

## Federal gov. nuclear waste compromises Safety & Security in SA:

Nuclear Brief (10 Nov 2018) by David Noonan, *Independent Environment Campaigner*

[The Federal gov. is compromising Safety and Security in SA](#) with ANSTO irradiated nuclear fuel waste to be [shipped through Whyalla or Port Pirie](#) to an *indefinite* (“for approx. 100 years”) above ground nuclear waste Store to be *imposed* on to SA at Kimba or at Hawker.

**Two shipments of ANSTO nuclear fuel waste are intended in the first 2 years of Store operations.**

[Some 100 x B-Double truckloads](#) (see p.179) of Intermediate Level Wastes (ILW) are also to be trucked into SA, primarily from Lucas Heights, in the first 4 years of Store operations in SA.

ANSTO nuclear fuel wastes were *prohibited* by the SA State Liberal gov. in 2000 and ANSTO’s Intermediate Level Wastes (& Low Level wastes) were *prohibited* by the State ALP gov. in 2003.

**Imposed *illegal* transport and *indefinite* above ground storage of nuclear wastes is *untenable*:**

The Federal nuclear regulator ARPANSA states that nuclear fuel wastes & Intermediate Level reactor wastes require radiation shielding and require isolation from the environment for over 10,000 years.

However, after 60 years ANSTO has no nuclear waste disposal capacity with none foreseeable for multiple decades while nuclear waste production is set to increase to more than double stockpiles.

ANSTO practice & the intended Store in SA are contrary to [Nuclear Safety Committee advice to the CEO of ARPANSA](#) (Nov 2013) “regarding safety implications of waste stored in interim storage”, re:

**“International best practice points to the need to have in place a policy and infrastructure for final management and ultimate disposal of waste before activities generating waste commence.”**

SA faces decades of nuclear accident and terrorist risks & impacts in ANSTO nuclear waste shipments - first from the UK & from Lucas Heights, with the next 40 years of ANSTO nuclear fuel waste to be shipped to SA as reprocessed nuclear wastes from France and potentially direct from Lucas Heights.

The [Australian Radioactive Waste Management Framework](#) (DIIS April 2018, p.4) reports total Intermediate Level Wastes at 1,770 m<sup>3</sup> - with 95% (by volume) arising as Federal gov. wastes.

The Federal gov. plans to more than double Intermediate Level Wastes to produce a further 1,960 m<sup>3</sup> over next 40 years, with 1,850 m<sup>3</sup> (95%) of that arising from ANSTO Lucas Heights operations.

**SA faces a total of approx. 210 x B-Double truckloads of Federal gov. Intermediate Level Wastes** in an agenda to more than double ANSTO’s 60 year stockpile of ILW over the next 40 years – all to be trucked or shipped into SA for *indefinite* above ground storage in regional SA.

**In Contrast:** States/Territories hold approx. 105 m<sup>3</sup> of largely historical Intermediate Level Wastes (ILW), with a [Federal Review in 2014](#) projecting ‘*only minor future ILW arising*’. S/T’s ILW are set to fall from currently approx. 5% (by volume) to under 3% of ILW intended to be Stored in SA.

**The proposed above ground Store in SA is *primarily* 95+ % for Federal gov. Nuclear wastes.**

1. See: Nuclear Brief (1/8/18) by David Noonan “**Federal gov. names SA Ports to impose nuclear waste Shipments**” <https://nuclear.foe.org.au/wp-content/uploads/SA-Nuclear-Port-Brief-August-2018.pdf>

### **Nuclear Safety Committee advice against *dual handling* transport for *interim storage*:**

[Nuclear Safety Committee \(NSC\) advice to the CEO of ARPANSA \(Nov 2013\)](#) addresses **Transport** issues a way that clearly predicates against proposed Federal gov. *indefinite* above ground Storage of ANSTO irradiated nuclear fuel waste and Intermediate Level reactor wastes in regional SA.

This NSC advice states that *dual handling* in transport associated with *interim storage* “**does not represent international best practice**” and raises “**implications for security**” and for safety, Noting that: “ANSTO already has comprehensive security arrangements in place” at Lucas Heights.

#### 4. Transport

... The criteria of the [Waste Guide](#) “set out **international best practice**” (pp. 11); **this promotes transport of ILW directly to a final storage or disposal facility rather than to interim storage at another facility, as is currently being proposed for the ILW generated from the reprocessing of HIFAR used nuclear fuel.**

*Thus, while transport of radioactive material has historically proved to have or present very low risks, it would appear that the dual handling and transport process associated with interim storage does not represent international best practice.*

The Committee notes that the [SAFETY GUIDE: Safe Transport of Radioactive Material 2008 Radiation Protection Series Publication No. 2.1](#) **recommends contact time with the waste should be kept short.**

**Dual handling also has implications for security, pursuant to RPS 11. Code of Practice for the Security of Radioactive Sources (2007).** The Committee notes that ANSTO already has comprehensive security arrangements in place at its LHSTC site. (Emphasis added)

In: “Nuclear Safety Committee advice to CEO of ARPANSA regarding safety implications of waste stored in interim storage” (22 Nov 2013), see:

[http://www.arpansa.gov.au/pubs/nsc/nsc\\_iwsadvice.rtf](http://www.arpansa.gov.au/pubs/nsc/nsc_iwsadvice.rtf)

**The Federal gov. must stop compromising Safety & Security in SA with their *untenable* nuclear waste Storage plan and accept Extended Storage of nuclear fuel waste & ILW at Lucas Heights.** ANSTO has to take responsibility for its own nuclear waste and keep it secure at Lucas Heights.

**The NRWMF Low Level disposal site is also 95+ % for Federal – primarily ANSTO waste:**

Low Level radioactive wastes (LLW) are [also to double](#) (p.4) from 4,967 m<sup>3</sup> of Federal gov. LLW to add 4.843 m<sup>3</sup> over 40 years - with 4,685 m<sup>3</sup> ( 97 % ) to arise from ANSTO Lucas Heights operations.

**Many hundreds of truckloads of ANSTO Low Level radioactive wastes are to be dumped in SA.** An initial approx. 277 truckloads of existing LLW will come in to SA (reported at 10 m<sup>3</sup> of LLW per truckload) with a projected further approx. 468 truckloads over next 40 years of ANSTO operations.

**In Total: Toward 1,000 truckloads of ANSTO wastes could be dumped in SA over 40 yrs.**

**For further Information, see:** <https://nuclear.foe.org.au/waste> & an updated **Submission to Minister Canavan**, at: <https://nuclear.foe.org.au/noonan/> by **David Noonan** B.Sc., M.Env.St.