytimes.com/2008/04/30/business/worldbusiness/30fertilizer.html?pagewanted=all>, RSR]

The squeeze on the supply of fertilizer has been building for roughly five years. Rising demand for food and biofuels prompted farmers everywhere to plant more crops. As demand grew, the fertilizer mines and factories of the world proved unable to keep up.¶ Some dealers in the Midwest ran out of fertilizer last fall, and they continue to restrict sales this spring because of a limited supply.¶ “If you want 10,000 tons, they’ll sell you 5,000 today, maybe 3,000,” said W. Scott Tinsman Jr., a fertilizer dealer in Davenport, Iowa. “The rubber band is stretched really far.”¶ Fertilizer companies are confident the shortage will be solved eventually, noting that they plan to build scores of new factories. But that will probably create fresh problems in the long run as the world grows more dependent on fossil fuels to produce chemical fertilizers. Intensified use of such fertilizers is certain to mean greater pollution of waterways, too.¶ Agriculture and development experts say the world has few alternatives to its growing dependence on fertilizer. As population increases and a rising global middle class demands more food, fertilizer is among the most effective strategies to increase crop yields.¶ “Putting fertilizer on the ground on a one-acre plot can, in typical cases, raise an extra ton of output,” said Jeffrey D. Sachs, the Columbia University economist who has focused on eradicating poverty. “That’s the difference between life and death.”¶ The demand for fertilizer has been driven by a confluence of events, including population growth, shrinking world grain stocks and the appetite for corn and palm oil to make biofuel. But experts say the biggest factor has been the growing demand for food, especially meat, in the developing world.¶ Recently, Ms. Nha, the tiny Vietnamese woman, stood in a field outside her village, her weather-beaten face shielded from the drizzle by a big straw hat. She took a break from wielding her wood-handled hoe and described the meager diets of her youth.¶ Her family, including six brothers and sisters, struggled to survive on rations from the commune where they lived, eating little protein. The occasional pigs they raised on rice stalks and mush “fattened very slowly,” Ms. Nha recalled.¶ But with market reforms, better seeds and increased fertilizer use, Vietnam’s rice yields per acre have doubled and corn yields have tripled, allowing farmers to fatten a growing herd of livestock.¶ Several times a season, Ms. Nha and her neighbors walk down their rows of corn with battered metal buckets full of chemical fertilizer, which looks like coarse gray sand, sprinkling a bit at the base of each plant. Ms. Nha’s husband, Le Van Son, remembers villagers’ amazement in the 1990s when they learned that a pound of chemical fertilizer contained more of the major nutrients than 100 pounds of manure.¶ Overall global consumption of fertilizer increased by an estimated 31 percent from 1996 to 2008, driven by a 56 percent increase in developing countries, according to the International Fertilizer Industry Association.¶ “Markets are asking farmers to step on the accelerator,” said Michael R. Rahm, vice president for market analysis and strategic planning at Mosaic, a fertilizer producer in Plymouth, Minn. “They’ve pressed on it, but the market has told them to step on it harder.”¶ Fertilizer is plant food, a combination of nutrients added to soil to help plants grow. The three most important are nitrogen, phosphorus and potassium. The latter two have long been available. But nitrogen in a form that plants can absorb is scarce, and the lack of it led to low crop yields for centuries.¶ That limitation ended in the early 20th century with the invention of a procedure, now primarily fueled by natural gas, that draws chemically inert nitrogen from the air and converts it into a usable form.¶ As the use of such fertilizer spread, it was accompanied by improved plant varieties and greater mechanization. From 1900 to 2000, worldwide food production jumped by 600 percent. Scientists said that increase was the fundamental reason world population was able to rise to about 6.7 billion today from 1.7 billion in 1900.¶ Vaclav Smil, a professor at the University of Manitoba, calculates that without nitrogen fertilizer, there would be insufficient food for 40 percent of the world’s population, at least based on today’s diets.¶ Initially, much of the increased production of fertilizer went to grains like wheat and rice that served as the foundation of a basic diet. But recently, with world economic growth at a brisk 5 percent a year, hundreds of millions of people began earning enough money to buy more meat from animals fattened with grains. That occurred at the same time that rising production of biofuels, like ethanol, put new pressure on grain supplies.¶ These factors translated into rising fertilizer demand. Prices at a terminal in Tampa, Fla., for one fertilizer, diammonium phosphate, jumped to $1,102 a ton from $393 a ton in the last year, according to JPMorgan Securities, which tracks the prices. Urea, a type of granular nitrogen fertilizer, jumped to $505 a ton from $273 a ton in the last year.¶ Manufacturers are scrambling to increase supply. At least 50 plants to make nitrogen fertilizer are under construction, many in the Middle East where natural gas is abundant, and phosphorous and potassium mines are being expanded. But these projects are expensive and time-consuming, and supplies are expected to remain tight for years.¶ Fertilizer is vitally important in Iowa, whose farmers grow more corn than in any other state and depend on fertilizer to increase yields.¶ But the combination of high prices and spot shortages has forced some farmers to revert to older methods of fertilization, making hog manure a hot commodity. Farmers are cutting deals to have hog barns built on the edges of their corn and soybean fields.¶ On a tour of his rolling farm in Oxford Junction in eastern Iowa, Jayson Willimack pointed to the future sites of two buildings that will hold 2,400 hogs. Their manure will eventually replace commercial fertilizer on 400 acres, about 10 percent of his farm, and save him perhaps $50,000 annually. “Every little bit helps,” he said.¶ Such a strategy has severe limits — manure contains so little nitrogen that tons are required on each acre. That means farmers in Iowa and abroad have little choice but to pay the higher prices for commercial fertilizer.¶ In many countries, those cost increases have so far been offset by record high prices for crops. But fertilizer inflation has created a crisis in countries that subsidize fertilizer use for farmers. In India, for instance, the government’s subsidy bill could be as high as $22 billion in the coming year, up from $4 billion in 2004-5.¶ Once new supplies become available, the rising use of fertilizer will still pose difficulties.¶ Environmental groups fear increased use, particularly of nitrogen fertilizer made using fossil fuels. Because plants do not absorb all the nitrogen, much of it leaches into streams and groundwater. That runoff has long been recognized as a major pollution problem, and it is growing.¶ A barometer of the pollution is the rising number of dead zones where rivers meet the sea. In the Gulf of Mexico, for instance, nitrogen runoff from fields in the Corn Belt washes downstream and feeds plant life in the gulf. The algae blooms suck oxygen from the water, killing other marine life.¶ More than 400 dead zones have been identified, from the coasts of China to the Chesapeake Bay, and the primary reason is agricultural runoff, said Robert J. Diaz, a professor at the Virginia Institute of Marine Science.¶ “Nitrogen is nitrogen,” Professor Diaz said. “If it’s on land, it produces corn. If it gets in the water, it produces algae.”¶ This month, a United Nations panel called for changes in agricultural practices to make them less damaging. The panel recommended techniques that offer some of the same benefits as chemical fertilizer, like increased crop rotation with legumes that naturally add some nitrogen to the soil.¶ But others say those approaches, while helpful, will be not be enough to meet the world’s rapidly rising demand for food and biofuel.¶ “This is a basic problem, to feed 6.6 billion people,” said Norman Borlaug, an American scientist who was awarded a Nobel Peace Prize in 1970 for his role in spreading intensive agricultural practices to poor countries. “Without chemical fertilizer, forget it. The game is over.”

#### Food shortages lead to extinction.

**Lugar 2k** Chairman of the Senator Foreign Relations Committee and Member/Former Chair of the Senate Agriculture Committee [Richard, a US Senator from Indiana, is Chairman of the Senate Foreign Relations Committee, and a member and former chairman of the Senate Agriculture Committee. “calls for a new green revolution to combat global warming and reduce world instability,” http://www.unep.org/OurPlanet/imgversn/143/lugar.html]

In a world confronted by global terrorism, turmoil in the Middle East, burgeoning nuclear threats and other crises, it is easy to lose sight of the long-range challenges. But we do so at our peril. One of the most daunting of them is meeting the world’s need for food and energy in this century. At stake is not only preventing starvation and saving the environment, but also world peace and security. History tells us that states may go to war over access to resources, and that poverty and famine have often bred fanaticism and terrorism. Working to feed the world will minimize factors that contribute to **global instability** and the proliferation of [**WMDs**] weapons of mass destruction. With the world population expected to grow from 6 billion people today to 9 billion by mid-century, the demand for affordable food will increasewell beyond current international production levels. People in rapidly developing nations will have the means greatly to improve their standard of living and caloric intake. Inevitably, that means eating more meat. This will raise demand for feed grain at the same time that the growing world population will need vastly more basic food to eat. Complicating a solution to this problem is a dynamic that must be better understood in the West: developing countries often use limited arable land to expand cities to house their growing populations. As good land disappears, people destroy **timber** resources and even **rainforests** as they try to create more arable land to feed themselves. The long-term environmental consequences could be disastrous for the entire globe. Productivity revolution To meet the expected demand for food over the next 50 years, we in the United States will have to grow roughly three times more food on the land we have. That’s a tall order. My farm in Marion County, Indiana, for example, yields on average 8.3 to 8.6 tonnes of corn per hectare—typical for a farm in central Indiana. To triple our production by 2050, we will have to produce an annual average of 25 tonnes per hectare. Can we possibly boost output that much? Well, it’s been done before. Advances in the use of fertilizer and water, improved machinery and better tilling techniques combined to generate a threefold increase in yields since 1935—on our farm back then, my dad produced 2.8 to 3 tonnes per hectare. Much US agriculture has seen similar increases. But of course there is no guarantee that we can achieve those results again. Given the urgency of expanding food production to meet world demand, we must invest much more in scientific research and target that money toward projects that promise to have significant national and global impact. For the United States, that will mean a major shift in the way we conduct and fund agricultural science. Fundamental research will generate the innovations that will be necessary to feed the world. The United States can take a leading position in a productivity revolution. And our success at increasing food production may play a decisive humanitarian role in the survival of billions of people and the health of our planet.

#### Reprocessing solves radioactive isotope shortages – allows for their separation from nuclear waste.

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-137 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.

### Observation 4

#### Observation 4: 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

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.

