CHAPTER SIX

THE TENDERING PROCESS

> Competitive tendering and contracting is the process of selecting the most preferred provider of goods and services from a range of bidders by seeking offers and evaluating these against predetermined selection criteria.[1]
>
> Commonwealth of Australia

The announcement of INVAP as the preferred tender

6.1 On 6 June 2000, the Minister for Industry, Science and Resources, Senator Nick Minchin, announced the successful tenderer for the design and construction of the new research reactor at Lucas Heights. It was the Argentinian company INVAP S.E. in alliance with Australian companies, John Holland Construction & Engineering Pty Ltd and Evans Deakin Industries Limited.[2]

6.2 In making this announcement, the Minister stated that the tender process had been certified as rigorous by two separate audit groups and that INVAP had 'a solid track record constructing research reactors, with five constructed around the world over the past two decades'.[3] Despite these assurances, some commentators immediately cast doubts over the tendering process and the choice of INVAP as the preferred tenderer. Media reports claimed that there had been no detail on the full reactor costs or on the specific reactor plans and that little information was made available on waste management or on the contractual obligations.[4]

6.3 In this chapter, the Committee looks closely at the tendering process for the new reactor at Lucas Heights. It rearranges the order of the terms of reference for this section, so that the chapter begins with a description of the process involved in selecting the preferred tender. In particular, the Committee assesses the measures taken by ANSTO to ensure that the information supplied by the tenderers was relevant, accurate and, in general, of a high quality. It also looks at the probity of the tender process. This overview is followed by a closer analysis of the evaluation stage with an emphasis on the method adopted to evaluate the tenders. The Committee then turns its focus on the successful tenderer and the checks made on INVAP as part of

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1 Commonwealth of Australia, *Competitive Tendering and Contracting*, Guidance for Managers, May 1997, p. i.

2 Senator Nick Minchin, Minister for Industry, Science and Resources, Media Release, 6 June 2000.

3 ibid.

4 Andrew Cornell, 'Cuba link to build new nuke reactor', *Sydney Morning Herald,* 7 June 2000; Amanda Hodge, 'Argentine-led group to build nuclear reactor', *The Australian*, 7 June 2000; Dr Jim Green, on 'Radio National Breakfast', Transcript, 7 June 2000; *Financial Review,* 9 June 2000.

the selection process. Finally, the Committee considers public access to information about the project.

6.4 At the outset, the Committee makes clear that ANSTO, despite a number of requests, has withheld from the Committee documents central to scrutinising this tendering process, notably the Request for Tender and the Principal's Project Requirements. In 1995, the Industry Commission recommended that governments should make public as much information as possible on contracts to enable interested people to assess contracting decisions made by agencies. This material, it suggested, should include the specifications of the service, the criteria for tender evaluation and the criteria for the measurement of performance.[5] This is the very material that the Committee has requested but to which it has been denied full access.

6.5 The Committee notes that the Minister for Industry, Science and Resources agreed on 8 February 2001 that the Request for Tender 'may be shown to members of the Senate on an in-confidence basis'.[6] While this offers members the opportunity to view some documentation, it nonetheless places significant constraints on their ability to examine ANSTO on matters contained in the documentation and to report to the Parliament on their contents. This very limited access to key documents has severely curbed the ability of the Committee to fulfil its obligation to examine and report on matters related to the project. The Committee, nonetheless, mindful of its responsibility to the Parliament has endeavoured to address the terms of reference as fully as possible. The issue of ANSTO's accountability to Parliament is taken up and discussed more fully in Chapter 7.

Overview—the quality and accuracy of information relied on in assessing the tenders

6.6 The Committee accepts that the success of a tendering process in choosing the best vendor from the range of contenders depends, in the main, on the quality and accuracy of the information available to the buyer. Although bidders are ultimately responsible for preparing and promoting their own tender, the buyer has a central role in ensuring that those bidding for the contract are able to demonstrate their potential to fulfil the obligations of the contract. In large part, the ability of the buyer to specify its requirements in the tender documents influences the quality of the information provided by the tenderer. Tender documents should, therefore, stipulate clearly and exactly the buyer's requirements. Because this material has not been made available to the Committee, it has not been able to question ANSTO on the documentation or to analyse its contents.

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5 Industry Commission, *Competitive Tendering and Contracting by Public Sector Agencies*, Draft Report, 24 October 1995, p. 89 and Administrative Review Council, *The Contracting Out of Government Services*, Report to the Attorney-General, Report No. 42, August 1998, p. 7.

6 *Return to Order*, Documents Relating to the Design and Construction of a Replacement Research Reactor at Lucas Heights, Tabled by the Minister for Industry, Science and Resources on 8 February 2001 in response to the motion moved by Senator Forshaw on 6 February 2001.

6.7 ANSTO presented evidence to the Committee that indicates that it dedicated considerable time and resources to prepare the ground work for the tendering process. It adopted a two phase acquisition process. The first phase was to pre-qualify suitable reactor vendors.[7]

Pre-Qualification

6.8 This phase, designed to produce a short-list of suitably qualified reactor vendors, started in June and July 1998, when ANSTO advertised for expressions of interest from companies wanting to participate in the Replacement Research Reactor Project (RRRP) whether as a principal or subcontractor. Meetings with interested companies were held in September 1998 to provide additional information about the nature of the project and to facilitate formally the formation of 'tender entities'.[8]

6.9 Eight international companies responded to ANSTO's invitation: General Atomics (US); Hitachi (Japan); Raytheon (US); Skoda (Czech Republic); AECL (Canada); INVAP (Argentina); Siemens (Germany); and Technicatome (France).

6.10 At an early stage, Hitachi announced it would support General Atomics. The seven remaining vendors, who applied to register as 'reactor vendors' were required to undergo an initial selection or pre-qualification process to demonstrate their financial, technical, commercial and management capabilities. According to ANSTO, the vendors were required to establish that they had the knowledge and know-how in relation to the construction of research reactors, reactor technology experience, neutron beam facilities, irradiation facilities, design and development capabilities and operational experience.[9]

6.11 A comparable methodology was applied to the consideration of all applications for pre-qualification. Mr Simon Konecny, from the Australian Government Solicitor (AGS), appointed by ANSTO as a probity auditor, found this process to be 'thorough and fair'.[10] Of the seven companies who applied to be registered as 'reactor vendors', Skoda withdrew from the process and General Atomics and Raytheon did not satisfy ANSTO's criteria and were advised

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7 Report to Tender Selection Committee on the Probity of the Replacement Research Reactor (RRT) Tender Evaluation and Selection Process, 12 May 2000, p. 4.

8 ibid, p. 5; ANSTO's advertisement inviting interested parties to seek pre-qualification for the design and construction of a replacement research reactor. (Additional Information states pre-qualification process commenced in August 1998 with the placement of advertisement).

9 Mr Simon Konecny, *Committee Hansard*, 26 October 2000, p. 195; Report to Tender Selection Committee on the Probity of the Replacement Research Reactor (RRT) Tender Evaluation and Selection Process, 12 May 2000, pp. 4, 6. The role of the AGS as probity auditor was to advise on the propriety of RRRP evaluation and selection processes by reference to Commonwealth Procurement Guidelines.

10 Report to Tender Selection Committee on the Probity of the Replacement Research Reactor (RRT) Tender Evaluation and Selection Process, 12 May 2000, p. 6.

accordingly.[11] The remaining four reactor vendors—namely AECL, INVAP, Siemens, and Technicatome—were pre-qualified in December 1998.

6.12 The Committee notes that this was a pre-qualification process, not a pre-selection process to arrive at a pre-determined number of acceptable reactor vendors. ANSTO advised the Committee that if all six remaining reactor vendors had demonstrated the depth of capability and experience required to match ANSTO's performance needs, it would have gone forward with six pre-qualified reactor vendors into the tendering process.

Preparation of tender documentation

6.13 Having selected the four preferred vendors, ANSTO moved to the next stage of the tendering process. During this early phase ANSTO formulated its tender strategy, prepared documentation that included specifications and developed performance measures. ANSTO prepared a Tender Selection Plan that mapped out the schedule for the selection process.[12]

6.14 The Committee regards the preparation of tender documents as the corner-stone of any tender selection process. The details of the objectives and outcomes are defined and the functional and performance levels expected of the completed project are specified and encapsulated in a statement of requirements, in this case the Request for Tender. This document becomes a key reference point, sets the course of the tendering process and forms the basis of the contract. In large measure, the quality of the decisions made at this early stage governs the success of the contract objectives. The Committee takes this opportunity to stress again that it has been allowed only very limited access to this important document.

6.15 Because of the complex nature of the project, the Committee recognises that the tender documentation for the new research reactor needed to convey accurately ANSTO's expectations. It was important, therefore, for ANSTO to work closely with the vendors to reach a common understanding of the project's objectives.

6.16 ANSTO's account of the tendering process indicates that it took measures to establish good communication with the vendors. As part of the preparation for the Request for Tender, ANSTO issued a draft statement of technical/performance requirements to each vendor for its review and comment. These responses were examined by ANSTO and, where appropriate, incorporated into the Request for Tender. This collaborative approach to developing the Request for Tender was to help ANSTO better clarify its requirements and draft appropriate and effective

11 ANSTO, submission no. 118.

12 ibid, pp. 5-6 and Attachments G and K, part 2. The Australian Government Solicitor has underlined the importance of setting in place management plans for a contract even before any decision has been taken on the selection process, let alone the service provider. He advises: 'there is often an inverse relationship between the amount of time spent in preparing tender and contract conditions and the resources required to deal with problems in contract administration and disputes after the contract has been formed'. Australian Government Solicitor, *Legal Briefing*, no. 35, 20 August 1997.

specifications. ANSTO said that it hoped that in reaching a shared understanding with vendors on agreed outcomes the risk of misunderstandings would be minimised.[13]

Site visits

6.17 Staff from ANSTO and the Department of Industry, Science and Resources (DISR) visited 8 reactors in 6 countries during April 1999.

