




<b>UK EPR</b>	Title: PCSR – Sub-chapter 19.0 – Commissioning Safety Requirements	
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## **SUB-CHAPTER 19.0 – COMMISSIONING SAFETY REQUIREMENTS**

### **1. SAFETY REQUIREMENTS**

The commissioning stage and the associated test programme will demonstrate that the plant, as built, is suitable for safe operation and that the design intent, as claimed in the safety case, has been achieved.

The commissioning tests will be designed to demonstrate, to the extent practicable, that the plant components and systems are capable of safe and reliable operation in accordance with their design specification, their performance objectives and their safety requirements.

### **2. REGULATORY FRAMEWORK**

- Nuclear Installations Act 1965 as amended [Ref-1]
- Regulatory Reform (Fire Safety) Order 2005 (SI 2005 No. 1541). [Ref-2]
- Construction (Design and Management) Regulation 2007 (SI 2007 No. 320). [Ref-3]
- Dangerous Substances and Explosive Atmospheres Regulations 2002, (SI 2002 No. 2776) (DSEAR). [Ref-4]
- Pressure Equipment Regulations 1999, as amended in 2002. [Ref-5]
- Health & Safety at Work Act 1974. [Ref-6]
- Management of Health & Safety at Work Regulations 1999 [Ref-7]

### **3. COMMISSIONING PROGRAMME REQUIREMENTS**

A comprehensive commissioning programme will be prepared for implementation on site. This programme will be structured to include hold points at key milestones, at which the acceptability of the commissioning tests results will be verified (with particular focus on demonstrating that the plant will meet the appropriate design safety requirements) before entering into the next phase of commissioning.

The completeness of the commissioning programme will be ensured for the commissioning of the safety-classified systems, in particular by defining and implementing an adapted method of defining the tests lists.

This method will consider all plant configurations assumed to be feasible – (at least, those described in the safety case) – and identify the performances expected from the safety-classified systems and equipment for each configuration.

The sequence of tests will be such that plant safety is never dependent on the performances or availability of structures, systems or equipment that have not yet been tested.

The Operating Technical Specifications will be observed as soon as core loading is started.

#### **4. COMMISSIONING PROGRAMME ORGANISATION REQUIREMENTS**

An appropriate organisation for implementing the commissioning programme will be set up. The future Operation Staff will be involved in the preparation, performance and analysis of the tests, as well as in the application of improvements to plant operations which may result from any lessons learned during commissioning tests.

A procedure will be established to develop, check, approve, and control test procedures, and finally to review and approve test results, for at least the tests dealing with safety-classified systems and equipment.

## SUB-CHAPTER 19.0 – REFERENCES

External references are identified within this sub-chapter by the text [Ref-1], [Ref-2], etc at the appropriate point within the sub-chapter. These references are listed here under the heading of the section or sub-section in which they are quoted.

### 2. REGULATORY FRAMEWORK

- [Ref-1] Nuclear Installations Act 1965. TSO (The Stationery Office). January 1965. ISBN 0108502163. (E)
- [Ref-2] Regulatory Reform (Fire Safety) Order 2005 (SI 2005 No. 1541). TSO. June 2005. ISBN 0110729455. (E)
- [Ref-3] Construction (Design and Management) Regulation 2007 (SI 2007 No. 320). TSO. February 2007. ISBN 0110757890. (E)
- [Ref-4] Dangerous Substances and Explosive Atmospheres Regulations 2002, (SI 2002 No. 2776) (DSEAR). TSO. November 2002. ISBN 0110429575. (E)
- [Ref-5] Pressure Equipment Regulations 1999, as amended in 2002. TSO. July 1999. ISBN 0110827902. (E)
- [Ref-6] Health & Safety at Work Act 1974. TSO. October 1974. ISBN 0105437743. (E)
- [Ref-7] Management of Health & Safety at Work Regulations 1999. (SI 1999 3242). TSO. April 2000. ISBN 0-11-085625-2. (E)