

Nuclear Shorts

New Report on Gender and Radiation

On November 20, the United Nations Institute for Disarmament Research (UNIDIR) announced publication of a new report entitled “Gender and Ionizing Radiation: Towards a New Research Agenda Addressing Disproportionate Harm.” The report is authored by Mary Olson, Founder of the Gender and Radiation Impact Project, and Amanda M. Nichols, Postdoctoral Researcher, University of California, Santa Barbara. The UNIDIR summarizes the report as “an overview of recent research on the correlation between harm from exposure to ionizing radiation and biological sex,” that “proposes questions for a future research agenda covering gender, radiation impacts, and radiological protection standards.” The UNIDIR describes itself as an autonomous institution within the United Nations that conducts independent research on pressing global challenges related to disarmament, arms control, and international security. UNIDIR writes, “our work aims to provide the foundations for meaningful collective action towards a more secure world.”

Read the full report here: https://unidir.org/wp-content/uploads/2024/11/Gender_and_ionizing_radiation_web.pdf

Germany’s Biggest Energy Exec’s Dismiss Calls to Bring Back Nuclear Power

Two German energy giants, EON SE and RWE AG, have rejected calls by the conservative Christian Democratic Party to consider restarting some of the country’s nuclear reactors, the last of which was shut down in April 2023. While the conservatives continue to question the rejection of reactor operations, executives from both companies were steadfast in their decisions. “We see no economically viable way to return the nuclear power plants in Germany,” said EON’s Chief Financial Officer Nadia Jakobi. RWE’s Chief Executive Officer Markus Krebber said it is “very, very unlikely that we’re going to bring them back,” referencing the lack of necessary permitting, qualified personnel, and financial feasibility. — BNN Bloomberg, Nov. 14; Deutsche Welle, Jan. 1. 2024

Hurricane Helene Floods Duke Reactor in Florida, Two Reactors in Georgia Powered Down

The Florida Department of Environmental Protection reported that 12-foot storm surge from Hurricane Helene inundated the shuttered Duke Energy Corporation’s Crystal River nuclear reactor. The reactor, which shut down in 2013, began accelerated decommissioning in 2020 in partnership with North-Star Group Services and Orano USA.

“The whole site was flooded, including buildings, sumps, and lift stations. Industrial Wastewater Pond #5 was observed overflowing to the ground due to the surge,” according to a report filed one day after Helene made landfall.

“We are still in the process of obtaining access and assessing the damage, but due to the nature of this event we anticipate difficulty with estimating the total discharge amount of wastewater, and impacts are unknown at this time,” the report said. Despite this, Duke Energy assured the public in its statement that “all radioactive material has been ... permanently packaged in shielded containers impervious to the effects of extreme weather.”

Edwin Lyman, a nuclear specialist with the Union of Concerned Scientists, said in an email quoted by Bloomberg News, “There is probably still quite a bit of low-level radioactive waste awaiting shipment, and it’s likely the site’s wastewater has low levels of radioactive contamination.” *Newsweek* reported that the site was also flooded by Hurricane Idalia in 2023. Highly radioactive waste fuel is projected to stay on site until 2037.

Reuters reported that Helene also caused Southern Company to power down a nuclear reactor at its Edwin I. Hatch facility in Georgia, and to reduce

power at its second Hatch reactor. — Bloomberg News, Sept. 28; Reuters, Sept. 27, 2024

U.S. Troops Exposed to Enriched Uranium at Base in Uzbekistan Refused Compensation

U.S. special operations troops deployed to a former Soviet base in Uzbekistan in October 2001 are still experiencing the health effects of exposure to radioactive uranium. From 2001-2005, over 15,000 U.S. troops were sent to Karshi-Khanabad (K2), where remnants of yellow cake, or powdered enriched uranium, were found where missiles had been stored. Declassified Pentagon documents confirm the highly radioactive material was found throughout the base and in the soil. The documents suggest that radiation levels there in 2001 were 40,000 times those



The 1980 mural “Nuclear Dawn,” in London, England, depicts a skeletal image of death draped in the U.S., Soviet, and U.K. flags. Painted by Brian Barnes, Dale McCrea, and local residents. Photo: londonist.com

of naturally occurring uranium. Twenty-three years after their deployment, more than 1,500 of the 5,000 K2 veterans contacted have suffered cancers, kidney and bone conditions, reproductive issues, and other illnesses linked to radiation exposure including having children with birth defects.

