

# Ignoring Outcry, Mockery, Japan Intends 2023 Start of Fukushima Wastewater Dumping

On October 18, Japan's Prime Minister Fumio Kishida said there would be no postponement of its plan to pollute the Pacific Ocean with 1.27 million metric tons of radioactive cooling water from Fukushima's destroyed reactors. Kishida said releasing the "heavily diluted" waste water would begin in the spring of 2023. The dispersal is expected to continue for decades as the accumulation of radioactive cooling water increases by 150 tons every day. The water becomes severely contaminated after being poured over large volumes of roiling, not, melted uranium and mixed uranium/plutonium fuel under Fukushima-Daiichi's three destroyed nuclear reactors.

The International Atomic Energy Agency's Director General Rafael Mariano Grossi was openly mocked with laughter by the dignitaries at COP26 on November 4. The adamantly pro-nuclear Grossi had said before the large audience, "No one died from radiation at Fukushima," provoking the laughs. "I don't know why you're laughing, it's a fact," he griped. Earlier Grossi warmed up the crowd with this thigh-slapper: "We control this activity so it does not cause any harm." Grossi's job is difficult since under its United Nations Statute, the IAEA has only one objective: "The Agency shall seek to accelerate and enlarge the contribution of atomic energy ... throughout the world."

Japan's April decision to further pollute the Pacific caused an uproar in dozens of Pacific rim of countries. South Korean officials denounced Kishida's declaration the same day, saying that it represents a "grave threat" to the marine environment. South Korea continues to ban seafood imports from the Fukushima region and has repeatedly condemned the dumping plan, which a senior South Korean foreign ministry official said, "could affect our people's health and security as well as the ocean environment."

Alternatives to the ocean dumping include long-term tank storage, more thorough filtering, or evaporation, and in 2019 Japan's own ministry of economy and industry recommended including evaporation in its list of waste water options.

## Nuclear-Powered Submarine Wrecks: Routine, Deadly, Toxic

### USS Connecticut Smashes into Undersea Mountain

US Navy officials report that its nuclear-powered, fast-attack submarine *USS Connecticut* struck an underwater mountain in the South China Sea on October 2, echoing the disastrous crash of the *USS San Francisco* in 2005 south of Guam. US military officials told CBS News that two *Connecticut* crew members suffered "moderate" injuries and several sustained minor bumps and bruises. The Navy said the sub's nuclear reactor was not damaged.

A month after the crash, *Connecticut's* three top officers were fired "due to loss of confidence." As we go to press, the Pentagon had not yet explained why the 23-year-old *Connecticut* struck an underwater mountain, or revealed the extent of damage to the vessel. China's government has accused the US of a "lack of transparency and responsibility" regarding the accident. Foreign Ministry spokesperson Wang Wenbin said November 2, "We once again urge the US to give a detailed account of the accident," the AP reported.

Some 52 US conventional diesel-powered Navy submarines were lost at sea during WWII, according to The Lost 52 Project. Beginning with the *USS Nautilus* in 1951, the submariners' risk-taking with their own lives and with the ocean's biological integrity was compounded by the switch to nuclear reactors for propulsion.

#### 300-Year Oceanic Hazard

The Aug. 25, 2000 *New York Times* report about long-lived radioactive materials leaking from sunken nuclear reactors (then onboard the Russian sub *Kursk*), noted a fact that applies to all the lost reactors: "The two of most concern — strontium-90 and cesium-137 — have half-lives of about 30 years, and will take about 300 years to decay away."

China's *Global Times* reported in October that Liu Jianguo, vice dean of the Institute of Modern International Relations at Tsinghua University, asked if the wastewater will be processed and will have no impact on the marine environment and food web as the Japanese government claimed, why can't the water be recycled on land? Japan can't answer any of these questions, said Liu. The ideal plan would be for Japan to process the wastewater to a safe level and recycle it, rather than dump it into the sea, said Liu.

A June letter to Japan's permanent mission to the United Nations signed by a group of 70 groups, including Nukewatch, warned: "The dumping of radioactive water into the Pacific is also a violation of international law. The 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter and the London Protocol prohibit dumping of any concentration of radioactive material into the sea."

In May, three human rights experts appointed by the UN's Human Rights Council issued a statement that expressed "deep regret" at Japan's dumping plan and "reminded Japan of its international obligations to prevent exposure to hazardous substances, to conduct environmental impact assessments of the risks that the discharge of water may have, to prevent transboundary environmental harms, and to protect the marine environment."

Tokyo Electric Power Co. (Tepco), operators of the Fukushima complex, announced August 24 it would construct a tunnel underwater to release the 1.27 tons of radioactive water into the Pacific Ocean. Tepco said it would start building at least one 8-foot diameter half-mile-long tunnel in March 2022 by hollowing out bedrock on the seabed near the No. 5 reactor at Fukushima, *Japan Times* reported. Critics around the world immediately denounced the plan as an attempt to avoid any oversight, monitoring, or independent inspection of the radioactive materials in the waste water.

