Chapter 3

Key issues and committee view

Introduction

3.1 A number of issues regarding the provisions of the bill and Australia's nuclear safety regulatory framework were raised in submissions, at the public hearing and in responses to questions on notice. These included:

- support of the amendments;
- definitions;
- improvement notices;
- the prohibition on certain nuclear installations;
- the nuclear power reactor definition;
- ARPANSA's powers during an emergency;
- the reduction in time for licence holders to request review;
- legacy sites;
- national uniformity; and
- the management framework of ARPANSA.

Support for amendments

3.2 While a number of specific concerns were raised, there was broad support expressed during the inquiry for the proposed amendments. For example, the Supervising Scientist supported 'the proposed amendments to the [ARPNS Act] on the basis they will provide an enhanced contemporary framework for Australian Government regulation of Commonwealth controlled nuclear facilities and radiation sources'.[1]

3.3 Engineering Australia also supported the amendments in the bill. It observed that since the passing of the ARPNS Act in 1998, there have been improvements in international best practice in regulation. In particular, it highlighted that a new safety standard has been issued by the International Atomic Energy Agency (IAEA) and that reviews conducted by the IAEA's Integrated Regulatory Review Team of ARPANSA's activities have 'identified the need for strengthening the ARPNS Act'.[2]

3.4 Engineering Australia stated that the bill would provide:

- greater clarity regarding application of the legislation to contractors;
- the adoption of a risk-based approach;

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1 *Submission 1*, p. 1.

2 *Submission 5*, p. 1

- a requirement for a licence holder to provide information;
- the power to issue improvement licences;
- the power to issue time limited licences; and
- the power to regulate activities on legacy sites.[3]

Definitions

3.5 The EM describes the proposed amendment of the definition of 'nuclear installation' from 'nuclear waste' to 'radioactive waste' as a change to 'more appropriate and technically correct references'.[4] The Department of Health stated that the change 'aligns the terminology with the international practices established' by the IAEA. It noted that the 'IAEA does not provide a definition of 'nuclear waste' as all waste is captured under the definition of 'radioactive waste'. While it acknowledged that the definitions used in state and territory legislation may differ, the Department stated these 'are a matter for state and territory consideration'.[5]

3.6 However, Mr Nick Tsurikov warned that this change to the definition of 'nuclear installation' could potentially extend the scope of the legislation to other facilities where levels of radioactive waste may exist. He stated:

> Commonwealth-regulated facilities such as offshore oil/gas exploration and/or production sites and related maintenance facilities that currently fall under the jurisdiction of the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) may need to be licensed in accordance with the ARPANS Act…The potential implication for the oil and gas is only one example – there are many situations where radioactive waste generated by processing or otherwise dealing with Naturally Occurring Radioactive Materials (NORM) could be captured under the ARPANS Act.[6]

Improvement notices

3.7 The CSIRO believed the provisions would make a useful improvement to the ARPNS Act but was concerned that 'it appears that no provision has been made to allow or seek allowance for a stay of the operation of an improvement notice in the event that a licence holder may avail itself the opportunity for a reconsideration of the decision by an inspector to issue the Improvement Notice under s80C'. It stated:

> By virtue of the operation of s80B(l), the licensee must comply with that Improvement Notice even though it is under reconsideration by the CEO pursuant to a request made under s80C. Such a requirement would seem to be inconsistent with the aim of s80C where an Improvement Notice issued by in inspector must be reconsidered by the CEO upon a request being

3 *Submission 5*, p. 2.

4 Explanatory Memorandum (EM), p. 5.

5 Department of Health, response to question on notice no. 1, 12 August 2015, p. 1.

6 Mr Nick Tsurikov, responses to questions on notice, 10 August 2015, pp 2-3.

made by a licence holder within 28 days of the making of the Improvement Notice.[7]

3.8 The CSIRO noted that in the *Work Health and Safety Act 2011* this situation is dealt with by the application of section 228 'Stays of reviewable decision on internal review'. It suggested that the amendments being proposed by the bill should include a provision in similar terms.[8]

3.9 Ms Andrea Kunca, from the Department of Health, told the committee that the proposal had been considered. However, she stated:

> One of the things to take into account is that we are looking at radiation protection. The whole reason for implementing improvement notices was to provide a more graduated risk management response so that you do not have to have a severe failure of the regulatory framework or of compliance…
>
> What we are trying to do is to protect people and the environment. We think that the [improvement] notice provisions and the way they are intended to operate is adequate to balance the needs of the regulated entity as well as to fulfil the objectives of the ARPANSA Act.[9]

Prohibition on certain nuclear installations

3.10 Existing section 10 of the ARPNS Act provides that nothing in the legislation is taken to authorise the construction or operation of a list of nuclear installations. These include:

- a nuclear fuel fabrication plant;
- a nuclear power plant;
- an enrichment plant; and
- a reprocessing facility.

