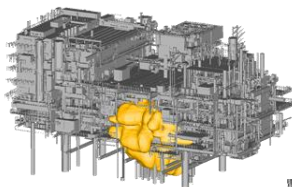


CFD Consequence Modelling Services for Offshore Facility Design and QRA

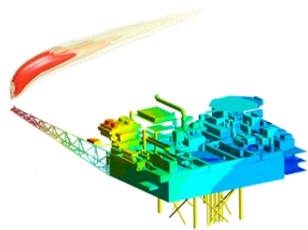
Offshore oil and gas platform risk engineering analysis support

BMT WBM provides advanced fluid and structural analysis services to risk management engineers and clients who design and/or operate both onshore major hazard facilities and offshore oil and gas facilities. Our leading edge engineering helps in reducing risks and minimizing the potential for major hazards such as explosions, fires and toxic gas ingress to occur. BMT WBM is internationally recognised as best in class practitioners with expertise in industry specific software including FLACS, KFX, Fluent, FDS and CFX.

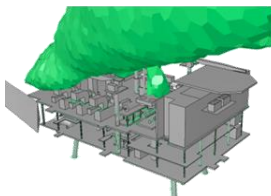
**Full probabilistic
explosion analysis**



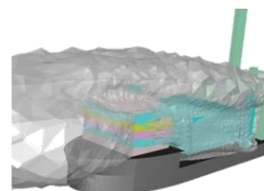
**Worst case scenario
explosion modelling**



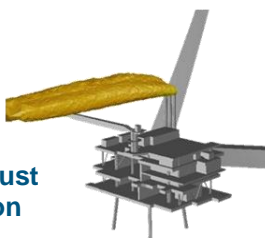
**Helideck operability and design
assessment**



**Flare radiation and flare
header fire impact analysis**

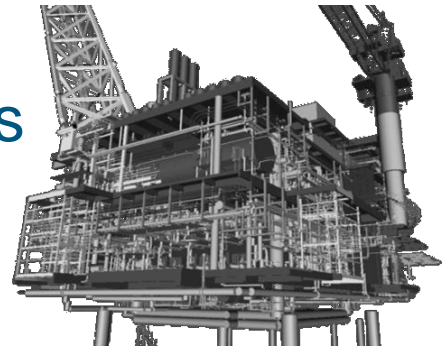


**Turbine exhaust
gas dispersion**



Fire and smoke modelling

Consequence Modelling Services for Offshore Facility Design and QRA



Explosion Risk Analysis

BMT WBM provides comprehensive probabilistic ventilation, gas leak dispersion and explosion analyses for various offshore platforms, drill ships, FPSOs and FLNGs. CFD is used to quantify the overpressures on key structural items, investigate flammable gas cloud sizes and assess mitigation measures. This analysis aids risk engineers to clarify 'what-if' scenarios and to reduce the risks to as low as reasonably practicable.

Exhaust Gas and Thermal Plume Analysis

The objective of the exhaust gas and thermal plume study is to ensure that exhaust gases from sources including turbines, compressors, coolers, etc. do not conflict with helicopter operations on the installation, or impact on the working and living environment.

BMT have investigated more than 100 projects to assess the annual helideck operability in compliance with CAP 437 and CAA 2004/02.

Structural Consequence Analysis

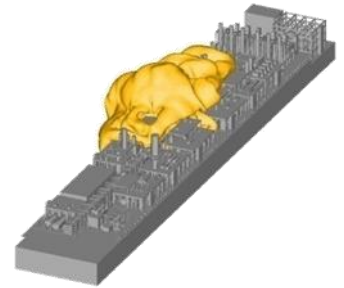
BMT supports risk engineers to quantify the consequences of accidental events (e.g. explosions and fires) on platform structures. This may involve assessing the explosion consequences on critical rooms, collapse of jacket structures due to jet and pool fires, and fire impact on pressure vessels and flare headers.

Additional Specialty Analysis Services

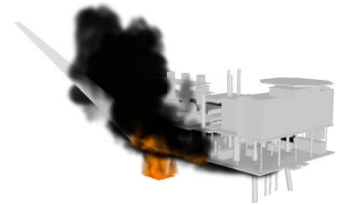
- Structural response analysis to accidental events
- Toxic gas dispersion analysis
- Fire, smoke and gas mapping studies
- Pipe flow-induced noise and vibration
- Well bore flow analysis
- Process equipment design assessment and optimisation

For further information please contact:
Email: AdvancedAnalysis@bmtwbm.com.au

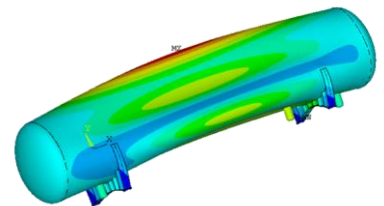
BMT WBM Level 5/99 King St. Melbourne , Australia , 3000 Ph +61 (3) 8620 6100



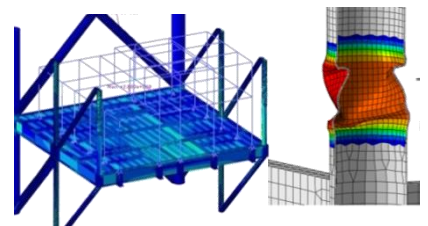
Explosion flame front propagation using FLACS



Fire and smoke modelling for processing platform



Pressure vessel transient jet fire impact study



Explosion impact on deck structure (left) and jet fire impact on the main column (right)