However, the PACT Act, signed by President Biden in 2022 to mete out veterans’ aid, does not recognize radiation exposure at K2. Though K2 veterans can access some funding and care for at least one service-related condition, many have died seeking recognition of their radiation-based claims, according to K2 veterans group Stronghold Freedom Foundation. Though U.S. forces pulled out of the base in 2005, around a dozen U.S. troops remain deployed there, assisting Uzbekistan in joint efforts targeting the Islamic State. There appears to be no communication about the radioactive uranium between the Pentagon and Uzbek military leaders. Though Congress made Pentagon data and environmental reviews from the base public four years ago in an attempt to seek recognition and veterans’ compensation, and though there was recently new legislation introduced, U.S. agencies have not officially acknowledged the radiation exposure. — Associated Press, Sept. 10; Military.com, Aug. 13, 2024

“Mini Reactor” Project Firm is Bankrupt

The much-hyped development of small, modular nuclear power reactors was hit with another gut punch October 29, when a major player filed for bankruptcy. The comically named “Ultra Safe Nuclear Corporation” (USNC) had been promoting a 15-megawatt “micro modular reactor” which may now go the way of the dinosaur due to soaring costs. The bankruptcy of USNC, based in Oak Ridge, Tennessee, will slam the firm’s three subsidiaries: USNC-Power Ltd., which headed the micro reactor

project; Global First Power Ltd. which led nuclear projects in Canada; and USNC-Technologies, which promotes research and development. USNC has reported that financial challenges contributed to the Chapter 11 filing. One particular blow was the recent death of Richard Hollis Helms, who’d made a \$100 million investment and provided \$25 million in loans. “The loss of our founding and largest investor was a factor, but by no means the sole reason” for the bankruptcy, the company told *Power* magazine. “The company had been struggling financially for some time.” — World Nuclear News, Oct. 30; *Power*, Oct. 29, 2024

Harvard Prof. to Study Cancer Rates and Radionuclides near Three New England Reactors

Petros Koutrakis, professor of environmental sciences at Harvard, is piloting two new studies of incidences of cancer and levels of radioactivity exposure around nuclear reactors in New England. In his first study, Koutrakis hopes to produce data illustrating the public health impacts of three nuclear power facilities: Pilgrim in Massachusetts, Seabrook in New Hampshire, and Yankee in Vermont. Pilgrim and Yankee are currently shut down. Seabrook is still operating. His second study will examine blood samples from people within 31 miles of Pilgrim, to look for biological indications, such as DNA damage, to illustrate the effects of wastewater evaporation at Pilgrim. Koutrakis will seek to better understand the public health risks of exposure to radionuclides, such as tritium, cesium-137, lead-210, and iodine-131, released into the air and water as a result of this evaporation.

Wastewater evaporation at Pilgrim began last February, so while the cancer data can show effects over a longer period, the blood samples hope to shed light on more immediate health effects. The first study will analyze cancer rates in Massachusetts from 2008 to 2017, and is awaiting more current data. The study hopes to have results compiled by Spring 2025.

Koutrakis emphasized that the public must demand policymakers require other disposal methods, such as storage or shipment of waste, though those still present health threats due to leaks, transportation accidents, and environmental justice issues, Koutrakis said. “But the thing I can tell you with certainty,” he added, “is that they should not evaporate or dump in the bay. So that should stop right now.” — *Harvard HSPH News*, Jan. 29; Vermont Public Radio, Jan. 25; *Plymouth Independent*, Feb. 16, 2024

Germany Plans Roll Back of Military Funding to Ukraine

Germany is signaling it may slow its military support to Ukraine, showing little enthusiasm for two of Ukrainian President Vladimir Zelensky’s demands: striking deep into Russia with German Taurus missiles and fast-tracking NATO membership.

Zelensky’s latest bid to bolster the war took him to the UK, France, Italy, and Germany. For now, Berlin will not send anymore of the requested Leopard 2 tanks, infantry fighting vehicles, or armored howitzers. The German Defense Ministry does not anticipate Kiev can launch a successful counteroffensive in the near future, according to reports in German news outlet *Bild*.

Although German Chancellor Olaf Scholz has promised to deliver 1.4 billion Euros of combined support alongside Belgium, Denmark, and Norway by the end of the year, Germany’s projected military aid to Ukraine for 2025 is half what it gave in 2024. So far, Germany has provided or pledged about 28 billion Euros in military funding for Ukraine.

Behind the U.S., Germany remains Ukraine’s second-largest source of military funding. Even Zelensky’s hard lines drawn earlier seem to be wavering as his administration considers swapping Ukrainian territories for a peace agreement with Russia. The specter of waning military assistance grows larger with the change in U.S. leadership and Germany’s new reticence. — BBC, July 17; Global Research, Oct. 14, 2024