**Loss of power: The ‘Bowtie approach’**

**Hazard, threats and consequences:** In the centre of the diagram, Loss of Power is identified as the ‘hazard’, while blue squares to the left identify a range of ‘threats’ which, if not controlled, could cause a serious incident involving P&I claims and other consequences which can be seen in the red shape on the far right of the diagram.

**Controls:** Between these extremes can be seen the ‘controls’ which, if they work properly, will prevent the accident happening and on the right hand side of the diagram, controls which will mitigate the consequences.

Thus taking as an example the threat of Main Engine Failure (left hand side), controls which should be in place to prevent this include system monitoring, testing the engine before pilot and berth, the monitoring of starting air, good system maintenance, tests and maintenance for the automation and control systems, good ‘failure to start’ procedures and training and familiarisation of staff.

**Consequences:** The consequences of an accident (right hand side) will be mitigated by the capability of the crew to deal with an incident, good record keeping, emergency reporting and communication procedures, systems and procedures to maintain steering, emergency drills, clear abort procedures, recovery measures implemented by a well trained crew, tug availability and anchor at the ready.