6.18 As part of the process of preparing the tender documentation, this team conducted site visits to reference facilities that had been nominated by the reactor vendors in April 1999. The team also visited facilities other than the nominated reference reactors. The itinerary included the following facilities:

Reactor Vendor	**Site visited**	**Country**	**Status**
Siemens	MPR 30 FRM 2 BER 2	Indonesia (Batan) Germany (Berlin) Germany (Berlin)	Operating Operating Operating
AECL	HANARO MAPLE 1 & 2	Sth Korea (Seoul) Canada	Operating Under construction
INVAP	ETRR-2	Egypt (Cairo)	Operating[14]
Technicatome	Orphee Osiris	France (ILL, Paris) France (ILL, Paris)	Operating Operating[15]

6.19 According to ANSTO, the purpose of the visits was to obtain up-to-date information from the owner/operators of the various facilities without input from the contractor unless requested. More specifically the objectives were:

13 ANSTO, submission no. 118, pp. 5-6 and Attachment G.

14 A number of questions have been raised throughout the inquiry as to whether or not the Egyptian reactor has been operating satisfactorily and this is addressed later in the chapter.

15 ANSTO, submission no. 118, Attachment J.

- to discuss with owner-operators their experiences in the acquisition and operation of facilities built by the pre-qualified vendors, particularly in relation to the working relationship between vendors and the operators;

- to gain information on the achievement of performance by the vendors;

- to see on the ground the quality and type of engineering design and construction for the pool type reactor; and

- to obtain feedback from the vendors of ANSTO's requirements and proposed contractual process.[16]

ANSTO emphasised that none of the 'reference' reactors was viewed as likely to be an exact model for the reactor to be constructed at Lucas Heights.

Site visits cost

6.20 On 8th February 2001, in response to an order for the production of documents moved by Senator Forshaw and adopted by the Senate, the Minister revealed that the cost of the visits was approximately $70,000.[17]

6.21 In February 2001, Professor Garnett appeared before the Additional Estimates hearings of the Senate Economics Legislation Committee and agreed during questioning by Senator Forshaw that the cost of the visits 'is of the order you have mentioned ($70,000)'. Professor Garnett went on to say that she believed that 'itemised costings of the trip' had indeed been 'probably provided…elsewhere'.[18] Professor Garnett and Senator Eric Abetz (representing the Minister for Industry, Science and Resources) agreed to take the question on notice regarding the true cost of the visit and the request for itemised costings.[19] A response was provided several months later.

6.22 This figure of $70,000 was later confirmed by ANSTO in March 2001 in written answers to questions taken on notice on 9 February 2001 at a public hearing of the Committee in Canberra. In that written answer, ANSTO stated that 'The total cost of the visit to ANSTO was approximately $70,000 which included all international travel, accommodation and living expenses'.[20]

16 ANSTO, submission no. 118A.

17 Statement by the Minister for Industry, Science and Resources, 8 February 2000.

18 Professor Helen Garnett, *Committee Hansard*, 21 February 2001, p. 53.

19 Professor Helen Garnett and Senator Eric Abetz, *Committee Hansard*, 21 February 2001, pp. 53-4.

20 Letter from Mr Steven McIntosh (ANSTO) to Dr Kathleen Dermody (Committee Secretary), regarding questions taken on notice on 9 February 2001, 2 March 2001.

6.23 A month later, ANSTO again wrote to the Committee advising that the original figure of $70,000 was wrong and that the site visits totalled approximately $127,700.

6.24 Subsequently, in a written response, dated 27th April 2001, to a question taken on notice at the Senate Economics Legislation Committee Additional Estimates hearing on 27th February 2001, DISR provided an itemised cost of the visits which amounted to $130,640.[21]

6.25 It is most unfortunate that ANSTO and the Minister provided, and continued to provide over a period of months, incorrect information on the cost of what was an important part of the tendering process. The Committee notes that this is highly unsatisfactory and only adds to the cloud of suspicion over the value and nature of the reference reactor visits.

Purpose and outcome of the visits

6.26 Before the site visits, ANSTO provided a detailed questionnaire to the owner/operators. Most of the operators, with the exceptions of BER 2 and FRM 2 located in Germany, provided written responses to these questions.

6.27 ANSTO reported that at each site it was afforded unrestricted access to the senior owner/operator executive and to the operators of the facility.[22] ANSTO claimed these visits provided members of the team with the opportunity to observe the operation of the facilities, to discuss a range of issues with staff and to raise technical questions on the capability of the reactors, in particular their operation records and matters related to fuel.[23]

6.28 According to ANSTO, the site visits were not only to provide information on the latest available technology and to help it clarify its expectations for the new Australian reactor. They were also of direct relevance to completing the tender documents which were in an advanced draft condition at that stage. As explained by Mr Garry Seaborne, Project Manager, Replacement Research Reactor:

> We were also interested with the owner-operators at the reference sites to get their opinion on our documentation and the sorts of differences in our approach to the approach that had been taken on their contract so that we could glean any information from that as to whether there was anything that we needed to pick up out of the reference site visits and the meetings with

21 Letter from Krishan Singh (DISR) to Peter Hallahan, regarding questions taken on notice on 21 Feburary 2001, 27 April 2001.

22 ANSTO, submission no. 118, p. 19.

23 See comments by Mr Jean-Luc Minguet, *Committee Hansard*, 5 December 2000, p. 427. Professor Garnett explained that 'the purpose of the reference site visit was not just to accept what we had been told by the reactor vendors, as they were at that stage, it was to go and talk first-hand with the owner operators'. *Committee Hansard*, 9 October 2000, p. 15.

> the owner-operators that we needed to reflect back in our tender documentation.[24]

6.29 ANSTO has provided the Committee with only sketchy notes on these site visits. So, although the Committee understands the purpose of the visits and has some idea of the types of questions asked during the inspections, it has been unable to gain any insights into the impressions gained by ANSTO staff during the visits or how those impressions influenced, if at all, their evaluation of the reference reactors.

6.30 Despite numerous requests, there have been no reports of these site visits made available to the Committee. The probity auditor revealed to the Committee that he too '… did not get copies of written reports…', despite discussing the visits with the project manager, Mr Seaborne.[25]

6.31 On 17 October 2000, the Chair of the Committee, Senator Forshaw, wrote to ANSTO seeking:

> All detailed Field Reports, Itineraries and related documents prepared by ANSTO and DISR staff when visiting reference reactor sites overseas including:
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> (a) Indonesia (Siemens)
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> (b) Germany (Siemens – BER 2)
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> (c) Germany (Siemens – FRM 2)
>
> (d) South Korea (AECL)
>
> (e) Canada (AECL)
>
> (f) Egypt (INVAP)
>
> (g) France (Technicatome – Orphee)
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> (h) France (Technicatome – Osiris)[26]

6.32 A response was received from ANSTO dated 27 October 2000. ANSTO failed to produce the Report of the Team as requested. Instead, extracts from an IAEA Directory of Research Reactors and a promotional brochure produced by INVAP was provided. ANSTO also provided a one page document which lists the dates that the team visited each research reactor.[27] The Committee regards the information provided by ANSTO as completely unsatisfactory.

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24 Mr Garry Seaborne, *Committee Hansard*, 9 February 2001, p. 523.

25 Mr Simon Konecny, *Committee Hansard*, 26 October 2000, p. 203.

26 Letter from Senator Michael Forshaw to Professor Helen Garnett, 17 October 2000.

27 Letter from Professor Helen Garnett to Senator Michael Forshaw, 27 October 2000.

6.33 On 7 December 2000, Senator Forshaw gave notice of a motion that the Senate make an order, pursuant to Standing Order 164, for the production of a number of documents relating to the new reactor at Lucas Heights. The Senate adopted this motion on 6 February 2001 and ordered, inter alia, that the same documents as requested in Senator Forshaw's letter regarding the site visits be produced. In addition, the Report of the Team and the costings of the site visits were specifically requested.[28]

6.34 Once again, ANSTO and the Minister refused to provide this information. On 8 February 2001, the Minister for Industry, Science and Resources, Senator Minchin, tabled several documents in response to the order but none of these were associated with the site visits. The Minister cited 'commercial-in-confidence' considerations claiming that: 'The publication of documents relating to the evaluation and comparison of tenders would directly breach undertakings made by ANSTO to all four tenderers in the Request for Tender.' As the Request for Tender was also not provided to the inquiry, the Committee is unable to evaluate this claim.[29]

6.35 As noted earlier, the Minister did reveal that the cost of the trip for the reference visits amounted to approximately $70,000.[30] Detailed in paragraph 6.22, the figure provided by the Minister was incorrect. The real cost of the site visits according to ANSTO amounted to approximately $127,700.[31] This figure was then further revised by DISR to be $130,640.[32]

6.36 At the hearing of the Committee on 9 February 2001, Senator Forshaw asked ANSTO why several documents relating to the site visits had not been made available to the Committee. Mr Garry Seaborne agreed to provide further information on the visits which was not made available previously in response to Senator Forshaw's October 2000 letter or the Senate's order for the production of documents in February 2001. Mr Seaborne said, 'We can certainly provide you with contacts and with times. I think we can even provide you with the sorts of issues that were discussed.'[33]

6.37 Following Senator Forshaw's third request for further information on the site visits, a response was received from ANSTO on 2 March 2001. This response reiterated much of the information which was already known to the Committee through ANSTO's previous submissions to the Committee. Flight times were provided and the cost of the trip was again stated to be $70,000. A very brief summary of each reactor visit was also provided. The information did not contain an evaluation

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28 Notice of motion for the order of production of documents by Senator Michael Forshaw, 7 December 2000.

29 Statement by the Minister for Industry, Science and Resources, 8 February 2000.

30 ibid.

31 Letter from Mr Steven McIntosh (ANSTO) to Dr Kathleen Dermody (Committee Secretary), received 13 March 2001.

32 Letter from Krishan Singh (DISR) to Peter Hallahan, regarding questions taken on notice on 21 February 2001, 27 April 2001.

