

## Safety Corner

### What is ALARP?

The Piper Alpha accident in 1988 caused a paradigm shift in the way UK authorities writing laws. Regulations governing safety-critical and high-integrity systems have since become “goal setting”, rather than prescriptive and constraint setting, through the use of “safety case” in requiring the application of risk methodologies. A guiding principle in this approach is the concept of ALARP, which stands for **As Low As Reasonably PRACTICABLE.**

As far back as 1949, the UK judiciary recognised the ALARP concept when Judge Asquith ruled, in *Edwards v. National Coal Board*, that “...a computation must be made by the owner (defendant) in which the quantum of risk is placed on one scale and the sacrifice involved in the measures necessary for averting the risk (whether in money, time or trouble) is placed in the other, and that, if it be shown that there is a gross disproportion between them – the risk being insignificant in relation to the sacrifice – the defendants discharge the onus on them...” The ALARP concept was also the primary principle laid down in the UK Health and Safety at Work Act (1974).

The focus of the ALARP concept is whether risk reduction measures are “reasonably practicable.” The ALARP process is not merely about balancing the costs and benefits involved. The ALARP decision is actually weighted in favour of health and safety commitment because its ground rule is that a risk reduction measure should be implemented unless the measure is demonstrated to be “grossly disproportionate” to the benefits that would be achieved, but not the other way around. Thus, even the costs outweigh the benefits, the measure could still be considered reasonably practicable to introduce.

Determining ALARP can be challenging because what is reasonably practicable or grossly disproportional to one may not deem to be the same to others. Thus, the adoption of ALARP introduces an implicit acceptance of a subjective element in the risk management process, and a series of new topics, such as risk tolerability and risk acceptance criteria, in safety risk management.

You may also come across SFAIRP, which is short for “so far as is reasonably practicable,” or ALARA, which is short for “as low as reasonably achievable.” They pretty much refer to the same as ALARP.

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