

Proposed US/UK Nuclear-Powered Submarines for Australia Jeopardize Health, and Escalate an Arms Race No One Can Win

A joint statement, excerpted, by the International Physicians for the Prevention of Nuclear War, the Medical Association for Prevention of War Australia, Medact UK, and Physicians for Social Responsibility USA, Sept. 21, 2021.

Physicians in the countries involved in the proposal announced on September 16 — for Australia to acquire nuclear-powered submarines with UK and US assistance — are concerned this plan will jeopardize global health and security. Under this proposal, Australia would become the seventh country to use nuclear propulsion for its military vessels, and the first state to do so which does not possess nuclear weapons, or nuclear power reactors. These submarines are to be armed with sophisticated long-range missiles including US Tomahawk cruise missiles. These submarines would increase tensions and militarization across Asia and the Pacific region, fuel an arms race, and risk deepening a new cold war involving China.

The wrong decision at the wrong time

Humanity is in the midst of a major pandemic, and facing twin existential threats of dire urgency — global heating and the growing danger of nuclear war....

If ever there was a time to build goodwill and focus on cooperation to complex global problems rather than escalate military confrontation, that time is now. Our [countries] should focus not on escalating a new arms race with China, but on building peaceful cooperation with the government of the world's most populous to address urgent shared threats.

Instead, this plan will raise tensions, make cooperation more difficult, drive proliferation of ever more destructive weapons, divert vast resources needed to improve health and stabilize our climate, and increase the risks of ... armed conflict between the world's most heavily armed states, risking nuclear escalation in which there can be no winners.

Spreading nuclear bomb fuel

... All UK and US nuclear-powered submarines use HEU [highly-enriched uranium] as fuel, which is directly usable in nuclear weapons.... Indeed their current naval reactor fuel is enriched to 93% and was originally produced for use in nuclear warheads. They have resisted and delayed efforts to convert their naval reactors to much less proliferation-prone, low-enriched uranium fuel, as France and China have done....

Precisely because of the proliferation dangers of naval reactor fuel, the US has previously gone to considerable lengths to thwart the spread of naval reactors, such as in the 1980s blocking Canada from buying nuclear attack submarines from France and the UK....

The quantities of HEU involved are large. As Sebastian Philippe from Princeton University has estimated, a fleet of between 6 and 12 nuclear submarines as proposed, operated for about 30 years, will require between 3 and 6 tons of HEU. The International Atomic Energy Agency stipulates that [55 lbs] of HEU would enable a nuclear weapon, even

though US nuclear weapons are known to contain an average of only 12 kg of HEU.

So HEU fuel for the proposed Australian submarines would involve 120 to 240 times the amount of HEU as the IAEA stipulates is sufficient to build a nuclear weapon, and it could be out of international safeguards for decades. Philippe has aptly characterized this as “a terrible decision for the non-proliferation regime.” It discredits all three nations' claims to support a treaty curbing fissile materials, and would make such a treaty harder to verify. ...

This proposal needs careful independent scrutiny and strong new safeguard provisions to ensure Australia fulfills its obligations under both the NPT and the South Pacific Nuclear-Free Zone Treaty....

The UK announcement in March of a planned 40% increase in its nuclear arsenal [violates] its NPT obligations, as the UN Secretary-General has stated. The UK and US are modernizing their nuclear arsenals, both in [violation] of their 51-year-old legally binding NPT commitment to disarm....

Radioactive risk

Proliferation of submarines ... with lifespans of several decades that are fueled by weapons-grade HEU will encourage uranium enrichment, wider use and storage of HEU, and will set back and make more difficult control and elimination of fissile materials.

Nuclear reactors on ships and submarines have been involved in numerous accidents. The risks of acci-

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A step toward reactors and nuclear weapons?

Already, in the wake of the announced plans, there are mounting calls in Australia, including from some government MPs, for Australia to embrace nuclear power as well. Throughout the 1950s and 1960s, Australia made active plans and preparations to acquire nuclear weapons. ... Twenty nuclear weapons could be built from the amount of HEU fueling the nuclear reactor of each planned submarine.

