

# Liquid Radioactive Waste Convoys Threaten Great Lakes

**“One liter of [this material] would be sufficient to ruin an entire city’s water supply.”**

— Dr. Gordon Edwards, Canadian Coalition for Nuclear Responsibility

**By the Canadian Coalition for Nuclear Responsibility**

Over two dozen non-governmental organizations from Canada and the United States have asked Canadian Prime Minister Justin Trudeau and President Barack Obama to postpone or cancel an unprecedented series of shipments of highly radioactive liquid waste from Ontario to South Carolina, shipment that are set to pass along public roads and over bridges crossing the waters of the Great Lakes.

Plans call for 100 to 150 truckloads of liquid waste over a period of several years, from Chalk River, Ontario, to the US Department of Energy’s Savannah River Site in South Carolina, along secret routes with heavily armed guards. The ostensible purpose is to “repatriate” the US-origin weapons-grade uranium to prevent its use in nuclear weapons, according to a program launched by President Obama in 2009. However, the waste was never intended to be moved in liquid form.

The groups are demanding that an Environmental Impact Statement (EIS) be developed to allow for accident impact analyses by oversight agencies and the public in both countries. The groups also insist that proper notification be disseminated through the Great Lakes Executive Committee to federal agencies, state and provincial governments, tribal and municipal governments, watershed management agencies, and local public agencies, as required under the terms of the 2012 Great Lakes Water Quality Agreement.

“There is enough time for the governments to fulfill their duties under the Great Lakes 2012 Agreement and to respond to the demands of Sierra Club and dozens of other environmental groups to prepare and circulate an independent and meaningful Environmental Impact Statement that considers alternatives to this risky proposal,” said Christine Elwell, Green Energy Campaign, Sierra Club Canada Foundation.

A lawsuit was launched in US federal court calling for an injunction against the proposed shipments. On September 20, 2016, the US Department of Energy stated on the record of the suit that it was withholding shipments until after February 17, 2017, “in order to ensure compliance with all legal and contractual obligations”—in other words, until the federal judge has had the opportunity to rule on the merits of the lawsuit.

The liquid in question is now stored in a large double-walled tank called FSST (Fissile Solutions Storage Tank) at Chalk River, Ontario, containing 23,000 liters (6,000 gallons) of an intensely radioactive and highly dangerous acidic solution.

FISST holds a bewildering variety of radionuclides that are created when uranium is irradiated in a reactor. The liquid also contains a quantity of weapons-grade Highly Enriched Uranium—essentially the same material as the nuclear explosive that was used in the Hiroshima bomb.

“Nuclear authorities in both countries have disguised the true nature of this liquid waste by calling it Highly Enriched Uranyl Nitrate Liquid” said Dr. Gordon Edwards, Presi-

dent of the Canadian Coalition for Nuclear Responsibility. “In fact uranyl nitrate is only one of dozens of radioactive compounds in the liquid, and that liquid is more than 17,000 times more radioactive than the uranyl nitrate alone. Such high-level radioactive liquid has never before been transported over public roads anywhere in North America.”

There are safer, faster and cheaper ways of dealing with the waste that have already been used in Canada and elsewhere.... “There are 20 other tanks of liquid radioactive

waste at Chalk River, whose contents are being solidified and stored on-site as solid waste,” said Dr. Ole Hendrickson of the Concerned Citizens of Renfrew County. “Moreover, since 2003, the liquid waste that would have previously gone into the FSST tank has been routinely solidified, and up until 2011, Chalk

River Laboratories was committed to solidifying the liquid contents of the FSST tank as well.”

Tom Clements, Director of Savannah River Site Watch in South Carolina, observed that “The safest and cheapest way to address proliferation concerns is to eliminate the weapons-grade uranium at Chalk River by down-blending it, leaving only low enriched uranium, which is not nucle-



## Nuclear Disarmament in Court

**By John LaForge**

Two major judicial decisions on nuclear weapons policy came down this autumn. On October 5 the International Court of Justice or UN World Court dismissed a suit filed by the Marshall Islands against the world’s nuclear-armed governments alleging that the eight declared nuclear weapons states and Israel are in open violation of international law by ignoring their binding legal obligation to abolish nuclear weapons. The provisions of the 1968 Nuclear Nonproliferation Treaty (NPT) include a promise to end the arms race “at an early date” and to negotiate a treaty on “complete disarmament.”