3.11 Section 10 also provides that the CEO must not issue a licence in respect of any of these facilities.

3.12 The Australian Nuclear Association (ANA) strongly recommended that section 10 be repealed. It argued:

> Section 10 was put into the ARPANS legislation to make a political statement in 1998, now 17 years later it is time that this prohibition was removed. ARPANSA has been operating for many years; it has an established regulatory track record including regulating and issuing licences for the construction and operation of the new OPAL reactor. Section 10 is an unnecessary prohibition in an Act to establish a scheme for licensing all Commonwealth entities using radiation including nuclear installations.[10]

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7 *Submission 2*, p. 1.

8 *Submission 2*, p. 2.

9 *Committee Hansard*, pp 5–6.

10 *Submission 3*, p. 1.

3.13 The ANA observed that section 10 also unnecessarily repeats the requirements covered by section 13 'under definitions of installations for which the ARPANSA CEO can issue licences'. It noted that a South Australian Royal Commission was currently considering 'opportunities for expanding involvement in nuclear fuel cycle facilities'. It stated:

> If any of the facilities listed in Section 10 (a nuclear fuel fabrication plant, a nuclear power plant, an enrichment plant or a reprocessing facility) is proposed then ARPANSA as the Commonwealth regulator of nuclear facilities would be the appropriate regulator. There is no other Commonwealth regulator who can deal with these facilities. ARPANSA should not be prohibited by legislation from regulating such a nuclear installation if there is Commonwealth involvement.[11]

3.14 Similarly, Engineers Australia recommended that consideration be given to removing section 10. It stated:

> Section 10 was introduced before Australia had adopted all the international conventions on nuclear safety and before there was an understanding of the importance of reducing greenhouse gas emissions and the part that nuclear power plays internationally in the reduction of emissions. One of the Energy White Paper key themes is technology neutrality. This is not possible if one of the main low emissions technologies is prohibited.[12]

3.15 However, at the public hearing, Dr Gavin Mudd opposed any change to section 10. He stated:

> [L]ooking at the broader energy debate, I cannot see how nuclear would be economically competitive or anything else on those grounds, let alone worthwhile in terms of safety criteria, given that Australia has abundant renewable energy resources and so on. I do not see any sort of need for that. I certainly do not see, looking at the radioactive waste side of all types, how there is a need to change any of the current provisions that exist at the state and federal levels.[13]

Nuclear power reactor definition

3.16 The ANA also recommended that existing section 13 of the ARPNS Act be amended. This section defines the types of 'nuclear installations' which ARPANSA can regulate, including nuclear reactors for research or production of nuclear materials for industrial or medical use. However, the ANA noted that the current definitions do not include nuclear reactors for the production of electricity. It strongly recommended that section 13 be amended 'to include a nuclear power reactor in the definition of nuclear installations'. The ANA argued:

> Around the world, nuclear power is a major generator of low carbon emission electricity. Should nuclear power plants be proposed as part of

11 *Submission 3*, p. 2.

12 *Submission 5*, p. 2.

13 *Committee Hansard*, p. 9.

> Australia's future electricity system, ARPANSA would be the appropriate regulator.[14]

ARPANSA's powers during an emergency

3.17 Australian Nuclear Science and Technology Organisation (ANSTO) discussed proposed section 41 which outlines the powers of the CEO of ARPANSA to give written directions to controlled persons. It noted that the proposed amendment:

> - Expands the operation of the provision so that the CEO of ARPANSA can issue written directions to licence holders even in the absence of non-compliance with the legislation or licence conditions during emergency situations; and
> - Allows the CEO to provide written directions to a controlled person requiring them to take actions in relation to a hazardous thing or to the controlled facility, material or apparatus.[15]

3.18 ANSTO observed the EM to the bill reaffirms the internationally accepted principle of operator responsibility for safety and clearly sets out that the powers of the ARPANSA CEO would only be used in the most exceptional of circumstances. It observed:

> Operators have an intimate knowledge of their facilities and how to manage them during an emergency, as well as the practiced emergency operations experience. In the very unlikely event of a major emergency at one of ANSTO's sites, it would be important that the public and emergency management stakeholders know unequivocally that ANSTO and designated emergency response organisations have responsibility for the implementation of the relevant emergency plans.
>
> The text of the [EM] indicates that the CEO of ARPANSA cannot direct specific safety actions by the license holder as this would indeed "shift responsibility" to ARPANSA. Since the direction given by the CEO could not reference a licence condition or indeed a regulatory requirement, for clarity, such directions should reference internationally accepted principles of nuclear safety or security.[16]

3.19 The ANSTO noted that the principle of operator responsibility for safety reflects international best practice, as developed under the auspices of the IAEA as well as being reflected in the international nuclear safety treaties to which Australia is party.[17]

3.20 At the public hearing, Mr Jack Dillich from ARPANSA highlighted that the proposed powers were intended to equip the regulator to address rare unforeseen circumstances. He stated:

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14 *Submission 3*, p. 2.

