

‘ MEGATONS FOR MEGAWATTS ’

## What Happens To All That Uranium?

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The United States, in an effort to be “as transparent as we can be” in the words of Hilary Clinton, recently announced it has 5,113 in its nuclear stockpile, and thousands more retired warheads awaiting the junk-pile. President Obama recently signed a new agreement with Russian President Dmitry Medvedev called The New START Treaty that will reduce current American and Russian stockpiles to 1550. But, “what happens to all that uranium after the bombs are dismantled?”

It seems a lot of the disarming process is merely paperwork. According to an article called “Where nuclear weapons go to die” by Jeffrey Lewis and Meri Lugo, a nuclear weapon is taken off the active list and put in storage, if it is not there already, or shipped to a company called Pantex in Texas to be disassembled. The authors say that during the Clinton administration, more than 1,000 warheads were dismantled a year, but since 2000, employees at Pantex have spent most of their time “refurbishing operational nuclear warheads to extend their life.” They say there are some 4,000 nuclear weapons waiting in line to be dismantled. But this doesn’t answer the question of where the uranium ends up once the bomb has been taken apart.

Well, there is a program set up between The United States and Russia called “Megatons for Megawatts.” The program is handled in the US by the company USEC, Inc. The company’s website calls the program “a 20-year, \$8 billion, commercially funded nuclear nonproliferation of the US and Russian governments.” They say the “program is recycling 500 metric tons of weapons-grade uranium taken from dismantled Russian nuclear warheads (the equivalent of 20,000 warheads) into low enriched uranium used by USEC’s customers to generate electricity.”

The process starts in Russia, where the weapons are dismantled and the weapons grade highly enriched uranium (HEU) is converted to low enriched uranium (LEU). Then USEC purchases this material from Russia, and sells it to utility companies in the United States. USEC says this program has “significantly enhanced world security by steadily reducing stockpiles of nuclear-grade materials, while creating a clean, valuable resource-uranium for use in nuclear fuel.” They say 1 in 10 customers in the United States receives this fuel and by the program’s end in 2013, enough LEU will be created to power the entire US for two years.

What if the US did the same thing with its nuclear warheads? Now, get this: “we already own this nuclear material. We paid for it the first time when we built the bomb. What if we dismantle our own bombs, just like Russia, and we sell it to USEC, who then sells it to the nuclear power plants? We take the profits, and invest in alternative energy development; creating an energy source to power our transition to renewable resources and the funding to pay for it.”

The Pentagon says the US has 5,113 nuclear weapons, and several thousand more retired. Robert S Norris, a longtime analyst of US and Russian nuclear arsenals, and Hans M Kristensen of the Federation of American Scientists, estimated in a recent Associated Press article that several thousand to be roughly 4,200 retired warheads. This gives a grand total of roughly 9,313 nuclear warheads. The new agreement between Obama and Medvedev of Russia brings the limits to 1,550.

So, let's forget about the 70,000 the US is said to have built since the program began, and the 32,193 the US is said to have had at its peak in 1966, and just look at the 9,313 warheads America has to reduce to 1,550. Complete with this treaty leaves America with roughly 7,763 bombs that will need to be "retired." If 20,000 dismantled Russian warheads could power the entire US for two years, this gives America nearly one year's worth of energy for the entire country, give or take a few megatons.

The International Panel on Fissile Materials says much of the world's excess highly enriched uranium is held in reserve for nuclear submarines. The US has the largest supply at 128 tons, enough reactor fuel to keep them running for 60 years. The panel says if the US and Russia were to agree to cut their total stockpiles to 1000 and convert their subs to run on LEU, as most countries are now doing, they could "dispose of perhaps 360 and 700 tons of weapons-grade uranium respectively".

Well, nuclear energy is no solution for the future. Nuclear power creates nuclear waste, which isn't that much better, but at least it won't explode and kill millions of people. Nuclear power plants are left storing this waste until a suitable dumping ground is found. The US has been preparing Yucca Mountain in Nevada, but the site has not yet been approved.

According to "Recycling Nuclear Fuel: The French Do It, Why Can't We" by Jack Spencer, the United States' nuclear power industry has produced 56,000 tons of used fuel, which, if recycled, could power every US household for 12 years. He says the US developed the technology to recycle spent fuel, but banned its use in 1977 over fears of proliferation and cost effectiveness. France, on the other hand, has recycled spent nuclear fuel successfully for 30 years, and the 23,000 tons of spent fuel they have processed could power all of France for 14 years. He says the US has already created enough waste to nearly fill Yucca Mountain, and the nuclear authorities haven't even begun storing anything there yet. Spencer says the French have helped Japan get a recycling program going, and are looking into building a plant in China. He also says that the British, Indians, and Russians all engage in some form of reprocessing. And while recycling fuel does not render it harmless, recycling decreases the harmful levels of nuclear material, and reduces the chances of making it into an effective nuclear weapon.

The French Government says that recycling nuclear waste reduces the radioactivity by a factor of four or five by taking plutonium and uranium out of the equation, according to E&E reporter Katherine Ling. She says that the United States has the biggest nuclear power market on the planet, and that Areva, France's majority state owned complex of nuclear companies, is already building a reprocessing plant in South Carolina with its partner the Shaw Group, with the intent of reprocessing excess plutonium from the US nuclear weapons program. Many say the US is waiting for the price of uranium to increase, which it has recently, before it begins recycling. But with no approved place to store this waste, maybe it is time they reconsider.

So, the US is sitting on an awful lot of power that the American taxpayer has already paid for, enough to power the entire country for several years, and 12 more if it starts recycling. The US is already involved in a program with Russia that converts weapons-grade uranium into nuclear fuel, set to expire in 2013. The United States has agreed to reduce their nuclear weapon levels. The US is also facing massive debt and a constantly decreasing oil supply.

The safest way to get rid of nuclear weapons is to use them as energy. How else can one prove that they are really disarming? The question really is, are they serious about disarming? Does the US really mean it when they say they want to see a world without nuclear weapons? If so, they should prove it and actually get rid of some, not just store them away with a few loose screws for quick access. □□□

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