

Hughes Risk Management

2016 Projects Update






Project 1

Development of a training programme for a Semi Submersible rig in Africa to cover recent work on HSE Case, MHRA, Performance Standards and WSE studies for Seadrill.

The scope included the following key elements:

	<p><i>Development of a training package for SCE/SCA Accountabilities and Responsibilities linked to MAH Bowties, SCE/SCA lists and Performance Standards.</i></p>
	<p><i>Development of SCE/SCA Accountability and Responsibility register linked to the Bowties</i></p>
	<p><i>HSE Case training programme for HSE Case and Crew roll out with assessment paper</i></p>
	<p><i>Cascade training of education programme with Client facilitator in the UK prior to internal roll out of training in Africa.</i></p>


This work has been undertaken with direct consultation and input from both the Rig Crew, Management and Regional HSEQ inputs.

Project completed in March 2016 in line with the established and agreed work programme with Seadrill AME.

Project 2

Development of a HSE Case for a Tender Assist Barge in Myanmar in line with the IADC HSE Case Guidance 2015 and Regional Inputs for Seadrill AME.

The project commenced in January 2016 and the scope included :

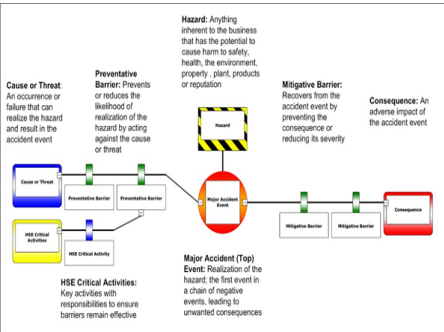
	<i>Development of HSE Case parts in line with the listed requirements of the IADC HSE Case Guidelines 2015 and Industry best practices</i>
	<i>Development of HSE Case compliance register</i>
	<i>HSE Case rollout presentation</i>
	<i>TAB MAH Bowtie development Video for ongoing education</i>

This work has been undertaken with direct consultation and input with both the Rig Management and Regional HSEQ inputs.

Project completed in March 2016 in line with the established and agreed work programme.

Project 3

CGE Risk and their partner company HRM will be holding a joint workshop and seminar in the North West of England covering the use and application of BowTie analysis across industry and the benefits of robust hazard barrier management.


 <p>Cause or Threat: An occurrence or failure that can realize the hazard and result in the accident event</p> <p>Preventative Barrier: Prevents or reduces the likelihood of realization of the hazard by acting against the cause or threat</p> <p>Hazard: Anything inherent to the business that has the potential to cause harm to safety, health, the environment, property, plant, products or reputation</p> <p>Mitigative Barrier: Recovers from the accident event by preventing the consequence or reducing its severity</p> <p>Consequence: An adverse impact of the accident event</p> <p>Major Accident (Top) Event: Realization of the hazard, the first event in a chain of negative events, leading to unwanted consequences</p> <p>HSE Critical Activities: Key activities with responsibilities to ensure barriers remain effective</p>	<p>CGE Risk outline on Bowtie XP and its practical use with worked examples and group exercise</p>
	<p>HRM introduction to application of Bowtie Analysis across Oil and Gas and Manufacturing industries using case study examples</p>
	<p>Bowties and their use in supporting regulatory submissions and link to SCE/SCA/SECE and Performance Standards</p>

The Seminar and workshop is planned for Q3 2016 and will be listed on the HRM website and well as publicised via the CGE Risk network.

Project 4

Development of a HSE Cases for Tender Assist Barges ED1 and ED2 based in China in line with the IADC HSE Case Guidance 2015 for Energy Drilling.

The project commenced in February 2016. The scope included :

	<i>Development of HSE Case parts in line with the listed requirements of the IADC HSE Case Guidelines 2015 and Industry best practices</i>
	<i>Development of HSE Case compliance register</i>
	<i>HSE Case rollout presentation</i>
	<i>MAH Bowtie development Video for ongoing education for the TAB's</i>
	<i>MHRA development including SCE, SECE and SCA listings undertaken for ED1</i>

This work has been undertaken with direct consultation and input from both the Crews, Management and Regional HSEQ inputs.

Project completed in May 2016 in line with the established and agreed work programme.



Project 5

The purpose of the study was to define requirements to manage asset integrity through identification of Safety Critical Element (SCE) and formalisation of minimum Performance Standards (PS). This was undertaken for TaqTaq Operating Company in Kurdistan and the UK.