33 Mr Garry Seaborne, *Committee Hansard*, 9 February 2001, p. 522.

of the sites visited, the reactions and views of ANSTO and DISR staff or how these findings influenced the outcome of the tender process, if at all.[34]

6.38 In summary, the limited information provided is of little assistance to the Committee in meeting its terms of reference. Yet such information is clearly relevant to the Committee's inquiry. Its significance is highlighted by ANSTO itself which noted that the information from the site visits '… was very important in the development of the Request for Tender'.[35]

6.39 The Committee is therefore unable to assess the significance of these site visits and determine how they contributed, if at all, to the process of examining and comparing the experience and quality of each of the competing tenders. The Committee notes that the time spent at each reactor was very short and further that the team did not visit any of the facilities in Argentina.

6.40 The Committee regrets that important information on the site visits was not provided to the Committee, despite repeated requests, or in response to the Senate's order. The refusal by the Minister to comply with the Senate's order has not been satisfactorily justified to the Committee. The Committee believes that the Minister should be censured by the Senate for his failure to comply with the Senate's order.

6.41 It should be noted that ANSTO's refusal to make certain information available to the Committee regarding site visits and other matters will be dealt with in greater detail in chapter 7.

Drafting the tender documents— consultants and advisers

6.42 As noted earlier, the replacement research reactor project is a major undertaking requiring specialised knowledge and experience that cuts across many disciplines. The Committee expects that a project of this nature would require a high level of technical and engineering specialisation from the earliest stages of the tendering process to determine and draw up specifications for the project. Skills needed throughout the tendering process would include knowledge of the nuclear industry, procurement processes, accountability requirements, contract law, financial management and human resource management.[36]

6.43 ANSTO told the Committee that it had assembled a number of specialist groups to manage the complexities of the tendering process. In ANSTO's words, the

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34 Letter from Mr Steven McIntosh (ANSTO) to Dr Kathleen Dermody (Inquiry Secretary), received 2 March 2001.

35 ibid.

36 See for example Joint Committee of Public Accounts and Audit, *Contract Management in the Australian Public Service*, October 2000, pp. 4, 57; Athol Yates, *Government as an informed buyer: recognising technical expertise as a crucial factor in the success of engineering contracts*, discussion paper no. 70, ANU, September 1999.

groups were to form a 'life cycle' of integrated working teams that would develop the Request for Tender and handle all subsequent inquiries. In January 1999, ANSTO commenced the preparation of the Request for Tender using these dedicated teams.[37]

6.44 As an additional measure, ANSTO sought advice from independent people or organisations with knowledge in specialised fields to assist the Tender Evaluation Working Groups. Several specialists worked with ANSTO staff to develop the documentation and formulate an evaluation process.

6.45 A team made up of people external to ANSTO and independent of the process—the Red Team—then reviewed the final draft of the tender documents with a view to assessing quality, appropriateness and fitness for purpose. In brief, Air Vice Marshal Tidd, leader of the team, stated that the Red Team was to establish the coherence of the draft tender and to act as a quality check to ensure that bidders understood the process.[38] The Red Team's comments were incorporated in the final version of the Request for Tender.

6.46 In tandem with preparing the tender documentation, ANSTO was formulating its approach to evaluating tenders. Again it drew on experts from relevant fields. For example, ANSTO engaged Grantherne Pty Ltd, Risk Engineers, to work directly with each Tender Evaluation Working Group to develop and refine 'a practical and consistent approach to evaluating risks identified in the tender evaluation process'.[39]

6.47 The probity auditor, who monitored the evaluation strategies and methodologies developed during this planning stage, found that the preparation for the evaluation was thorough.[40]

6.48 As noted earlier, the Committee does not have in its possession key tender documents and thus has been unable to question ANSTO during its public hearings on the contents of these documents. Nonetheless, from the available evidence, the Committee acknowledges that ANSTO formulated a strategy aimed at establishing clear understandings between the purchaser and supplier and that documents such as the Principal's Project Requirements were designed to provide the information that would allow the vendors to demonstrate their ability to meet ANSTO's specifications.

Formal tender phase

Preparing and submitting tenders

6.49 The second stage of the project was the formal tender phase. ANSTO issued tender documents after the Parliamentary Standing Committee on Public Works had approved the Replacement Research Reactor Project in July 1999. At this stage each

37 ANSTO, submission no. 118 and Attachment G.

38 Air Vice Marshal Donald Tidd, *Committee Hansard*, 4 December 2000, p. 394.

39 ANSTO, Additional Information in response to questions on notice, 31 October 2000, question no. 68.

40 Mr Simon Konecny, *Committee Hansard*, 26 October 2000, pp. 196, 198.

pre-qualified reactor vendor either alone or in conjunction with an Australian joint venture partner prepared and submitted its tender. Part of the tender documentation issued by ANSTO was a detailed list of performance outcomes. Tenderers were required to provide comprehensive responses to the Principal's Project Requirements in their tender responses.[41]

6.50 To ensure that the vendors were clear about ANSTO's expectations and to assist them in preparing their tenders, ANSTO held a tender briefing within a week of issuing the Request for Tender. It was conducted as a combined forum, followed by individual meetings with each tenderer.[42]

6.51 According to ANSTO, tenderers were given ample opportunity to discuss any problems they had with the documentation and were allowed to ask questions on the tender documents. In all, ANSTO responded to nearly 500 requests for clarification. ANSTO told the Committee that to ensure impartiality and openness in their dealings with the vendors, it circulated the questions and answers to each tenderer.[43]

6.52 There was also a mid-term tender preparation review meeting during which ANSTO provided guidance 'where it was felt that the tenderer was not addressing the intent of the tender deliverable adequately'. Mr Garry Seaborne explained to the Committee:

> We took the approach right through the process that we would be very open and transparent with each tenderer to give everybody the best opportunity to offer the best they could so that, at the end of the process, there were no surprises either for them or for us.[44]

6.53 In September-October 1999, vendors also took part in a detailed geo-technical site investigation organised by ANSTO. According to ANSTO, it undertook this measure:

> …to mitigate the effects of a common and potentially significant issue in civil engineering projects where the cost and schedule effects related to sub-surface site conditions are undetermined at the time tenders are submitted, and remain so when contracts are awarded. This situation increases the level of risk borne by tenderers, and tender prices are increased correspondingly.[45]

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41 ANSTO, Report to Tender Selection Committee on the Probity of the Replacement Research Reactor (RRT) Tender Evaluation and Selection Process, 12 May 2000.

42 ANSTO, submission no. 118, p. 8.

43 ibid, p. 9.

44 Mr Garry Seaborne, *Committee Hansard*, 9 October 2000, p. 11.

45 ANSTO, submission no. 118, p. 9.

6.54 In summary, the Committee understands that ANSTO's planning and the measures it took to keep vendors informed during this preliminary stage greatly assisted the bidders to prepare, price and lodge their tenders.

The evaluation stage

Compliance Review

6.55 Tender responses were received by the closing date from AECL in association with Theiss Contractors (AECL); INVAP in association with John Hollands (INVAP); Siemens in joint venture with Transfield (STJV); and Technicatome in joint venture with Baulderstone Hornibrook (TBHJV).[46]

6.56 They were opened on 3 January 2000 in the presence of the Project Manager, ANSTO's Director of Corporate Services, Contracts and Supply Manager, the internal auditor and the probity auditor. The tender responses were formally registered and financial proposals separated from the tender responses and held in confidence until completion of the qualitative evaluation. Air Vice Marshal Tidd explained that the Tender Evaluation Working Groups had no knowledge of the pricing component of the tenders.[47] A preliminary review of tender responses to determine compliance with all basic information requirements of the Request for Tender was undertaken immediately after the opening of tenders.

6.57 The probity auditor found that all the requirements of the Tender Selection Plan in regards to the receipt and opening of tenders were complied with.[48]

Qualitative evaluation

6.58 The evaluation of the tenders now started in earnest and was undertaken in two stages. The first part was a qualitative evaluation. The Committee recognises that the onus at this stage was on ANSTO to make certain that the information provided by the tenderers was grounded in fact.

6.59 ANSTO called on a high level of technical expertise to help prepare for the evaluation. It informed the Committee that a total of over 50 ANSTO and expert consultant personnel were involved in the direct evaluation and clarification activities.[49] According to ANSTO, it engaged experts in the fields of nuclear engineering, risk engineering, geotechnical assessment, legal and commercial contracting, and integrated logistics support services, to work within and in

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46 Report to Tender Selection Committee on the Probity of the Replacement Research Reactor (RRT) Tender Evaluation and Selection Process, 12 May 2000.

47 Air Vice Marshal Donald Tidd, *Committee Hansard*, 4 December 2000, p. 392.

48 Report to Tender Selection Committee on the Probity of the Replacement Research Reactor (RRT) Tender Evaluation and Selection Process, 12 May 2000, p. 6.

49 ANSTO, *Additional Information*, 31 October 2000, p. 24.

conjunction with ANSTO's teams throughout the preparation of the Request for Tender and indeed, the entire tender process.[50]

6.60 At the beginning of this qualitative evaluation, tender requirements were broken up into sections or 'books' on the basis of technical, commercial, financial and safety and licensing criteria. Responsibility for the evaluation of particular books was assigned to a nominated Tender Evaluation Working Group (TEWG) deemed by ANSTO to have the necessary knowledge, expertise and technical competencies to undertake a qualitative evaluation of that particular book. In other words, a small group of experts formed a TEWG which tested the veracity of specific claims made by the bidders.

6.61 ANSTO put together nine TEWGs who were to check the extent to which the tenders satisfied ANSTO's requirements. Six of the working groups looked at the design/technical and performance aspects for each tender. The teams and their designated areas of responsibility were:

- TI—reactor, irradiation facilities and beam facilities (this team evaluated reactor and beam facilities performance by modelling and correlating the claimed performance of each tenderer against ANSTO's baseline);
- T2—waste management, operational environmental management and decommissioning;
- T3—instrumentation and control, electric power, operations and integrated logistics support;
- T4—documentation, project quality assurance and facility management system;
- T5—construction, buildings and structures, and security; and
- T6—design, reactor cooling systems, fuel handling and storage, auxiliary systems and commissioning.

