

## CHAPTER TEN

### THE ROLE OF ARPANSA

#### Introduction

10.1 The Committee's terms of reference require it to make assessments about the adequacy of occupational and public safety protection procedures, the adequacy of nuclear incident plans and emergency procedures, the adequacy of proposed fuel and waste management provisions and the extent to which the conditions set in the EIS and by the Minister for the Environment and Heritage have been adequately met.

10.2 These matters have been discussed in the preceding two chapters, but in many cases it was not appropriate for the Committee to draw conclusions about them. This is because the project is a work in progress and certain conditions are yet to be met or certain procedures yet to be finalised. The Committee has noted that the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) will be required to assess these matters at the time that it receives the applications for licences to construct and subsequently to operate the new reactor.

10.3 Given, then, that the Committee cannot now directly assure itself of the validity or adequacy of these various arrangements and provisions, it is critical that it be satisfied of ARPANSA's capacity to make appropriate assessments when the time comes.

10.4 Accordingly, in this Chapter, the Committee briefly outlines ARPANSA's structure and regulatory underpinning. It then examines the procedures that ARPANSA will adopt in the licensing phases, paying particular attention to the provisions for public consultation embodied in its legislation and proposed process.

#### History of ARPANSA

10.5 Prior to 1998 all Australian States and Territories had laws explicitly controlling the use of radioactive materials, but there was no corresponding Commonwealth legislation regulating Commonwealth radiation sources and practices.<sup>1</sup>

10.6 Evidence to the 1996 inquiry of the Senate Select Committee on the Dangers of Radioactive Waste identified this regulatory gap as a matter of concern.<sup>2</sup> The Select

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1 Senate Select Committee on the Dangers of Radioactive Waste, *No Time to Waste*, April 1996, p. 7; Senate Community Affairs Legislation Committee, *Australian Radiation Protection and Nuclear Safety Bill 1998*, December 1998; and, ARPANSA, 'General Information', <http://www.arpansa.gov.au/org.htm> (15 March 2001), p. 2.

2 Senate Select Committee on the Dangers of Radioactive Waste, *No Time to Waste*, April 1996, pp. 26-29.

Committee's report noted that the Commonwealth Government proposed to close it by establishing an independent regulator to be formed from the combination of two existing agencies, the Australian Radiation Laboratory<sup>3</sup> and the Nuclear Safety Bureau.<sup>4</sup>

10.7 In 1997, the Federal Government announced the establishment of the Australian Radiation Protection and Nuclear Safety Agency as the new, national regulatory body. Its underpinning legislation, the *Australian Radiation Protection and Nuclear Safety (ARPANS) Act 1998*, was passed by both houses of Parliament on 10 December 1998.<sup>5</sup>

10.8 The stated object of the Act is 'to protect the health and safety of people, and to protect the environment, from the harmful effects of radiation',<sup>6</sup> and it establishes the statutory office of the CEO of ARPANSA to:

- regulate activities within the Commonwealth which involve radiation and nuclear safety;
- work with the states and territories to develop uniform regulatory controls throughout Australia;
- inform and advise the government and the public on radiation protection and nuclear safety; and
- undertake related research and provide services of a high standard.<sup>7</sup>

#### *Structure of ARPANSA*

10.9 Although its CEO is a statutory officer, ARPANSA itself is a part of the Commonwealth Department of Health and Aged Care. It comprises five branches as follows:

- environmental and radiation health branch;
- regulatory branch;
- standards, policy and corporate support branch;
- medical radiation branch; and

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3 The Australian Radiation Laboratory (ARL) was responsible for providing advice to Government and the community on the health effects of radiation, and for undertaking research and providing services in this area. ARPANSA, 'General Information', <http://www.arpansa.gov.au/org.htm> (15 March 2001), p. 2.

4 The Nuclear Safety Bureau (NSB) was responsible for regulating the HIFAR and Moata research reactors at Lucas Heights in Sydney. See ARPANSA, 'General Information', <http://www.arpansa.gov.au/org.htm> (15 March 2001), p. 2.

