



# NEWS FROM BEYOND NUCLEAR

For immediate release

Contact: Linda Pentz Gunter, media director: 301-455-5655; [linda@beyondnuclear.org](mailto:linda@beyondnuclear.org)

## **Zaporizhzhia alarms should signal end of nuclear power pursuit**

### ***Deadly scenarios threatened could not happen at renewable energy site***

TAKOMA PARK, MD, Thursday, July 6, 2023 — Amidst accusations from both the Russian and Ukrainian sides that the Zaporizhzhia nuclear power plant in southeastern Ukraine has been wired for detonation or could be deliberately attacked during the current war there, one absolute truth remains: nuclear power plants are inherently dangerous.

In a time of national crises in multiple countries, increasing natural disasters and a worsening climate emergency, nuclear power is demonstrating that it is a liability rather than an asset.

Each nuclear reactor contains a lethal radioactive inventory, in the reactor core and also in the fuel pools into which the irradiated fuel is offloaded and, over time, densely packed. Casks also house nuclear waste offloaded from the fuel pools. Zaporizhzhia is the largest nuclear power plant in Europe with at least 2,204 tons of highly radioactive waste within the reactors and the irradiated fuel pools.

Depending on the severity of what transpires, any or all of this radioactive fuel could be ignited.

Amidst the unpredictability caused by the “fog of war”, there remain many unanswered questions that have led to rumor and speculation:

Has the Zaporizhzhia nuclear plant in fact been wired for detonation and whose interests would be served by blowing up the plant?

Why is there an exodus of both Russian and Ukrainian plant personnel?

Will the sabotage of the downstream Kakhovka dam that resulted in catastrophic flooding, also lead to an equally catastrophic loss of available cooling water supplies for the reactors and fuel pools?

Will the backup diesel generators, frequently turned to for powering the essential cooling each time the plant has lost connection to the electricity grid, last through each crisis, given their fuel must also be replenished, potentially not possible under war conditions?

None of these threats would make headlines if Zaporizhzhia was instead home to a wind farm or utility scale solar array. This perhaps explains the rush now to downplay the gravity of the situation, with claims in the press that a major attack on the plant would “not be as bad as Chernobyl” and that radioactive releases would be minimal and barely travel beyond the fence line.

This is an irresponsible dismissal of the real dangers.

After the massive explosion at Chernobyl, the graphite moderator used in the reactor fueled the fire, with the smoke further lofting radioactive fallout far and wide. This has led to an assumption that major fires and explosions at Zaporizhzhia would result in less serious consequences since the reactor designs are not the same as Chernobyl’s.

However, if the uranium fuel in the Zaporizhzhia reactors or irradiated fuel storage pools overheats and ignites, it could then heat up the zirconium cladding around it, which would ignite and burn fiercely as a flare at temperatures too hot to extinguish with water. The resulting chemical reaction would also generate an explosive environment. The heat of the release and detonation(s) could breach concrete structures, then loft radioactive gas and fallout into the environment to travel on the weather.

Fallout could contaminate crucial agricultural land, potentially indefinitely, and would include Russia, should prevailing winds travel eastward at the time of the disaster.

And while Europe allows an already too high 600 becquerels per kilogram (Bq/kg) of radioactive cesium in food, contaminated food supplies from Ukraine that read at higher levels after a nuclear disaster could be exported to countries with even weaker standards, including the US where the limit is an unacceptable 1200 Bq/kg. But will those consuming such foodstuffs be counted among the victims of such a nuclear disaster?

The true numbers of those harmed by the Chernobyl disaster will never be known due to institutional suppression and misrepresentation of the numbers and the absence of record-keeping in the former Soviet countries affected. Therefore, to describe a major nuclear disaster at Zaporizhzhia either as “worse than” or “not nearly as bad as” Chernobyl is too broad and speculative without looking at the specifics.

Those specifics depend on whether the disaster involves hydrogen explosions such as happened at Fukushima, or fires resulting from a bombing raid or missile attack, which could disperse more radioactivity further. It would also depend on whether all six

reactors suffered catastrophic failures, whether all of the fuel pools were drained and caught fire and whether the storage casks were breached.

It would further depend on which way the wind was blowing, and if, when and where it subsequently rained out a radioactive plume, all factors that influenced where the Chernobyl radioactive fallout was deposited.

If Zaporizhzhia comes to harm, each side in the conflict will likely hold the other responsible. But ultimately, the responsibility we all share is to reject the continued use of a technology that has the potential to wreak such disastrous consequences on humanity.

Zaporizhzhia is in the news now almost every day. The propaganda may be deliberately alarmist, but the basis for the alarm is very real or it would not be the subject matter for headline-getting in the first place.

The reason is simple. Nuclear power is the most dangerous way to boil water. It is unnecessary, expensive, and an obstacle to renewable energy development. It is intrinsically tied to the desire for — and development of — nuclear weapons, the use of which could be the other lethal outcome in this war.

It is time to see sense. Calling for a no-fire zone around Zaporizhzhia is not enough. We must call for no nuclear power at all.