Review of existing studies, establish and ratify bow ties for the facilities, Pipelines and Manifolds

Development of SCE, and SECE listing for the facilities and interdependency matrices. Development of SCE and SECE Register

Development of performance standards for the identified SCE and SECE's for the facilities

Report and inputs to support maintenance and inspection regime verification and assurance processes

An integrated programme of work was established that required a working team from both HRM and the Client to allow information transfer, cascade of techniques and overall SCE and SECE application and management. The work programme commenced in March 2016 and delivered in July 2016.



Project 6

Development of Bowties and Safety Critical equipment listing for can conveying systems for Sri Lanka and Thailand for ECI Limited.



Review of design basis and failure modes and effects

Development of SCE based bowties linked to failure modes for barrier analysis assessment against the design premis


*Report and inputs to support the verification and assurance process linked to the ECI HSEQ systems.
BowTie presentations for MAH's and Failure interdependencies for identified Safety Critical Elements in the design process*

Work commenced in December 2015 with call off arrangement through 2016. Work undertaken in the UK.

Project 7

Development of a HSE Case, MHRA and Training Package for Tender Assist Semi Submisble Unit ED3 based in China in line with the IADC HSE Case Guidance 2015 for Energy Drilling.

The project commenced in May 2016. The scope included :

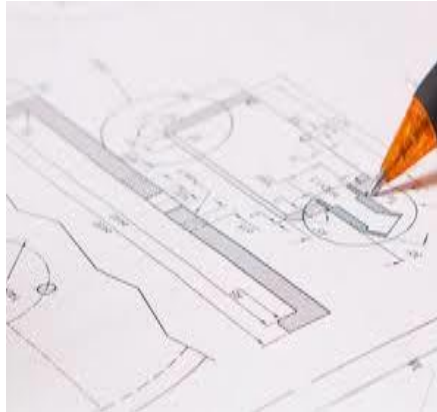
	<p><i>Development of HSE Case parts in line with the listed requirements of the IADC HSE Case Guidelines 2015 and Industry best practices</i></p>
	<p><i>Development of HSE Case compliance register</i></p>
	<p><i>HSE Case rollout presentation</i></p>
	<p><i>MAH Bowtie development Video for ongoing education</i></p>
	<p><i>MHRA development including SCE, SECE and SCA listings</i></p>

This work has been undertaken with direct consultation and input from both the Crews, Management and Regional HSEQ inputs.

Project completed in July 2016 in line with the established and agreed work programme.

Project 8

Detailed Design Technical Safety support for Compression and FEED and Detailed Design development modifications under for Toucan and EOG projects within an established 3 year call off services agreement (2015 – 18) for Massy Wood Group Trinidad and Tobago.

	<i>FEED and Detailed Design Hazop and Hazid Chair and reporting</i>
	<i>Development of Project Technical Safety Plan, EER and Layout studies</i>
	<i>Qualitative risk assessment linked to the HAZID and Hazop processes Gas dispersion review</i>
	<i>Input to modification change process and design change registers</i>

The work programme commenced for EOG and Toucan in June 2015 with a delivery date of March 2016. Project completed to Client satisfaction. Work was undertaken in the UK and In Trinidad and Tobago. Further project work current in the process of issue under the established call off agreement.



Project 9

Engaged to undertake an independent accident investigation following personnel injury at a C.RO Ports Limiteds Port Facility, Humberside, UK

The scope included the following key elements:



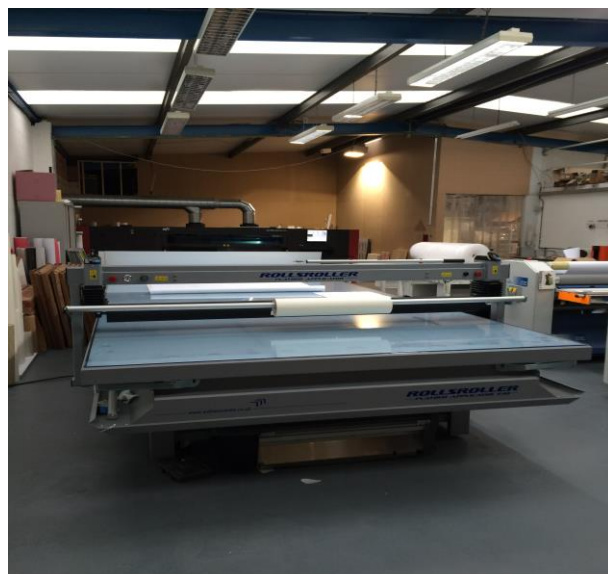
Site visit, interviews of those involved in the incident, documentation review and a report on the process and findings, which included:

- a. The facts, causes and outcomes of the incident*
- b. Contributory factors*
- c. Risk minimisation*
- d. Recommendations for prevention of other potential occurrences*
- e. Possible HSE Breaches*

*The investigation utilised BowTie Incident XP software to establish time lines and potential HSE Critical barrier/control failures
Development of a full accident investigation report
Development of HSE Observations report from the site visit of non-incident related findings and recommendations for Client consideration*

Project 10

Following HSE improvement notices, HRM support the Grafix Signs Carlisle to establish the following systems and design modifications to a printing and graphics company.