5 ARPANSA, 'General Information', <http://www.arpansa.gov.au/org.htm> (15 March 2001), p. 2.

6 *Australian Radiation Protection and Nuclear Safety Act 1998*, Section 3.

7 Second Reading Speech, *House of Representatives Hansard*, 8 April 1998, p. 2834.

- non-ionizing radiation branch.<sup>8</sup>

10.10 The Act also establishes the Radiation Health and Safety Advisory Council whose role is to advise the CEO of ARPANSA on a range of issues, including emerging radiation protection and nuclear safety issues, matters of concern to the community, and the adoption of codes of practice and standards. The Council is appointed by the Minister for Health and Family Services and comprises State/Territory radiation control officers, a community representative and other experts in radiation and nuclear safety and related fields.<sup>9</sup>

10.11 In addition, the Act establishes two committees which support the Radiation Health and Safety Advisory Council, namely the Nuclear Safety Committee and the Radiation Health Committee.<sup>10</sup> Both these Committees include a representative of the interests of the general public.

### **Licensing of nuclear facilities**

10.12 Under the *ARPANS Act*, a Commonwealth entity, contractor or employee [controlled person] must not do any of the following:

- prepare a site for a nuclear installation or a prescribed radiation facility (hereafter ‘controlled facility’);
- construct a controlled facility;
- have possession or control of a controlled facility;
- operate a controlled facility;
- decommission, dispose of or abandon a controlled facility;

unless authorised to do so by a facility licence or exempted by relevant regulations.<sup>11</sup>

10.13 The CEO of ARPANSA is responsible for issuing facility licences. In other words, the CEO of ARPANSA has the power to determine whether or not a Commonwealth agency is licensed to prepare a site, construct, operate or decommission a nuclear installation or prescribed radiation facility.

10.14 In determining whether or not to issue such licences, the CEO must take into account any matters specified in the regulations and must also take into account ‘international best practice in relation to radiation protection and nuclear safety’.<sup>12</sup> The current CEO of ARPANSA, Dr John Loy, acknowledges both that the regulations and

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8 ARPANSA, ‘General Information’, <http://www.arpansa.gov.au/org.htm> (15 March 2001), p. 3.

9 *ibid*, p. 2.

10 *ibid*, p. 2.

11 *Australian Radiation Protection and Nuclear Safety Act 1998*, Section 30 (1).

12 *Australian Radiation Protection and Nuclear Safety Act 1998*, Section 32 (3).

international best practice require him to engage in public consultation during the licensing process. He emphasised:

I also want to say that the involvement of the public is very important and critical; they do bring perspectives and views that must be taken into account, not just because the Act says so but because we do not take as good decisions if we do not take them into account. Also, this is a highly complex and technical subject, where people with expertise in neutronics, thermal hydraulics, control systems and the like will have to spend a lot of time going through the details of it, and we really need to give those people time and space to do that.<sup>13</sup>

10.15 However, witnesses to this inquiry raised doubts about the adequacy of the provisions for public consultation in the ARPANS legislation.

10.16 The Committee considers that the adequacy of these provisions will determine, in large part, its confidence in ARPANSA's capacity to make independent and critical assessments during the licensing process. Accordingly, it turns now to a more detailed examination of them.

### **Provisions for public consultation**

10.17 When the ARPANS Bill was first introduced, a number of concerns about the legislation were raised.<sup>14</sup> The main issues were about the allowable levels of radiation, independence of the proposed Agency from the Government of the day, the process for appointment to and make up of Advisory Councils and the process for public review of new projects.<sup>15</sup> Accordingly, the Selection of Bills Committee referred the legislation to the Senate Community Affairs Legislation Committee for report. The issue of the provisions for public consultation in the ARPANS legislation was central to that inquiry too, and the Committee begins by examining the arguments put at that time.

