

Informing decommissioning option selection through risk assessment

Expertise

Anatec are experienced in performing risk assessments for North Sea oil and gas operators, enabling them to make informed choices and satisfy Regulators / Stakeholders, e.g., DECC, the MCA and the relevant General Lighthouse Authority, when seeking consent for decommissioning projects and/or associated changes to Aids to Navigation (AtoN). We have been operating in this field of expertise since 2001 and our Principals have been at the forefront of the marine hazard analysis and risk management field for the past 15-20 years.

Infrastructure

Our research has ensured options like leaving platform footings, pipelines and subsea structures in situ are considered against a proper analysis of the risks present to maritime stakeholders. This allows for a full reasoned argument for the consent process, tailored to the specific circumstances of the location.

Risk Modelling

Each piece of infrastructure poses a different risk and hazards can vary according to the different types of maritime stakeholder using the area.

Our assessments are able to:

- Identify the maritime activity present.
- Analyse the risk of interaction with infrastructure left in situ, e.g. passing vessel collisions, fishing vessel collisions and fishing gear snagging.
- Estimate impact energies and fatality rates, indicating Potential Loss of Life (PLL) and Individual Risk Per Annum (IRPA).

The risk modelling is capable of accounting for the potential challenges of:

- Variance in infrastructure design and the potential hazards posed.
- Future changes in shipping routes and activity post-decommissioning.
- Trends in fishing activity.
- Removal of Safety Zones and ERRVs.
- Changes to AtoNs, e.g., during cold storage or 'lighthouse' phase.
- Long term change in risk as structures degrade over time.

Sensitivities can be performed by varying inputs, such as assumed mitigation measures. Assessments are performed using our industry best-practice models, such as ShipRoutes and COLLRISK, recognised by IOGP.



Decision Making

The results and recommendations help our clients, e.g., Shell, Perenco, ConocoPhillips & TOTAL, make optimal decisions when reviewing the decommissioning options. The resulting Navigational Risk Assessment (NRA) can be used to support the consent application. It can also inform the final 'continued liability' phase of decommissioning, ensuring that the most suitable mitigation methods are utilised to minimise risk.

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