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Reducing the Nuclear Threat

Since the 1970s, NRDC has been fighting to protect the earth—and its citizens—from the serious risks that come with nuclear power.



May 18, 2016 | [Melissa Denchak](#)



The Three Mile Island nuclear plant in Middletown, Pennsylvania

[Jeff Fusco/Getty Images](#)

Plutonium is dangerous stuff. One-millionth of a gram lodged in a lung can cause cancer, and less than 15 pounds in a nuclear blast can level an entire city. But plutonium can also fuel nuclear power plants. So the U.S. Atomic Energy Commission, or AEC, hailed the radioactive element—one of the most toxic substances on earth—as the solution to our national energy woes in the early 1970s.

President Richard Nixon made the development of fast-breeder reactors, which produce more plutonium than they consume, a national priority in 1970. Coincidentally, NRDC was also founded that year, and its members quickly recognized the devastating threat these reactors posed to human health, the environment, and national security. Stopping the fast-breeder reactor program became one of NRDC's first campaigns: The fledgling organization sued the AEC for failing to perform adequate environmental reviews—and won.

“That lawsuit led to the ultimate demise of the AEC,” says Tom Cochran, former NRDC nuclear program director and senior scientist. (The AEC was replaced by the Energy Research and Development Organization, now part of the U.S. Department of Energy, and the Nuclear Regulatory Commission in 1975.) It was also the impetus for a series of lawsuits that expanded NRDC's fight from focusing on just the fast-breeder reactor program to more general concerns about nuclear power and weapons.

In the decades since that first victory, NRDC has continued to play a major role in forming U.S. nuclear nonproliferation, arms control, energy, and environmental policies. Through everything from precedent-setting litigation and technical analysis to citizen education and public policy advocacy, the organization has reduced the risk that civil and military use of nuclear energy poses to people and the environment.

Holding government accountable

In 1984, a landmark NRDC case against the U.S. Department of Energy (DOE) ended nearly half a century of secrecy and self-regulation at America's vast nuclear weapons production complexes. “That lawsuit forced the DOE to open up its nuclear weapons facilities to oversight by the U.S. Environmental Protection Agency and states,” Cochran says. “It made them subject to environmental laws, like the Clean Water Act.” It also revealed severe toxic and radioactive contamination at thousands of sites throughout the country, triggering one of the largest environmental cleanups in history.

Around the same time, NRDC was establishing itself as the preeminent supplier of comprehensive, accurate data on nuclear arsenals. After decades of classification, little was known about how and where nuclear weapons were designed and produced.

To provide the public with basic information about the size and composition of U.S. and global stockpiles, Cochran, NRDC's Robert S. Norris, and other coauthors, including former U.S. Army intelligence analyst William Arkin, teamed up to publish the *Nuclear Weapons Databook*, an unprecedented series of reference books on world nuclear weapons stockpiles and their production and testing.

Making the world a safer place

In 1985, on the 40th anniversary of the Hiroshima bombing and with the Cold War thawing, Soviet Union leader Mikhail Gorbachev invited the United States to jointly declare a unilateral moratorium on all nuclear tests. At the time, the hurdle most often cited by the U.S. government was verification, as there were no American-manned seismic stations in the U.S.S.R. to monitor Soviet test sites. This inspired one of NRDC's most important and influential projects: proving that a verifiable test ban was possible.

An NRDC-led delegation traveled to Moscow's Soviet Academy of Sciences and proposed setting up the first in-country seismic stations around both Soviet and U.S. testing sites that would be jointly operated by a team of American and Soviet scientists. Permission was granted, private funds were raised, and the stations were set up. Experimental blasts showed it was possible to effectively monitor underground nuclear explosions, and any science-based arguments against a verifiable nuclear test ban were eliminated.

NRDC had long urged Congress and the executive branch to work toward a Comprehensive Test Ban Treaty, or CTBT, which would ban all nuclear explosions everywhere and by everyone, but had faced opposition from those who claimed there was no way to accurately monitor Soviet nuclear testing and verify the country's compliance with the ban. The establishment of the new, jointly operated seismic stations proved that political argument null, however, and in 1992, the United States signed a bill to suspend nuclear explosive testing. In 1996, President Bill Clinton became the first world leader to sign the CTBT.

Between 1945 and 1996, when the CTBT was adopted, more than 2,000 nuclear tests were performed globally. The United States was responsible for more than 1,000; the Soviet Union, more than 700. Since 1992, neither of the two nations has performed any.

Facing current and future challenges

Although the Cold War ended more than 20 years ago, the United States and Russia still maintain thousands of warheads and bombs that can be launched within minutes. These giant stockpiles have undercut international efforts to reduce the role of nuclear weapons in the security strategies of other nations, and they pose a source of nuclear danger in their own right from theft or accident.

As a next step in nuclear disarmament, NRDC and its partners are working to promote “de-alerting”—the physical process of removing these weapons from their launch-ready status—and to develop practical policies that curb the spread of nuclear weapons elsewhere.

NRDC also continues to challenge nuclear power plant regulations that put public health and the environment at risk. These include the mining of reactor-bound uranium in ways that threaten drinking water, the inadequate disposal of high-level radioactive waste, and the government's failure to address the full scope of consequences of a nuclear power plant accident.

Since its founding, one of NRDC's main goals has been mitigating the threats of “the unleashed power of the atom,” as Albert Einstein put it in 1946. This goal is more important now than ever, as NRDC continues to hold governments accountable, push for safer energy alternatives, and fight for a more secure world.

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