10.18 A number of witnesses to that inquiry expressed dissatisfaction with the level of public participation in relation to the proposed licensing process for a nuclear installation and called for a public licensing process. They also asked for more effective accountability to Parliament.<sup>16</sup> In brief they were asking for the nuclear industry in Australia to be subject to greater public and parliamentary scrutiny. As noted by Dr Garry Smith:

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13 Dr John Loy, *Committee Hansard*, 26 October 2000, p. 239.

14 The Bill was introduced into the House of Representatives on 8 April 1998 and to the Senate on 23 November 1998.

15 Selection of Bills Committee, *Report no. 11 of 1998*, 26 November 1998, appendix 3.

16 Mr Larry O'Loughlin, Australian Conservation Foundation, Ms Jean McSorely, Ms Genieve Rankin, *Committee Hansard*, Senate Community Affairs Legislation Committee, 30 November 1998, pp. CA1, CA9, CA11, CA13, CA31, CA33

...the committee should not underestimate that the only real tool that the public has in most of these federal issues which are impacting on local communities is the tool of public visibility.<sup>17</sup>

10.19 The Sutherland Shire Council in its submission to that inquiry commented on the importance of public review of new projects. It maintained that the issue of a publicly visible licensing process for nuclear installations was a fundamental requirement for the current process under consideration and noted that the proposed legislation:

Contains no public rights to participate in licensing functions. The absence of such provision suggests that the common law rules relating to procedural fairness may apply in the exercise of a licensing function. Those common law rules will introduce uncertainty and will make the licensing function vulnerable to legal attack. It is far better to provide expressly for consultation, public notification and submission processes. This is of course a pragmatic reason for dealing with the subject matter in the legislation but there is, as we have explained, a more fundamental principle at stake which is the right of people who are subject to potentially very great risks to be informed, consulted and to participate in decision making on whether those risks should be run. This Bill does nothing to advance public rights.<sup>18</sup>

10.20 Furthermore, the Sutherland Shire Council noted that although ARPANSA's CEO is equipped with appropriate powers of enforcement, inspection and investigation, the regulatory model adopted effectively excludes public participation.<sup>19</sup> Ms Jean McSorley argued along similar lines:

It is very important that any application for a license for a nuclear installation is published and that the CEO of ARPANSA should demonstrate that all the regulations will be met before a license is granted (in certain cases the CEO may wish to invite public submissions at this stage in the process). If there is no public licensing process there will be no way for the public to know that the regulations are being applied and duly implemented. There will not be any way of monitoring possible breaches of the licensed agreement unless this process is undertaken. Introducing this as a set process through the ARPANS Bill would help end current unease that future licensing arrangements might be done behind closed doors with only the CEO of ARPANSA and certain staff having input into the process.<sup>20</sup>

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17 Dr Garry Smith, *Committee Hansard*, Senate Community Affairs Legislation Committee, 30 November 1998, pp. CA23.

18 Advice from Tim Robertson, Sutherland Shire Council, Submission no. 5, to the Senate Community Affairs Legislation Committee, 1998, p. 3. See also Dr Jim Green, Submission no. 1 to the Senate Community Affairs Legislation Committee 1998.

19 Advice from Tim Robertson, Sutherland Shire Council, Submission no. 5 to the Senate Community Affairs Legislation Committee, 1998.

20 Ms Jean McSorley, Submission no 6, to the Senate Community Affairs Legislation Committee, 1998, p. 4.

10.21 The Campaign for a Nuclear Free Future and the Australian Conservation Foundation submitted that given ‘that the HIFAR reactor is a “nuclear installation” we would argue that the CEO of ARPANSA should not be allowed to license without some form of public consultation regarding the licensing process’. And further they believed ‘that there needs to be public notification of reviews of the license and regular reporting provisions. In particular, there needs to be provision for immediate public reporting of any “accidental” release or “malfunction”.’<sup>21</sup>