#### Fukushima doesn’t empirically deny our impact – US spent fuel pools outweigh in magnitude

Wald 11 Matthew L. Wald is a reporter at The New York Times Risk From Spent Nuclear Reactor Fuel Is Greater in U.S. Than in Japan, Study Says http://www.nytimes.com/2011/05/25/business/energy-environment/25nuke.html

WASHINGTON — The threat of a catastrophic release of radioactive materials from a spent fuel pool at Japan’s Fukushima Daiichi plant is dwarfed by the risk posed by such pools in the United States, which are typically filled with far more radioactive material, according to a study released on Tuesday by a nonprofit institute.¶ Related¶ Company Believes 3 Reactors Melted Down in Japan (May 25, 2011)¶ Times Topic: Japan — Earthquake, Tsunami and Nuclear Crisis (2011)¶ The report, from the Institute for Policy Studies, recommends that the United States transfer most of the nation’s spent nuclear fuel from pools filled with cooling water to dry sealed steel casks to limit the risk of an accident resulting from an earthquake, terrorism or other event.¶ “The largest concentrations of radioactivity on the planet will remain in storage at U.S. reactor sites for the indefinite future,” the report’s author, Robert Alvarez, a senior scholar at the institute, wrote. “In protecting America from nuclear catastrophe, safely securing the spent fuel by eliminating highly radioactive, crowded pools should be a public safety priority of the highest degree.”¶ At one plant that is a near twin of the Fukushima units, Vermont Yankee on the border of Massachusetts and Vermont, the spent fuel in a pool at the solitary reactor exceeds the inventory in all four of the damaged Fukushima reactors combined, the report notes. After a March 11 earthquake and tsunami hit the Japanese plant, United States officials urged Americans to stay at least 50 miles away, citing the possibility of a major release of radioactive materials from the pool at Unit 4. The warning has reinvigorated debate about the safety of the far more crowded fuel pools at American nuclear plants.¶ Adding to concern, President Obama canceled a plan for a repository at Yucca Mountain in the Nevada desert last year, making it likely that the spent fuel will accumulate at the nation’s reactors for years to come.¶ The Nuclear Regulatory Commission maintains that both pool and cask storage are safe, although it plans to re-examine the pool issue in light of events at Fukushima.¶ Nearly all American reactors, especially the older ones, have far more spent fuel on hand than was anticipated when they were designed, Mr. Alvarez, a former senior adviser at the Department of Energy, wrote.¶ In general, the plants with the largest inventories are the older ones with multiple reactors. By Mr. Alvarez’s calculation, the largest amount of spent fuel is at the Millstone Point plant in Waterford, Conn., where two reactors are still operating and one is retired. The second-biggest is at the Palo Verde complex in Wintersburg, Ariz., the largest nuclear power plant in the United States, with three reactors

#### 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.** The reactor could blow." If so, Russia, China, Korea and most parts of Western Asia will be affected. Many thousands will die, potentially millions under a worse case scenario, including far outside East Asia.¶ Moreover, at least five reactors are at risk. Already, a 20-mile wide radius was evacuated. What happened in Japan can occur anywhere. Yet Obama's proposed budget includes $36 billion for new reactors, a shocking disregard for global safety.¶ Calling Fukushima an "apocalyptic event," Wasserman said "(t)hese nuclear plants have to be shut," let alone budget billions for new ones. It's unthinkable, he said. If a similar disaster struck California, nuclear fallout would affect all America, Canada, Mexico, Central America, and parts of South America.¶ Nuclear Power: A Technology from Hell¶ Nuclear expert Helen Caldicott agrees, telling this writer by phone that a potential regional catastrophe is unfolding. Over 30 years ago, she warned of its inevitability. Her 2006 book titled, "Nuclear Power is Not the Answer" explained that contrary to government and industry propaganda, even during normal operations, nuclear power generation causes significant discharges of greenhouse gas emissions, as well as hundreds of thousands of curies of deadly radioactive gases and other radioactive elements into the environment every year.¶ Moreover, nuclear plants are atom bomb factories. A 1000 megawatt reactor produces 500 pounds of plutonium annually. Only 10 are needed for a bomb able to devastate a large city, besides causing permanent radiation contamination.¶ Nuclear Power not Cleaner and Greener¶ Just the opposite, in fact. Although a nuclear power plant releases no carbon dioxide (CO2), the primary greenhouse gas, a vast infrastructure is required. Called the nuclear fuel cycle, it uses large amounts of fossil fuels.¶ Each cycle stage exacerbates the problem, starting with the enormous cost of mining and milling uranium, needing fossil fuel to do it. How then to dispose of mill tailings, produced in the extraction process. It requires great amounts of greenhouse emitting fuels to remediate.¶ Moreover, other nuclear cycle steps also use fossil fuels, including converting uranium to hexafluoride gas prior to enrichment, the enrichment process itself, and conversion of enriched uranium hexafluoride gas to fuel pellets. In addition, nuclear power plant construction, dismantling and cleanup at the end of their useful life require large amounts of energy.¶ There's more, including contaminated cooling water, nuclear waste, its handling, transportation and disposal/storage, problems so far unresolved. Moreover, nuclear power costs and risks are so enormous that the industry couldn't exist without billions of government subsidized funding annually.¶ The Unaddressed Human Toll from Normal Operations¶ Affected are uranium miners, industry workers, and potentially everyone living close to nuclear reactors that routinely emit harmful radioactive releases daily, harming human health over time, causing illness and early death.¶ The link between radiation exposure and disease is irrefutable, depending only on the amount of cumulative exposure over time, Caldicott saying:¶ "If a regulatory gene is biochemically altered by radiation exposure, the cell will begin to incubate cancer, during a 'latent period of carcinogenesis,' lasting from two to sixty years."¶ In fact, a single gene mutation can prove fatal. No amount of radiation exposure is safe. Moreover, when combined with about 80,000 commonly used toxic chemicals and contaminated GMO foods and ingredients, it causes 80% of known cancers, putting everyone at risk everywhere.¶ Further, the combined effects of allowable radiation exposure, uranium mining, milling operations, enrichment, and fuel fabrication can be devastating to those exposed. Besides the insoluble waste storage/disposal problem, nuclear accidents happen and catastrophic ones are inevitable.¶ Inevitable Meltdowns¶ Caldicott and other experts agree they're certain in one or more of the hundreds of reactors operating globally, many years after their scheduled shutdown dates unsafely. Combined with human error, imprudently minimizing operating costs, internal sabotage, or the effects of a high-magnitude quake and/or tsunami, an eventual catastrophe is certain.¶ Aging plants alone, like Japan's Fukushima facility, pose unacceptable risks based on their record of near-misses and meltdowns, resulting from human error, old equipment, shoddy maintenance, and poor regulatory oversight. However, under optimum operating conditions, all nuclear plants are unsafe. Like any machine or facility, they're vulnerable to breakdowns, that if serious enough can cause enormous, possibly catastrophic, harm.¶ Add nuclear war to the mix, also potentially inevitable according to some experts, by accident or intent, including Steven Starr saying:¶ "Only a single failure of nuclear deterrence is required to start a nuclear war," the consequences of which "would be profound, potentially killing "tens of millions of people, and caus(ing) long-term, catastrophic disruptions of the global climate and massive destruction of Earth's protective ozone layer. The result would be a global nuclear famine that could kill up to one billion people."¶ Worse still is nuclear winter, the ultimate nightmare, able to end all life if it happens. It's nuclear proliferation's unacceptable risk, a clear and present danger as long as nuclear weapons and commercial dependency exist.¶ In 1946, Enstein knew it, saying:¶ "Our world faces a crisis as yet unperceived by those possessing the power to make great decisions for good and evil. The unleashed power of the atom has changed everything save our modes of thinking, and thus we drift toward unparalleled catastrophe."¶ He envisioned two choices - abolish all forms of nuclear power or face extinction. No one listened. The Doomsday Clock keeps ticking.

#### 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 solves the waste issue – that’s Bastin from above

#### Reprocessing solves the storage of waste in 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.

### 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 Five: 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

### Renewable Tradeoff DA

#### Plan solves warming and renewable transition.

Chakravorty et al. 12 (Ujjayant (Professor and Canada Research Chair, Alberta School of Business and Department of Economics); Bertrand Magne (OECD Environment Directorate, Paris, France); Michel Moreaux (Emeritus Professor and IDEI Researcher, Toulouse School of Economics, University of Toulouse), “RESOURCE USE UNDER CLIMATE STABILIZATION: CAN NUCLEAR POWER PROVIDE CLEAN ENERGY?”, Journal of Public Economic Theory, Vol. 14, Issue 2, 2012, RSR)

This paper applies a model with price-induced substitution across resources to examine the role of nuclear power in achieving a climate stabilization target, such as that advocated by the Intergovernmental Panel on Climate Change (IPCC). It asks an important policy question: is nuclear power a viable carbon-free energy source for the future? If so, then at what cost? The main insight is that nuclear power can help us switch quickly to carbon free energy, and if historical growth rates of nuclear capacity are preserved, the costs of reaching climate stabilization goals decline signiﬁcantly and may therefore be at the lower end of cost estimates that are reported by many studies. However, it is also clear from our results that nuclear is economical anyway, even without environmental regulation. Regulation only plays a major part when fast breeders are available and that too, in the somewhat distant future, towards the end of the century. To some extent, recent increases in efﬁciency in U.S. nuclear power attest to its economic advantages, even in a market with no environmental regulation (Davis and Wolfram 2011). The climate goal of 550 ppm of carbon can be achieved at a surplus cost of about 800 billion dollars, or about 1.3% of current world GDP, if no nuclear expansion is undertaken. Achieving this goal using nuclear power will result in a tripling of the share of world nuclear electricity generation by mid century with welfare gains of about half a trillion dollars (in discounted terms). The cost of providing energy will decrease by about $1.3 trillion or 2% of current world GDP, compared to the case in which the level of nuclear generation is frozen. These estimates of cost savings from nuclear power are signiﬁcant, and unlike in previous studies, are derived from an economic model with an explicit nuclear fuel cycle. However, nuclear power can be cost-effective for about 50 years or so, beyond which period, other technologies are likely to take over, including renewables, clean coal and next generation nuclear technologies that are much more efﬁcient in recycling waste materials. Ultimately, large-scale adoption of nuclear power will be hindered by the rising cost of uranium and the problem of waste disposal. Only signiﬁcant new developments such as the availability of new generation nuclear technology that is able to recycle nuclear waste may lead to a steady state where nuclear energy plays an important role. 31

#### No shift towards renewable – venture capitalists are not interested.

Jacobius, Staff Writer, 9-17

[Arleen, “Clean-tech investing littered with mines”, Pensions and Investments,

http://www.pionline.com/article/20120917/PRINTSUB/309179992/clean-tech-investing-littered-with-mines]

Clean technology managers are redoubling their efforts to attract capital, but investors will have to pick through a landscape of failed offerings to find the managers with winning strategies.¶ Six years ago, institutional investors began making large commitments to the sector. They bet that rising fuel costs and dwindling natural resources would create a huge investment opportunity in alternative energy.¶ The California Public Employees' Retirement System has made $1.1 billion in private equity commitments to the sector, including $480 million through its CalPERS Clean Energy and Technology Fund, $500 million in clean energy and technology funds and $200 million in its environmental technology program; the California State Teachers' Retirement System has about $667.5 million invested in clean tech; and the New York State Common Retirement Fund has more than $500 million committed to the sector.¶ So far, not all investments have worked out as planned, industry insiders said. Investors are still waiting for their clean-tech portfolios to produce expected returns. The reason is that many clean-tech investments are still sitting in managers' portfolios waiting for an exit.¶ Some venture capital managers will not be able to continue supporting these companies, sending executives at these firms off in search of other sources of capital, said Tracy Lefteroff, global managing partner of the venture capital practice at PricewaterhouseCoopers U.S. who is based in the firm's San Jose, Calif., office.¶ “I think there is a lot of interest in clean technology but not enough of profitable liquidity events to maintain a high level of investment or to attract new money,” Mr. Lefteroff said.

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

#### **Global nuclear expansion now.** Over 200 reactors are going to be constructed in the next five years. That’s 1AC Marketwire.

#### Renewables fail – even massive government investment cannot overcome intermittency, Germany proves.

Gue, Energy Markets Analyst, ‘10

[Elliot, “Nuclear Power: A Better Investment than Alternative Energy,” Investing Daily, 10-11-10, http://www.investingdaily.com/13512/nuclear-power-a-better-investment-than-alternative-energy]

Renewable and alternative energies are the centerpiece of many governments’ energy policies. Germany has been a market leader in wind and solar. Generous feed-in tariffs effectively guarantee attractive returns for new alternative energy projects for 20 years. Despite relatively modest wind and solar resources, Germany is among the fastest-growing markets in the world for both technologies.¶ Although alternative energies hold some longer-term promise, blind and seemingly unwavering confidence in these solutions near-term benefits is misplaced.¶ By their very nature, wind and solar power are intermittent energy sources; when the wind isn’t blowing or the sun isn’t shining, natural gas-fired plants provide for much of the shadow capacity that keeps the electricity flowing. This pie graph breaks down Germany’s electricity mix from 1998 to 2008.¶ As you can see, thermal sources–primarily gas and coal–have lost share in Germany’s electricity grid over the past decade, though they still accounts for more than half of the nation’s net power generation. Natural gas consumption is up roughly 8 percent over this period, but coal use has flattened or declined.¶ Although Germany’s generous subsidies have increased its wind-power capacity significantly, this renewable energy accounts for just 6 percent of total generation. The country’s investments have produced a relatively small increase in electricity generated from wind power.¶ Wishful thinking aside, current wind- and solar-power technologies don’t offer a real alternative to fossil fuels.