The suit by the Republic of the Marshall Islands (RMI)—a nation of Pacific islands and atolls that was devastated by 67 US nuclear bomb tests—also asked the World Court to establish a timetable within which to pursue the NPT’s promised ban on nuclear weapons. The NPT applies to the US, Russia, Britain, France, China, and hundreds of non-nuclear states. Three countries with nuclear weapons that have not adopted the NPT—Israel, India, Pakistan (and North Korea which withdrew from it)—are still obliged to eliminate nuclear weapons under customary international law, according to attorneys for the RMI.

“All the nuclear weapons states are modernizing their arsenals instead of negotiating, and we want the court to rule on this,” said Phon van den Biesen, the leader of the RMI’s legal team, to the *New York Times*.

But the World Court’s president Ronny Abraham said the Marshall Islanders suit had not proved that an actual dispute existed between the RMI and the nuclear-armed states. The court’s judges ruled 9-to-7 to dismiss the suit. Conversely, the Ninth US Circuit Court of Appeals in California has agreed that a separate lawsuit—filed solely

ar-weapons-usable material. In February 2016, Indonesia was given permission to down-blend its stock of US-made liquid weapons-grade uranium, thereby eliminating any need to transport the material back to the US.

The same can be done with the Chalk River liquid waste, as was explicitly delineated by Canadian authorities in 2011. The Indonesian down-blending operation is already completed, just a few months after US Department of Energy permission was given.

The Niagara councilors are unanimously opposed to the liquid waste shipments coming through the Niagara region. Gracia Janes, from Niagara-on-the-Lake, is the Environment Coordinator of the National Council of Women of Canada. She pointed out “Our regional councilors represent close to 500,000 people. Being on the edge of Lake Ontario and the Niagara River, with the unique tender fruit lands growing the best peaches in Canada, if not North America, we are very conscious of what an accident and liquid spill would mean.”

Janet McNeill of Durham Nuclear Awareness added, “Our governments must do as the Regional Municipality of Niagara Region has done: take the time to examine all the facts very carefully, put this plan under a microscope that involves investigating alternatives, and do all that in an open process, involving the public, and not under the sole jurisdiction of the nuclear industry and its all-too-compliant regulator, so that we can trust that the risks involved and the alternatives available are being fully examined and properly investigated.” —October 3, 2016

*For more info., see Liquid Waste Threat Resources, page 7.*

against the United States by the Marshallese in US federal district court—could move forward.

### UN Votes to start nuclear weapons treaty ban talks

While the main thrust of the suit was thrown out by the divided court, the Republic’s demand that negotiations be scheduled for a nuclear weapons ban treaty was taken up by the General Assembly separately.

In sharp contrast to the World Court’s decision, 123 nations voted October 27 at the UN Committee for Disarmament to move forward in 2017 with negotiations to ban nuclear weapons. The global campaign for a “ban treaty” is modeled on the grass roots efforts to ban land mines (completed in 1997), and cluster munitions (banned in 2008). Treaty bans also apply to biological weapons (1972) and chemical weapons (1993).

As Alice Slater reported for *The Nation*, for the first time ever, China broke ranks with the nine-state nuclear terror club by voting with 16 other states—along with India and Pakistan—to abstain. North Korea, a state regularly denigrated as “unstable” and “irrational” voted Yes in support of negotiations going forward to outlaw nuclear weapons. Israel joined 38 other countries in voting against the resolution. The Netherlands also abstained, the only NATO member to break ranks with the alliance. (Five NATO states still deploy about 180 US nuclear weapons in Europe.)