The way forward

... Rather than escalating a nuclear-propelled new cold war, both the UK and US should make their people and the world truly safer by pursuing a verifiable and binding agreement with other nuclear-armed states to eliminate their nuclear arsenals. They should welcome and work towards joining the 2017 UN Treaty on the Prohibition of Nuclear Weapons (TPNW), which provides the only internationally agreed, treaty-codified framework for the elimination of nuclear weapons. Naval nuclear propulsion, especially with HEU, should be phased out.

...Contrary to its support for the treaties prohibiting all other major types of inhumane and indiscriminate weapons and weapons of mass destruction — biological and chemical weapons, landmines, and cluster munitions — Australia opposes the TPNW.

The best way for Australia to provide surety that any nuclear-powered submarines would not be a stepping stone towards acquiring nuclear weapons, nor have any role in the possible use of nuclear weapons, is to join the TPNW. If it continues to refuse to do so, such concerns will remain well justified.

If Australia proceeds to acquire nuclear submarines, it should insist on LEU fuel, implement stringent safeguards, the submarines should be configured so that they cannot carry nuclear weapons, and nothing about their construction or operation should impede Australia joining the TPNW.

— *For the full joint statement with signatures, see: <https://www.ippnw.org/wp-content/uploads/2021/09/IPPNW-statement-Nuclear-Subs-letterhead-21.9.21.pdf>.*

— *International Physicians for the Prevention of Nuclear War, was awarded the 1985 Nobel Peace Prize. In 2007, MAPW and IPPNW launched the International Campaign to Abolish Nuclear Weapons, which was awarded the 2017 Nobel Peace Prize.*



A total of eight nuclear-powered submarines sank because of accidents at sea between 1963 and 2003. Pictured is the Soviet submarine K-159, which sank on Aug. 30, 2003 during towing to dismantling, leaving nine dead. Photo: Bellona Foundation

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Australia's lack of nuclear scientific, engineering, management and regulatory capacity and experience will inevitably mean that more is likely to go wrong building and operating nuclear submarines. If something does go wrong with one of its nuclear submarines, the likelihood of it being quickly and effectively managed is reduced, and the risk of ra-

“Temporary” Storage Sites for High-Level Radioactive Waste from US Reactors Face Challenges

By Leona Morgan

The New Year will begin with one proposed “temporary” storage facility for high-level radioactive waste being fully-licensed, and another not far behind. The two “Consolidated Interim Storage” (CIS) sites are about 40 miles apart in the Desert Southwest: 1) the 40,000 metric ton Interim Storage Partners or ISP facility (also known as Waste Control Specialists or WCS) in Texas; and 2) Holtec Inc.'s 173,600 metric ton site — the world's largest — in New Mexico.

The US Nuclear Regulatory Commission (NRC) approved ISP's license application in September 2021. Don Hancock, Director of the Southwest Research and

Information Center, expects that NRC will issue a license to Holtec in 2022. Hancock is convinced “that the NRC will issue these two licenses,” but, he explains, there are additional obstacles to be overcome, such as economic, political, and legal challenges. Therefore “the license approval is not the final decision.”

Both CIS license applications have been challenged in the District of Columbia Court of Appeals by regional groups, national environmental organizations, and one oil and gas company. In addition, the State of Texas is challenging ISP and opposes Holtec, while the State of New Mexico is fighting both Holtec and ISP.

Terry Lodge, an attorney representing community intervenors in both cases, estimates that oral arguments for ISP may be scheduled for late Summer 2022, with a final decision in early 2023. The case against Holtec has no hearings scheduled, but may move ahead if NRC issues the license.

CIS is a national issue, since opening a site would launch thousands of cross-country shipments of the deadly waste, so 2022 must be a year of anti-CIS action.

— *Leona Morgan works with the Nuclear Issues Study Group in New Mexico.*