The three remaining TEWGs dealt respectively with safety and licensing, commercial, and financial or pricing aspects.[51]

6.62 In looking at their particular area, each group assessed its section of the tender against pre-set criteria and attributes.[52] The probity auditor explained that in evaluating their designated area, each group was required to determine the relative importance of each attribute and then allocate a score to it. At first, scoring was decided solely on the basis of performance, and then adjusted for risk on the basis of TEWG instructions. Finally, in accordance with determinations made on the relative

50 ANSTO, submission no. 118, p. 9.

51 ANSTO, *Additional Information*, 31 October 2000, pp. 23–4. The financial proposals were not distributed at this time.

52 Mr Simon Konecny, *Committee Hansard*, 26 October 2000, p. 196.

importance of the various attributes, weightings were applied to determine a score for the book.[53]

6.63 Where considered appropriate, ANSTO conducted computer modelling. As explained by Professor Garnett:

> We did use modelling; but when we modelled things and came to answers that were different to what the tenderers proposed in their information, we sent that information back to them and asked if they agreed or disagreed or if they would like to confirm the issues.[54]

Computer modelling will be discussed later in the chapter.

6.64 The initial evaluation process commenced on 10 January and concluded on 5 March 1999. This process was immediately followed by a clarification process that involved face to face meetings between each vendor and ANSTO, and which covered every aspect of each tender proposal.[55]

Clarification process

6.65 The probity auditor explained that, given the 'design and construct' strategy for the delivery of the project, it was reasonable to expect that there would need to be opportunities for tenderers to clarify their tender responses. Further:

> …the project had adopted the position that given the investments made by the tenderers and the need to maximise the competitive pressure between tender responses all reasonable efforts were to be made to achieve tenderer compliance with all mandatory conditions of the tender requirements.[56]

6.66 During the clarification process, up to six days of meetings were held with each tenderer leading to a documented and agreed position on the technical and commercial content of each tender. Following the completion of the clarification process, each tenderer was invited to submit a Supplementary Pricing Proposal to take account of the agreed changes to their design/technical and performance related proposals.[57] The probity auditor informed the Committee that this supplementary

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53 Report to Tender Selection Committee on the Probity of the Replacement Research Reactor (RRT) Tender Evaluation and Selection Process, 12 May 2000, p. 7.

54 Professor Helen Garnett, *Committee Hansard*, 9 October 2000, p. 12.

55 ANSTO, *Additional Information*, 31 October 2000, p. 25.

56 Report to Tender Selection Committee on the Probity of the Replacement Research Reactor (RRT) Tender Evaluation and Selection Process, 12 May 2000, p. 8. The tenderer's rights to clarify tender responses were reserved in the tender conditions. The procedures to deal with question and answer and clarification issues were set out in the Tender Evaluation Procedure, the Project Directive and were developed during the course of the evaluation.

57 ANSTO, *Additional Information*, 31 October 2000, p. 25.

pricing proposal was to have clear identifiable links back to the original pricing proposal.[58]

6.67 ANSTO told the Committee that the evaluation and clarification process was conducted and audited in accordance with detailed procedures which had been developed by the ANSTO project management core team, reviewed by the Australian National Audit Office and approved by the probity auditor prior to the opening of tenders on 3 January 2000.[59]

6.68 Because of modifications to the tenders arising from the clarification process, the TEWGs adjusted both their initial performance scores and risk adjustment scores of the tender responses.[60]

6.69 A final risk assessment was completed separately by the nine Evaluation Team Leaders. At the end of this stage of the evaluation process, each Tender Evaluation Team Leader made a report and submitted it to the Project Manager, who convened a meeting of the Tender Evaluation Management Group (TEMG). This group comprised the Project Manager; the Technical/Design/Performance Team Leader; the Safety Team Leader; the Commercial Team Leader; and the Financial Team Leader.[61]

Comparative review

6.70 The TEMG undertook a comparative review of the tender responses between 2 and 4 May 2000 to select a preferred tender and rank the remaining tenders.[62] According to the probity auditor, the TEMG assessed the strengths and weaknesses of each tender as a consequence of the qualitative evaluation by the TEWGs and looked at each bid against the others taking into account 'the totality of all of the individual evaluations undertaken by the TEWGs'. This process was designed to draw together the assessments and comments by the specialist working groups.

6.71 The financial evaluation was factored into the comparative evaluations after completion of the evaluation for technical, safety and licensing and commercial matters. It took into account the adjustments made to establish comparable tender responses. It should be noted that none of the TEWGs, apart from the finance one, had

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58 The probity auditor found that care was taken at this time to avoid prompting or placing undue influence on tenderers and to standardise the format of both the questions posed and the clarification meetings. See Report to Tender Selection Committee on the Probity of the Replacement Research Reactor (RRT) Tender Evaluation and Selection Process, 12 May 2000, p. 8.

59 ANSTO, *Additional Information*, 31 October 2000, p. 24.

60 Report to Tender Selection Committee on the Probity of the Replacement Research Reactor (RRT) Tender Evaluation and Selection Process, 12 May 2000, p. 8. According to the probity auditor, in most instances the adjustments were marginal but in some instances they were more significant.

61 ANSTO, *Additional Information*, 31 October 2000, p. 25.

62 Report to Tender Selection Committee on the Probity of the Replacement Research Reactor (RRT) Tender Evaluation and Selection Process, 12 May 2000, pp. 4–5.

seen the cost aspect of the tenders. According to Air Vice Marshal Tidd, 'they had no understanding of the pricing at all; it was a closely guarded secret—and that was part of ANSTO's strategy'.[63]

Final recommendation

6.72 Based on the independent Team Leader Reports and the questions and answers which had taken place in relation to each report, the Project Manager proposed the recommendation of the preferred tender and the confirmation of the less preferred tenders.[64]

Overall assessment of the tendering process

6.73 Those involved in the tendering process, particularly the three auditors addressing separately probity, process and risk, have spoken positively about it and, in particular, have remarked on the planning and forethought that went into it. For example, the process auditor told the Committee:

> …the project documentation was very concise and clear; the personnel involved well understood their responsibilities; communication with tenderers was controlled; and control of documentation was done very well. With regard to detailed evaluation of tenders, it was diligently performed in assessing compliance of each bid with the tender requirements. It was fair and consistent. There was risk determination which utilised the Australian standard and professional advice. The clarification process was fairly done and equal to all, with no negotiation. ANSTO meetings were conducted regularly. With the supplementary pricing proposal, all bidders were provided with detailed requirements.[65]

6.74 Moreover, the view of the two unsuccessful tenderers who made submissions bears out the auditor's assessment. Whilst critical of the outcome, they did acknowledge that the process was competently managed.

6.75 Technicatome acknowledged ANSTO's professionalism in organisation and scheduling and also that it maintained the correct distance with the bidders to ensure neutrality in the process.

The probity of the tendering process

6.76 This report, although not directly, has already drawn on comments by the three auditors of the tendering process which indicate to them that it was carried out with integrity. The auditors fulfilled the role that they were required to undertake.

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63 Air Vice Marshal Donald Tidd, *Committee Hansard*, 4 December 2000, p. 392.

64 ANSTO, submission no. 118, Attachment G.

65 Air Vice Marshal Donald Tidd, *Committee Hansard*, 4 December 2000, p. 390.

6.77 The probity auditor found that the tender responses had been evaluated in a fair, comparable and exhaustive manner.[66] He believed that the tender evaluation working groups were methodical in their evaluation of the tenders and in testing the veracity of the claims made by the tenderers.[67] He found 'substantial compliance by the tender evaluation working groups and the tender evaluation management group with the requirements of the evaluation documentation'.[68]

6.78 However, Mr Konecny confirmed to the Committee that his role as probity auditor was '… not really to test the veracity of the information that was provided by the bidders'. He went on to say 'That is done by the tender evaluation working groups', which he later agreed were mostly made up of experts from within ANSTO itself.[69]

6.79 ANSTO also appointed a Tender Selection Review Committee to review the performance of the tendering process. This Committee had close ANSTO and DISR links. The Chair of the Committee, Mr Michael Codd, is also the Deputy Chair of the ANSTO Board. It found that the Tender Evaluation Work Group assessment had adhered to the process which yielded a fair and impartial evaluation of all four tenders, and that they and the TEMG had complied with instructions in the project documentation.[70] However, this Committee likewise, did not examine the technical aspects of the vendors.

6.80 ANSTO were keen to promote the reports of Mr Konecny and the Tender Selection Review Committee as evidence of integrity throughout this process. However, as Mr Konecny's testimony before the Committee demonstrates, he was not in a position to verify and validate the vendor's proposals:

> **CHAIR** – So at the end of the day you are relying upon the reports you were given by the working groups to show that they had done the work.
>
> **Mr Konecny** – They are the experts. It was not my role to second-guess the experts.[71]

In summary, the probity auditor and the Tender Selection Review Committee did not exhaustively examine the technical nature of the proposals in detail. The Committee

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66 Report to Tender Selection Committee on the Probity of the Replacement Research Reactor (RRT) Tender Evaluation and Selection Process, 12 May 2000, p. 8; and, Mr Simon Konecny, *Committee Hansard*, 26 October 2000, p. 196. The probity auditor audited the activities of the tender evaluation working groups, attended weekly meetings of the leaders of the TEWGs and the comparative review undertaken by the TEMG.

67 Mr Simon Konecny, *Committee Hansard*, 26 October 2000, p. 196.

68 ibid, pp. 196–7.

69 ibid, pp. 197–8.

70 ANSTO, Replacement Research Reactor Project, *Report of the Tender Selection Review Committee*, 13 May 2000, p. 4. Reprinted at Attachment F, ANSTO, submission no. 118.

71 Mr Simon Konecny, *Committee Hansard*, 26 October 2000, p. 202.

finds that they fulfilled their functions as established by ANSTO. Their role was not to address the technical competence of the bidders. The probity auditor relied on the information provided to him by ANSTO.

6.81 The Committee believes that a more independent and arms length process should have been established from the outset to oversee the tender selection and evaluation process.

