

## ARPANSA Regulatory Assessment of the Replacement Reactor Construction Application

9 July 2001 - Reactive Review Comments, Questions and Issues

PSAR Chapter 15 – Commissioning

Question reference	Section number and name	Topic	ARPANSA Comment, Issue or Question and ANSTO's Response
15.1.	15.3.1 Preparation of the Commissioning Plan	Throughout all stages of the development of the Commissioning Plan, ARPANSA will be formally invited to review and comment upon its contents, and to make suggestions in relation to perceived deficiencies or improvements.	<p>What stage is the development of the Commissioning Plan at now?</p> <p>Please provide a program and schedule for the development of the Commissioning Plan.</p>
			<p>Response: The drafting of the commissioning plan has already begun and a first draft version expected to be available for comment and feedback by mid October 2001.</p> <p>INVAP is aiming to have a commissioning plan ready, discussed and approved by ANSTO by the end of the DE phase. This indicates that the plan will be developed by 30/07/2002. Towards the end of the DE phase, around April 2002, an ANSTO senior officer will be attached to INVAP in Bariloche for a period of approximately one month.</p>
15.2.	15.3.1.1 Introduction	The Commissioning Plan (“the Plan”) shall be the sole document by which the total scope of the commissioning activities ....	Is the Commissioning Plan supported by the Construction, Inspection & Test Plan? The scope of the CITP suggests that the CITP is the document for “Cold Commissioning”.

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			<p>Response:</p> <p>a) Yes.</p> <p>b) The CITP is not the document for Stage A Commissioning. The CITP covers all inspection and testing up to the point of Stage A Commissioning and will be used as background information to establish acceptance criteria for Stage A Commissioning.</p>
15.3.	15.3.1.1 Introduction	c) the identification of all training/retraining needed,	<p>Is this training required for commissioning or general training required for the ongoing operation and maintenance?</p> <p>Please provide a program and schedule for the development of the Training Plan and describe how this relates to the Commissioning Plan and plant acceptance and takeover (including maintenance) by ANSTO prior to routine operation.</p>
			<p>Response:</p> <p>All training mentioned in Chapter 15 is that required for commissioning purposes only.</p> <p>These issues will be covered by the Commissioning Plan - See Section 15.1.</p>
15.4.	15.3.1.2.1 Management Group	The Commissioning Manager provides the active interface with the Commissioning Group.	Please identify the composition of the Commissioning Group, their qualifications and experience, including the Commissioning Manager.

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			Response: These issues will be covered by the Commissioning Plan - See Section 15.1.
15.5.	15.3.1.2.1 Management Group	“The RRR Project Engineering Manager will bring to bear his technical knowledge and experience gained in that role throughout the entire design and construction stages of the project.”	This assumes that the incumbent is the same person throughout the project. Please explain with regard to continuity and succession planning.
			Response: In the event of the present RRR Project Engineering Manager being no longer available to bring to the Management Group specific knowledge and experience of the project, similar knowledge and experience will be available from others who have been involved in the project.
15.6.	15.3.1.2.1 Management Group	“The ANSTO Director, Nuclear Technology brings to the Management Group access to all of the invaluable experience gained from the operation of HIFAR.”	This assumes that the incumbent is the same person throughout the project. Please explain with regard to continuity and succession planning.
			Response: It is not claimed that the Director, Nuclear Technology personally brings the experience gained from operation of HIFAR but provides access to that experience.