With Client, developed full HSEM system which included refocus based on HSG65 and ISO14001 and 18001

Risk assessment programme covering the workshops, site work and Customer integration for a wide range of facilities. This included the use of BowTie XP and worker involvement in development and risk acceptance sessions

Full COSHH review and re assessment. This further included the painting systems and storage and ongoing health Surveillance programme

Layout and design change to support a « through process » system and to ensure that noise related areas were acoustically protected as required with ongoing noise surveillance system

The work programme commenced in November 2015 and completed April 2016 with the result of improvement notices being closed.



Project 11

Chair and Scribe for an interconnections HazOp for Taq Taq Operating Company for its CPF1 and CPF2 facilities in Kurdistan



Review of connections and P and Id reviews, Cause and Effects and mark ups linked to existing studies

Undertaking leadership and scribe of the HazOp in Kurdistan using PHA PRO 8 and utilising the established TTOPCO procedures

Actions management and close out

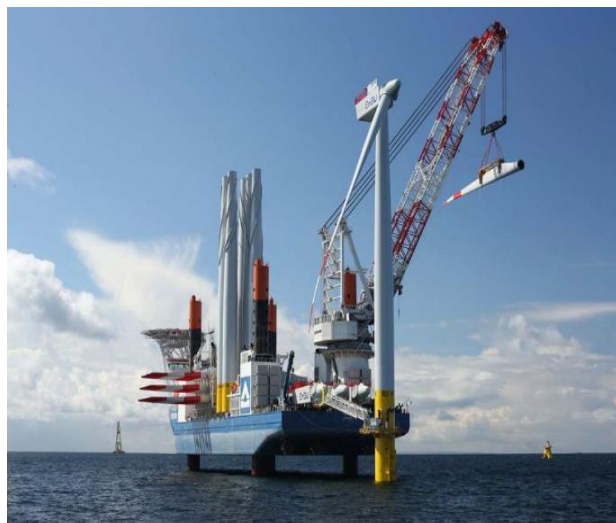
Reporting

The work programme commenced and was completed in September 2016.

Project 12

Development of a HSE Case and MHRA study for Jan De Nul's vessel Vole Au Vent. The project covered a HSE Case to meet requirements under SCR 2015 for platform decommissioning as a support accomodation role for Oil and Gas Installation activities.

The project commenced in June 2016. The scope included :



Development of HSE Case parts in line with the listed requirements of SCR 2015 for Non Hydrocarbon Vessel activities.

*Major Hazard Risk Assessment and Hazard Register development using BowTie XP.
EERA and ESSA assesments.
ALARP review and fit for purpose statements*

Development of HSE Case compliance register with SCE's and Performance Standards

Roll out and training packages for CDM submissions and roles and responsibilities.

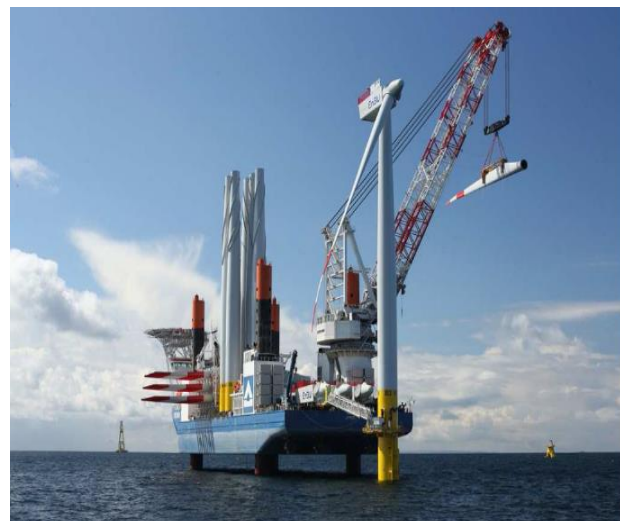
This work has been undertaken with direct consultation and input from both the Crews, Management and Corporate inputs.

Project compled is due in November 2016 in line with the established and agreed work programme.