15 *Submission 4*, p. 2.

16 *Submission 4*, p. 3.

17 *Submission 4*, p. 3.

> In my opinion there has to be the wherewithal, even though it is invoked very, very infrequently, for the regulator to intervene at short notice. I do understand the concern that ANSTO is raising. But I think it is a give and take; it is a compromise. As an independent regulator I say that in the interests of public safety and the environment I think it is best to err on the side of the flexibility the regulator would have to infrequently, if ever, intervene in such situations. And of course appeal would be available after the fact.[18]

3.21 Ms Andrea Kunca from the Department of Health outlined the amendments were intended to address an existing limit on the CEO's power whereby directions can only be made when there is non-compliance. She observed the IAEA's general safety requirements state that 'a regulatory agency should be able to exercise its authority to intervene in connection with any facilities or activities that present a significant radiation risk and require corrective actions to be undertaken'. She also highlighted the criteria to be meet:

> [T]he wording of the legislation, while it is judgmental—it is a question of judgment—is relatively stringent. You have to have strong and reasonable grounds to believe that there is a serious risk to people and to the environment in relation to a controlled facility or materials and the CEO believes that the need is urgent to address that to minimise that risk. Inherent in the wording you could probably say that it would be a relatively high threshold to meet, that it would not be used that frequently.[19]

Reduction in time for licence holder to request review

3.22 ANSTO welcomed that the EM to the bill included that '[w]hile a request for reconsideration must be made within 28 days, additional information may be provided to the decision maker on review, at any time during the period of reconsideration. It observed that '[c]onsidering the high level of detail and expert information that may be needed to inform a request to review a decision, this language provides the licence holder with the flexibility needed to avoid filing an incomplete submission'.[20]

Legacy sites and coverage

3.23 At the hearing, Mr Jack Dillich from ARPANSA noted that the amendments of the bill facilitate including certain legacy sites under ARPANSA's regulatory remit. He gave an example:

> We recently issued a 'possess and control licence' for a legacy site and this site had been used back in the 1960s. It was outside regulatory control although it had been monitored by an organisation for decades. Under the legislation, based on the definitions we had to call it something that was an ill fit and the possess and control licence was something we had to use somewhat awkwardly…[T]he proposed amendment will allow in the future

18 *Committee Hansard*, p. 6.

19 *Committee Hansard*, p. 7.

20 *Submission 4*, p. 3.

> for legacy sites to be licensed as controlled facilities with the ability to control possible remediation of those sites.[21]

3.24 The ANSTO welcomed the amendments of the bill relating to the licensing of legacy sites which require remediation as 'they provide a clear legal basis for the safe management of legacy sites'. It stated:

> For example, ANSTO has responsibility for a legacy site adjacent to its Lucas Heights Campus, known as the Little Forest Legacy Site, which was previously used by the Australian Atomic Energy Commission. ARPANSA has licenced ANSTO to "possess and control" the site, but the legal basis for licensing any other action in respect of the site (such as any remediation which might be necessary in future) was unclear. This amendment will now allow ANSTO, as a controlled person authorised by an ARPANSA licence, to undertake necessary safe management activities at the site.[22]

3.25 The Supervising Scientist also supported 'the proposed widening of monitoring and enforcement provisions and changes to the current licensing regime to enable the [ARPANSA] to directly regulate remediation activities involving contaminated legacy sites'.[23]

3.26 However, Mr Nick Tsurikov raised some definitional issues with the amendments pointing to 'the possible absence of the clear definition of what a "legacy site" actually is and the potential use of the currently suggested definition in ARPANSA documents that will be developed in the future'.[24] He did not consider the proposed definition of 'prescribed legacy site' was adequate and argued additional clarification may be needed. Mr Tsurikov stated:

> It is understood that there may not be sufficient time to discuss and develop an appropriately detailed definition for the purposes of the Act, but when the review of the Regulations in support of the Act will be carried out – additional clarifications may need to be provided.[25]

3.27 Mr Tsurikov also highlighted that there were many situations where radioactive waste generated by processing or otherwise dealing with Naturally Occurring Radioactive Materials (NORM) could be captured under the ARPNS Act. He noted that 'Part 2 of the ARPANSA Safety Guide RPS-15 lists 13 different industries and if any waste generated by these industries in the past…is currently located on the Commonwealth land – these sites will need to be identified and appropriately licensed'.[26]

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21 *Committee Hansard*, p. 2.