10.22 In response, the ARPANSA Taskforce explained that the Bill did not provide a uniform scheme for public input because ‘the scope of matters arising under the legislation is very broad – preparing a code of practice for use of radiation by veterinarians or a transport code for nuclear material; licensing a simple bore-hole logger used by a CSIRO Division or the proposed replacement research reactor’.<sup>22</sup>

10.23 It noted that the mechanisms in the Bill would ensure that there is public awareness of, and allow for participation in, ARPANSA decisions. They included:

- the role of the Radiation Health and Safety Advisory Council, the Radiation Health Committee, and the Nuclear Safety Committee, all of which would include community representatives and external experts;
- the Radiation Health and Safety Advisory Council which would produce an annual report that could be included with the CEO’s annual report to Parliament; and
- the CEO’s annual and quarterly reports to Parliament.

In particular the quarterly reports could include reports of licensing decisions during the quarter.<sup>23</sup>

10.24 The Community Affairs Legislation Committee was not satisfied that the provisions in the Bill fully acknowledged the need for public consultation and for the CEO and ARPANSA to be accountable to the Parliament. It made a number of recommendations to tighten the legislation. As a result, the Bill was reintroduced into Parliament with a number of amendments.

10.25 Some of these changes were intended to strengthen community representation on the Health and Safety Advisory Committee, the Radiation Health Committee, and the Nuclear Safety Committee. For example, before appointing a member to the Committees, the CEO is required to consult with such consumer and environmental groups as the CEO considers appropriate. The Radiation Health Committee is also

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21 Campaign for a Nuclear Free Future and the Australian Conservation Foundation, Submission no. 7, to the Senate Community Affairs Legislation Committee, 1998, p. 5.

22 ARPANSA Taskforce, submission no. 2 to the Senate Community Affairs Legislation Committee, 1998, p. 3.

23 ARPANSA Taskforce, Submission no. 2, to the Senate Community Affairs Legislation Committee, 1998.

required to consult publicly in the development of policies, codes and standards in relation to radiation protection.<sup>24</sup>

10.26 Amendments were also adopted to strengthen transparency by improving reporting requirements to Parliament. For example, the CEO must ensure that a report about any serious accident or malfunction relating to controlled material or controlled facility be tabled in Parliament no later than 3 sitting days after the incident.<sup>25</sup>

10.27 Despite the adoption of such amendments, this Committee, in reviewing the legislation, is concerned that the amendments do not go far enough and that the legislation does not provide adequately for public consultation particularly in the process for licensing major nuclear facilities, such as a research reactor or waste storage facility.

10.28 At the moment, regulations under the Act stipulate that the CEO must publish as soon as practicable after receiving an application for a nuclear facility licence a notice in a national daily newspaper and in the *Gazette*, stating that the CEO intends to make a decision on the application. The notice must include:

- an invitation to people and bodies to make submissions about the application; and
- a period for making submissions; and
- procedures for making submissions.

10.29 In deciding whether to issue the licence, the CEO must ‘take into account’ the content of any submissions made by members of the public about the application.

10.30 The Committee notes that while these measures go some way to provide for members of the community to raise concerns, they hardly offer assurances that rigorous public scrutiny will take place. For example, what is meant by the phrase ‘take account’ in the instruction to the CEO to ‘take into account the content of any submissions made by members of the public about the application’? There is no provision for a public inquiry, no requirement for making information on the application public, no mechanism for providing feedback to people who make submissions or for publicly responding to concerns raised.

10.31 The Committee compares the loose wording and vague terms used in this legislation with the clear and precise provisions set down governing the holding of an inquiry, for example, in the *Environmental Protection (Impact of Proposals) Act 1974*, and deems the former inadequate.<sup>26</sup>

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24 See Clause 21(4); 24(4) and 27(4)

