



Office for Civil Nuclear Security

GUIDANCE DOCUMENT FOR GENERIC DESIGN ASSESSMENT ACTIVITIES

January 2007

Introduction:

The result of the recently published Energy Review indicated that new nuclear power stations were again to be considered as part of the Government's Energy Policy and their development could be assisted by a generic design assessment process through which plant suppliers and operators would be able to submit technologies for evaluation and initial design assessment. This process could be an enabling process to accelerate specific site approval and eventual licensing for a new nuclear station.

Below is set out the principles to be adopted by OCNS during this generic design assessment process which are designed to give the technology suppliers confidence that the design proposals relating to security, set out during the generic design assessment process, have a good probability of gaining final approval for a specific station site.

Legislation:

The requirements for security at nuclear premises are laid down in the Nuclear Industries Security Regulations 2003 (as amended by the Nuclear Industries Security (Amendment) Regulations 2006).

Under the regulations (Reg 22), any person who holds sensitive nuclear information and is proposing to become involved in activities in or in relation to a UK civil licensed nuclear site is subject to these regulations.

The Regulations also require a 'responsible person', in the case of a nuclear power station the holder of the nuclear site licence, to submit a site security plan for approval by the Secretary of State for the Department of Trade and Industry, in practice by the Office for Civil Nuclear Security on his behalf. The details of the scope of the plan are set down in the Regulations.

The costs for ongoing activities of OCNS relating to its activities are currently recovered under the Nuclear Industries Security (Fees) Regulations 2005.

Generic Design Assessment Process:

It is expected that those organisations that submit information in the generic design assessment process will supply sufficient data to enable regulators to make an informed judgement as to the potential suitability of the proposed technology solution and associated generic layouts.

Site specific issues will only be fully addressed at the licensing stage and this will apply equally to security. It is expected that the generic design assessment reviews of security will align with the steps in HSE's Design Acceptance Assessment process.

OCNS will undertake initial dialogue with the Requesting parties as they prepare their submissions which is defined as Step 1 and aligns with HSE's Step 1.

In order to make an initial informed judgement on security issues (equivalent to the HSE Design Safety Review), it is expected that information will be supplied (during Step 2 see below) that includes as a minimum:

1. Generic plant layouts that fully describe the physical layout of all plant and buildings within the site boundary.
2. Design information relating to the fabric of buildings and internal division walls and floors.
3. Process descriptions of the technology, including fuel storage and their relationship to the physical plant layout.
4. The philosophy for plant control, other IT systems and physical layouts for control systems
5. Emergency back-up safety system description, physical layouts and description of philosophy for redundancy.
6. The findings of any analysis done to look into the impact of major site events.

Some of the above information may be "sensitive nuclear information" which requires to be protected in accordance with the Nuclear Industries Security Regulations 2003. Guidance on this aspect is contained in a separate OCNS document "The Management of Sensitive Nuclear Information during the Generic Design Assessment of Nuclear Technologies".

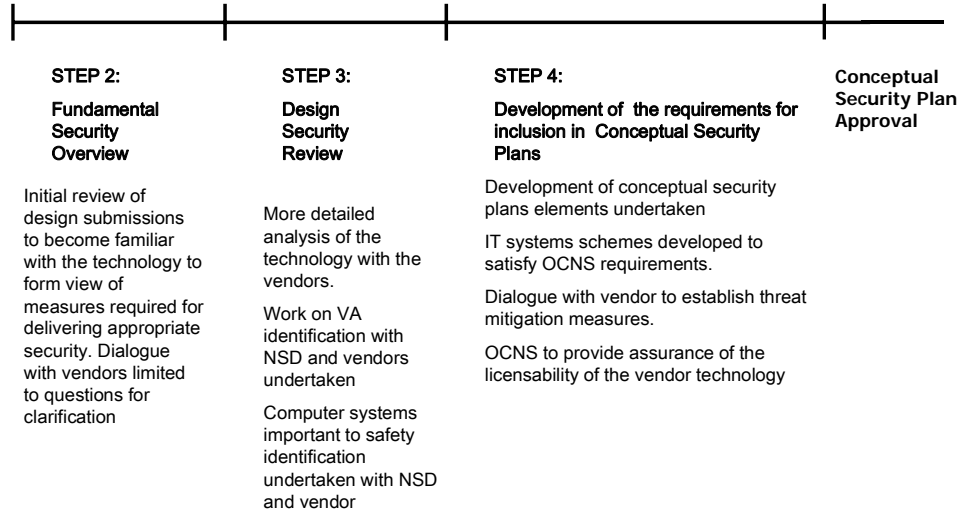
On completion of this familiarity phase of the project, OCNS will be familiar with the reactor technology concept and conceptual physical layout proposals. Initial dialogue with the vendor and HSE is expected to have begun to develop the Vital Area concept, as would work to understand computer system security requirements.

A more detailed review of the security architecture of the power plant is proposed to follow on from the initial review. It will be necessary for the requesting party to nominate a Project Security Manager through whom OCNS would be able to look in more detail at the proposed security measures and at the development of a conceptual site security plan.

After this detailed exercise had been undertaken and subject to the subsequent development of acceptable solutions, OCNS would be able to provide a letter of comfort from a security perspective for the specific technology solution. This work will form the generic content of a conceptual (or construction) security plan, approval of which will be required before

construction commences. A further approved site security plan is needed before any radioactive material is brought onto site.

The timescales for these activities are expected to align with those indicated by the HSE programme for their process and are outlined below:



**High Level Plan for
Security – Single
Technology**