#### Nuclear and renewables don’t compete—they’re complimentary

Scandurra and Romano ‘11

(Giuseppe and Antonio Angelo, Department of Statistical Mathematics and Economics at the University of Napoli, “The investments in renewable energy sources: do low carbon economies better invest in green technologies?”, Munich Personal RePEc Archive, 2011, http://mpra.ub.uni-muenchen.de/34216/2/MPRA\_paper\_34216.pdf)

If it can have some statistical significance, the estimates in the low carbon economies are generally higher, in absolute value, than in the high carbon sample, except the autoregressive parameters. In fact, the influence of investments in renewable energy source is stronger in the high carbon countries than to the other countries (low carbon). The former try to invest mostly in renewable sources in order to reduce their footprint and respect the international agreement that they ratified. Significant is the inverse relationship between renewable investments and share of nuclear consumption. Probably, the continuous base load electricity ensured by nuclear power plants and the absence of greenhouse gas emission allow these countries to invest in additional renewable energy in a complementary way, in order to reach an optimal energy mix and to ensure the subsidies for investment in renewable energy.

### Consultation CP

#### Perm do both. Pass both the plan and the counterplan. The result of passing both is that an investment is done but the plan is passed unconditionally. Fixes net benefit with doing the <whatever they do>.

#### Links to politics. Presidents allocating funding independent of Congress is unpopular.

Risen 04 – Clay, assistant editor of *The New Republic*, August. [http://www.prospect.org/web/page.ww?section=root&name=ViewPrint&articleId=8140]

Congress provides an additional, if somewhat less effective, check on executive orders. In theory, any executive order can be later annulled by Congress. But in the last 34 years, during which presidents have issued some 1,400 orders, it has defeated just three. More often, Congress will counter executive orders by indirect means, holding up nominations or bills until the president relents. “There’s always the potential that a Congress angry about one issue will respond by limiting other things you want,” says Mayer.

#### Perm do the CP.

#### a. This is legitimate because they’re not textually competitive.

#### b. This limits out abusive counterplans like the dollar PIC and the period PIC which are completely unpredictable – infinite number of processes that could be changed, coopt the entirety of the 1AC, which forces us to argue against ourselves. This CP is only legitimate as a normal means CP for which they must read evidence.

#### c. Process PICs are artificially competitive because they overinflate the value of a contrived net benefit.

#### d. Process PICs are illegitimate because they add to the plan and are plan plus. They haven’t read any evidence which would indicate that specification of the process that would make the CP competitive is topical.

#### No solvency: Timeframe – plan must be passed immediately.

#### a.) Tritium supply is low in the status quo and it’s key to our deterrent. Any perception of its decline triggers wars in every hotspot globally. That’s 1AC Rowly and 1AC Schneider.

#### This CP makes no sense – Congress controls the power of the purse, means that they can’t make the policy cost competitive.

#### Congress is necessary – overcomes regulatory process.

Fertel, Senior Vice President and Chief Nuclear Officer at the Nuclear Energy Institute, ‘5

[Marvin, CQ Congressional Testimony, “NUCLEAR POWER'S PLACE IN A NATIONAL ENERGY POLICY,” 4/28, lexis]

Industry and government will be prepared to meet the demand for new emission-free baseload nuclear plants in the 2010 to 2020 time frame only through a sustained focus on the necessary programs and policies between now and then. As it has in the past, strong Congressional oversight will be necessary to ensure effective and efficient implementation of the federal government's nuclear energy programs, and to maintain America's leadership in nuclear technology development and its influence over important diplomatic initiatives like nonproliferation. Such efforts have provided a dramatic contribution to global security, as evidenced by the U.S.-Russian nonproliferation agreement to recycle weapons-grade material from Russia for use in American reactors. Currently, more than 50 percent of U.S. nuclear power plant fuel depends on converted Russian warhead material. Nowhere is continued congressional oversight more important than with DOE's program to manage the used nuclear fuel from our nuclear power plants. Continued progress toward a federal used nuclear fuel repository is necessary to support nuclear energy's vital role in a comprehensive national energy policy and to support the remediation of DOE defense sites. Since enactment of the 1982 Nuclear Waste Policy Act, DOE's federal repository program has repeatedly overcome challenges, and challenges remain before the Yucca Mountain facility can begin operation. But as we address these issues, it is important to keep the overall progress of the program in context. There is international scientific consensus that a deep geologic repository is the best solution for long-term disposition of used military and commercial nuclear power plant fuel and high-level radioactive byproducts. The Bush administration and Congress, with bipartisan support, affirmed the suitability of Yucca Mountain for a repository in 2002. Over the past three years, the Energy Department and its contractors have made considerable progress providing yet greater confirmation that this is the correct course of action and that Yucca Mountain is an appropriate site for a national repository. --During the past year, federal courts have rejected significant legal challenges by the state of Nevada and others to the Nuclear Waste Policy Act and the 2002 Yucca Mountain site suitability determination. These challenges questioned the constitutionality of the Yucca Mountain Development Act and DOE's repository system, which incorporates both natural and engineered barriers to contain radioactive material safely. In the coming year, Congress will play an essential role in keeping this program on schedule, by taking the steps necessary to provide increased funding for the project in fiscal 2006 and in future years. Meeting DOE's schedule for initial repository operation requires certainty in funding for the program. This is particularly critical in view of projected annual expenditures that will exceed $1 billion beginning in fiscal 2007. Meeting these budget requirements calls for a change in how Congress provides funds to the project from monies collected for the Nuclear Waste Fund. The history of Yucca Mountain funding is evidence that the current funding approach must be modified. Consumer fees (including interest) committed to the Nuclear Waste Fund since its f6rmation in 1983 total more than $24 billion. Consumers are projected to pay between $750 million to $800 million to the fund each year, based on electricity generated at the nation's 103 reactors. This is more than $2 million per day. Although about $8 billion has been used for the program, the balance in the fund is nearly $17 billion. In each of the past several years, there has been a gap between the annual fees paid by consumers of electricity from nuclear power plants and disbursements from the fund for use by DOE at Yucca Mountain. Since the fund was first established, billions of dollars paid by consumers of electricity from nuclear power plants to the Nuclear Waste Fund-intended solely for the federal government's used fuel program-in effect have been used to decrease budget deficits or increase surpluses. The industry believes that Congress should change the funding mechanism for Yucca Mountain so that payments to the Nuclear Waste Fund can be used only for the project and be excluded from traditional congressional budget caps. Although the program should remain subject to congressional oversight, Yucca Mountain appropriations should not compete each year for funding with unrelated programs when Congress directed a dedicated funding stream for the project. The industry also believes that it is appropriate and necessary to consider an alternative perspective on the Yucca Mountain project. This alternative would include an extended period for monitoring operation of the repository for up to 300 years after spent fuel is first placed underground. The industry believes that this approach would provide ongoing assurance and greater confidence that the repository is performing as designed, that public safety is assured, and that the environment is protected. It would also permit DOE to apply evolving innovative technologies at the repository. Through this approach, a scientific monitoring program would identify additional scientific information that can be used in repository performance models. The project then could update the models, and make modifications in design and operations as appropriate. Congressional committees like this one can help ensure that DOE does not lose sight of its responsibility for used nuclear fuel management and disposal, as stated by Congress in the Nuclear Waste Policy Act of 1982. The industry fully supports the fundamental need for a repository so that used nuclear fuel and the byproducts of the nation's nuclear weapons program are securely managed in an underground, specially designed facility. World-class science has demonstrated that Yucca Mountain is the best site for that facility. A public works project of this magnitude will inevitably face challenges. Yet, none is insurmountable. DOE and its contractors have made significant progress on the project and will continue to do so as the project enters the licensing phase. Congressional oversight also can play a key role in maintaining and encouraging the stability of the NRC's regulatory process. Such stability is essential for our 103 operating nuclear plants and equally critical in licensing new nuclear power plants. Congress played a key role several years ago in encouraging the NRC to move toward a new oversight process for the nation's nuclear plants, based on quantitative performance indicators and safety significance. Today's reactor oversight process is designed to focus industry and NRC resources on equipment, components and operational issues that have the greatest importance to, and impact on, safety. The NRC and the industry have worked hard to identify and implement realistic security requirements at nuclear power plants. In the three-and-a-half years since 9/11, the NRC has issued a series of requirements to increase security and enhance training for security programs. The industry complied-fully and rapidly. In the days and months following Sept. 11, quick action was required. Orders that implemented needed changes quickly were necessary. Now, we should return to the orderly process of regulating through regulations. The industry has spent more than $1 billion enhancing security since September 2001. We've identified and fixed vulnerabilities. Today, the industry is at the practical limit of what private industry can do to secure our facilities against the terrorist threat. NRC Chairman Nils Diaz and other commissioners have said that the industry has achieved just about everything that can be reasonably achieved by a civilian force. The industry now needs a transition period to stabilize the new security requirements. We need time to incorporate these dramatic changes into our operations and emergency planning programs and to train our employees to the high standards of our industry-and to the appropriately high expectations of the NRC. Both industry and the NRC need congressional oversight to support and encourage this kind of stability. CONCLUSION Electricity generated by America's nuclear power plants over the past half-century has played a key part in our nation's growth and prosperity. Nuclear power produces over 20 percent of the electricity used in the United States today without producing air pollution. As our energy demands continue to grow in years to come, nuclear power should play an even greater role in meeting our energy and environmental needs. The nuclear energy industry is operating its reactors safely and efficiently. The industry is striving to produce more electricity from existing plants. The industry is also developing more efficient, next-generation reactors and exploring ways to build them more cost-effectively. The public sector, including the oversight committees of the U.S. Congress, can help maintain the conditions that ensure Americans will continue to reap the benefits of our operating plants, and create the conditions that will spur investment in America's energy infrastructure, including new nuclear power plants. One important step is passage of comprehensive energy legislation that recognizes nuclear energy's contributions to meeting our growing energy demands, ensuring our nation's energy security and protecting our environment. Equally important, however, is the need to ensure effective and efficient implementation of existing laws, like the Nuclear Waste Policy Act, and to provide federal agencies with the resources and oversight necessary to discharge their statutory responsibilities in the most efficient way possible. The commercial nuclear power sector was born in the United States, and nations around the world continue to look to this nation for leadership in this technology and in the issues associated with nuclear power. Our ability to influence critical international policies in areas like nuclear nonproliferation, for example, depends on our ability to maintain a leadership role in prudent deployment, use and regulation of nuclear energy technologies here at home, in the United States, and on our ability to manage the technological and policy challenges-like waste management-that arise with all advanced technologies.