25 See clause 41(4) and (5)59(3) and (4); Clause 60 (1)–(5); Clause 61(2).

26 See para 2.41. See also Sections 13–24 *Environment Protection (Impact of Proposals) Act 1974*.

10.32 During the Senate Community Affairs Committee inquiry into the ARPANS legislation, some witnesses sought far stronger measures to ensure community involvement. Dr Garry Smith asserted that there should be justification and accountability in licensing in a fully public process. He referred to the US Nuclear Regulatory Commission's *Title 10* on public licensing processes which he claimed was best overseas practice. In reply to a question about the process and whether it involved hearings or submissions, Dr Smith said:

If necessary. They are at different levels. You can start at a lower level and then move up to hearings and even adjudication on key issues if necessary. We feel that model should be used for a public licensing process in Australia.<sup>27</sup>

10.33 This issue was again taken up during this Committee's inquiry. Mr Daniel Hirsch, appearing on behalf of the Sutherland Shire Council, told the Committee:

...in Title 10 of the Code of Federal Regulations, part 2, it is mandatory that there is a public hearing that is adjudicative, evidentiary, on any construction permit for a reactor.

For an operation permit, anybody who wishes to request a hearing, who has an interest, may do so. That hearing is what we in the United States often refer to as a science court, where expert witnesses testify under oath and are examined through cross-examination, where there is discovery and where all the documents available about the reactor are made public.<sup>28</sup>

10.34 He went on to assert that:

Every reactor has built into it, just because of the nature of things, a handful of flaws. There are a handful of accident sequences hidden inside each one. We can never eliminate them completely but, to reduce them, the process that is used internationally, the best practice, is to put the proposal before full scrutiny with discovery, cross examination, sworn testimony and the ability to test the arguments of both sides.<sup>29</sup>

10.35 The Committee sought to inquire more deeply into the merits of the case for adopting the US model of a judicial public hearing during licensing proceedings for facilities such as a research reactor.

#### *Public hearing and full public consultation*

10.36 Dr Loy informed the Committee of the process he intends to follow upon his receipt of ANSTO's application for a licence to construct the new reactor. He said that

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27 Dr Garry Smith, *Committee Hansard*, Senate Community Affairs Legislation Committee, 30 November 1998, CA24.

28 Mr Daniel Hirsch, *Committee Hansard*, 30 October 2000, p. 342.

29 Mr Daniel Hirsch, *Committee Hansard*, 30 October 2000, p. 342.



he would advertise his intention to make a decision on the application and that, in doing so, he must take into account public submissions on the matter. He noted that a comprehensive preliminary safety analysis report (PSAR) would be included in the licence application, and would be suitable for public release, along with summary and detailed design documents. Dr Loy proposes that there be two periods of public consultation, as follows:

The first would commence immediately after the application is advertised, with public submissions being sought within three months. During that time it is expected that, in addition to the application information and the PSAR itself, an independent international peer review of the PSAR would become available. A second round of public submissions would be sought later in the process, after any additional information and the peer review of the PSAR is available. The second round will be centred on any new or emerging issues. Questions and answers between ARPANSA, ANSTO and INVAP will also be placed on the record in two rounds during the period.<sup>30</sup>

10.37 The Committee asked Dr Loy for his response to Mr Hirsch's remarks, and particularly his advocacy of a 'science court' as a way of ensuring comprehensive public participation and scrutiny of potential problems in the proposed facility. Dr Loy expressed some doubts as to the accuracy of Mr Hirsch's claims concerning the mandatory requirement for such a 'court' in all licensing proceedings. He said that it was his understanding that while a judicial process is required in the United States for the licensing of power reactors, it is not necessarily required for research reactors. He said:

The case of research reactors is a bit cloudy, and it is still not clear to many that they do go before such a board. I think the answer might be that some do and some do not, but the reasons for it are lost on me.<sup>31</sup>

10.38 In response to this evidence, Mr Daniel Hirsch offered the following explanation:

US law and regulations require an *opportunity* for such a hearing, upon request by an interested party. If there is no request for a hearing by a party with the requisite interest, no hearing is held (with the exception of certain construction permit proceedings) ...

