

	RSD Internal Guidance	RIG-2009-05	
Assessing whether risks on Britain's railways have been reduced SFAIRP			
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<u>Keywords</u>	So far as is reasonably practicable (SFAIRP), gross disproportion, Edwards v National Coal Board, Health and Safety at Work Act, Cost benefit analysis, health and safety investment decisions.		
<u>Summary</u>	This RIG sets out how we assess whether health and safety risks on Britain's railways have been reduced so far as is reasonably practicable (SFAIRP). It summarises how we: <ul style="list-style-type: none"> • apply the SFAIRP test (including in deciding whether duty holders' safety management systems reduce risks SFAIRP); and • consider strategic health and safety investment decisions. 		
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Detail

Ensuring our decisions are lawful and maintaining our regulatory credibility, means we must be consistent in our decisions on health and safety duties qualified by “so far as is reasonably practicable” (SFAIRP)^{1,2}.

There are two key elements:

- understanding the legal concept of SFAIRP, as applied by the courts; and
- our expectations of duty holders when they assess whether risks have been reduced SFAIRP.

Legal duties: the Health and Safety at Work etc Act 1974 (HSWA) places general duties on employers to:

- ensure, SFAIRP, the health, safety and welfare at work of their employees (s.2); and
- conduct their undertakings to ensure, SFAIRP, that they do not expose non-employees to risks to their health and safety (s.3).

These general duties are supplemented by other health and safety legislation.

Duty holders must make a suitable and sufficient assessment of risks and, where considering duties constrained by SFAIRP, must compare the cost of implementing risk control measures (in terms of money, time and effort) against the reduction in risk those measures might achieve, and whether there is a gross disproportion between them, such that the costs grossly outweigh the risk reduction.

Edwards v. NCB: this case ³ provides the key interpretation of SFAIRP: duty holders must implement control measures unless the costs involved are grossly disproportionate to the safety benefits achieved. Some duty holders may decide to implement measures that go beyond SFAIRP for business or commercial reasons: that does not necessarily affect what may be reasonably practicable for that activity.

Good practice: duty holders should, as a minimum, follow relevant good practice (which is not necessarily the same as general industry practice). Most railway duty holders’ day-to-day decisions are based on current good practice as captured by industry’s standards. Duty holders should keep good practice under review, as it changes over time. We should challenge industry standards if we have evidence that they do not deliver risk control to the level required by SFAIRP, or ensure additional controls are put in place to reduce risks SFAIRP. Risk assessment tools, such as the Rail Safety and Standards Board (RSSB) Safety Risk Model, can provide a useful and valid input into the risk assessment and investment decision making processes.

What we expect of duty holders: in approaching risk reduction duty holders are generally required to:

¹ SFAIRP is widely used in British health and safety legislation.

² As low as reasonably practicable (ALARP) is a term that is sometimes used by duty holders and intended to be synonymous with “so far as is reasonably practicable”. However, ALARP is not recognised within HSWA (unlike SFAIRP) and so, in the interest of clarity; ALARP is not used within this guidance.

³ Edwards v National Coal Board [1949] 1 ALL ER 743 at 747.

- carry out suitable and sufficient assessments, appropriately recorded, of risks to the health and safety of both employees and non-employees affected by their undertakings;
- identify and implement the measures needed to deliver appropriate risk controls including, where appropriate, an estimation of the potential costs and benefits of additional control measures;
- decide whether there is gross disproportion and (if not) then;
- develop an appropriate plan and timetable to implement any additional risk control measure identified. The recording/documentation/analysis should be proportionate to the risk (foreseeable consequence/impact).; and
- carry out regular reviews of both the assessments and control measures.

Assessing the risks: employers must assess the health and safety risks to their employees at work and others (such as passengers, other workers and the public) who may be affected by their work activities. This includes risks shared with other duty holders, other interface risks and risks associated with low probability but high consequence incidents, especially if the risk arises from a new hazard. Duty holders do not need to consider any potential socio-political response to multi-fatality incidents; this is a matter for the government and regulators.

The assessment of risk and SFAIRP must be made at the level of the activity that could give rise to potential harm. So, for example, if a work activity on a specific piece of equipment could give rise to fatal injury, and the precautions (for that piece of individual equipment) cost a proportionate amount relative to that outcome, then those precautions should be implemented, even if there are many similar items of such equipment across the duty-holder's business. In other words, the calculation of gross disproportion should **not** be based on the total cost to implement the precautions across **all** the items of equipment.

Cost benefit analysis: can help inform decision-making - see: ORR's [Internal guidance on cost benefit analysis \(CBA\) in support of safety-related investment decisions - February 2015 \(orr.gov.uk\)](#) - but should not form the sole argument in showing that risks are being reduced SFAIRP. Most day-to-day health and safety decisions will not require a quantitative CBA assessment to determine what is reasonably practicable.

Dealing with benefits: consideration of investment decisions should include all the benefits, as well as the reduction in risk - see: ORR's [Internal guidance on cost benefit analysis \(CBA\) in support of safety-related investment decisions - February 2015 \(orr.gov.uk\)](#).

Dealing with costs and affordability: the costs (in terms of money, time and effort) are those necessary to implement the measures to reduce risk, and include any consequent productivity losses – see ORR's [Internal guidance on cost benefit analysis \(CBA\) in support of safety-related investment decisions - February 2015 \(orr.gov.uk\)](#). Whether the duty holder can afford the cost of a control measure is not relevant to deciding whether a measure is reasonably practicable.

Dealing with uncertainty: duty holders' decision-making processes should

recognise and take account of any uncertainty in a CBA, possibly by applying a weighting to the consequences of failures, particularly for rare events where there is large uncertainty about the likelihood of them occurring.

Removal of existing control measures: removing existing control measures is usually only acceptable where circumstances have changed, (for example, where risks have been removed or controlled by other measures), there are changes in the understanding of the hazard, or the costs of continuing the measure are clearly grossly disproportionate to the risk reduction it achieves.

Further information:

- [ORR's risk management webpage](#)
- **Health and Safety Executive's (HSE) [Risk management: Expert guidance and Managing risks and risk assessment at work](#)** provide general guidance on risk management and risk assessment
- **[HSE's Reducing Risks, Protecting People – HSE's decision making process](#)** explains the basis for HSE's regulatory decision making
- **[Rail Safety and Standard Board's Taking Safe Decisions – how Britain's railways take decisions that affect safety guidance](#)** explains the industry consensus view on taking safety decisions.

Action
(optional)

Inspectors and policy staff should be aware of this guidance and how it relates to:

- our revised (in February 2016) [Internal guidance on cost benefit analysis \(CBA\) in support of safety-related investment decisions - February 2016](#) (orr.gov.uk); and [the Rail Safety and Standards Board's Taking Safe Decisions](#).