#### Need clear USFG signal to solve. Recommendations fail.

Duarte ‘11

[Gary J , “US Nuclear Energy Foundation A little of our opinion about nuclear fuel reprocessing”, U.S. Nuclear Energy Foundation, 10-12-2011, http://usnuclearenergy.org/REPROCESSING.htm]

To begin with the massive upfront costs related to the nuclear energy industry and exhaustive regulation systems that are applied by U. S. agencies to nuclear power plants are responsible for making them the safest large volume 24/7 365 energy producers on the planet. At the same time, we have been trying for 30 years to make renewable sources cost effective and this challenge continues. We have not educated the public throughout the world that nuclear energy “economics” must be “projected” at 60 to 100 years of “operation” as these are what the plants are designed for. Now, these are not “estimates” we have thirty years of nuclear plant track records and zero public fatalities in the U. S. This is unprecedented in ANY other base load power generation method on the planet. The long and short of the reprocessing assessment, since President Reagan “lifted” the U. S. ban on commercial reprocessing of spent nuclear fuels in 1981 has always been the economics (some still believe it is banned, it’s not). A commercial reprocessing facility with the capacity to complete between 800 and 1,000 metric tons annually may cost 10 billion dollars to build in China’s “economics” but 30 billion to build in the U. S. economics. For the past 30 years nearly all of the indecisiveness related to a U. S. reprocessing direction has been the difficulty in facing the economics. Also, over these years, technology has advanced several new and/or different methods for reprocessing, basically introducing yet another decision dilemma. This is why such intense projects have to be decided by the “science community” because the “political community” changes every four-eight years and the capacity to focus is lost. In essence, the DOE and NRC have failed to enlighten Congress and the American public to the scientific need and economic commitment to make reprocessing a “national initiative”; this is what needs to be done. Its costs can only be justified if the program is “painted” as a 100 year mission. Remember, many of us are convinced that America still needs another 150 new nuclear plants to serve our future energy growth and be “energy cost competitive” worldwide. And still, these added plants will also need 6% FINAL deep geologic storage. Then there are those who say that Thorium fuels, pebble bed reactors, etc. will eliminate everything in today’s nuclear waste cycle. Some of our “reality” friends will say many of these are STILL laboratory projects and we will get there in time . . . but we need to START builds based on “TODAY’S functioning technology” over the next twenty years then see wshere the lab projects are at that time. These same “technology advances” will be occurring with solar and wind, biomass, etc. We must drive these technologies scientifically, but build today’s projects economically. “If” we were to consider a full scale reprocessing facility; estimates are about 12,000 jobs, including 1,000 design jobs during the construction and about 2,500 permanent jobs for decades of operation. A project of this magnitude has the potential to evoke a substantial economic impact on any community and create up to 70,000 jobs overall. Based on the current costs of natural uranium fuel, the “potential value” of the current U. S. stockpile of 66,000 metric tons of commercial reactor spent nuclear fuel would be; $130,000 X 66,000 tons = 8,580,000,000 (8 billion 580 million dollars). We looked at the values of two different opinions, to determine an estimated value of 7 to 11 billion dollars with its reprocessed cost price competitive to natural uranium fuel costs after enrichment. And, as one can see, our current stockpile is only 1/3 the cost for the facility. Now, as we mentioned above, as we build 150 new plants those 6% waste additions will amortize our 30 billion dollar reprocessing facility over 60 – 100 years, fully amortize its cost and generate revenue. (Maybe even be foolish enough to offer “our reprocessing services” to other countries for income and American jobs). With the “experience” of negative U. S. political interests in a strong nuclear build and reprocessing, NO private company or investors are going to risk building such a facility until they see the full “long term” support of the politics and public policy in America as a “national initiative”. This is the single largest deterrent to “commercial scale” reprocessing in the U. S. The science and engineering is accomplished, proven and functional. This entire dialogue that America has studied for 30 years is a fundamental reason that “We the People” must speak up and “separate science from politics” and allow technology to advance the sciences we need to benefit our lives and as a nation be “energy economically competitive”. Science and engineering understand the U. S. need for expanding our nuclear fleet but the government does not, putting most of its attention on (still expensive) renewable energy with only a few waving the nuclear flag. No matter what administration is at the helm, government MUST re-affirm our need for nuclear expansion. Again here, it needs to be a “national initiative”. Nuclear should be re-classified as “green” and allotted government commitment. The nuclear industry has been wrongly battered by government and the environmental movements for years. It needs government to offer the industry 30 – 50% investment tax credits or working loan guarantees for all who build carbon free baseload power, or a tax holiday for the first ten years of operation of carbon free facilities. These incentives would be available to wind, solar and nuclear development. We must raise the success potential for such projects which have been unfairly brutalized in the past.

#### Lack of reprocessing permissions killing US-South Korea relations now - viewed by SK as a matter of national sovereignty.

Manyin, et al., ‘12

[Mark (Coordinator and Specialist in Asian Affairs at CRS); Emma Chanlett-Avery (Acting Section Research Manager at CRS); and Mary Nitkin (Specialist in Nonproliferation at CRS), “U.S.-South Korea Relations”, Congressional Research Service, 5-15-12, RSR]

The current U.S.-Korea nuclear cooperation agreement, as with other standard agreements, 66 requires U.S. permission before South Korea can reprocess U.S.-origin spent fuel, including spent fuel from South Korea’s U.S.-designed reactors. 67 This is because reprocessing can create new fuel or plutonium for weapons use. The issue has become a sensitive one for many South Korean officials and politicians, who see it as a matter of national sovereignty. The United States has been reluctant to grant such permission due to concerns over the proliferation potential of this technology, the potential impact on negotiations with North Korea, and the possible contradiction with global nonproliferation policy to prevent enrichment and reprocessing plants in new states.

#### Alliance credibility key to deterring NK conflict

McDevitt ’11 **–** vice president and director of the CNA Strategic Studies

(Michael McDevitt, “Deterring North Korean Provocations”, Brookings Institution, February 2011, http://www.brookings.edu/research/papers/2011/02/north-korea-mcdevitt)

Since the Armistice that ended the fighting in Korea in 1953, the U.S.-ROK alliance has been **successful** in preventing another North Korean invasion. The basic approach has been to present such a formidable defensive posture that the North would **never believe it had an opportunity** to forcefully reunify the country under its leadership. In other words, North Korea has successfully been deterred. Alliance strategy has worked so well that today the prospect of an attempt by North Korea to militarily reunite the peninsula is judged by many to be incredible. Setting aside the question of whether Pyongyang still has the desire to solve the Korean civil war by force of arms, some argue that North Korea no longer has the capability to invade successfully, even if it wanted to. Still, both the U.S. and ROK armed forces take the possibility of another invasion, however remote, seriously. The alliance’s Combined Forces Command (CFC) worries about the possibility of a surprise, or short warning attack, because North Korea has positioned much of its Korean People’s Army (KPA) close to the DMZ where it could undertake offensive operations in short order. Deterrence as Practiced Today in Korea “Broadly defined, deterrence is the threat of force intended to convince a potential aggressor not to undertake a particular action because the costs will be unacceptable or the probability of success extremely low.”[1] In other words, deterrence comes in two forms—deterrence by punishment and deterrence by denial. In the first instance, potential aggressors are deterred by the prospect of having to endure unacceptable punishment in response to an aggressive act. In the second case, deterrence by denial, the potential aggressor is deterred because defenses are so good that the aggressor concludes that it could not achieve its political and military objectives through use of force. In Korea, the U.S.-ROK alliance combines both of these approaches—a strong defense that can deny success, buttressed with the promise of overwhelming retaliation in the event of an invasion from the north. For either of these forms of deterrence to be successful what is threatened in response to aggression or a hostile act must be believable, or as it is commonly cast, must be credible. Credibility in turn, derives from a combination of military capability and a belief in the minds of North Korean leaders that the alliance has the political will to act. There is no doubt that the U.S.-ROK allies have the political will to respond to an invasion; hence the conditions necessary for a credible deterrent, capability and political will, are met.

#### The chance for escalation is high—North Korea will provoke South Korea to test its new leadership

Cha ‘12- professor at Georgetown University; senior advisor and Korea chair at the Center for Strategic and International Studies

(Cha, Victor D. “Kim Jong Un Is No Reformer”. August 21, 2012. http://www.foreignpolicy.com/articles/2012/08/21/kim\_jong\_un\_is\_no\_reformer)Let me be blunt: The North Korean regime will not change because Little Kim studied in Switzerland, likes Mickey Mouse, and has a hot wife. If anything, another crisis could be looming: The death of Kim Jong Il and the politics of an unstable leadership transition, a new "get-tough" attitude in Seoul, and U.S. and South Korean electoral cycles constitute a unique confluence of escalation that has not been seen on the peninsula since the 1990s. This could spell another nuclear crisis with North Korea, or even worse, military hostilities that could threaten the peace and prosperity of the region. The Obama administration stopped trying to engage Pyongyang after its April 2012 missile launch, which North Korea announced just 16 days after a food-for-nuclear-and-missile-freeze deal with the United States. Stung by the launch, the Obama administration immediately called off the deal and gave up on its last chance to get IAEA inspectors into North Korea's nuclear facilities at Yongbyon. The launch, which North Korea claimed was for a weather satellite but tested ballistic missile technology banned by the U.N. Security Council, exploded an embarrassing 81 seconds after liftoff. The spectacular failure of Kim's first major public act almost ensures that another provocation is in the offing. He lacks the revolutionary credentials his grandfather earned as a guerrilla fighter against the Japanese. Unlike his father, he does not have a decade of training and preparation for the job. Without serving a day of military service, in September 2010 the junior Kim was made a four-star general and foisted to the top of the power structure at the age of 26 or 27. Even for North Koreans, who expect their leaders to start young so that they can rule for decades, this is a stretch. So **Kim must prove himself** -- be it **through** another missile launch, a nuclear test, or **a military provocation** against Seoul. But South Koreans are fed up. Since North Korea torpedoed a South Korean navy ship in March 2010 and shelled an island a few months later in attacks that killed sailors and civilians, the government and public no longer preach patience and stability so as not to rattle the South Korean stock market. South Korean military leaders have re-written their military rules of engagement. They are now prepared to retaliate for the next military act, possibly even going after command structures in North Korea, which could ignite a full-scale war on the peninsula. The South Korean conservative political contender for the presidential election in December, moreover, is in no mood to look weak on North Korea. Even if the long-shot liberal candidates who preach engagement with the North were to win, Pyongyang has a history of provoking a newly elected leader in the South to show who is the alpha dog on the peninsula, in which case, public pressure for a strong response would be difficult to ignore. Based on my research of U.S.-North Korea negotiations since 1984, within an average of five months after a provocation Washington is usually back at the bargaining table, often because it wants to de-escalate a crisis. The Obama administration, facing a tough election, is not interested in offering exit ramps to North Korea, for fearing of being denounced as weak by Republicans. Optimists often cite China as the answer to avoiding another crisis. The mid-August meetings between the Chinese and Kim's uncle, Jang Song-taek, may be a prelude to more economic deals and even a visit by the new leader to Beijing. But China cannot restrain Pyongyang from belligerence; and it cannot reform North Korea's family-run regime, no matter how many bureaucrats it offers to train. It can only bribe them to return temporarily to a negotiating table that is now empty of other willing partners. The only thing missing right now is a spark. Perhaps North Korea's new leader is busy amusing himself with Disney and his new lovely wife instead of dealing with problems like the flooding that has ravaged the countryside. NGOs report that the food shortage situation is worsening. And the rogue nuclear and missile programs continue to expand. Infighting within the regime is likely intensifying, manifested in the surprise sacking in July of the country's top military general, Ri Yong-ho. Some interpret Ri's departure as evidence of the young reform-minded Kim trying to usurp power from the hard-line military.

### 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.

#### Case outweighs – warming is the biggest existential threat that our generation faces. Results in extinction. That’s 1AC Strom.

#### Aff solves the K impact – imagining dystopian outcomes allow us to transfer socio-political practices to resolve questions of structural violence.