The applicable statute, the Atomic Energy Act, section 2239 'Hearings and judicial review', states in pertinent part:

In any proceeding under this chapter, for the granting, suspending, revoking, or amending of any license or construction permit ... the Commission shall grant a hearing upon the request of any person

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30 Dr John Loy, *Committee Hansard*, 9 February 2001, p. 550.

31 Dr John Loy, *Committee Hansard*, 9 February 2001, p. 559.

whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding.

There are special provisions with regards minor license amendments, and a requirement for a mandatory hearing on certain construction permit applications irrespective of requests for one, and some new provisions regarding one-stop licensing proceedings, but the right to a hearing upon request by a party with an interest that can be affected is guaranteed by law, as is their right to be admitted to the proceeding as a party.<sup>32</sup>

10.39 The Committee asked Dr Loy whether he thought such a judicial process would improve public involvement and confidence in the licensing process for Australia's research reactor. Dr Loy was 'not necessarily convinced' of that. He maintained:

Obviously there is a significant testing of the proposal in the US arrangements, but a lot of it also turns upon legalisms, construction of legislation and so on that does not necessarily illuminate things. I would certainly accept that public involvement and public consultation are international best practice for safety assessments. A judicial process suits the United States; whether it suits our culture and approach, I do not know ... I think [our] legislation would allow me to inform myself about a licence application in any way I wanted to. If I wanted to set up some kind of public hearing to do that, I guess I could. I am just not convinced that that would necessarily be better than what I have proposed here.<sup>33</sup>

## **Conclusion**

10.40 The Committee finds that the provisions for public consultation in the ARPANS Act leave many questions unanswered. Although the present CEO, Dr John Loy, has indicated that he intends to follow a comprehensive process of public consultation, the Committee is uneasy that this is left to the judgement of the CEO rather than being legislatively guaranteed. The Committee would like to see the requirement for public consultation strengthened and made explicit in legislation and the process clearly defined.

10.41 The Committee notes that there is currently a review of the ARPANS legislation being conducted as part of the National Competition Policy. This will deal with a number of matters outside the scope of this inquiry, including the continuing problems of variations between the states on nuclear regulatory matters. However this review could raise significant issues of relevance to the current inquiry and there is a need to ensure the ARPANS legislation review is completed before any further commitments are made about the proposed new reactor at Lucas Heights.

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32 Sutherland Shire Council, submission no. 148A, p. 25.

33 Dr John Loy, *Committee Hansard*, 9 February 2001, p. 559.

10.42 In relation to the new research reactor project, the Committee understands that the licensing process will probably be well under way before any such changes to the legislation could be put in place. Further, it notes Dr Loy's commitment to extensive public consultation.

### **Recommendation**

**Nonetheless, the Committee recommends that, if the new research reactor project is to go ahead, the Government put in place a number of mechanisms to ensure that full and thorough public scrutiny of the proposal takes place during the licensing process. This is to ensure, to the greatest extent practicable, that the construction and operation of the proposed reactor would not adversely affect the health of the community or damage the environment. At a minimum, these mechanisms must include:**

- **publication of all submissions made to ARPANSA;**
- **publication of ARPANSA's responses to concerns raised in these submissions, detailing in what way those concerns have affected the CEO's decision;**
- **release of the full details of the design and the construction contract except for those items which are determined as truly commercial-in-confidence.**

10.43 The Committee is of the opinion that the licence applications for the new reactor should be subject to a similar process of judicial public hearings as occurs in the United States. This will ensure world's best practice and allow for greater public involvement.

### **Recommendation**

**Given that there are doubts about privilege and the powers of such an inquiry to obtain documents because the ARPANS Act is silent on these issues, the Committee recommends that the Government appoint a panel including the CEO of ARPANSA under other legislative powers to conduct the inquiry.**

### **Recommendation**

The Committee further recommends that, in the longer term, the Government undertake a public review of the kinds of public consultation process required in other jurisdictions and in relation to other proposals with public health and environmental implications. The object of such a review should be to determine best practice and to amend the *ARPANS Act* accordingly.