The negotiations will start to move forward in March 2017, just as a 20-week-long campaign of nonviolent resistance kicks off near the Buchel Air Force Base in Germany. Buchel is an airstrip where German Tornado jets and their pilots train to deliver the remaining 20 US H-bombs still deployed there. The base has been the object of a 20-year-long anti-nuclear effort to rid Germany of the US nuclear bombs.

### “A threat mostly to ourselves”

Abolitionists can take encouragement in their efforts from the number of former nuclear weapons proponents that have been converted to nuclear disarmament advocates thanks to the movement’s long-standing drumbeat. General George L. Butler, a retired commander of all US nuclear weapons at Strategic Air Command (now StratCom), broke the mold in a 1998 newspaper interview saying, “... nuclear weapons are a pernicious anachronism, and they are the greatest threat to our survival.” Anti-Soviet hard-liner and Reagan presidential adviser Paul Nitze followed suit in 1999 calling nuclear weapons “A threat mostly to ourselves.”

Gen. James Cartwright, a former Vice Chairman of the Joint Chiefs of Staff and commander at StratCom, chaired a blue ribbon nuclear weapons study group in 2012. Its final report declared, “No sensible argument has been put forward for using nuclear weapons to solve any of the major 21st century problems we face .... In fact, nuclear weapons have on balance arguably become more a part of the problem than any solution.”

Likewise, Lt. General James Kowalski, Vice Commander of StratCom, said in 2014, “The greatest threat to my force is an accident. The greatest risk to my force is doing something stupid.”

In his new book *My Journey at the Nuclear Brink* (Stanford Security Studies 2016) former Secretary of Defense William Perry echoes these warnings, declaring, “[N]uclear weapons no longer provide for our security—they now endanger it.”

## What’s Wrong with a Few Nuclear Weapons?

*Editor’s Note: In an open letter to President-elect Trump about nuclear weapons and nuclear winter published in the Bulletin of the Atomic Scientists, Dr. Alan Robock, of the Department of Environmental Sciences at Rutgers University, explained the current state of scientific knowledge regarding the self-destructive effects of nuclear weapons detonations. Science informs much of the drive for a nuclear weapons treaty ban that would prohibit their production, possession, sale and use. Dr. Robock wrote in part:*

“In the 1980s, American and Russian scientists, working together, discovered that smoke from fires ignited by nuclear explosions would be so dense that it would block out the sun, turning Earth cold, dark, and dry, killing plants, and preventing agriculture for at least a year. In the last decade, working with some of the same scientists, particularly Richard Turco, Brian Toon, and Georgiy Stenchikov, and using modern climate models, I found that this nuclear winter theory was correct, that the effects would persist for more than a decade, and that the New START-reduced nuclear arsenals will still be able to produce this nuclear winter.

“It is an unfortunate fact that cities burn. San Francisco burned for three days and nights after the earthquake in 1906. Tokyo, Hamburg, Dresden, Darmstadt, and multiple Japanese cities burned after bombing in World War II. Some modern buildings burn even more easily, as can be seen in the skyscraper fires started with discarded cigarettes in

Dubai. Modern megacities would produce a lot more smoke than the assumptions made in previous studies.

“We also found that if either the United States or Russia attacked the other with their current arsenal, it would produce so much climate change that it would kill everyone in the country that did the attacking, even if there was no retaliation. This means we live in a world of Self-Assured Destruction (SAD) in addition to Mutual Assured Destruction (MAD). Thus any nation threatening a first strike attack would be acting as a suicide bomber.

“In addition, we found that a very small nuclear war between any two nuclear nations, using only 100 or so small, Hiroshima-size atomic bombs, with a total explosive power of much less than one percent of the current global arsenal, could produce enough smoke to cause climate change unprecedented in recorded human history. It would not be full nuclear winter, but it could sentence 1 to 2 billion people to death by starvation.

“To prevent the possibility of a nuclear winter, the United States and Russia need to immediately reduce their arsenals to the same levels as all the other nuclear states, a couple hundred. After all, how many do you need to use as a deterrent? A couple? To prevent the nuclear famine that would result from even a very small number of weapons targeted on cities and industrial areas, arsenals need drastic reductions.”