Kurasawa, Professor of Sociology at York University of Toronto, ‘4

[Fuyuki, Constellations, Vol. 11, Issue 4, JL]

Rather than bemoaning the contemporary preeminence of a dystopian imaginary, I am claiming that it can enable a novel form of transnational socio-political action, a manifestation of globalization from below that can be termed preventive foresight. We should not reduce the latter to a formal principle regulating international relations or an ensemble of policy prescriptions for official players on the world stage, since it is, just as significantly, a mode of ethico-political practice enacted by participants in the emerging realm of global civil society. In other words, what I want to underscore is the work of farsightedness, the social processes through which civic associations are simultaneously constituting and putting into practice a sense of responsibility for the future by attempting to prevent global catastrophes. Although the labor of preventive foresight takes place in varying political and socio-cultural settings – and with different degrees of institutional support and access to symbolic and material resources – it is underpinned by three distinctive features: dialogism, publicity, and transnationalism. In the first instance, preventive foresight is an intersubjective or dialogical process of address, recognition, and response between two parties in global civil society: the ‘warners,’ who anticipate and send out word of possible perils, and the audiences being warned, those who heed their interlocutors’ messages by demanding that governments and/or international organizations take measures to steer away from disaster. Secondly, the work of farsightedness derives its effectiveness and legitimacy from public debate and deliberation. This is not to say that a fully fledged global public sphere is already in existence, since transnational “strong publics” with decisional power in the formal-institutional realm are currently embryonic at best. Rather, in this context, publicity signifies that “weak publics” with distinct yet occasionally overlapping constituencies are coalescing around struggles to avoid specific global catastrophes.4 Hence, despite having little direct decision-making capacity, the environmental and peace movements, humanitarian NGOs, and other similar globally-oriented civic associations are becoming significant actors involved in public opinion formation. Groups like these are active in disseminating information and alerting citizens about looming catastrophes, lobbying states and multilateral organizations from the ‘inside’ and pressuring them from the ‘outside,’ as well as fostering public participation in debates about the future. This brings us to the transnational character of preventive foresight, which is most explicit in the now commonplace observation that we live in an interdependent world because of the globalization of the perils that humankind faces (nuclear annihilation, global warming, terrorism, genocide, AIDS and SARS epidemics, and so on); individuals and groups from far-flung parts of the planet are being brought together into “risk communities” that transcend geographical borders.5 Moreover, due to dense media and information flows, knowledge of impeding catastrophes can instantaneously reach the four corners of the earth – sometimes well before individuals in one place experience the actual consequences of a crisis originating in another. My contention is that civic associations are engaging in dialogical, public, and transnational forms of ethico-political action that contribute to the creation of a fledgling global civil society existing ‘below’ the official and institutionalized architecture of international relations.6 The work of preventive foresight consists of forging ties between citizens; participating in the circulation of flows of claims, images, and information across borders; promoting an ethos of farsighted cosmopolitanism; and forming and mobilizing weak publics that debate and struggle against possible catastrophes. Over the past few decades, states and international organizations have frequently been content to follow the lead of globally- minded civil society actors, who have been instrumental in placing on the public agenda a host of pivotal issues (such as nuclear war, ecological pollution, species extinction, genetic engineering, and mass human rights violations). To my mind, this strongly indicates that if prevention of global crises is to eventually rival the assertion of short-term and narrowly defined rationales (national interest, profit, bureaucratic self-preservation, etc.), weak publics must begin by convincing or compelling official representatives and multilateral organizations to act differently; only then will farsightedness be in a position to ‘move up’ and become institutionalized via strong publics.7 Since the global culture of prevention remains a work in progress, the argument presented in this paper is poised between empirical and normative dimensions of analysis. It proposes a theory of the practice of preventive foresight based upon already existing struggles and discourses, at the same time as it advocates the adoption of certain principles that would substantively thicken and assist in the realization of a sense of responsibility for the future of humankind. I will thereby proceed in four steps, beginning with a consideration of the shifting socio-political and cultural climate that is giving rise to farsightedness today (I). I will then contend that the development of a public aptitude for early warning about global cataclysms can overcome flawed conceptions of the future’s essential inscrutability (II). From this will follow the claim that an ethos of farsighted cosmopolitanism – of solidarity that extends to future generations – can supplant the preeminence of ‘short-termism’ with the help of appeals to the public’s moral imagination and use of reason (III). In the final section of the paper, I will argue that the commitment of global civil society actors to norms of precaution and transnational justice can hone citizens’ faculty of critical judgment against abuses of the dystopian imaginary, thereby opening the way to public deliberation about the construction of an alternative world order (IV).

#### Permutation do both

#### The permutation resolves the critique because we can refocus energy production politics while we try to avert short-term disasters. This is a good political approach because the failure to engage the political process turns the affirmative into spectators who are powerless to produce real change.

Rorty 98 (prof of philosophy at Stanford, Richard, 1998, “achieving our country”, Pg. 7-9)JFS

Such people find pride in American citizenship impossi­ble, and vigorous participation in electoral politics pointless. They associate American patriotism with an endorsement of atrocities: the importation of African slaves, the slaughter of Native Americans, the rape of ancient forests, and the Viet­nam War. Many of them think of national pride as appropri­ate only for chauvinists: for the sort of American who re­joices that America can still orchestrate something like the Gulf War, can still bring deadly force to bear whenever and wherever it chooses. When young intellectuals watch John Wayne war movies after reading Heidegger, Foucault, Stephenson, or Silko, they often become convinced that they live in a violent, inhuman, corrupt country. They begin to think of themselves as a saving remnant-as the happy few who have the insight to see through nationalist rhetoric to the ghastly reality of contemporary America. But this insight does not move them to formulate a legislative program, to join a political movement, or to share in a national hope. The contrast between national hope and national self­-mockery and self-disgust becomes vivid when one compares novels like Snow Crash and Almanac of the Dead with socialist novels of the first half of the century-books like The Jungle, An American Tragedy, and The Grapes of Wrath. The latter were written in the belief that the tone of the Gettysburg Address was absolutely right, but that our country would have to transform itself in order to fulfill Lincoln's hopes. Transfor­mation would be needed because the rise of industrial capi­talism had made the individualist rhetoric of America's first century obsolete. The authors of these novels thought that this rhetoric should be replaced by one in which America is destined to become the first cooperative commonwealth, the first class­less society. This America would be one in which income and wealth are equitably distributed, and in which the govern­ment ensures equality of opportunity as well as individual liberty. This new, quasi-communitarian rhetoric was at the heart of the Progressive Movement and the New Deal. It set the tone for the American Left during the first six decades of the twentieth century. Walt Whitman and John Dewey, as we shall see, did a great deal to shape this rhetoric. The difference between early twentieth-century leftist in­tellectuals and the majority of their contemporary counter­parts is the difference between agents and spectators. In the early decades of this century, when an intellectual stepped back from his or her country's history and looked at it through skeptical eyes, the chances were that he or she was about to propose a new political initiative. Henry Adams was, of course, the great exception-the great abstainer from ·politics. But William James thought that Adams' diagnosis of the First Gilded Age as a symptom of irreversible moral and political decline was merely perverse. James's pragmatist theory of truth was in part a reaction against the sort of de­tached spectators hip which Adams affected. For James, disgust with American hypocrisy and self­-deception was pointless unless accompanied by an effort to give America reason to be proud of itself in the future. The kind of proto- Heideggerian cultural pessimism which Adams cultivated seemed, to James, decadent and cowardly. "Democracy," James wrote, "is a kind of religion, and we are bound not to admit its failure. Faiths and utopias are the no­blest exercise of human reason, and no one with a spark of reason in him will sit down fatalistically before the croaker's picture. "2

#### Their objections with nuclear power of are of the status quo. Issues generally tend to stem from problems of uranium mining and waste storage which the plan would obviate the need for. That’s 1AC Chakrovorty.

#### Status quo discourse surrounding Yucca siting eliminates native culture through the valuation of technical arguments over cultural arguments

Endres 12 [Associate Professor of Communications at the University of Utah, Danielle, “Sacred Land or National Sacrifice Zone: The Role of Values in the Yucca Mountain Participation Process”, Process, Environmental Communication: A Journal of Nature and Culture, 6:3, 328-345, RSR]

Despite this progress, flaws remain in many currently used processes of participation (Depoe & Delicath, 2004). Although decision makers have adopted more dialogic participatory models of participation in some settings (e.g., Dietz & Stern, 2008), the NWPA participation process followed for Yucca Mountain remains an essentially technocratic Decide-Announce-Defend (DAD) model in which decisions are made by scientific and policy experts and then presented to the public for approval. Most DAD participation processes value scientific and technical arguments over social-, cultural-, and value-based arguments (e.g., Depoe & Delicath, 2004; Farrell & Goodnight, 1981; Fiorino, 1990; Katz & Miller, 1996; Toker, 2002; Waddell, 1990, 1996). Expanding upon these critiques of DAD models, I specifically examine the role for values in these models. Although scientific, cultural, and social dimensions of decision making are all influenced by values, technocratic decision makers often assume that scientific and technical arguments are value free, thus relegating values to the realm of the social and cultural dimensions that are already marginalized. Therefore, technocratic decision making automatically assumes one set of implicit values while excluding other competing values under the false assumption that science is value free. These flaws in DAD participation processes also apply in the more specific realm of decision making over nuclear technologies. The public sphere surrounding nuclear technologies is ‘‘constricted and degraded by technocratic domination’’ (Taylor, Kinsella, Depoe, & Metzler, 2007, p. 381). Stakeholder participation in nuclear issues is particularly problematic because of secrecy, discursive containment, and the perception that the highly technical nature of nuclear technologies is best handled by experts (e.g., Kinsella, 2001, 2005; Taylor, 1998; Taylor et al., 2007). Scientific and technical knowledge dictate the process with little attention paid to other relevant forms of expertise. In the case of Yucca Mountain, participation in the Yucca Mountain siting decision occurred in the form of comment periods held during both the EIS process (1996 2004) and site authorization decision (2001 2002). While the EIS comment period valued scientific and technical arguments over social and cultural arguments (Ratliff, 1997), the site authorization comment period explicitly called for only scientific and technical arguments (Endres, 2009a). The DOE explicitly framed the site authorization comment period as: (1) an opportunity for the DOE to educate ‘the public’ and (2) for ‘the public’ to comment on the scientific and technical arguments produced by Yucca Mountain Project scientists (DOE, 2002b, 2002c). The participation process created neither a role for non-technical arguments nor a role for the values underlying both technical and non-technical arguments. Yet, opponents and proponents still made value-based claims, which formed a significant stasis point in the controversy.

#### Resistance to waste storage in Yucca Mountain is specifically crucial to challenge nuclear colonialism.

Endres 9 [Associate Professor in Communication @ Utah, Danielle, “The Rhetoric of Nuclear Colonialism: Rhetorical Exclusion of American Indian Arguments in the Yucca Mountain Nuclear Waste Siting Decision,” Communication and Critical/Cultural Studies, Vol. 6, No. 1, March 2009]

Now, with over 60 years of uranium mining, nuclear weapons production and¶ nuclear power, we face a high-level nuclear waste crisis. Once again, power brokers¶ have looked to exploit American Indian lands, resources and peoples. In the twenty-year¶ process of researching and authorizing a federal high-level nuclear waste¶ repository site, only sites on American Indian land were seriously considered. In¶ addition to the Yucca Mountain site, American Indian nations were also targeted for¶ temporary waste storage through the now-defunct Monitored Retrievable Storage¶ (MRS) program.17 And recently, a proposal by Private Fuel Storage (PFS) and the¶ Skull Valley Goshutes to temporarily store nuclear waste at Skull Valley Goshute¶ reservation was defeated by Skull Valley activists working with the State of Utah¶ against the Skull Valley government and PFS.18 The struggle over the Yucca Mountain¶ nuclear waste site is, as Kuletz pointed out, a continuation of struggles against nuclear¶ colonialism: ‘‘Indian protests over the use of Yucca Mountain as a high-level nuclear-waste¶ dump cannot be seen as an anomaly. Rather, they are a part of a persistent¶ pattern of resistance to military occupation and nuclear activity.’’19 Although we do¶ not yet know the health and environmental effects of permanent nuclear waste¶ storage, nuclear colonialism is not just about health and environmental devastation.¶ It also intersects with sovereignty, nuclearism and colonialism, to which I now turn.