Evaluating the evaluation

6.82 Under its terms of reference, the Committee is to review how the economic, environmental and public health impacts were considered during the tendering process.

6.83 ANSTO provided the Committee with a detailed and comprehensive account of the actual tendering process from the pre-qualification stage to the final recommendation. This, however, only described the *process* which the Committee acknowledges was well-planned, objective and fair. ANSTO fell short, however, in providing information on the content of the bids and the criteria used to evaluate them. For example, the Committee has been presented with extensive detail on the evaluation procedures followed by the TEWGs but little information on the priorities established in assigning scores and the relative weights given to matters such as economic, environmental and public health impacts in assessing the tenders.

6.84 In particular, ANSTO's brief explanation of how economic, environmental and public health matters were addressed adds little to the Committee's understanding of how ANSTO went about the actual evaluation of the tenders. It stated:

> An exhaustive consideration of economic, environmental and public health impacts of a research reactor at Lucas Heights was undertaken during:
>
> - the process of government consideration of the proposal to authorise the construction of the reactor;
> - the Environmental Impact Statement (EIS) process; and
> - the assessment by ARPANSA of ANSTO's application for a site licence.
>
> In addition, all EIS and ARPANSA Site Licence conditions were included in the tender requirements. During the tender assessment, the ability of the tenderers to meet the public health and environmental conditions was assessed in detail in respect of each of the possible means by which environmental and public health impacts could arise.[72]

72 ANSTO, submission no. 118, pp. 12–13.

6.85 Apart from this broad assertion, the Committee draws heavily on the information presented by ANSTO in describing the evaluation process and applies it specifically to economic, environmental and public health matters. Thus according to ANSTO, the assessment for economic, environmental and health matters would have been subject to a methodical and detailed 'bottom up' evaluation, clause by clause of the tender documentation by the TEWGs against ANSTO's request for tender requirements.

6.86 From the evidence presented by ANSTO, the Committee understands that each group in assessing its designated section determined the relative importance of each criterion and then allocated a score to it on the basis of performance. This score was further adjusted for risk. In regard to environmental and health impacts, the Committee is aware of some of the specifications that the tenders were to address and to be measured against.[73] Indeed, according to ANSTO, compliance with all undertakings and commitments given by ANSTO within the EIS and all relevant recommendations from the Minister for the Environment and Heritage was a mandatory component of the tender process and is part of the contractual arrangements. These requirements are very detailed and given at Appendix 3. That evaluation would in turn have been assessed in a 'top down' manner by the TEMG.[74]

6.87 On the safety issues, the probity auditor explained that the financial evaluation was factored into the comparative evaluations only after the completion of the evaluation for technical, safety and licensing and commercial matters. In his opinion this resulted in technical and safety and licensing issues being the main drivers of the determination of the preferred tenderer.[75] ANSTO has underlined this point. It submitted:

> Safety was and remains a condition precedent in the tendering and contracting of the replacement research reactor, i.e. it took absolute precedence over all other evaluation criteria.[76]

6.88 The Committee has no direct knowledge of the weightings given by the TEWGs to different attributes, or how scores were standardised and then ranked during the comparative stage. In ascertaining how ANSTO considered economic, environmental and public health matters during the tendering process, the Committee can not go much beyond a general description of the process followed by the TEWGs responsible for these particular areas.

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73 ARPANSA, did not have a role in the tendering process, other than to inform ANSTO and the tenderers about the regulatory review and safety requirements and related issues. Dr Loy assumed that the tender requirements would include the necessity for the vendors to demonstrate that they would be able to meet the safety requirements that Australia would be expected to apply. See ARPANSA, submission no. 144, p. 2; Dr John Loy, *Committee Hansard*, 26 October 2000, pp. 233, 234 and 235.

74 See for example, ANSTO, submission no. 118A, p. 25.

75 Report to Tender Selection Committee on the Probity of the Replacement Research Reactor (RRT) Tender Evaluation and Selection Process, 12 May 2000, p. 11.

76 ANSTO, submission no. 118A, p. 22.

Functional performance specifications and risk

6.89 The Committee now looks more closely at the evaluation process and the particular problems facing those charged with the responsibility to select the best tender. During the evaluation stage, some of the technical TEWGs had the task of analysing and comparing different engineering and technical options for the design and construction of a multi-purpose research reactor presented by the four tenderers. There were particular risks with this evaluation.

6.90 ANSTO did not attempt to write a detailed technical specification; that is effectively telling the tenderers what to do and how to do it, irrespective of the tenderer's experience. Rather, ANSTO developed a statement of requirements (the Principal's Project Requirements), which provided the boundary conditions, codes, standards and practice, and performance objectives to be met by the ultimate contractor. The Committee understands that the vendors would be assessed against this set of performance criteria and thus ANSTO's task in establishing the accuracy and reliability of the claims made by the tenders would become more difficult.

6.91 Air Vice Marshal Tidd, the process auditor and leader of the Red Team, also highlighted the advantages in specifying functional performance as a tender requirement. He explained:

> If you were tempted to be too explicit, bearing in mind that specifications written by engineers can range from the broadly functional to the very detailed, if you are pursuing the latest technology that is available on the market, you really need to give the bidders the maximum latitude in terms of what they can propose to meet your functional requirements…So a functional performance specification works pretty well and you can take advantage of what can be available in the market.[77]

6.92 He cautioned however, that in pursuing the latest technology 'you find quite often that what the salesmen tell you is not quite true in practice'. He noted that although the basic aspects of nuclear physics are well known there is nonetheless some risk in setting functional requirements and looking for the vendor to design a facility that will perform to such requirements.

6.93 Moreover, there was the particular risk that the vendor would have greater understanding and knowledge about the details of the proposal than ANSTO. Mr Tony Wood, a retired ANSTO engineer, highlighted this concern when he suggested that the buyer of a reactor is 'in the hands, to a fair degree, of the vendor'.[78]

6.94 The Committee recognises that the approach taken by ANSTO in developing a statement of performance requirements encouraged vendors to be forward looking and innovative in designing their proposal, but, conversely, that it made the task of

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77 Air Vice Marshal Donald Tidd, *Committee Hansard*, 4 December 2000, p. 399.

78 Mr Tony Wood, *Committee Hansard*, 25 October 2000, p. 146.

assessing the tenders more difficult. For this reason risk management was an essential part of the process.[79]

6.95 The risk auditor appointed by ANSTO to oversee the tendering process of the replacement research reactor project, defined risk as anything that may stop the project achieving its objectives, including the need to deliver on time, to be within budget, to operate to specification with support from the community, and to deliver value for money.[80]

6.96 ANSTO explains that a risk based approach was taken when designing the tender evaluation process. According to the Tender Selection Review Committee, the TEWGs were trained in risk assessment procedures developed during the early period and understood and followed them during the formal evaluation phase.[81] Each TEWG had particular issues that they had to address such as technical and commercial issues. The risk auditor explained that for each issue:

> …there was a risk based assessment process which looked at how they may be evaluated in terms of their delivery, but then putting a risk focus on it and saying 'How confident are we that they can actually deliver that? [82]

6.97 The tenders were being evaluated in terms 'of performance against the objectives of cost, schedule and performance, making sure that each tenderer could actually deliver the specification in the tender documents'.[83]

6.98 Having decided whether the tenderer could deliver on each component, the TEWG then ranked them accordingly. Mr Clark explained 'if they cannot demonstrate performance, then obviously there may be a risk to us in terms of schedule or performance or whatever'.[84]

6.99 The risk auditor concluded that the process was designed to mitigate risk and he was confident that the risk focus that ANSTO placed on this project was best practice. Finally, the Tender Selection Review Committee was satisfied that 'risk evaluation was applied consistently across all vendors, and that there was an effective

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79 Refer to the general view of Athol Yates, *Government as an informed buyer: Recognising technical expertise as a crucial factor in the success of engineering contracts*, Discussion Paper no. 70, ANU, September 1999. He writes of the need 'to analyse and compare radically different engineering options, to select and justify the option which offers the best value for money, and to challenge inappropriate variations claimed by the contractor'. See Australian Government Solicitor, *Legal Briefing*, No. 35, 20 August 1977 who advises that 'effective risk management should underpin all aspects of contracting. A risk management strategy should be developed at an early stage under which risks are identified, assessed and taken into account in the tender and contract provisions'.

80 Mr Dennis Clark, *Committee Hansard*, 27 October 2000, p. 331.

81 See ANSTO, Replacement Research Reactor Project, *Report of the Tender Selection Review Committee*, 13 May 2000, p. 4. Reprinted at Attachment F, ANSTO, submission no. 118.

82 Mr Dennis Clark, *Committee Hansard*, 27 October 2000, p. 328.

83 ibid.

84 ibid, p. 331.

process of developing risk profiles from the "bottom-up" complemented by a "top-down" review'.[85]

Other approaches to the tender process

6.100 Given that ANSTO staff have never before been involved in acquiring a new nuclear research reactor, questions were asked during the Committee's hearings as to why an outside expert body was not established to conduct the tender process. An outside body with no links to ANSTO or DISR could have engaged international experts and Australia's scientific and research community throughout the tender process.

6.101 ANSTO appeared before the Senate Economics Legislation Committee Additional Estimates hearings on 21 February 2001. A number of questions regarding the decision not to outsource the tender process from ANSTO were asked at this hearing.[86]

6.102 Senator Abetz, representing the Minister for Industry, Science and Resources, acknowledged that generally governments have outsourced tender processes for large scale capital works. Also, when asked if this was ever considered, Professor Garnett revealed to the Committee that it had. However, in the end it was agreed to use internal and external expertise throughout the tender process which was controlled by ANSTO.

Criticism of the outcome

6.103 Although Technicatome and Siemens acknowledged the thorough planning and probity of the evaluation process, they were not convinced that the evaluation process produced the best outcome. Their opinions are valuable as they witnessed and participated in the selection and evaluation process from start to finish.

