

Wild Fires Near Chernobyl Again Raise Radiation Fears, Ukraine Says

Ukrainian officials reported that a series of seven forest fires in the contaminated, Russian-occupied, 1000-square-mile exclusion zone around the Chernobyl nuclear reactor complex are again raising fears of radiation. Doug Morton, chief of the Biospheric Sciences Laboratory at NASA's Goddard Space Flight Center, wrote in an email to the *Washington Post*, "Smoke from all three fires can be seen spreading south from the Chernobyl region" in satellite imagery collected March 22 by the U.S. space agency NASA. Jane Braxton Little wrote in the *Atlantic* two years ago, "Each fire releases radionuclides; each one raises anxieties in Kyiv, the Ukrainian capital, and in Europe's major cities. But none has incinerated the landscape at the scale of the fires that burned this past April [2020]. They were far larger than any since the 1986 disaster, burning for weeks and scorching nearly 165,600 acres."

Nukewatch has often reported on Chernobyl's recurring radioactive wildfires. Braxton Little added that "When Chernobyl's trees burn, they send their stored radionuclides aloft as inhalable aerosols. Instead of blasting from a single source, as it did in 1986, the contamination now comes from the trees that cover some 660 square miles around the nuclear power plant." Energoatom, Ukraine's state-run reactor company, said about the current fires, "There is no data on the current state of radiation pollution of the exclusion zone's environment, which makes it impossible to adequately respond to threats," according to Reuters.

— Democracy Now, March 23, the *Washington Post*, and the *Guardian*, March 22, 2022; the *Atlantic*, August 2020

Senator Calls Nuclear Fallout an Act of War

Rhode Island U.S. Senator Jack Reed, the Democratic chair of the Senate Armed Services Committee, reportedly said on March 23 that if Putin used a nuclear against Ukraine "there would be consequences," adding that radioactive fallout from such a detonation could drift across nearby NATO countries and be considered an attack on NATO. (*New York Times*, March 23, 2022)

Senator Reed's warning partly explains why nuclear weapons must not be detonated for any reason. Radioactive fallout from nuclear bomb test explosions is notorious for traveling long distances on the wind — sometimes around the world — and has indiscriminately contaminated far-off countries of the Northern and Southern Hemispheres.

The fallout from nuclear weapons blasts has been scrutinized extensively by military analysts, who have known about its deadliness for decades.

In his 2017 book *The Doomsday Machine: Confessions of a Nuclear War Planner*, whistle-blower Daniel Ellsberg of The Pentagon Papers fame, reports that he and other nuclear war theorists in the Pentagon had estimated in the 1960s that "we would kill every European, a hundred million Europeans, without a single U.S. or Soviet warhead landing on West Europe" [emphasis added].

"Just from the fallout of the attacks we were planning on Russia and East Europe. One hundred million....", Ellsberg wrote. The estimate illustrates the self-destructive consequences of nuclear weapons detonations, and the fact that military officers planning war with nuclear weapons have known for decades that they are devastating boomerangs that cannot be used without destroying the people and the territories being defended.

NUKEWATCH CALENDAR

20 April 2022 Nukewatch Talks – Zoom Conference Call

8pm EST/7pm CST/6pm MST/5pm PST

Want to get a handle on the nuclear news?

"Nukewatch Talks" is a gathering for old and new friends to give you an update about nuclear risks in war and peace time. Authors and editors of Nukewatch *Quarterly* will be available to discuss and answer your questions about the nuclear news. Find meeting info at nukewatchinfo.org/calendar or join by phone by calling +1(312)626-6799 and entering the meeting ID: 884 4585 5400

22 April 2022 No Line 5 Earth Day Project

On Earth Day, Nukewatch will join dozens of communities around Wisconsin following Indigenous-led resistance to demand swift and powerful action for climate justice - including rejecting Enbridge's oil pipeline Line 5. See nukewatchinfo.org/calendar for time and location. For more info see Facebook page: March Forth to Earth Day Project.

11-17 July 2022 International Peace Camp at Büchel Air Base in Germany

We invite anti-nuclear, environmental, peace, and human rights activists to join the delegation to Int'l Peace Camp, July 11 to 17, 2022, near the Büchel Air Base, Germany. Join the campaign to oust the last U.S. nuclear weapons stationed there, and to cancel their planned replacement with new B61-12 nuclear bombs. For more info. about joining the delegation, inquire at: nukewatch1@lakeland.ws

IAEA Says Missile Hit Radioactive Waste Area in Kyiv

The State Nuclear Regulatory Inspectorate of Ukraine (SNRIU) informed the International Atomic Energy Agency (IAEA) February 27 that missiles hit the site of a radioactive waste disposal facility in Kyiv overnight, and "there were no reports of damage to the building or any indications of a radioactive release," IAEA's Director General Rafael Mariano Grossi said in a statement.