#### State focused nuclear power solutions are good

Nordhaus 11, chairman – Breakthrough Instiute, and Shellenberger, president – Breakthrough Insitute, MA cultural anthropology – University of California, Santa Cruz, 2/25/‘11

(Ted and Michael, <http://thebreakthrough.org/archive/the_long_death_of_environmenta>)

Tenth, we are going to have to get over our suspicion of technology, especially nuclear power. There is no credible path to reducing global carbon emissions without an enormous expansion of nuclear power. It is the only low carbon technology we have today with the demonstrated capability to generate large quantities of centrally generated electrtic power. It is the low carbon of technology of choice for much of the rest of the world. Even uber-green nations, like Germany and Sweden, have reversed plans to phase out nuclear power as they have begun to reconcile their energy needs with their climate commitments. Eleventh, we will need to embrace again the role of the state as a direct provider of public goods. The modern environmental movement, borne of the new left rejection of social authority of all sorts, has embraced the notion of state regulation and even creation of private markets while largely rejecting the generative role of the state. In the modern environmental imagination, government promotion of technology - whether nuclear power, the green revolution, synfuels, or ethanol - almost always ends badly. Never mind that virtually the entire history of American industrialization and technological innovation is the story of government investments in the development and commercialization of new technologies. Think of a transformative technology over the last century - computers, the Internet, pharmaceutical drugs, jet turbines, cellular telephones, nuclear power - and what you will find is government investing in those technologies at a scale that private firms simply cannot replicate. Twelveth, big is beautiful. The rising economies of the developing world will continue to develop whether we want them to or not. The solution to the ecological crises wrought by modernity, technology, and progress will be more modernity, technology, and progress. The solutions to the ecological challenges faced by a planet of 6 billion going on 9 billion will not be decentralized energy technologies like solar panels, small scale organic agriculture, and a drawing of unenforceable boundaries around what remains of our ecological inheritance, be it the rainforests of the Amazon or the chemical composition of the atmosphere. Rather, these solutions will be: large central station power technologies that can meet the energy needs of billions of people increasingly living in the dense mega-cities of the global south without emitting carbon dioxide, further intensification of industrial scale agriculture to meet the nutritional needs of a population that is not only growing but eating higher up the food chain, and a whole suite of new agricultural, desalinization and other technologies for gardening planet Earth that might allow us not only to pull back from forests and other threatened ecosystems but also to create new ones. The New Ecological Politics The great ecological challenges that our generation faces demands an ecological politics that is generative, not restrictive. An ecological politics capable of addressing global warming will require us to reexamine virtually every prominent strand of post-war green ideology. From Paul Erlich's warnings of a population bomb to The Club of Rome's "Limits to Growth," contemporary ecological politics have consistently embraced green Malthusianism despite the fact that the Malthusian premise has persistently failed for the better part of three centuries. Indeed, the green revolution was exponentially increasing agricultural yields at the very moment that Erlich was predicting mass starvation and the serial predictions of peak oil and various others resource collapses that have followed have continue to fail. This does not mean that Malthusian outcomes are impossible, but neither are they inevitable. We do have a choice in the matter, but it is not the choice that greens have long imagined. The choice that humanity faces is not whether to constrain our growth, development, and aspirations or die. It is whether we will continue to innovate and accelerate technological progress in order to thrive. Human technology and ingenuity have repeatedly confounded Malthusian predictions yet green ideology continues to cast a suspect eye towards the very technologies that have allowed us to avoid resource and ecological catastrophes. But such solutions will require environmentalists to abandon the "small is beautiful" ethic that has also characterized environmental thought since the 1960's. We, the most secure, affluent, and thoroughly modern human beings to have ever lived upon the planet, must abandon both the dark, zero-sum Malthusian visions and the idealized and nostalgic fantasies for a simpler, more bucolic past in which humans lived in harmony with Nature.

#### Turns the K – strategic planning to prevent crisis escalation is the only way out of the security dilemma – alt fails in practice.

Liotta, Jerome E. Levy Chair of Economic Geography and National Security at the U. S. Naval War College, ‘5

[PH, Security Dialogue 36. 1, “Through the Looking Glass: Creeping Vulnerabilities and the Reordering of Security, pg. 65-6]

Although it seems attractive to focus on exclusionary concepts that insist on desecuritization, privileged referent objects, and the ‘belief’ that threats and vulnerabilities are little more than social constructions (Grayson, 2003), all these concepts work in theory but fail in practice. While it may be true that national security paradigms can, and likely will, continue to dominate issues that involve human security vulnerabilities – and even in some instances mistakenly confuse ‘vulnerabilities’ as ‘threats’ – there are distinct linkages between these security concepts and applications. With regard to environ mental security, for example, Myers (1986: 251) recognized these linkages nearly two decades ago: National security is not just about fighting forces and weaponry. It relates to water-sheds, croplands, forests, genetic resources, climate and other factors that rarely figure in the minds of military experts and political leaders, but increasingly deserve, in their collectivity, to rank alongside military approaches as crucial in a nation’s security. Ultimately, we are far from what O’Hanlon & Singer (2004) term a global intervention capability on behalf of ‘humanitarian transformation’. Granted, we now have the threat of mass casualty terrorism anytime, anywhere – and states and regions are responding differently to this challenge. Yet, the global community today also faces many of the same problems of the 1990s: civil wars, faltering states, humanitarian crises. We are nowhere closer to addressing how best to solve these challenges, even as they affect issues of environmental, human, national (and even ‘embedded’) security. Recently, there have been a number of voices that have spoken out on what the International Commission on Intervention and State Sovereignty has termed the ‘responsibility to protect’:10 the responsibility of some agency or state (whether it be a superpower such as the United States or an institution such as the United Nations) to enforce the principle of security that sovereign states owe to their citizens. Yet, the creation of a sense of urgency to act – even on some issues that may not have some impact for years or even decades to come– is perhaps the only appropriate first response. The real cost of not investing in the right way and early enough in the places where trends and effects are accelerating in the wrong direction is likely to be decades and decades of economic and political frustration – and, potentially, military engagement. Rather than justifying intervention (especially military), we ought to be justifying investment. Simply addressing the immensities of these challenges is not enough. Radical improvements in public infrastructure and support for better governance, particularly in states and municipalities (especially along the Lagos–Cairo–Karachi–Jakarta arc), will both improve security and create the conditions for shrinking the gap between expectations and opportunity. A real debate ought to be taking place today. Rather than dismissing ‘alternative’ security foci outright, a larger examination of what forms of security are relevant and right among communities, states, and regions, and which even might apply to a global rule-set – as well as what types of security are not relevant – seems appropriate and necessary. If this occurs, a truly remarkable tectonic shift might take place in the conduct of international relations and human affairs. Perhaps, in the failure of states and the international community to respond to such approaches, what is needed is the equivalent of the 1972 Stockholm conference that launched the global environmental movement and estab lished the United Nations Environmental Programme (UNEP), designed to be the environmental conscience of the United Nations. Similarly, the UN Habitat II Conference in Istanbul in 1996 focused on the themes of finding adequate shelter for all and sustaining human development in an increas ingly urbanized world. Whether or not these programs have the ability to influence the future’s direction (or receive wide international support) is a matter of some debate. Yet, given that the most powerful states in the world are not currently focusing on these issues to a degree sufficient to produce viable implementation plans or development strategies, there may well need to be a ‘groundswell’ of bottom-up pressure, perhaps in the form of a global citizenry petition to push the elusive world community toward collective action. Recent history suggests that military intervention as the first line of response to human security conditions underscores a seriously flawed approach. Moreover, those who advocate that a state’s disconnectedness from globalization is inversely proportional to the likelihood of military (read: US) intervention fail to recognize unfolding realities (Barnett, 2003, 2004). Both middle-power and major-power states, as well as the international com munity, must increasingly focus on long-term creeping vulnerabilities in order to avoid crisis responses to conditions of extreme vulnerability. Admittedly, some human security proponents have recently soured on the viability of the concept in the face of recent ‘either with us or against us’ power politics (Suhrke, 2004). At the same time, and in a bit more positive light, some have clearly recognized the sheer impossibility of international power politics continuing to feign indifference in the face of moral categories. As Burgess (2004: 278) notes, ‘for all its evils, one of the promises of globalization is the unmasking of the intertwined nature of ethics and politics in the complex landscape of social, economic, political and environmental security’. While it is still not feasible to establish a threshold definition for human security that neatly fits all concerns and arguments (as suggested by Owen, 2004: 383), it would be a tragic mistake to assume that national, human, and environmental security are mutually harmonious constructs rather than more often locked in conflictual and contested opposition with each other. Moreover, aspects of security resident in each concept are indeed themselves embedded with extraordinary contradictions. Human security, in particular, is not now, nor should likely ever be, the mirror image of national security. Yet, these contradictions are not the crucial recognition here. On the contrary, rather than focusing on the security issues themselves, we should be focusing on the best multi-dimensional approaches to confronting and solving them. One approach, which might avoid the massive tidal impact of creeping vulnerabilities, is to sharply make a rudder shift from constant crisis intervention toward strategic planning, strategic investment, and strategic attention. Clearly, the time is now to reorder our entire approach to how we address – or fail to address – security.

#### Turn – traditional security studies *incorrectly deflate* threats – the affirmative is necessary to reverse this trend.

**Schweller 4**

[Randall L. Schweller, Associate Professor in the Department of Political Science at The Ohio State University, “Unanswered Threats A Neoclassical RealistTheory of Underbalancing,” International Security 29.2 (2004) 159-201, Muse]