6.104 Technicatome believes that the process lacked synergy and that the work undertaken by the separate evaluation teams during the qualitative evaluation phase was not well integrated into the comparative evaluation. Mr Herve Guillou, Managing Director, Technicatome, told the Committee that the evaluation process had been completely split into dozens of different small teams. Further he said that they had seen no evidence of 'any overall architectural assessment of the design, putting all the pieces together.' He submitted:

> ANSTO itself told us during a debriefing in early August that it had not put back together all these little pieces to check if it were putting together the

85 ANSTO, Replacement Research Reactor Project, *Report of the Tender Selection Review Committee*, 13 May 2000, p. 4. Reprinted at Attachment F, ANSTO, submission no. 118.

86 *Committee Hansard*, 21 February 2001, p. 53.

> best overall design—compared with small, limited evaluations on specific items.[87]

6.105 Technicatome also raised concerns about the focus of this process. It maintained that the important questions concentrated mainly on two aspects:

- the status of compliance based on the demand for formal written statements of compliance; and
- the theoretical assessment of performance, but mainly based on scientific calculations, and not on proven experience as asked by the tender documentation.[88]

6.106 According to Technicatome, its view was confirmed during the debriefing in August 2000 when it was told that the tenders were 'mainly assessed on a paper basis, based on ratings given by separate assessors working each on different chapters'.[89] In its opinion, this focus could create a risk that some important matters were not sufficiently considered in the preparation of the final ranking, such as the durability of the proposed technologies, and the real level of safety and the construction experience in the proposed solutions.

6.107 Along similar lines, Siemens, although impressed from the outset by the intensity and thoroughness of the process, expressed reservations about whether the best tenderer succeeded. It submitted:

> STJV expected the exacting comprehensive process to reveal both proven adequacies and unsubstantiated statements describing prescribed technical solutions, either when made by experienced engineers/scientists or by experts that have never previously designed a research reactor of that high standard. [90]

It considered the process failed to reveal such inadequacies in meeting the state-of-the-art criteria.

6.108 The criticism by Technicatome and Siemens turns on a key point—the value given to proven performance as against theoretical solutions. ANSTO, however, believed that it had placed a high value on experience and proven ability. Its stated objectives in the process of selecting the prime contractor were to:

- choose the most experienced and best resourced prime contractor capable of delivering the project outcomes with the minimum of technical, commercial, contractual and schedule risk;

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87 Mr Herve Guillou, *Committee Hansard*, 5 December 2000, p. 428.

88 Technicatome, submission no. 120.

89 ibid.

90 Siemens, submission no. 78.

- adopt a proven design tailored to meet ANSTO's requirements;
- choose a prime contractor with the proven ability to manage successfully the integration of all components of the project; and
- meet or reduce the project cost budget and the schedule objectives.[91]

6.109 Technicatome acknowledges that ANSTO placed before the tenderers a clear demand for 'high performance proven solutions, with a clear emphasis on the availability and proven record of the reactor design proposed by the tenderer'.[92] It suggests, however, that the actual evaluation was not in accord with this objective.

6.110 Technicatome maintained that it had not only the design capabilities but also the corresponding level of validation through its experience in operating the research reactor ORPHEE. In its opinion, it had the proven industrial technologies available for all the critical parts of the reactor both in the French Atomic Energy Commission and in the industrial group involved in the tender. This applied to critical mechanical equipment such as the reactor block structures, the fuel, the cold neutron and hot neutron sources, and the neutron guides. Technicatome indicated that most of the reference reactors of the other competitors had, at that stage, no installed neutron sources or equipped neutron guide hall. It assumed, therefore, that it had a decisive advantage over its competitors that would offer ANSTO facilitated access to a well experienced scientific community.

6.111 Mr Jean-Luc Minguet, Project Manager, Technicatome, explained further that his company had met all the criteria for the tender, but, in his opinion, the major issue for not being selected was 'a lack of theoretical performance'. He stated:

> We were surprised because, in terms of neutron guide performance, we were compared to people who have never built—I am speaking about INVAP, the selected tenderer, of course. All the other aspects of our tender were considered to be satisfactory, with two very good points: the safety philosophy of our design and the fact that we had proven technology. Our capability to manage the project was also considered to be of a very high standard.[93]

Computer modelling

6.112 This issue of proven experience leads to the matter of computer modelling. Mr Minguet noted that Technicatome personnel were questioned mostly on theoretical aspects and preferences and that ANSTO people were performing calculations with

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91 Parliamentary Standing Committee on Public Works, *Proposed Replacement Nuclear Research Reactor, Lucas Heights, NSW*, 12 August 1999, pp. 115–116.

92 Technicatome, submission no. 120.

93 Mr Jean-Luc Minguet, *Committee Hansard*, 5 December 2000, p. 431.

models. In his view 'there can be strong differences between theoretical calculations and the results at the end'.[94]

Mr Guillou elaborated on this point:

> …you need performance that is guaranteed in service and not the sort of one-shot performance the day the reactor is commissioned. That is a key to the evaluation made: that we guess we have been evaluated with proven performance with modelling but downgraded with proven experienced design, as we believed the invitation to tender asked for. It asked for proven design, and this performance has been compared against purely theoretical modelling, not tuned down with experience and in service through real life.[95]

6.113 Mr Konecny, the probity auditor, rejected this suggestion. He told the Committee that experience was definitely an issue taken into account in the TEWGs. He went on to state:

> …but information was also required and it was necessary to test the veracity of the solutions that were being offered. It was a performance specification. It was up to the bidders to provide a solution to the various requirements that ANSTO had. Certainly, experience elsewhere was something that was taken into account by the TEWGs, but ANSTO also wanted other information to be able to assure themselves that the solution being offered in this instance was viable. I do not think it is a correct statement to say that past experience or their experience elsewhere was not taken into account, because it certainly was.[96]

6.114 ANSTO reminded the Committee that the vendors and ANSTO had agreed that it would be looking for 'the best performance possible'.[97] In its supplementary submission, ANSTO underlined the point that the research reactor project 'is essentially a performance-based contract'. It stressed that ANSTO had to be in a position to assure itself 'to the maximum extent possible, that the performance offered by the tenders, was in fact achievable'. To do so, ANSTO argued that it used a balanced combination of:

- a demonstration of experience and an ability to deliver design performance to a designated level on previous, similar project(s);

- a demonstration of traceability to proven and relevant 'reference' site designs; and

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94 Mr Jean-Luc Minguet, *Committee Hansard*, 5 December 2000, p. 428.

95 Mr Herve Guillou, *Committee Hansard*, 5 December 2000, p. 428.

96 Mr Simon Konecny, *Committee Hansard*, 26 October 2000, p. 205.

97 Mr Garry Seaborne, *Committee Hansard*, 9 February 2001, p. 537.

- predictive performance modelling.[98]

6.115 ANSTO further submitted:

> Computer modelling was used on the research reactor project to predict the performance of the reactor core under operating conditions. The modelling was essential in order to give ANSTO a higher level of confidence that the performance levels being promised by each tenderer were they to be selected were in fact achievable, and that ANSTO could achieve an acceptable degree of correlation with the modelling results provided by each tenderer. The modelling delivered to ANSTO a capacity to assess the tenderers' claims, and was part of an interactive process with each tenderer.[99]

6.116 Nevertheless, questions remain about ANSTO's use of computer modelling and how it reconciled this with proven experience. The Committee is left in the unsatisfactory position of being unable comment on how this approach worked out in practice.

6.117 This matter of assessing performance goes directly to the question about the checks made of the vendors. The Committee considers this matter at greater depth by looking specifically at the checks made of the successful tenderer INVAP.

Checks of INVAP's record

6.118 As discussed above, a number of participants were concerned that, during the evaluation process, insufficient attention was given to experience and proven performance.[100] The Department of Finance and Administration offers the following advice on competitive tendering and contracting:

> Risk can be minimised through a rigorous selection process that includes checking the record of past performance, quality assurance procedures and corporate capacity. The tender evaluation committee should have a mix of skills and have access to legal and financial expertise.[101]

6.119 INVAP S.E is a State Corporation that has links to the Argentine National Commission for Atomic Energy (CNEA). INVAP's business interests span nuclear technology, space technology, medical therapy and environmental technology.[102] It has worked for fifty years to develop Argentina's domestic nuclear technology as well as undertaking projects in Algeria, Cuba, Egypt, India, Iran, Peru, Romania and

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98 ANSTO, submission no. 118A, pp. 24–25.

99 ibid, p. 25.

100 Mr Neil Macdonald, submission no. 10.

101 Joint Committee of Public Accounts and Audit, *Contract Management in the Australian Public Service*, October 2000, p. 83.

102 ANSTO website, ' Preferred Tenderer for ANSTO's Replacement Reactor', Media Release, 6 June 2000, http://www.ansto.gov.au/info/press/2000_06.html (17 August 2000).

Turkey. INVAP points to this experience as evidence of its standing in the international nuclear community. [103]

6.120 A number of submissions, however, expressed a lack of confidence in INVAP and referred to what they called its 'bad track record'. These submissions were from a number of individuals and organisations including the Catholics in Coalition for Justice and Peace and the WA Branch of the Medical Association for Prevention of War. Several of these submissions asked that the company be independently investigated.[104]

6.121 In the submissions a series of claims about INVAP were raised which include an alleged agreement with Iran to replace the core of its nuclear research reactor, an alleged prosecution in Argentina for illegal testing (on a prototype nuclear reactor), alleged deals to build nuclear reactors with Iran and Zimbabwe and INVAP's alleged precarious financial standing before winning this contract.[105]

6.122 The Committee was unable to conclusively resolve these allegations in one way or another, but remains concerned that they directly call into question INVAP's ability to meet the specifications set down by ANSTO in the tender documents.

