

Regulator Assessment: Qualifying Regulatory Provisions

Title of proposal	Categorisation of safety functions and classification of structures, systems and components
Lead Regulator	Office for Nuclear Regulation
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Date of assessment	22 December 2016 (retrospective)
Commencement date	November 2015
Origin	Domestic
Does this include implementation of a Cutting Red Tape review?	No
Which areas of the UK will be affected?	GB
Internal ONR reference	2016/496331

Summary of costs and benefits

Price base year	Implementation date	Duration of policy (years)	Net Present Value	Business Net Present Value	Net cost to business (EANDCB)	BIT score
2016	Nov 2015	10	0	0	0	0

Brief outline of proposed new, withdrawn, or amended regulatory activity

ONR has produced guidance primarily for use by inspectors to inform their assessments of licensees and dutyholders arrangements for assigning safety function categorisation and safety system classification objectives to structures, systems and components (SSCs) in accordance with the International Atomic Energy Agency's guidance and/or relevant International Electrotechnical Commission (IEC) standards.

Safety function categorisation is the process by which the safety functions, both during normal operation and in the event of a fault or accident, are categorised based on their significance with regard to safety. Safety classification is the process by which SSCs are classified on the basis of their significance in delivering the safety functions. The safety classification assigned to an SSC indicates the level of confidence required in its ability to deliver its safety function. It should be used to determine the standards to which SSCs are designed, manufactured, constructed, installed, commissioned, quality assured, maintained, tested and inspected.

Under ONR's openness and transparency policy the guide has been published and available for licensees and dutyholders to read on ONR's website. The guidance provides an update on earlier guidance to align with relevant international standards. It is not contrary to existing

arrangements nuclear licensed sites already have in place and brings together regulations and sources of relevant good practice.

Changes to this guidance are focused on providing clarity and advice to ONR inspectors. It does not place any additional burden on industry, as the process itself and how regulatory decisions are made remains unchanged.

Which type of business/industry will be affected? How many are estimated to be affected?

ONR has estimated, based on its dutyholder base that approximately 37 dutyholders (large entities that own and operate civil nuclear sites in the UK) will initially be affected in respect of familiarisation. Safety function categorisation and safety system classification has implications for the overall lifecycle of a nuclear facility (ie design, construction, operation, modification and decommissioning phases) and the guidance provides an ONR interpretation of existing IAEA guidance and/or relevant IEC standards that aligns with specific ONR Safety Assessment Principles.

The responsibility for carrying out safety function categorisation and safety system classification is only relevant to licensees and dutyholders. The output of their work may be used by to inform equipment selection decisions as part of their normal business. There is no direct impact on the supply chain or contractors.

Please set out the impact to business/industry clearly with a breakdown of costs and benefits

The direct effects expected relate to one-off and then ongoing familiarisation with the guidance. However, the expectation is that this work should already be happening on all nuclear sites and the content is aimed at ensuring inspectors make consistent regulatory judgements.

The purpose of the guidance is to provide advice to ONR inspectors on the expectations of the licensee's arrangements, including those applicable to generic design assessment (GDA, the process undertaken by ONR and the environment agencies whereby a new reactor design is assessed for compliance with UK standards ahead of it being built by), licensing of new plants, or permissioning processes for new build or plant modification projects to ensure that effective levels of nuclear safety are retained. The guidance addresses a complex topic with links to a number of different Safety Assessment Principles (SAPs are used to guide ONR inspectors' regulatory judgements and recommendations when undertaking technical assessments of nuclear site licensees' safety submissions). It also has a bearing on multiple licence conditions (each nuclear site licence contains a set of 36 standard licence conditions) and with interfaces to several other documents.

The guidance is intended to ensure that ONR's decision making is proportionate, consistent and transparent. It includes an example categorisation and classification scheme which ONR inspectors should view as a starting point to inform their assessment of the suitability and sufficiency of the core of the licensee's arrangements. It is not a prescribed method and other approaches can be used. The document is 34 pages long and comprises of 15,400 words. It

could be read and digested over 3 hours 51 minutes, which would comprise three full reads of the entire document¹.

No dutyholder is required to read the guidance. However, ONR anticipates from past experience with this type of guidance that a single representative of each of the 37 sites will voluntarily read the guidance for background information. Website analytics from similar types of guidance indicate that around 2% of ONR's dutyholders would also read the guidance – given that this is less than one in this case (0.74 of a dutyholder), we have chosen not to count a single extra dutyholder as a reader of this guidance. The incurred cost to industry in the first year is therefore calculated as approximately:

$3.85 \times 38 \times \text{hourly rate } (\pounds 47.86^2) = \pounds 7001.92$ one off cost in year 1.

With regard to subsequent years – it is realistic that a number of employees of the dutyholder who is subject to this type of assessment may wish to read the guidance for background information. However, given that the behaviour of the regulator and the dutyholder has not been changed we do not consider this to incur any additional cost.

Please provide any additional information (if required) that may assist the RPC to validate the BIT Score

As the net impact to business is estimated at less than £50k per annum, the BIT score is rounded to zero in accordance with the Better Regulation Framework manual.

¹ Based on RAS Group Guidance: valuation of guidance gives an estimate of around 200 words per minute and assuming that three readings are required for understanding ($15,400 / 200 = 1 \text{ hour } 17 \text{ minutes} \times 3$)

² Based on ASHE 2015 figures for 'professional occupation' of £716.70 per week which we have doubled to £1433.40, given the skilled nature of nuclear assessment work and the profit margins of an operating facility (diversion of labour), over a 36 hour week and uplifted by 20.2% to account for non-wage labour costs.