Despite the historical frequency of underbalancing, little has been written on the subject. Indeed, Geoffrey Blainey's memorable observation that for "every thousand pages published on the causes of wars there is less than one page directly on the causes of peace" could have been made with equal veracity about overreactions to threats as opposed to underreactions to them.92 Library shelves are filled with books on the causes and dangers of exaggerating threats, ranging from studies of domestic politics to bureaucratic politics, to political psychology, to organization theory. By comparison, there have been few studies at any level of analysis or from any theoretical perspective that directly explain why states have with some, if not equal, regularity underestimated dangers to their survival. There may be some cognitive or normative bias at work here. Consider, for instance, that there is a commonly used word, paranoia, for the unwarranted fear that people are, in some way, "out to get you" or are planning to do oneharm. I suspect that just as many people are afflicted with the opposite psychosis: the delusion that everyone loves you when, in fact, they do not even like you. Yet, we do not have a familiar word for this phenomenon. Indeed, I am unaware of any word that describes this pathology (hubris and overconfidence come close, but they plainly define something other than what I have described). That noted, international relations theory does have a frequently used phrase for the pathology of states' underestimation of threats to their survival, the so-called Munich analogy. The term is used, however, in a disparaging way by theorists to ridicule those who employ it. The central claim is that the naïveté associated with Munich and the outbreak of World War II has become an overused and inappropriate analogy because few leaders are as evil and unappeasable as Adolf Hitler. Thus, the analogy either mistakenly causes leaders [End Page 198] to adopt hawkish and overly competitive policies or is deliberately used by leaders to justify such policies and mislead the public. A more compelling explanation for the paucity of studies on underreactions to threats, however, is the tendency of theories to reflect contemporary issues as well as the desire of theorists and journals to provide society with policyrelevant theories that may help resolve or manage urgent security problems. Thus, born in the atomic age with its new balance of terror and an ongoing Cold War, the field of security studies has naturally produced theories of and prescriptions for national security that have had little to say about—and are, in fact, heavily biased against warnings of—the dangers of underreacting to or underestimating threats. After all, the nuclear revolution was not about overkill but, as Thomas Schelling pointed out, speed of kill and mutual kill.93 Given the apocalyptic consequences of miscalculation, accidents, or inadvertent nuclear war, small wonder that theorists were more concerned about overreacting to threats than underresponding to them. At a time when all of humankind could be wiped out in less than twenty-five minutes, theorists may be excused for stressing the benefits of caution under conditions of uncertainty and erring on the side of inferring from ambiguous actions overly benign assessments of the opponent's intentions. The overwhelming fear was that a crisis "might unleash forces of an essentially military nature that overwhelm the political process and bring on a war thatnobody wants. Many important conclusions about the risk of nuclear war, and thus about the political meaning of nuclear forces, rest on this fundamental idea."94 Now that the Cold War is over, we can begin to redress these biases in the literature. In that spirit, I have offered a domestic politics model to explain why threatened states often fail to adjust in a prudent and coherent way to dangerous changes in their strategic environment. The model fits nicely with recent realist studies on imperial underand overstretch. Specifically, it is consistent with Fareed Zakaria's analysis of U.S. foreign policy from 1865 to 1889, when, he claims, the United States had the national power and opportunity to expand but failed to do so because it lacked sufficient state power (i.e., the state was weak relative to society).95 Zakaria claims that the United States did [End Page 199] not take advantage of opportunities in its environment to expand because it lacked the institutional state strength to harness resources from society that were needed to do so. I am making a similar argument with respect to balancing rather than expansion: incoherent, fragmented states are unwilling and unable to balance against potentially dangerous threats because elites view the domestic risks as too high, and they are unable to mobilize the required resources from a divided society. The arguments presented here also suggest that elite fragmentation and disagreement within a competitive political process, which Jack Snyder cites as an explanation for overexpansionist policies, are more likely to produce underbalancing than overbalancing behavior among threatened incoherent states.96 This is because a balancing strategy carries certain political costs and risks with few, if any, compensating short-term political gains, and because the strategic environment is always somewhat uncertain. Consequently, logrolling among fragmented elites within threatened states is more likely to generate overly cautious responses to threats than overreactions to them. This dynamic captures the underreaction of democratic states to the rise of Nazi Germany during the interwar period.97 In addition to elite fragmentation, I have suggested some basic domestic-level variables that regularly intervene to thwart balance of power predictions.

### CIR Politics

#### High skilled worker reform inevitable – no impact.

Yglesias 1/15 Matthew, Slate, 2013, How the GOP Can Roll Obama on Immigration, www.slate.com/blogs/moneybox/2013/01/15/immigration\_reform\_will\_obama\_get\_rolled.html

Of the major policy issues under discussion in Washington, "immigration reform" stands out for having unusually undefined content. For the major immigration-advocacy groups, the goal is clear, a comprehensive bill that includes a path to citizenship for the overwhelming majority of unauthorized migrants already living in the United States. But many other aspects of immigration law are in the mix as part of a proposed deal, and it seems to me that there's a fair chance that a nimble Republican Party could essentially roll the Democratic coalition and pass an "immigration reform" bill that doesn't offer the path Latino advocacy groups are looking for.¶ Elise Foley has the key line from her briefing on the administration's thinking about immigration, namely that a piecemeal approach "could result in passage of the less politically complicated pieces, such as an enforcement mechanism and high-skilled worker visas, while leaving out more contentious items such as a pathway to citizenship for undocumented immigrants."¶ And indeed it could. But how can they stop it? The last House GOP effort to split the high-tech visas question from the path to citizenship question was an absurd partisan ploy. If Republicans want to get serious about it they should be able to make it work. The centerpiece would be something on increased immigration of skilled workers. That's something the tech industry wants very much, it's a great idea on the merits, and few influential people have any real beef with it. High tech visas will easily generate revenue to pay for some stepped-up enforcement. Then instead of adding on a poison pill so Democrats will block the bill, you need to add a sweetener. Not the broad path to citizenship, but something small like the DREAM Act. Now you've got a package that falls massively short of what Latino groups are looking for, but that I think Democrats will have a hard time actually blocking. After all, why would they block it? It packages three things—more skilled immigration, more enforcement, and help for DREAMers—they say they want. Blocking it because it doesn't also do the broad amnesty that liberals want and conservatives hate would require the kind of fanaticism that is the exact opposite of Obama's approach to politics.

#### Obama’s pushing nuclear now – should have already triggered the link. That’s 1AC Northey.

#### Obama’s PC is low, PC’s not key, and winners win.

The Hill 3-20 (Amie Parnes and Justin Sink, Obama honeymoon may be over, The Hill, 20 March 2013, http://thehill.com/homenews/administration/289179-obama-honeymoon-may-be-over, da 3-28-13)

The second-term honeymoon for President Obama is beginning to look like it is over.¶ Obama, who was riding high after his reelection win in November, has seen his poll numbers take a precipitous fall in recent weeks. ¶ A CNN poll released Tuesday showed Obama’s favorability rating underwater, with 47 percent approving and 50 percent disapproving of Obama’s handling of his job. ¶ Much of the president’s agenda is stuck, with climate change regulations delayed, immigration reform mired in committee negotiations and prospects for a grand bargain budget deal in limbo at best. ¶ On Tuesday, in a decision that underscored Obama’s depleting political capital, the White House watched as Senate Majority Leader Harry Reid (D-Nev.) announced only a watered-down version of Obama’s gun control proposals would be considered on the Senate floor. ¶ Republicans, sensing the sea change, are licking their chops. They point to the lack of movement on Obama’s signature issues, noting the contrast to the ambitious plans outlined in the early weeks of his second term.¶ “The president set very high goals for himself during his State of the Union, but the reality is very little of his agenda is actually moving,” Republican strategist Ron Bonjean said. “He allowed himself to get caught up in the legislative quicksand, [and] the cement is beginning to harden. “¶ History isn’t on Obama’s side. ¶ The last four presidents who won a second term all saw their poll numbers slide by mid-March with the exception of Bill Clinton, whose numbers improved in the four months following his reelection.¶ Clinton may have only been delaying the inevitable. His numbers dropped 5 points in April 1994. Even Ronald Reagan, buoyed by a dominant performance over Walter Mondale in the 1984 election, saw a double-digit erosion by this point in his second term.¶ Obama has yet to complete the first 100 days of his second term. But without a signature achievement since his reelection, he faces a crossroads that could define the remainder of his presidency. ¶ White House aides maintain that the 24-hour news cycle makes comparisons to previous presidents difficult.¶ “I think the nature of our politics now is different than Ronald Reagan’s honeymoon,” one senior administration official said. “The ebb and flow of politics doesn’t follow that model anymore.”¶ But observers say a drop in popularity is typical for second-termers.¶ “There may be some typical second-term honeymoon fade happening,” said Martin Sweet, an assistant visiting professor of political science at Northwestern University. “Honeymoon periods for incumbents are a bit more ephemeral.”¶ But like most other presidents, Sweet added, “Obama’s fate is tied to the economy.”¶ “Continuing economic progress would ultimately strengthen the president but if we are hit with a double-dip recession, then Obama’s numbers will crater,” he said.¶ The White House disputes any notion that Obama has lost any political capital in recent weeks.¶ “The president set out an ambitious agenda and he’s doing big things that are not easy, from immigration to gun control,” the senior administration official said. “Those are policies you can’t rack up easily, and no one here is naive about that.”¶ The White House is aware that the clock is ticking to push its hefty agenda, but the official added, “The clock is not ticking because of president’s political capital. The clock is ticking because there’s a timetable in achieving all of this. [Lawmakers] are not going to sign on because the president’s popular.” ¶ And administration officials believe they still have the leverage.¶ ¶ “There’s a decent amount of momentum behind all of this,” the official said. “It looks like immigration is closer [to passage] than ever before.”¶ Republican strategist Ken Lundberg argued that current budget fights “have cut short the president’s second-term honeymoon.” ¶ He said this could also hurt the president’s party, warning “the lower the president’s approval rating, the bigger the consequence for vulnerable Democrats.”¶ “Voters want solutions, and if they see the president headed down the wrong path, lockstep lawmakers will be punished in 2014,” he said.¶ Democratic strategist Chris Kofinis maintained that as long as he’s president, Obama still has the leverage.¶ “Immigration reform doesn’t get impacted by whether Obama’s poll numbers are 55 or 45,” Kofinis said. “Does it make certain things a little more difficult? Possibly. But while his numbers may have fallen, he’s still more likeable than the Republicans are on their best day.”¶ Kofinis said the real question for Obama is what kind of emphasis he’s going to place on his second term because the public will have less patience than they did during his first.¶ “The challenge in a second term is the American people look at certain things and have a higher tolerance in a second term,” he said. “When they know you’re not running for reelection again, they hold you to a higher standard.” ¶ Bonjean and other Republicans are aware that Obama could potentially bounce back from his latest slip in the polls and regain his footing.¶ “He has the opportunity to take minor legislative victories and blow them up into major accomplishments – meaning if he got something on gun control, he can tout that that was part of his agenda and the work isn’t over. If he were able to strike a grand bargain with Republicans, that’d be a legacy issue.”¶ Still, Bonjean added, “It’s not looking so good right now.”

#### Normal means is that plan is introduced at the bottom of the docket – won’t be voted on until after Immigration.

#### Plan popular and Graham shields the link.

Russell ’13 (Pam Radtke, Budget Cutters Eye Nuclear Reprocessing Plant, Roll Call, 5 February 2013, http://www.rollcall.com/news/budget\_cutters\_eye\_nuclear\_reprocessing\_plant-222173-1.html?pg=1, da 2-14-13)

The scrutiny is raising concern among the project’s supporters, especially with across-the-board spending cuts set to kick in next month unless Congress acts to postpone them or enact an alternative austerity plan.¶ “We must stay the course and create a pathway to safely and responsibly dispose of weapons grade plutonium,” Rep. Joe Wilson, R-S.C., wrote in a letter he has been circulating among his colleagues that would urge the White House to preserve the project. “If we fail to uphold our end of this agreement, dire consequences could be felt by our close allies across the globe, as Russia may choose not to honor its end of the agreement.”¶ The MOX facility has survived earlier challenges. Former Rep. David L. Hobson, R-Ohio, said his efforts to kill funding for the project when he served as Energy and Water Appropriations Subcommittee chairman were thwarted by the political clout of South Carolina lawmakers — including fiscal conservatives such as Wilson, Sen. Lindsey Graham and former Sen. Jim DeMint.¶ Hobson described the project as a jobs program for South Carolina. In addition to the 2,600 employees now working on it, the completed facility will require permanent workers to operate it for up to two decades. The plant is part of the larger Savannah River Site in South Carolina, an Energy Department-managed site that employs 12,000.¶ Hobson said one of the biggest regrets of his tenure was agreeing to back off efforts to end the project when he was told they could hurt Republican Gov. Mark Sanford’s re-election chances in 2006.¶ “I got rolled,” Hobson said.¶ Laura Peterson of Taxpayers for Common Sense, which has called for an end to the project, said conservative Republicans who otherwise might be expected to complain about cost overruns are deterred by the support it enjoys from Graham. And Hobson said DeMint — a leading champion of small government and spending cuts who now heads The Heritage Foundation — never suggested killing the MOX program.¶ “This is worse than earmarks,” Hobson said. “This is appalling.”¶ Neither Graham’s nor DeMint’s staffs responded to requests to comment on the project, but Wilson and other supporters say it is vital to fulfilling the 2000 arms deal with Russia. Failing to move ahead with the program, Wilson warned, could lead the Russians not to honor its end of the agreement.