6.123 A number of people expressed surprise, even among the Academy of Science, when the government announced INVAP as the successful tender.[106] Mr Tony Wood, a retired nuclear engineer, was concerned about what he perceived as INVAP's lack of experience in designing and constructing research reactors. He stated:

> …the literature does not support the minister's claim that INVAP has a 'solid track record'. It is not that it has a poor track record. It has no track record on the reactor of significance—that is, a 20-megawatt reactor. My fairly long exposure to the engineers of Technicatome, Siemens and Atomic Energy of Canada Ltd leads me to the view that the INVAP choice, though possibly a good choice, was a risky one.[107]

6.124 He went on to explain that it was risky because INVAP has not had very much experience in building 20-megawatt reactors. They had built one, he noted, but it had only been operating for a short time. He stated, 'if you want to be on the safe

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103 'The Argentine Company INVAP is Awarded Contract for the Supply of Most Important Nuclear Reactor Following Stiff International Bidding', INVAP Homepage http://200.51.6.19/press/0606/ganadores-e.htm.

104 Catholics in Coalition for Justice and Peace, submission no. 2; Ms Edith Franks, submission no. 29; Waveney Kaeding, submission no. 66; WA Branch of the Medical Association for Prevention of War, submission no. 75; Ms Sharon Davies, submission no. 84; Ms J. Gough, submission no. 89; and Ms Kate McCann, submission no. 117.

105 Mr Ian Grayson, submission no. 59; WA Branch of the Medical Association for Prevention of War, submission no. 75.

106 See comments by Ms Jean McSorley, *Committee Hansard*, 25 October 2000, p. 53; Professor John White, *Committee Hansard*, 4 December 2000, p. 417.

107 Mr Tony Wood, *Committee Hansard*, 25 October 2000, p. 142.

side then you buy something from somebody who has been doing it for a long time…'.[108]

6.125 The surprise at INVAP's success in securing the contract, may well have stemmed, according to Professor White, from 'unfamiliarity with the ability of INVAP to perform'. The Committee now turns to the checks made on INVAP to determine its ability to design and construct the new research reactor at Lucas Heights.

6.126 ANSTO submitted that checks made of INVAP commenced during the pre-qualification stage, in the second half of 1998. As part of the documented pre-qualification process, INVAP was required to provide information on the company's profile: its managerial capability, financial capability and its design and operational experience on past projects.[109] According to ANSTO, this information was thoroughly reviewed by the ANSTO pre-qualification evaluation team, which included independent consultant advice from AEA Technology (UK), specialist nuclear engineers and Sinclair Knight Merz, in relation to management capability and commercial responses.[110] In addition, INVAP made presentations to ANSTO and was questioned in relation to the information submitted.[111]

6.127 Having pre-qualified, INVAP was then required to make a detailed submission that addressed a set of questions and called for information in much greater depth. ANSTO wanted to be satisfied that INVAP could effectively manage the contract and sought particulars on matters such as:

- individual shareholders holding more than 20% of any issued share capital;
- any petition, claim, action, judgement or decision which would be likely to adversely affect the company's ability to meet the terms of the contract; and
- copies of annual balance sheets and profit and loss statements including notes to and forming part of those financial statements for the three previous financial years.

6.128 ANSTO told the Committee that it also required information on the performance of the company and its Australian partners on recent similarly complex projects in relation to matters such as contract claims and settlement records, cost performances, schedule performance, achievement of contract performance and performance of design.[112] Finally, ANSTO requested INVAP to provide details on its technical capability. This was to cover areas such as the proposed design activities and how they would progress throughout the development; how the design activities

108 Mr Tony Wood, *Committee Hansard*, 25 October 2000, p. 146.

109 ANSTO, submission no. 118, p. 18.

110 ibid.

111 ibid.

112 ibid, p. 20.

would be integrated and who would manage them; and the design resources required.[113]

6.129 As part of its proposal, INVAP provided fully detailed responses which, according to ANSTO, were then reviewed in the face to face clarification meetings with the TEWGs in March 2000.[114] ANSTO makes clear in its submission that it conducted background searches on INVAP through the Australian and international media, the International Atomic Energy Agency, and diplomatic channels.[115]

Reference reactor

6.130 A number of community groups and media organisations have raised significant concerns about INVAP's previous record with respect to the Egyptian and Peruvian reactors.[116]

6.131 As noted by Technicatome, one of its main concerns was the assessment of proven experience in the design and construction of a research reactor. For Technicatome and others, the Egyptian reactor has emerged as an important indicator of a flaw in the checks made by ANSTO of INVAP's capability to meet ANSTO's performance specifications. They have suggested that the Egyptian reactor, used by INVAP as its reference facility, is less than successful.[117]

6.132 Mr Minguet from Technicatome told the Committee that the reactor reached criticality at the end of 1997 but after three years 'is not yet commissioned and tested'.[118] Further, he stated that the reactor is very different from the technology specified by ANSTO. More specifically, according to Technicatome, the Egyptian reactor had no neutron guide or experimental facility installed.[119]

6.133 Indeed, Technicatome told the Committee that they had been approached by the Egyptians to equip their reactor with a cold neutron source and guides. For Technicatome this was proof that no such equipment had been installed.[120] Mr Minguet told the Committee:

> It is the reason why we were surprised when we were told that the performance of the selected tenderer was better than what we have

113 ANSTO, submission no. 118, p. 20.

114 ibid.

115 ibid.

116 Andrew Clennell, 'Winning reactor bid "linked to defective reactor"', *Sydney Morning Herald*, 17 October 2000; and Mark Riley, 'Nuclear firm accused of illegal tests', *The Age*, 17 August 2000.

117 Mr Hans-Peter Schnelbögl, submission no. 82.

118 Mr Jean-Luc Minguet, *Committee Hansard*, 5 December 2000, p. 426.

119 ibid.

120 ibid, p. 430.

> announced because we did not know on what grounds they assessed the preference they announced.[121]

6.134 Siemens also questioned the checks made of the preferred tenderer both at pre-qualification and contact stages. It had doubts about the performance of the Peruvian RP Research Reactor and specifically mentioned several unforeseen failures causing temporary unavailability of the facility already under low duty cycles.[122]

6.135 As explained earlier, a team from ANSTO undertook a site visit to the 22MW research reactor facility in Egypt (ETRR-2) to ascertain first hand the experiences of the owner/operator. ANSTO was afforded unrestricted access to the senior owner/operator executive, and to the operators of the facility and detailed discussions took place.[123] The Committee is not privy to any findings that may have been reached during the visit to the Egyptian reactor. This remains an inherent weakness in ANSTO's assurances to the Committee.

6.136 Nonetheless, Professor Garnett assured the Committee that ANSTO had made inquiries about INVAP's reference reactor in Egypt as well as other facilities and that they had received positive responses. In the Professor's words:

> …appropriate verbal inquiries were made of a range of parties…the Argentinian facilities are well and truly meeting the specifications. The Peruvians have also confirmed that they are meeting their specifications.[124]

6.137 It should be noted that ARPANSA, as part of its assessment of INVAP during the process for issuing a construction licence, will look at the experience of the Egyptians and the construction and operation of that reactor.[125]

6.138 Indeed, Mr Don McNab, Director, Regulatory Branch, ARPANSA, explained that ARPANSA's senior mechanical engineer has already visited the Egyptian reactor and been accorded a thorough view of it. He talked to the engineers of INVAP about its design, construction and operation and also conferred with the Egyptian operator and the Egyptian regulator. Overall, he gained the impression that the reactor was well constructed and well-designed and that the restrictions in its operation were due to demand rather than a limitation in its design and construction.[126]

6.139 In answer to its critics, INVAP told the Committee that the Egyptian facility reached full power operation in March 1998 leading to the Preliminary Acceptance of the facility by the reactor owner. It stressed that the Egyptian regulatory body had

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121 Mr Jean-Luc Minguet, *Committee Hansard*, 5 December 2000, p. 430.

122 Siemens, submission no. 78.

123 ANSTO, submission no. 118, p. 19.

124 Professor Helen Garnett, *Committee Hansard*, 9 October 2000, p. 15.

125 Dr John Loy, *Committee Hansard*, 26 October 2000, p. 235.

126 Mr Don McNab, *Committee Hansard*, 26 October 2000, p. 235.

issued permits allowing for INVAP to proceed with the commissioning and full power operation tests of the reactor which led to the Preliminary Acceptance of the facility. In brief INVAP asserts, 'the reactor has reached nominal power and has since then been able to operate at this power'.[127]

6.140 According to recent advice received by ANSTO from the IAEA, there are two relevant reports on the Egyptian reactor—a safety analysis report carried out by a Canadian IAEA expert in December 1998 and another by two IAEA experts during commissioning. According to an IAEA officer, Mr Z. Domaratzki, both reports made a number of recommendations but overall were very positive. He explained to ANSTO that there was nothing on allegations that had been raised in the Australian media on failure in the fuel, bubbles in the cooling circuit or related matters.[128]

6.141 In turning to the Peruvian reactor, INVAP noted that the IAEA has been asked to give assistance to virtually every nuclear research reactor operator in the world as it is one of their roles to provide advice. It informed the Committee that the IAEA has not been asked 'to solve problems concerning the Peruvian reactor' which has been issued with its Preliminary and Final Acceptance.[129]

6.142 INVAP did, however, agree that the Egyptian reactor is not equipped with a cold source or neutron guides. Even so, it maintains that the important issue for the replacement research reactor project is not whether the reference reactor has such facilities but rather that INVAP has the ability to meet ANSTO's requirements. It informed the Committee:

> We have…the core technologies, know-how and project management integration expertise that allows us to design and construct nuclear research reactors, using the appropriate subcontractors, while retaining the responsibility for the performance of the facility. We have put together for this project a team of the best worldwide experts in every field, giving preference to those that can add value to it.[130]

6.143 In detailing its readiness to undertake the project, INVAP told the Committee that it has wide experience in research reactors and particularly in overseas projects. It noted that it has formed a very strong alliance with the best Australian companies in their fields and have included the best worldwide expertise—'the Petersburg Nuclear Physics Institute from Russia, which has the world experts in cold neutron sources;

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127 INVAP, *Additional Information*, 2 February 2001.

128 ANSTO, submission no. 118A, pp. 31–2.

129 INVAP, *Additional Information*, 2 February 2001. In its supplementary submission, ANSTO informed the Committee that the Peruvian research reactor was constructed by CNEA as prime contractor and that INVAP supplied some support services and equipment to CNEA under sub contract. It stated 'Both CNEA and the Peruvian operator have provided documentation to INVAP to the effect that the facility is meeting all the operator's expectations in terms of performance, reliability and operational availability'. Submission no. 118A, p. 23.

