Port Augusta could face evacuation in a Dutton nuclear 'power' reactor accident

Brief by David Noonan, Independent Environment Campaigner, 16 August 2024.

Dutton's Liberal Opposition has ignored SA community's **Right to Know** the extent of nuclear health hazards and potentially devastating socio-economic impacts they could face in a nuclear 'power' reactor accident at Port Augusta.

Community has a right to full disclosure of the nuclear risks they face *in advance* of any Liberal 'policy' to impose nuclear reactors on SA. All Liberal MPs, Senators and 2025 Federal Election candidates have a duty to answer community concerns over Dutton's nuclear scheme.

The SA State Labor Gov could be left with responsibility to prepare and resource a required "Emergency Response Plan" for Liberal imposed nuclear accident risks at Port Augusta.

Emergency Services workers, First Responders, police, fire, ambulance and hospital personnel have a 'Right to Know' the health risks they could be exposed to in Dutton's dangerous scheme.

Federal Emergency provisions apply in event of a Dutton nuclear reactor accident at Port Augusta. The federal civilian nuclear safety regulator <u>ARPANSA</u> sets out the health impact studies, response measures and Zones, and procedures that are to be put in place (see "<u>Guide for Radiation Protection in Emergency Exposure Situations</u>, Part 1 & 2, 2019).

In tasking Emergency workers to undertake "*urgent protective actions*" in response to a nuclear reactor accident, the <u>ARPANSA Guide Part 2</u> (p.18-19 & Table 3.1) authorises ionising radiation exposures to workers at a high dose of up to 50 mSv (milli-Sievert). Fifty times more than the recommended maximum allowed dose of 1 mSv per year for members of the public.

In event of an expanding radioactive pollution plume moving on prevailing winds across Port Augusta, an "**Urgent Protective Action Zone**" - that involves an **Evacuation Plan -** would be set up around the site of a nuclear 'power' reactor accident.

Local residents could require evacuation, some may need to undergo 'decontamination' and to receive medical treatment. Locals within this Zone also face Emergency authorised high dose ionising radiation exposures of up to 50 mSv. **Port Augusta's children** could need to take stable iodine tablets ASAP to try to reduce the radiological health risk of thyroid cancer.

In an even more severe nuclear reactor accident, federal Emergency provisions provide for actions to try to prevent "the development of catastrophic conditions". SA Emergency workers would then to be called upon to 'volunteer' - to be willing to risk their own health to try to benefit others. Only male Emergency workers are to be called upon to volunteer. Female Emergency workers are to be excluded given the health risks they could face.

Federal and State Labor Ministers <u>Joint Ministerial Statement on Nuclear Reactors on Agricultural Land</u> (18 July 2024) have tackled the Opposition over its nuclear scheme:

The Federal Opposition needs to explain its plan to prevent leaks and any resultant contamination of food supply, how it would manage such leaks if they occur and how it would compensate affected farmers.

The Federal Opposition plans for nuclear energy have raised significant questions affecting our farmers and rural communities.

The Opposition owes it to them to answer these questions.

Media report "Nuclear plan threatens food production, government report says" (SBS 18 July):

"Nuclear energy threatens Australia's food production, with 11,000 farms near the Oppositions proposed reactor sites, the government says. The farms are located within an 80 km radius of the seven earmarked sites ... Under international standards that radius is classified as an "ingestion exposure pathway" in which people may be exposed to radiation through contaminated food, milk and water after a nuclear leak. US farmers in those zones must take on preventative measures in an emergency ...

"It's bizarre that the Nationals and Liberals are putting at risk our prime agricultural land like this, especially without the decency to explain it to farmers and consumers how they'd mitigate all the potential impacts" Agriculture Minister Murray Watt said.

ARPANSA also look to set an 'Extended Planning Distance' of required Emergency measures around the site of a nuclear accident, where "the surrounding population may be subject to hazards". One can't tell how far a radioactive pollution plume could spread on the wind...

Emergency workers could face "catastrophic conditions" at a Dutton nuclear accident:

In event of a severe nuclear reactor accident the ARPANSA "<u>Guide for Radiation Protection in Emergency Exposure Situations</u> (The Guide Part 2, p.18-19 & Table 3.1) authorises "**actions to prevent the development of catastrophic conditions**" by designated workers.

'Category 1 Emergency workers' could "*receive a dose of up to 500 mSv*", a dangerously high ionising radiation dose exposure that is up to 500 times the public's max allowed annual dose:

"Emergency workers may include workers employed, both directly and indirectly, by an operating organisation, as well as personnel of response organisations, such as police officers, firefighters, medical personnel, and drivers and crews of vehicles used for **evacuation**. ...

• Category 1: Emergency workers undertaking mitigatory actions and urgent protective actions on-site, including lifesaving actions, actions to prevent serious injury, actions to prevent the development of catastrophic conditions that could significantly affect people and the environment, and actions to prevent severe tissue reactions. ... They may also receive a dose of up to 500 mSv for life saving actions, to prevent the development of catastrophic conditions and to prevent severe tissue reactions." (my emphasis in bold)

The <u>ARPANSA</u> Guide <u>Part 1</u> (Annex A, p.64 Table A.1, 2019) states in stark terms that Emergency workers can be called upon to '**volunteer**' for actions "to prevent the development of catastrophic conditions" in event of a severe nuclear reactor accident:

"... under circumstances in which the expected benefits to others clearly outweigh the emergency worker's own health risks".

As evidence of the extent of nuclear risks to the health of volunteer workers, the ARPANSA Guide Part 1 (Annex A, p.63) states female Emergency workers are to be excluded:

"...female workers who might be pregnant need to be excluded from taking actions that might result in an equivalent dose exceeding 50 mSv".

Dutton's imposed nuclear 'power' reactor accident risks are dangerous & undemocratic.