



Health and Safety
Executive



Environment
Agency

Design Authority For New Civil Reactor Build

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ND 6D

Definition of Design Authority?

- **A part of the Licensee's organisation with a duty to maintain the knowledge of the design integrity of its nuclear facility throughout whole lifecycle of the facility.**
- While maintaining the integrity of the safety case is an important element in the DA's role it is broader than this covering detailed engineering substantiation and supporting design documentation.

DA Roles – INSAG 19 (not para 30)

- For example:
 - Establish a detailed understanding of why the design is as it is.
 - Develop an understanding of the experimental and research knowledge on which the design is based.
 - Capture and retain design inputs such as basic functional requirements, performance requirements, safety goals and safety principles, applicable codes, standards and regulatory requirements, design conditions, loads such as seismic loads, interface requirements, etc.

DA Roles – INSAG 19 (2)

- Develop a detailed knowledge of the design calculations which demonstrate the adequacy of the design and the ability to reproduce the design calculations if needed.
- Acquire an understanding of the inspections, analysis, testing, computer code validation and acceptance criteria used by participating design organizations to verify that the design output meets the design requirements.
- Understand the assumptions made in all the steps above, including assumptions related to operating modes or procedures, expected life history such as changes in fluence, expected transients, etc.
- Review the implications of operating experience on the design.

DA- Employees and Contractors

- It is not expected that the Licensee will have to cover all technical areas in great depth with its own staff.
- Use of support contractors for very detailed areas of the facility's design integrity is allowed.
- The Licensee however must have in-house knowledge of all major technical areas at IC and practitioner level.

Links to Licence Conditions

- ***LC12 DULY AUTHORISED AND OTHER SUITABLY QUALIFIED AND EXPERIENCED PERSONS.***
- ***LC14 SAFETY DOCUMENTATION.***
- ***LC15 PERIODIC REVIEW.***
- ***LC22 MODIFICATION OR EXPERIMENT ON EXISTING PLANT***
- ***LC23 OPERATING RULES.***
- ***LC28 EXAMINATION, INSPECTION, MAINTENANCE AND TESTING.***