Supplementary Submission No 20a

INQUIRY INTO URANIUM MINING AND NUCLEAR FACILITIES (PROHIBITIONS) REPEAL BILL 2019

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The issues paper provides a great deal of information that is interesting and useful but it also misses or incorrectly represents some that is important, e.g.:

Under "Serious nuclear plant accidents" (page 79), it cites "one finding [i.e. many thousand cases of thyroid cancer] in relation to Chernobyl" as an "example" whereas this is in fact the only confirmed case of public health effects of any nuclear plant accident in the history of commercial nuclear power generation.

Under "Managing nuclear waste" (pages 79/80), it states that "longer-lived elements require containment for at least 100,000 years" but fails to mention that they can be removed for eventual recycle by chemical reprocessing of spent fuel.

The four "potential applications" for SMRs, cited on page 68, are also potential applications for large nuclear power plants, whereas some great advantages of SMRs are not mentioned, e.g.

- They can be completely factory-fabricated if/when the demand for mass production justifies the establishment of such a factory;
- The division of one large plant into a number of small units eases the problems of financing large upfront investment (see below) and shut-down for maintenance and refuelling.

The capital costs for SMRs cited in Table 9 (page 72), although no doubt correct in context, are very different from costs cited for the NuScale.SMR

Under "Barriers to investment" (page 74), where it cites "the very large size of nuclear projects that require billions of dollars in upfront investment", it could – but does not – point out that this barrier is mitigated in the case of SMRs.