"...to dump it into an ocean, where we share the same tides, current, and fish, it is a level up from urgent for us," said Henry Puna, secretary general of the Pacific Islands Forum Secretariat, noting that even basic concerns had not yet been addressed. "Currently we are not satisfied there will be no harm to our Blue Pacific," he told *Civil Beat* in September.

A regional collective of young activists called Youngsolwara Pacific has condemned the dumping plan and Japan's lack of consultation. Likewise, a senior South Korean foreign ministry official told China's *Global Times* in October that, "Japan's decision was made without enough consultations with neighboring nations." Talei Luscia Mangioni, a researcher at Australian National University and Youngsolwara Pacific member, said "... this is an act of transboundary harm." And it is typical, she said, considering the history of nuclear powers that "have treated the Pacific as a sacrifice zone."

In Iitate village 24 miles from Fukushima's meltdowns, Nobuyoshi Ito, a former computer engineer, has been measuring the radioactive properties in the food and soil for nearly a decade. Mr. Ito always carries a monitor and is constantly recording radiation levels, "trying to determine what is and isn't safe to eat, and where it is and isn't safe to go," CBS News reported last August. While the town's evacuation orders are gone, Ito says people — especially children — shouldn't return. "It will take 300 years to restore the village to its original state, and it will continue to emit radiation for 300 years," he said.

On September 22, the United States lifted its weak restrictions on imported food stuffs from Japan, and food products free of inspection now include even rice harvested in Fukushima. According to Japan's farm ministry, the US is the 3d-largest importer of its food products and were worth \$1.09 billion in 2020. Fourteen countries continue to maintain their food import bans. FDA officials say they'd determine a "very low risk" to US consumers from radioactive contaminants in the foods. — *JL*

#### USS Thresher

*USS Thresher* was a nuclear-powered attack submarine that sank on April 10, 1963 during deep-diving tests, killing all 129 crew and shipyard workers onboard. *Thresher* was the third of four submarines that would sink with more than 100 people aboard.

#### USS Scorpion

The nuclear-powered submarine *Scorpion* sank with all hands on May 22, 1968. The *Scorpion* was one of four submarine disappearances that year, the others being Israel's sub *Dakar*, France's sub *Minerve*, and the Soviet sub *K-129*. "Neither vessels' reactors [on the *Thresher* and *Scorpion*], nor the nuclear weapons on board the *Scorpion*, have ever been recovered," the Australian Broadcasting Corp. reported Sept. 17, 2021.

#### Komsomolets

Forty-two crew members died when the experimental Soviet sub *Komsomolets* sank 5,577 feet to the bottom of the Norwegian Sea following a five-hour-long onboard fire April 7, 1989. While part of the crew abandoned ship in rubber rafts, some of the crew stayed on fighting the fire and shutting down the sub's nuclear reactors. Researchers said July 10, 2019, that the sub is still emitting radiation, Reuters reported.

#### Kursk

In August 2000, after explosions destroyed forward parts of the sub, Russia's nuclear-powered and nuclear-armed *Kursk* sank in the Barents Sea, only 354 feet down. All 118 crew members died after the failure of repeated rescue attempts.

#### HMS Tireless

On May 12, 2000, the British fast-attack submarine *Tireless* suffered reactor accident, spilled radioactive coolant into the Mediterranean, and conducted a lengthy, risky, experimental, and unlawful repair operation in the densely populated area of Gibraltar. News reports at the time said *Tireless* came within "a few minutes" of a reactor meltdown when high-pressure coolant began gushing out of the system.

Docking the damaged, contaminated sub at Gibraltar for six months of repair work violated Royal Navy regulations, and reactor failure resulted in the recall of all 12 of Britain's *Trafalgar Class* subs.

#### K-159

Nine crew members died when the Russian submarine *K-159* sank in 2003 while being towed through a violent storm in the Barents Sea. Environmentalists said that the danger of radioactive contamination from the sub's two propulsion reactors was "much higher than official statements suggested."

#### USS San Francisco

On Jan. 8, 2005, the nuclear-powered fast-attack submarine *San Francisco*, running at top speed, smashed into an undersea mountain 500 feet down, killing one sailor and leaving 98 battered and bloodied after being hurled through the air by the crash. Several were knocked unconscious and many were bleeding from head wounds. After the crash, "blood was everywhere," one account read. "There was so much blood on the instruments and on the control room floor," Chief Petty Officer Danny Hager said, "that the place looked like a slaughterhouse."

#### HMS Vanguard and Le Triomphant

On the night of Feb. 3, 2009, France's *Le Triomphant*, and Britain's *HMS Vanguard*, both carrying nuclear weapons, collided while submerged in the Atlantic. Both vessels were damaged although the 250 crew members aboard were uninjured, the *New York Times* reported. All nuclear-armed subs are shrouded in extreme secrecy, so very little is known about the extent of the damage, but Kate Hudson, chairwoman of the Campaign for Nuclear Disarmament, said then the collision "could have released vast amounts of radiation and scattered scores of nuclear warheads across the seabed."

#### Losharik

On July 1, 2019, fourteen Russian sailors were killed by toxic fumes when a fire broke out aboard the nuclear-powered research submarine *Losharik* which was operating in the Arctic. — *JL*