

Design Review Service

Providing assurance that your design complies with relevant industry standards and achieves international best practice

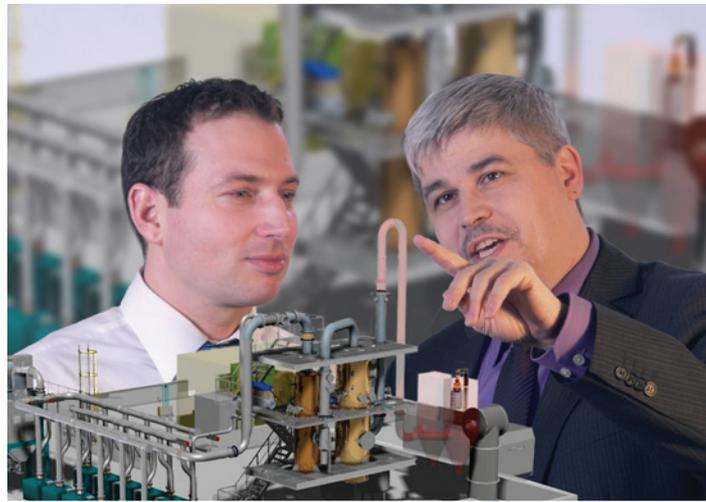
Nuclear facility operators require that their facilities will operate as intended whilst maintaining the highest levels of safety, at the same time lifetime operating costs need to be minimized. However, simple mistakes can cause major problems during project implementation. So, any potential issues must be identified and eliminated at the project design stage.

NUKEMs design review service will ensure that your planned project complies with all relevant industry standards, meets operational, safety and environmental requirements and improves the reliability during project implementation.

What is Design Review?

Design review is an independent appraisal of the intended project engineered system or process, as defined by documented standards. The scope of the review will typically include civil structures, mechanical/electrical equipment, as well as control and safety systems.

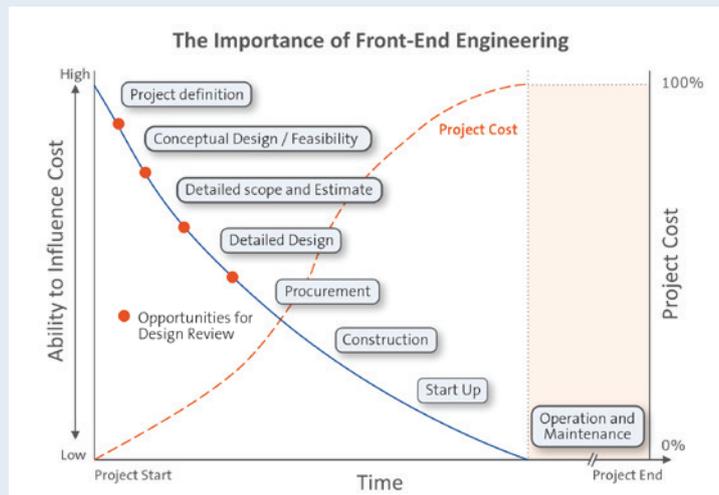
The review also aims to identify errors or failures in the plans (or operation) of the engineered systems and/or processes, providing critical management information whilst identifying targeted improvement opportunities in time for effective corrective actions.



Design Review Objectives

Operators want their facilities and equipment to be built to standards that have been proven by the experience of industry, satisfy relevant safety standards and meet their own specific operational requirements. The design review intent is not to radically change the design but aims to ensure a successful project realisation. The design review must therefore ensure that:

- The client's business objectives and requirements are fulfilled, and that appropriate technology is selected,
- Any potential fundamental barriers to licensing of the proposed facility in the client country are identified,
- The design provides a complete solution and is effectively integrated with other processes and systems,
- A full review of risks and assumptions has been carried out, in order to minimise or mitigate potential effects.



Timing of Design Reviews

The importance of 'Front-End Engineering' should not be underestimated, as such, design reviews can be carried out at various phases of a project's implementation, e.g. at the conceptual design stage, during pre-licensing, for facilities under construction or in operation, also for facilities undergoing a periodic safety review, plant modifications or life extension program.

Our design review service also makes use of national/international documentation which provides guidance to the reviewers, including references to relevant IAEA safety standards as well as industry best practices.

Our Approach

Objectivity can be difficult for internal resources, and experienced, qualified external expertise is rare. However, NUKEM's engineers have a wealth of international turnkey projects and are on hand to assess all aspects of your plant design and verify the compliance with requirements of both national and international standards.

The design appraisal is performed by our operational engineering team, through a review of the documents prepared by the designer or manufacturer, e.g. drawings, calculations, risk plans, specification and functional diagrams, site-surveys etc. covering all engineering disciplines.

It also includes independent verification from checks on design calculations, to detailed evaluations of drawings as well as specifications. Where design review is required by regulators, a certificate is provided as evidence of compliance.

In all cases our design review service is tailored to meet the specific needs of the client, and is fit for the particular phase of the project.

A trusted and independent design review service from a leading supplier to nuclear operators around the world.

Contact us today to find out how our design review service can ensure that your project complies with all relevant nuclear safety, operational, environmental and industry standards.

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