#### Logical policy maker can do both.

#### Won’t pass---border security

Byron York 3-27, Chief Political Correspondent - The Washington Examiner, “Border security in exchange for immigration reform? Napolitano says no deal.” 3-27-13, http://washingtonexaminer.com/border-security-in-exchange-for-immigration-reform-napolitano-says-no-deal./article/2525505

Republicans working to craft a comprehensive immigration reform bill say there is one rock-bottom requirement for any deal: The border must be secure, and proven to be secure, before any path to citizenship is created for the millions of immigrants currently in the country illegally. That is the one non-negotiable GOP demand. And on Tuesday, Homeland Security Secretary Janet Napolitano flatly rejected it.¶ “Relying on one thing as a so-called trigger is not the way to go,” Napolitano told a breakfast meeting of journalists. Asked about her department’s recent revelation that it will not produce a long-promised method of measuring border security, known as the Border Condition Index, Napolitano said, “We’re confident that the border is as secure as it’s ever been. But there’s no one number that captures that.” Without a way to measure border security, many Republican reform advocates say, there’s no way to go forward with a reform agreement.¶ Napolitano’s comments were one more bit of evidence, if Republicans needed any, that the Obama administration does not intend to make enhanced border security a precondition of immigration reform. “Every position and action the administration takes is consistent with the idea that they have no desire to accomplish immigration security,” said one GOP Senate aide who spoke on condition of anonymity.¶ “One of the challenges in crafting any reform is that the American people do not have confidence in this administration’s willingness to enforce current immigration law,” said Alex Conant, spokesman for Marco Rubio, the Republican senator and Gang of Eight member who has staked considerable political capital on the negotiations. “Senator Rubio and several members of the immigration working group share these concerns, and it’s reflected in the solution they are trying to craft. Our legislation will include real security triggers to make sure out borders are secured.”¶ Added Conant: “Senator Rubio will not support any legislation that does not include real security triggers to make sure our borders are secured.”¶ As for Napolitano, another aide said, “I wonder if she’s freelancing, or carrying a message from the White House.” At Tuesday’s White House briefing, spokesman Jay Carney was asked that very question, and while he spoke at length without saying anything definitive, Carney appeared to suggest that President Obama agrees with Napolitano. From the transcript:¶ QUESTION: Secretary Napolitano said today that triggers are not necessary before comprehensive immigration reform. So what does the White House do to convince those on the other side? Since there are no reliable metrics about border security, what will you do to convince them that the border is secure enough for immigration and a path to citizenship to begin?¶ MR. CARNEY: Well, I think the question is excellent, and I would note that what Secretary Napolitano has said — Secretary Napolitano has said that the Department of Homeland Security measures progress using a number of metrics to make sure we are putting our resources where they will have the most impact. And I think that while there are different ways to look at this issue, the fact is, by a host of measures, there has been great improvement in our border security.¶ Certainly the facts are there when it comes to the resources that have been applied to border security — the doubling of border security agents, as well as the other metrics that you will often hear Secretary Napolitano or others discuss. So we look at a variety of measures.¶ And I think you can look at what this President has committed to and the record on border security since he came into office to evaluate his assertion that border security is a vital element of comprehensive immigration reform. That has been his position, and it continues to be. And I would note — and this is something that has been acknowledged by important members of the Senate, Republican members — the progress that has been made on this very important issue, border security. Much of — the last time comprehensive immigration reform was essentially abandoned, some of the issues — the principal reason for that was because of concerns about border security. And many of the metrics that were put forward then have been met — the goals and the targets that were said to have to be achieved before we could move forward have been met.¶ But this is an ongoing issue. This is an ongoing concern, and it’s an ongoing project of this administration. And it will certainly be an important part of immigration reform.¶ QUESTION: Do you — does the White House oppose commissions or certain triggers before a path to citizenship can begin?¶ MR. CARNEY: What we have said and I’ll say today is that we are not going to judge the bill before it’s been written. And we are working with the senators who are in the Gang of Eight as they make progress, and they’ve made considerable progress, and that is worth noting. Senator Schumer just the other day talked about where they are in that process and the progress that they’ve been making, and we were heartened by that.¶ But as the President said yesterday, we have to keep pushing. We have to make sure that we follow through on this progress, and that that progress leads to a bill that has bipartisan support and that can be signed by this President. And we’re not there yet. Progress is being made. It’s being made in the Senate, which is where the President hoped it would be made. And we are very much monitoring that process and engaging in that process. But it’s not done yet, and I don’t want to prejudge a bill that hasn’t been written.¶ QUESTION: But if I could just press you on it, it does appear as though that Secretary Napolitano did today prejudge. She said the triggers are not necessary. Does the White House agree with that assessment?¶ MR. CARNEY: I think what she was saying — and the assessment we do agree with — is that there are a variety of metrics by which you can measure, and we do measure, progress on border security. And these are metrics that others use to measure border security, including Democrats and Republicans in the Senate and beyond the Senate, beyond the Congress.¶ So we’re working with Congress on this, with the Senate on this. Progress has been made. Border security is one of the key principles that the President has put forward that has to be part of comprehensive immigration reform. He has demonstrated his seriousness on this issue, as has Secretary Napolitano. But it is something that we’re — it’s not a done project. We have to continue working on it.¶ Cut through all the verbiage, and Carney seemed to say precisely what Napolitano said: If Republicans demand that tougher border enforcement be a precondition for comprehensive immigration reform, they can forget about making a deal, now or ever.

#### No reason Obama would push the plan – means it doesn’t affect his political capital.

#### CIR won’t pass – not enough support among members of the House GOP

Foley 3-27 (Elise, John Yarmuth: Immigration Group In House 'Very Close' To Deal, Huffington Post, 27 March 2013, http://www.huffingtonpost.com/2013/03/27/john-yarmuth-immigration\_n\_2963491.html, da 3-28-13)

Yarmuth said one of the biggest questions is how they ensure their bill can pass the Republican-controlled House, which will be a heavier lift than the Democratic-controlled Senate. The so-called "gang of eight" in the upper chamber plans to unveil a bill next month and has already put out a framework, but the House group still must decide whether to wait until a Senate bill passes or introduce their own legislation sooner.¶ They may be leaning toward the latter, Yarmuth hinted.¶ "I think one of the things that we're dealing with is the issue of making sure that House Republicans who are in the majority are comfortable with whatever package comes to the floor of the House," he said. "You know, just kind of the sensitivity is, would House Republicans be open to a bill that comes from a Democratic-controlled Senate or from a Democratic president? And that's why we kind of think our effort is most important because if we can get one through the House, then I think the odds of getting it signed into law improve a lot."¶ He said the contentious issues in the House group were over how to deal with undocumented immigrants already in the country, guest workers, border security and stopping employers from hiring people unauthorized to work in the United States.

#### 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.

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#### Resistance to waste storage in Yucca Mountain is specifically crucial to challenge nuclear colonialism.

Endres 9 [Associate Professor in Communication @ Utah, Danielle, “The Rhetoric of Nuclear Colonialism: Rhetorical Exclusion of American Indian Arguments in the Yucca Mountain Nuclear Waste Siting Decision,” Communication and Critical/Cultural Studies, Vol. 6, No. 1, March 2009]

Now, with over 60 years of uranium mining, nuclear weapons production and¶ nuclear power, we face a high-level nuclear waste crisis. Once again, power brokers¶ have looked to exploit American Indian lands, resources and peoples. In the twenty-year¶ process of researching and authorizing a federal high-level nuclear waste¶ repository site, only sites on American Indian land were seriously considered. In¶ addition to the Yucca Mountain site, American Indian nations were also targeted for¶ temporary waste storage through the now-defunct Monitored Retrievable Storage¶ (MRS) program.17 And recently, a proposal by Private Fuel Storage (PFS) and the¶ Skull Valley Goshutes to temporarily store nuclear waste at Skull Valley Goshute¶ reservation was defeated by Skull Valley activists working with the State of Utah¶ against the Skull Valley government and PFS.18 The struggle over the Yucca Mountain¶ nuclear waste site is, as Kuletz pointed out, a continuation of struggles against nuclear¶ colonialism: ‘‘Indian protests over the use of Yucca Mountain as a high-level nuclear-waste¶ dump cannot be seen as an anomaly. Rather, they are a part of a persistent¶ pattern of resistance to military occupation and nuclear activity.’’19 Although we do¶ not yet know the health and environmental effects of permanent nuclear waste¶ storage, nuclear colonialism is not just about health and environmental devastation.¶ It also intersects with sovereignty, nuclearism and colonialism, to which I now turn.

#### Their fears of epistemological bias are unfounded and exaggerated – *even if* our claims aren’t perfect, *they are likely accurate* and wholesale rejection is the worst approach\*

Martin, Professor of Geography at Cambridge, ‘1

[Ron, “Geography and public policy: the case of the missing agenda”, Progress in Human Geography, 25: 2, 2001

<http://geography.fullerton.edu/550/public%20policy.pdf>, RSR]

A second source of the prejudice against policy study, however, is the charge that it all too readily becomes hijacked or subverted by the organizations, research grant bodies and government departments that commission and fund it. The complaint is that through their funding, and their selection and assessment procedures, these institutions set the agenda, define the issues, control access to data and even influence the nature of policy research. After all, critics argue, no government or other policy-making body is likely to commission or welcome research which it believes could be strongly critical of its policy programmes. In this sense, it is claimed, government-funded policy research is likely to be compromised in its scope and orientation from the very start. At the same time, attempts by government and research funding agencies to define what are ‘socially relevant’ (or even worse, ‘socially useful’) fields of research are seen as prone to bias or even blatant instrumentalism (see Johnston, 1997, on a related point). To compound matters, the complaint goes, research that is critical of government policy or runs counter to what the government wants to hear, is either ignored or may even be used to attack the academics who produced it. For many, therefore, policy studies threaten the very independence of interest, thought and method that is the hallmark of academic research. As Harvey (1974) and Leach (1974) bemoaned, in the earlier debate on geography and policy referred to above, the fear is that public policy and other social-problem orientated research simply becomes subservient to the state, and thereby serves to preserve and strengthen the status quo. Few would deny the reality of these problems, but they can also be exaggerated and too easily used as an excuse not to engage in policy research at all. Public policy research does not mean the surrender of intellectual independence and integrity. It does not mean that research becomes subservient to the particular political interests of the state. What it does mean, however, is that to be persuasive, research has to be relevant and practical and, above all, backed up by persuasive empirical investigation and clear and logical argument. Policy-makers are less able to ignore or reject policy research – even if it is highly critical of policies – if that research is well founded methodologically and empirically. And it is also easier to shift policy-makers’ views if criticism is constructive, that is accompanied with positive suggestions for improving or changing policy. Taking issue with, and winning over, policy-makers is not easy, but is precisely part of the reason why this sort of academic activity needs to be undertaken. To engage in this activity, however, geographers need to expunge the ‘purity’ versus ‘policy’ mentality that permeates the discipline. They need to elevate the academic quality, and hence the status, of policy-relevant research. And they also need to identify where they stand with respect to the key issues in terms of which public policies should be judged (social equity and inclusion, social justice, citizenship, democracy, and so on), and how ‘geography’ and ‘place’ matter for the conduct and content of policy discourse.