130 INVAP, *Additional Information*, 2 February 2001.

Mirrotron from Hungary, one of the few manufacturers of neutron guides in the world; and German and French experts as well'.[131] As outlined by the RRRP Deputy Project Manager, Mr Juan Ordonez:

> Our strategy when presented with a project of this kind is to get the best available anywhere…We have put together a team with very good Australian companies for the part that is to be done here in Australia. We also get the best expertise in the world in each field we need to comply with the requirements of ANSTO.[132]

6.144 Using the argument about proven experience to its own advantage, INVAP pointed out that in 1999 it was successful in an international bid for a radioisotope production plant in Egypt. It concluded:

> We won that again. We signed the contract…We are in a very competitive market…What I want to make clear is that the customer is satisfied…I want it to be clear for the record that these people, our customers, are satisfied otherwise they would not have signed a new contract.[133]

6.145 Doubts and rumours still linger about the Egyptian reactor. The Committee is not completely satisfied that it has been able to lift the cloud of suspicion surrounding this reactor. Similar questions remain about the Peruvian reactor also. It would certainly have wished to dispel the speculation by producing incontrovertible evidence on these reactor's performance.

6.146 Having said that and noting that those closely associated with the proposed replacement reactor are confident in the ability of INVAP to design and construct the facility, the Committee draws attention to the words of caution from the Academy of Science. Professor John White, Secretary for Science Policy, Australian Academy of Science told the Committee:

> …but the academy still has some concerns about the ability of INVAP to produce what we would call an integrated project—that is to say, they have to take information and, indeed, material from various sources to produce the performance which they have suggested. It is not a criticism that I am making. It is an expression of ignorance, so that it is on the basis of caution that one does raise the question about the integration of the project.
>
> …
>
> Building a successful reactor, from the point of view of doing the science and technology, as well as the irradiations, is rather like constructing a chain. You must have the fuel right, and you must have the configuration of the core right to make the best use of the fuel to get the highest intensities.

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131 Mr Juan Ordonez, *Committee Hansard*, 26 October 2000, p. 208.

132 ibid, p. 211.

133 Mr Hector Otheguy, *Committee Hansard*, 26 October 2000, p. 211.

> You must then conduct the neutrons in such a way to a cold source to produce the special wavelengths that are needed for the science, and we could in principle be one of the best reactors in the world if that is done properly. Then you must have these things called neutrons guides, which conduct the neutrons out of the reactor area into a room which can be used by ordinary scientists.[134]

6.147 This view highlights the importance for careful monitoring and checking during the construction and early operational stages of the new reactor as well as the need for transparency in reporting its progress.

Financial standing

6.148 Following the announcement of INVAP as the successful vendor for the new research reactor, reports in the Australian press indicated that INVAP had experienced a considerable downturn in revenue resulting in the laying off of personnel. The reports alleged that despite an outcry from the technical community the Argentinian Government refused financial assistance.[135]

6.149 According to the risk auditor, two financial viability checks were carried out on INVAP during the tendering process. There was a financial viability study done at the pre-qualification stage, then a detailed financial analysis and a commercial analysis of the capacity of the organisation to deliver on its contractual obligations—that is, its financial capability and strength.[136] The risk auditor explained that the detailed financial analysis was conducted by a specialist team led by the ANSTO director of corporate services. The group evaluated the risks and scored them accordingly.[137]

6.150 ANSTO told the Committee that INVAP provided information on its contract claims and settlement record that offers no grounds for any particular concern in this area. The Tender Selection Review Committee, which explored assessments made of the financial strength of the tenderers, was satisfied 'that proper enquiries were made to inform judgment on project delivery capability'.[138]

Safety record

6.151 ANSTO told the Committee that INVAP was required to prepare a Safety Statement consistent with the content and format of a Safety Analysis Report as

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134 Professor John White, *Committee Hansard*, 4 December 2000, pp. 417 and 419.

135 For example, see article by Mark Riley, 'A Glowing Recommendation', *Sydney Morning Herald*, 19 August 2000, p. 33.

136 Mr Dennis Clark, *Committee Hansard*, 27 October 2000, p. 330. Also see comments by Dr Robert Turtle, submission no. 85.

137 Mr Dennis Clark, *Committee Hansard*, 27 October 2000, p. 330.

138 ANSTO, Replacement Research Reactor Project, *Report of the Tender Selection Review Committee*, 13 May 2000, p. 3. Reprinted at Attachment F, ANSTO, submission no. 118.

described in IAEA 35-G1. This statement, which provided an assessment of the safety of the proposed design was assessed in detail by the Safety TEWG. They wanted assurance that INVAP would meet all national and international safety requirements and standards. ANSTO noted that INVAP had been certified to ISO 9001:1994 and ANSI/ASQC Q9002:1994, for the design, construction and commissioning of nuclear research reactors, low power nuclear reactors, and auxiliary nuclear facilities. ANSTO submitted that Bureau Veritas Quality International (BVQI) undertook the certification. It stated 'the last audit was undertaken in June 2000, and INVAP have requested that BVQI continue to audit on a six monthly basis, even though BVQI have said that this is not necessary based upon their level of compliance at the last audit'.[139]

6.152 ANSTO also informed the Committee that INVAP had to demonstrate that their proposed design would satisfy ARPANSA safety criteria as well as comply with international safety standards. Referring to INVAP's 'substantive safety report' ANSTO concluded:

> INVAP demonstrated, during the tender process, a complete understanding of, and commitment to comply with, the requirements of this process. The Argentinian regulatory situation is, like Australia's, based on the requirements and guidelines from the International Atomic Energy Agency.[140]

6.153 The final word on the safety assessment of the replacement research reactor project comes from the people who not only participated in the evaluation but who will be involved in the actual operation of the facility.

> [Union members] believe from their evaluation of the tendered reactor systems that the high safety standards will not only be maintained, but be evaluated to even greater heights following the commission[ing] of a reactor meeting stringent safety standards.[141]

The Committee remains concerned about the allegations made against INVAP and would have liked to resolve these during the course of the inquiry.

Overview of the tendering process

6.154 The Committee respects the views of those closely involved in the evaluation process and who will be actively engaged in operating the reactor or using its facilities. Nonetheless, it recognises the challenges in constructing such a facility and in developing management skills needed to integrate the project. It believes that close attention must be given to these matters.

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139 ANSTO, submission no. 118, p. 21.

140 ANSTO, *Additional Information*, 31 October 2000, p. 22.

141 Dr Jerard Barry, *Committee Hansard*, 25 October 2000, p. 127.

Public access to information

6.155 Much of the criticism about the tendering process was created by a lack of information about the process itself.

6.156 The Committee notes that the nuclear industry has attracted negative publicity in the past and has the potential to stir strong reactions in sectors of the community. In part this reaction stems from what is perceived by some as an industry that is secretive, dangerous and lacks transparency in its dealings with the community.[142]

6.157 These observations have particular relevance when assessing the approach taken by ANSTO during the tendering process. For many years ANSTO's relationship with sectors of the Australian community and particularly with the Sutherland Shire Council and local residents has been strained. The tendering process provided an opportunity for ANSTO to consult with the scientific community and also to open up wider public debate on the project. Some witnesses, however, have complained about the information made available which they describe as 'scant'.[143] Ms Jean McSorley remarked that:

> ANSTO is not so much economical with the truth as positively miserly with it. Its scrooge-like approach to giving information is truly amazing.[144]

6.158 Similarly, they note that details on the nature of the contract have not been made public.[145] Dr Garry Smith, Principal Environmental Scientist, and Manager, Environmental and Policy Unit, Sutherland Shire Council, told the Committee he had a 'real concern about the public access to information, particularly as to whether the design safety specifications under the contract are adequate for protection of our community'.[146]

6.159 This type of criticism was not confined to groups that oppose a new reactor at Lucas Heights. In its submission, the Australian Nuclear Association, which strongly supports a new reactor, was not able to comment on the process leading to the signing of the contract with INVAP or the nature of the contractual commitments entered into with INVAP because documentation had not been made available. It believes that in the interest of the scientific community and the general public, basic technical specification should be made public in a readily accessible form. The Association would like to have obtained basic information essential to establish whether or not the proposed reactor will be suitable to meet multi-purpose needs of Australian

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142 For example, see Mr Mohamed Elbaradei, Director General, Statement to the General Conference, Vienna, 27 September 1999, http://www.iaea.org/worldatom/Programmes/Safeguards/Statements/1999/ebsp1999n010.shtml (11 September 2000), p. 65 and Nuclear Energy Agency, OECD, *Nuclear Energy in a Sustainable Development Perspective*, 2000, p. 10.

143 Mr Neil Macdonald, submission no. 10.

144 Ms Jean McSorley, *Committee Hansard*, 25 October 2000, p. 33.

145 Mr Neil Macdonald, submission no. 10.

146 Dr Garry Smith, *Committee Hansard*, 25 October 2000, p. 57.

scientists.[147] As noted on a number of occasions, the Committee itself has had difficulty in gaining access to tender documents.

6.160 The Committee highlights the following advice by the Administrative Review Council:

> …it is important that agencies make sufficient information about contracts and contractors available to enable Parliament and members of the public to identify areas of interest and concern that can be the subject of further inquiry and investigation.[148]

6.161 It believes that this issue of access to information is a very serious matter and takes it up in greater detail in chapter 7 where the report considers whether documents should be made public and in chapter 9 in the discussion on the Community's Right to Know Charter. At this stage in the report, the Committee notes that during the tendering process ANSTO did not make full use of the opportunity to consult with the wider scientific community, to engage in open dialogue with those interested in the proposed project or to build bridges with some local resident groups.

147 The Committee submitted the Australian Nuclear Association's questions to ANSTO which has since provided answers as additional information.

148 Administrative Review Council, *The Contracting Out of Government Services,* Report to the Attorney-General, Report No. 42, August 1998, p. 7.