Project 13

Development of a CDM submission register, MHRA and supportive information Case for Jan De Nul's vessel Vole Au Vent. The project covered a review and documentation to meet requirements under CDM and Maritime Regulations for UK Waters renewable energy activities.

The project commenced in August 2016. The scope included :



Development of CDM register in line with the listed requirements CDM and appropriate Maritime Regulations with supporting risk assessments using BowTie XP.

Development of a CDM compliance register and guidance document with underpinning HSE Case for Wind Energy renewable projects in UK Waters.

Rollout presentation to Jan De Nul Management and responsible persons under CDM

Development of a CDM compliance register and guidance document with underpinning HSE Case for Wind Energy renewable projects in UK Waters.

This work has been undertaken with direct consultation and input from both the Crews, Management and Corporate inputs.

Project completion is due in November 2016 in line with the established and agreed work programme.



Project 14

Project with leading landscaping and fencing company M and J Fencing in London to establish the following systems.



With Client, developed full HSEM system which included refocus based on HSG65 and ISO14001 and 18001

Risk assessment programme covering the workshops, site work and Customer integration for a wide range of facilities. This included the use of BowTie XP and worker involvement in development and risk acceptance sessions

Full COSHH review and re assessment. This further included ongoing health Surveillance programme

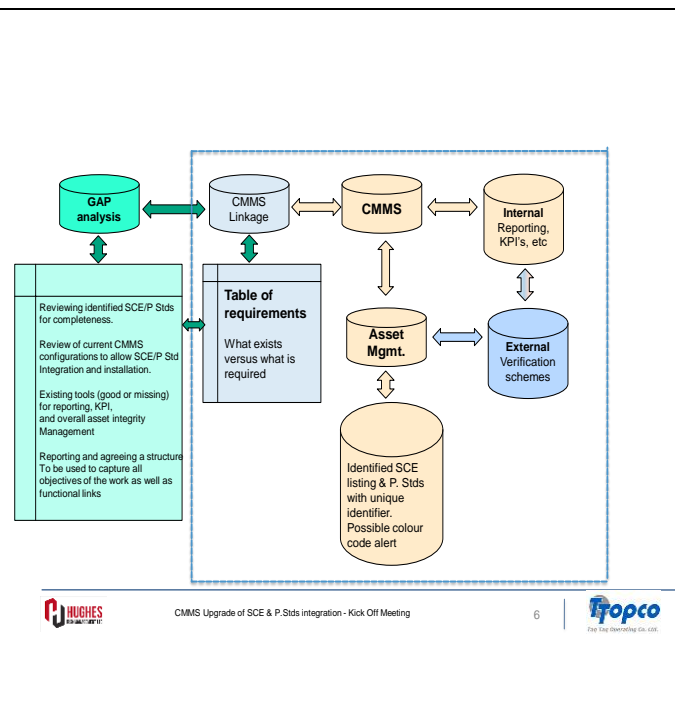
The work programme commenced in June 2016 and completed September 2016.



Project 15

Updating an established CMMS to upload Performance Standards and SCE's from a previously established HRM study.

This is being undertaken for TaqTaq Operating Company in Kurdistan and the UK.



Review of existing CMMS infrastructure to accept the Performance Standards and SCE's using gap analysis with recommendations as an initial phase of the work.

Development of infrastructure and monitoring system for Performance Standards and SCE's within CMMS with support tools for maintenance and inspection activities as second phase of the work.

Uploading an launch of CMMS with integrated Performance Standards and SCE listings/system linked back to established systems such as MOC.

Written scheme of examination integrated with established KPI's for lifecycle audit, integrity and verification of Performance Standards.

An integrated programme of work has been established that requires a working team from both HRM and the Client to allow information transfer, cascade of techniques and overall application and management with activities in the UK and Kurdistan. The work programme has commenced in September 2016 will be delivered in December 2016.

Project 16



PEER review and information integration to existing hazard management system following and independent HazOp and HazId for upgrade of well management package to existing drilling rig.



Review of results against the rig configurations to ensure that the existing Hazard and ALARP envelope had not been compromised. This further included an assessment based on EERA and ESSA considerations for existing SCEs and Performance Standards.

Update of existing BowTies, Hazard Register, HSE Case (under SimOps) and inclusions of system Performance Standard to the existing register.

Reporting and provision of underpinning assurance report to the HSE Case for the package inclusion in SimOps.

The work programme commenced in December 2015 and was completed in April 2016.

For further information on services or projects please contact us at

info@hughesriskmanagement.com

Our location is



Or visit or webiste at www.hughesriskmanagement.com