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15.7.	15.3.1.2.2 Commissioning Safety Review Committee	The CSRC will also be responsible to the Commissioning Manager for a review of the safety implications of the commissioning tests before, during and after execution.	Figure 15.3/1 indicates that the CSRC reports to the Management Group, not the Commissioning Manager – which is correct?
			Response: CSRC is an independent group responsible to the Management Group. The CSRC review safety implications and report findings to the Management Group.
15.8.	15..3.1.2.4 Commissioning Group	The disciplines included in the Commissioning Group will include but not limited to:  reactor processes, reactor systems, neutron sources, irradiation facilities, balance of plant, safety, and quality assurance.	Please identify the composition of the Commissioning Group, their qualifications and experience, including the Commissioning Manager.
			Response: This issue will be covered by the Commissioning Plan - See Section 15.1.
15.9.	15..3.1.2.5 Operations Group	The Operations Group shall consist of ANSTO personnel who have been trained in their respective commissioning roles as part of the comprehensive training program to be undertaken.	Figure 15.3/1 indicates that the Operations Group for Stage A consists of INVAP personnel. Please explain.

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			<p>Response: Figure 15.3/1 is correct. Paragraph 15.3.1.2.5 requires amendment by addition of the following, which will be included in PSAR Rev1:</p> <p>“For Stage A Commissioning the Operations Group will comprise INVAP personnel. During Stage A Commissioning ANSTO Operations Personnel will be included in the Commissioning Group observing the commissioning activities and will, after hand-over of the plant, continue safe keeping and operation tasks.”</p>
15.10.	15.3.1.2.5 Operations Group	The personnel will substantially be drawn from HIFAR operations, and will be trained in accordance with the procedures and operating instructions developed under the Commissioning Plan (“the Plan).	<p>How will this be coordinated with the continued operation of HIFAR?</p> <p>Will the procedures and operating instructions be developed during the design and commissioning stage? Please elaborate on this.</p>
			<p>Response: A strategy for provision of staffing will be developed and communicated to ARPANSA prior to submission of the FSAR</p> <p>Development of procedures and instructions will be done during the detail engineering phase and will continue through the times when commissioning activities and operator/maintainer training are taking place, as part of the validation process. Documents will remain in draft form during development with finalisation scheduled a few months later.</p>

Checked/Agreed:

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15.11.	15..3.1.2.6 Commissioning Quality Assurance Group	The Commissioning Quality Assurance Group (CQAG), will be headed by a Management Group designated ANSTO staff member assigned to the role of leading the team. The leader of the team will report directly to the Management Group	Figure 15.3/1 indicates that the CQAG reports to the Commissioning Manager.
			<p>Response: The Quality Assurance function rests with INVAP who are responsible for the commissioning work. And hence the Group will be working for the Commissioning Group. The QA Manager will however be an ANSTO person appointed by the Management Group and the QA Manager will provide reports directly to all the members of the Management Group.</p> <p>Figure 15.3/1 will be amended and included in PSAR Rev1.</p>
15.12.	15..3.1.2.6 Commissioning Quality Assurance Group	b) in the overview and advice in relation to the preparation of the commissioning procedures contained in the Plan.	Advice should also be coming from the Design and Construction teams. The CQAG would not necessarily have all the technical knowledge to develop comprehensive Commissioning Procedures.

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			<p>Response: It should be noted that para 15.3.1.2.5 states that the Operations Group will participate in preparation of the Commissioning Plan. Similarly para 15.3.1.2.4 states that that the Commissioning Group made up of personnel involved in design and engineering activities will be involved in preparation of documentation.</p>
15.13.	15.3.1.6.2 Emergency Procedures	The Training Plan will include training of ANSTO personnel to operate the Reactor Facility to manage, handle and store fissile material, including the use of the emergency procedures.	<p>Does the Training Plan cover all training or only training associated with commissioning?</p> <p>If the Training Plan is for all training, does it currently exist and include the Technology Transfer modules?</p>

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			<p>Response: A plan for training personnel in routine operational and maintenance aspects will be prepared and is not covered by the training mentioned in this chapter. Training for commissioning is primarily covered in para 15.3.1.3 'Training for Commissioning'.</p> <p>Training mentioned in para 15.3.1.6.2 is specifically training for emergencies which may arise during commissioning activities provided solely for the purposes of undertaking commissioning.</p> <p>An overall training plan for the RRRP is still in early stages of development. It will include technology transfer that has been in place since the contract was awarded and is part of that process.</p>