

ESR Technology

Managing Fire Risk in Offshore Accommodation Areas

Regulators are increasingly expecting evidence from operators that a suitable and sufficient risk assessment has been performed for offshore accommodation and related areas, in compliance with legislation.

This often requires a dedicated fire risk assessment, separate from the overall platform Major Accident Hazard risk assessment. There is therefore a need to identify all fire hazards, assess the risks, ensure there are adequate controls and that these remain functional at all times for the safety of personnel.

ESR Technology has been providing safety, risk and engineering consultancy support to oil and gas

operators in the North Sea and worldwide for over 20 years, covering a wide range of topics such as fire risk assessments, QRAs, Safety Case development and consequence modelling.

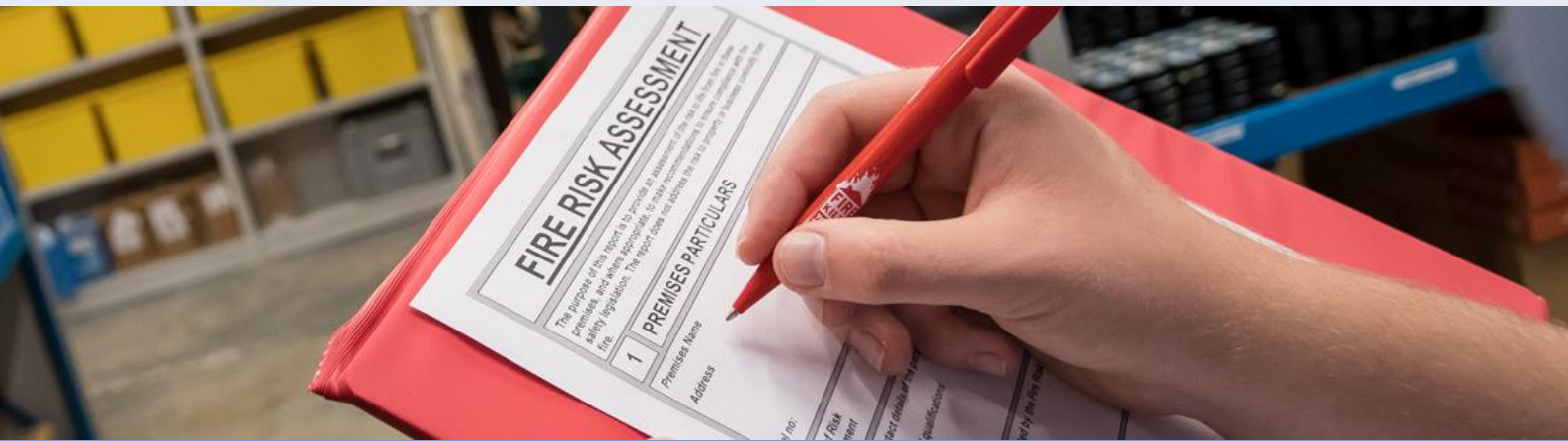
With a wide and varied experience in fire engineering and fire risk assessment, covering offshore installations and general building fire safety, we have the right mix of skillsets and expertise that ensures our accommodation Fire Risk Assessments are conducted in a robust, pragmatic and flexible manner in line with industry good practice.

We provide expert accommodation fire risk assessment support to ensure compliance with regulations and good practice, including:

- ✚ Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations 1995 (PFEER)
- ✚ PAS 79 - Fire Risk Assessment. Guidance and a Recommended Methodology
- ✚ Management of Health and Safety at Work Regulations 1999 (MHSWR)
- ✚ OGUK Good Practice in Fire Management in Offshore Accommodation for Offshore facilities

Accommodation FRA

Helping Dutyholders Assure Fire Safety in Accommodation Areas



We provide a tailored and responsive Accommodation FRA

Data Gathering

Offshore
Survey (Virtual
/ Physical)

Fire Risk
Assessment

Documented
Demonstration
of Compliance

Our experts, including a registered fire engineer, have a sound understanding of the historical development of the legislation and the reasoning behind them, ensuring pragmatic interpretation supported by relevant guidance documents.

Our staff also have sound education, training, knowledge and experience in the principles of:

- fire safety
- fire protection
- fire modelling
- expert witness
- human factors and occupant behaviour in fire scenarios
- combustion science
- fire safety management
- fire investigation
- fire initiation and development

These foundations and experience are invaluable in offshore accommodation fire risk assessments.

In the minority of cases, recommendations from the FRA may require further analysis such as fire and smoke

modelling or evacuation modelling. However, this is unlikely to be necessary under normal circumstances.

We also offer the following related services:

- Assessment of fire/explosion hazards as part of a full Quantified Risk Assessment (QRA)
- CFD modelling of compartment fire/smoke movement using FDS software
- Two-zone compartment fire/smoke modelling using CFAST software
- Standalone fire/smoke calculations using engineering correlations
- Assessment of fire and gas detector layout in 3D using ESR's DELOS model
- CFD modelling of explosions using FLACS software
- Emergency System Survivability Assessments, in relation to fire/explosion hazards
- Escape and Evacuation Assessments using ESR's EGRESS dynamic evacuation model