ROLE OF THE ENGINEERING SCHEDULE

An accurate and comprehensive Engineering Schedule is an essential component of a safety case, the expectations of which are detailed in the Office for Nuclear Regulation (*ONR*) Safety Assessment Principles (*SAPs*). The ONR uses its SAPs to assess safety at existing or proposed nuclear facilities The Engineering Schedule is compiled from the safety case, the Environmental Support File *(ESF)* and the business case. It provides the initial scope for the substantiation task and, most importantly, the safety functions required and their expected performance criteria.

The Engineering Schedule specifies the Safety Functional Requirements *(SFRs)* that the Structures Systems and Components *(SSCs)* will satisfy. It is a living document which should be developed iteratively with the design team during the Scheme and Detailed Design phases.

An example of what a typical engineering schedule looks like is given below.

SSC Reference	Structure, System, Component	Safety Function(s)	Performance Requirements	Variables to initiate SSC action	Parameters, Limits, Conditions	Dependencies on other SSCs	Operator interaction required to achieve safety function	Source or reference where claimed	Substantiation Reference
e.g. A1.01	*e.g. Crane controls Including long travel / cross travel creep speed switches.*	*e.g. To minimise potential for collision of crane/drum with walls in store.* *e.g. To minimise potential for dropped drum in store.* *e.g. To minimise potential for dropped expansion shield plug in store.*	*e.g. To allow precise control of crane movements in store using wall and roof targets.*	*e.g. Transfer of waste drum into store.*	*e.g. N/A.*	*e.g. B1.01, B1.02, B1.03.*	*e.g. Operator works crane controls.*	*e.g. HAZAN 3.*	*e.g. AA00.01 [Ref. xx].*
e.g. A1.02	*e.g. Interlock preventing traversing of crane if load not fully raised.*	*e.g. To prevent drum impacts in store.*	*e.g. To prevent traversing of store crane when load not fully raised.*	*e.g. Attempt to traverse crane when load lowered.*	*e.g. N/A.*	*e.g. C1.01, C1.02.*	*e.g. N/A.*	*e.g. HAZAN 3.*	*e.g. AA00.02 [Ref. xx].*

Additional Information & Guidance

- ONR, Safety Assessment Principles for Nuclear Facilities, 2014 Edition Revision 1 (January 2020).