The IAEA's alert then noted that "SNRIU said it expects to soon receive the results of on-site radioactive monitoring."

The carefully worded report is deceptively telling. It first declared that there are "no indications" and "no reports" of a radioactive release. But this reassurance was given before any data from radiation monitors had been reviewed, making the statement simultaneously true, and completely meaningless.

Bob Alvarez, a former senior advisor and deputy assistant secretary in the Energy Department, and a long-time critic of nuclear reactor operations, reported, "Given that war is raging at or near the Chernobyl reactor site, more than 21,000 waste nuclear

fuel assemblies are currently held in a pool inside of a crumbling building. Several waste fuel assemblies are bent, broken, and cracked. Efforts to remove and place the waste fuel into dry storage have stopped. [An additional] 4,000 cubic meters of high-level waste, resulting from the 1986 Chernobyl disaster, are stored in shallow, "engineered trenches" that may also be vulnerable to bombing and artillery fire. The loss of water and destruction of the waste fuel pool storage building, or the destruction of any of the trenches holding high level waste, could result in a catastrophic release."

The Kyiv radioactive waste incident came a day after Ukraine's SNRIU reported that a similar disposal facility near the north-eastern city of Kharkiv had been damaged, but again "without any reports of a radioactive release."

Director General Grossi said, "These two incidents highlight the very real risk that facilities with radioactive material will suffer damage during the conflict, with potentially severe consequences for human health and the environment."

Reactors in War Zones

In June 2019, we reported on "Project Dilithium," a U.S. Army proposal to build small, portable nuclear reactors that could be hauled to remote military outposts to provide electricity. The Army said the reactors could reduce the number of diesel tanker caravans, could shorten military supply lines, and could eliminate some easy targets. *Popular Mechanics* and the *Bulletin of the Atomic Scientists* warned at the time that putting a reactor in a warzone exchanges one easy target for another, one that risks catastrophic health and environmental damage from

power plants weren't built to survive: War" — is excerpted below for space reasons.

"Military strategists commonly target the enemy's electrical grid. That's a problem when combat is in a nuclearized country like Ukraine. ... The world is watching the first war in a nuclearized country — and combat has already reached active reactors.

"Even without a direct hit on a reactor, we are learning of the fragility of nuclear power [reactors]. ... it is vulnerable not only to terrorism but to war.

"As power was cut to the Chernobyl [complex in March], nuclear engineers explained the importance of the electricity grid — even for plants that have been out of operation for decades. Chernobyl's molten radioactive lava self-heats inside the belly of the blown reactor. Without ventilation, which requires electricity, hot air forms condensation that rains down inside the building, corroding and damaging equipment.

"Chernobyl's [waste] fuel is another danger. Left to its own devices, it can heat up to 1,000 degrees Celsius. At high temperatures, the zirconium sleeves covering the fuel can ignite. After the Chernobyl accident in 1986, Soviet liquidators hastily built huge basins to store highly radioactive [waste] fuel rods. Water pumped into the basins cools the fuel and blocks radioactive gamma rays that emanate from the irradiated uranium. Now 20,000 fuel rods are stored in Chernobyl basins designed for 17,000.

"Even more troubling is the fact that the 15 active nuclear power reactors in Ukraine are still operating or were shut down only recently. They are chock-full of extremely radioactive, hot nuclear fuel, both inside the reactors and in cooling ponds. As nuclear materials expert Claire Corkhill explained to the BBC, if electricity is cut to those plants as it was to Chernobyl, we could face a meltdown of multiple reactors similar to the catastrophe at Fukushima." — *JL*



Bikini Lagoon, bombed by the United States July 1, 1946.

core meltdowns. With Russia's military invasion of Ukraine threatening its 15 nuclear reactors, we trust the U.S. Army will scrap its plans for battlefield units.

Now in the context of Russia's war in Ukraine, two Massachusetts Institute of Technology professors, Kate Brown and Susan Solomon, have penned a powerful warning against nuclear power in the *Washington Post*. The piece — "One thing nuclear