22 *Submission 4*, p. 4.

23 *Submission 1*, p. 1.

24 Mr Nick Tsurikov, responses to questions on notice, 10 August 2015, p. 2.

25 Mr Nick Tsurikov, responses to questions on notice, 10 August 2015, p. 2.

26 Mr Nick Tsurikov, responses to questions on notice, 10 August 2015, p. 3.

National uniformity

3.28 Issues relating to the consistency and national uniformity of radiation protection and nuclear safety regulation were also raised, particularly regarding legacy sites. For example, the Department of Health noted that the ARPNS Act does not apply to legacy sites controlled by the states and territories. It stated:

> Contaminated sites are not dealt with under the National Directory for Radiation Protection (NDRP), and national uniformity has yet to be established for such sites.
>
> The NDRP is a compendium of policies and procedures agreed by the states and territories that COAG agreed in 2004 would be the overarching vehicle for attaining National Uniformity across all jurisdictions, where nice separate pieces of radiation safety legislation currently exist. Amendments to the NDRP are prepared and agreed through the Radiation Health Committee, coordinated by ARPANSA. Discussions regarding the approach for control of contaminated legacy sites are ongoing.[27]

3.29 Mr Nick Tsurikov outlined his concerns in this area:

> It is understood that, for the purposes of standardisation of regulations throughout Australia it is intended that relevant ARPANSA documents are to be incorporated into the State/Territory legislation – but, to the best of my knowledge, the time frame for this process was not agreed upon.[28]

Management of ARPANSA

3.30 Engineers Australia recommended that consideration also be given to examining the management structure of ARPANSA. It highlighted different management structures adopted in the United Arab Emirates and the United Kingdom for their nuclear program regulators.[29]

Committee view

3.31 The committee notes the general support expressed in submissions for the proposed amendments to the ARPNS Act. The committee agrees that the provisions of the bill will usefully update the legislation, clarify a number of matters and enhance the powers of the ARPANSA to undertake its role in regulating Commonwealth entities using radiation.

3.32 The CSIRO proposed a minor amendment to allow stays while decisions regarding improvement notices are the subject of reconsideration. While this proposal has some merit, the committee is persuaded that, on balance, this is not appropriate in the context of radiation protection management. However, in the view of the committee, this matter should be monitored by the Department of Health to ensure the provisions for improvement notices operate as intended.

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27 Department of Health, response to question on notice no. 3, 12 August 2015, p. 1

28 Mr Nick Tsurikov, responses to questions on notice, 10 August 2015, p. 2.

29 *Submission 5*, p. 3.

3.33 Section 10 and the definition of 'nuclear installation' in section 13 of the ARPNS Act currently act to prohibit the construction or operation of certain nuclear installations, including a 'nuclear power plant'. The provisions of the bill do not alter this situation. While some submissions urged these parts of the legislation be amended, in the view of the committee, this would be a significant change to the existing regulatory framework. A change of this significance is broader than the committee's inquiry into the provisions of the bill and deserves separate consideration. In this context, the committee notes the important inquiry currently being undertaken by the Royal Commission on the Nuclear Fuel Cycle in South Australia. Similarly, the committee notes the issues regarding national uniformity of regulation of radiation protection and nuclear safety raised during the inquiry also fall beyond the committee's consideration of the provisions of the bill.

3.34 The provisions of the bill provide ARPANSA with an increased capacity to respond to emergencies and with enhanced compliance monitoring and enforcement powers. However, an unavoidable tension appears to exist between the principle of operator responsibility for safety at licensed facilities and the proposed power of ARPANSA's CEO to give directions in emergency circumstances. In the view of the committee, the new proposed power balances these interests appropriately and follows international best practice. ARPANSA clearly should have the capacity to issue directions to licenced facilities in emergency situations, even where there is compliance. Notably, the EM states:

> It is not envisaged that the power would be exercised in other than exceptional circumstances, and its exercise will not be inconsistent with the implementation of the licensee's approved emergency plans and arrangements.[30]

3.35 It is also important to recognise that a decision by the ARPANSA CEO to give directions can be reviewed under section 42 of the existing legislation.

3.36 It was emphasised during the inquiry that radiation protection and nuclear safety regulators may occasionally require significant flexibility to undertake their role in protecting the public and the environment.[31] In this context, the committee considers the bill makes a number of sensible amendments to update the existing regulatory framework and enhance the capacity to ARPANSA to undertake its duties.

30 EM, p. 11.

31 Mr Jack Dillich, ARPANSA, *Committee Hansard*, p. 6.

Recommendation 1

3.37 The committee recommends that the Senate pass the Australian Radiation Protection and Nuclear Safety Amendment Bill 2015.

Senator Zed Seselja

Chair