

THE ACCEPTANCE PROCEDURE AND INSERVICE INSPECTION OF THE MAIN PARTS
AND SYSTEMS OF NUCLEAR POWER PLANTS

General

A construction license is needed for the erection of a nuclear power plant. A safety report including a detailed description of the safety of the plant and its environment is an essential part of the application for the construction license. The safety report has to be drawn up at the early stage when it in general does not, in every respect, contain sufficient material for the control basis for the safety authorities; therefore, during the project, the safety report shall be completed e.g. with respect to the main parts (pressure vessels) and systems (emergency cooling) affecting the safety. Thus the construction license necessary for the start of the construction programme includes a provision that the essential details concerning the main parts and systems will be treated separately.

This guide is intended to explain the separate acceptance procedure accompanying the construction license. The construction license, the acceptance of the main parts and systems, and the updated safety report form the basis for the consideration of the application for the operating license.

Scope

A separate acceptance procedure shall be applied to the main parts and systems which are mentioned with this purpose in the construction license or to which such a procedure is required by the Institute of Radiation Physics (IRP). If it's not apparent whether a part or system belongs to the control of the IRP this shall be inquired of the IRP.

The Phases of
the Acceptance
Procedure

The acceptance procedure includes following phases.

Preinspection

The inspection of documents before the manufacturing of a part or system.

Manufacturing Control

The control of quality assurance activities during the manufacturing and of the manufacturing itself. When the manufacturing and installation are proceeding separately, an individual license shall also be applied before the start of the installation.

Start-up Inspection

The inspection of a part or system with respect to the structure or function.

Inservice Inspections

A periodic or other inspection of a part or system performed by the IRP.

Classification

The parts and systems to which the accepting procedure is applied shall be classified by the applicant. The classification is based on their importance with respect to the safety.

Documents

Documents for the accepting procedure shall be provided to the IRP in three copies. One of them is returned to the applicant with inspection and acceptance markings

On the front flyleaf of the document shall appear

- name of company
- name of document, number of pages, draft number in question
- plant and part in question
- test class of the part
- compiler of document and persons having accepted it (signatures with clarifications)
- dates
- space for acceptance, stamping and possible remarks by the IRP

The document shall be accepted by the quality assurance organization of the applicant before presenting to the IRP.

Additions and amendments may be made to the document at different phases of review providing the material in question meets the formal requirements given to the whole document and modifying activities can easily be realized in practice.

The applicant shall take care of that this praxis is followed in the deliveries by major contractors as well as subcontractors.

Terms

Applicant

A juridical person responsible for overall construction and operating of the plant.

Control Authority

Means in this connection the Institute of Radiation Physics (IRP).

Additional Guidance

The IRP gives additional guidance how to apply the general principle mentioned here to details.