

CASE STUDY


Royal Dutch Shell Improves Safety and Increases Savings With RiskPoynt






Company

 Royal Dutch Shell (BG Group)

 United Kingdom

 Oil & Gas

Challenges

- Need to improve ability to identify interrelated failures
- Want to form a greater understanding of the organization's risk
- Need to gain access to visual overview that is easy to understand
- Want to communicate risk effectively to all levels of the organization

Results

- Improved risk management process that adheres to IOGP standards
- Increased visibility of Operational Risk exposure to senior management
- Improved open discussion of factors affecting safe operation
- Reduced loss of production
- Reduced cost of reporting

Royal Dutch Shell Improves Safety and Increases Savings With RiskPoynt

ABOUT ROYAL DUTCH SHELL

The UK portion of the Northwest Europe Continental Shelf is a harsh environment in which to explore for and produce oil and gas. In that environment BG Group (part of Royal Dutch Shell) has learned to expect the unexpected and to respond effectively to “abnormal” situations. Anything from a minor upset that affects operations, to a temporary loss of logistics support or even the identified impairment of some safety-critical element can create a deviation from normal operation. Operators’ prime consideration in any abnormal situation is to avoid any increased risk to safety. This is the basis for using operational risk assessments (ORA) to manage the situation and put in place an effective mitigation, enabling them to continue to operate and work safely until recovery, or to take any necessary shutdown actions.

CHALLENGES

In 2008, the UK Health and Safety Executive posed two questions to BG (Royal Shell Group):

- **How does BG assess and manage the cumulative effect of risk on its assets?**
- **How does BG demonstrate control of its assets?**

Unable to answer these questions to its own satisfaction, BG set out to find or build a solution that could provide a clear and concise answer to these questions; and, consequently, clearer definitions of the questions themselves.



SOLUTIONS

Over the following two years, BG’s Process Safety Team developed a robust manual data-management and best-practice process that won the Chairman’s Award for Asset Integrity for the North Sea Assets in 2010. This spurred on the further development of the process to be automated and set out a project to develop what was called Cumulative Risk Profile, later termed Barrier Model, and now identified as the product RiskPoynt. The design concepts and business thinking that went into the original manual process were automated into a software product and deployed across BG (Royal Dutch Shell) assets.

Key Objectives

- Improve ability to identify interrelated failures
- Form a greater understanding of the organization’s risk
- Gain access to visual overview that is easy to understand
- Communicate risk effectively to all levels of the organization

Key Regions

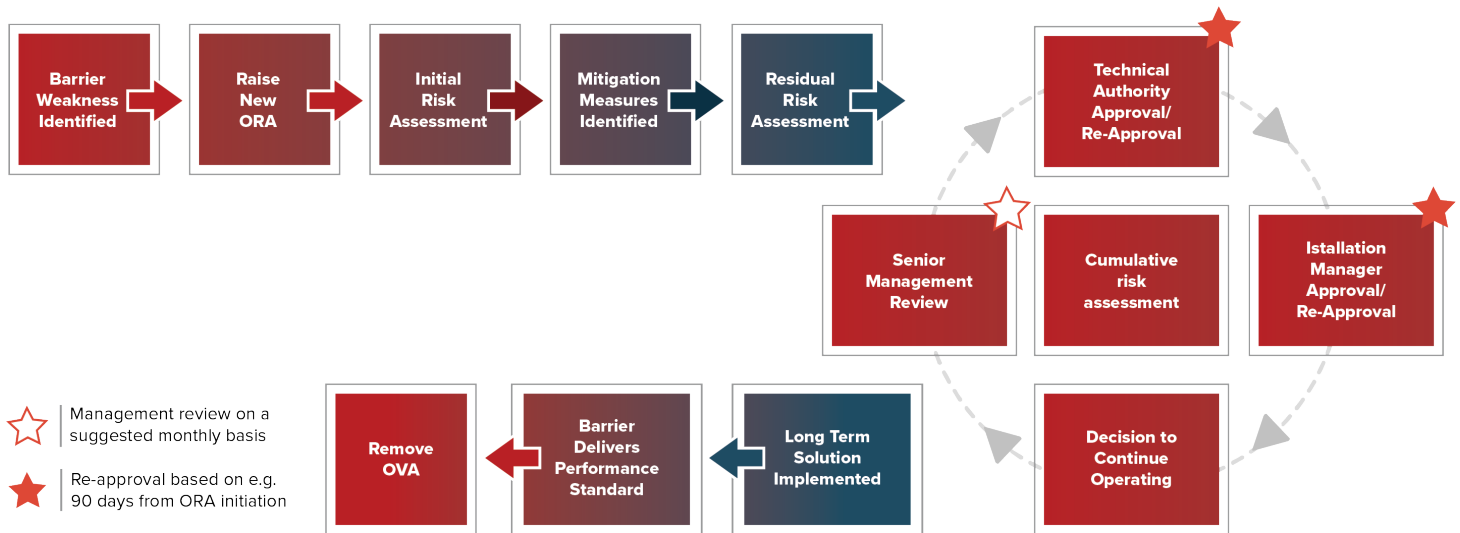
- North Sea
- Trinidad & Tobago
- Tunisia
- India
- Australia

BG decided to host a single instance of RiskPoynt at corporate IT and integrate it into their global Maximo work management system for the majority of sites (SAP PM for India) to feed real-time safety critical maintenance and deferment information. Subject matter experts were trained in each region to assure the process and systems are maintained, and RiskPoynt is now used with confidence daily, weekly, fortnightly, monthly and yearly for reviews, audits, and formal reporting. The system and process have grown to include 400 registered users, and over 33 installations (onshore processing and offshore production). Now, any of these users can see the cumulative effect of risk on their assets.



PROCESS

For BG, the process starts with the platform – integrity related issues are identified – and discussed at installation management meetings. Here the assessment is made initially using performance standards, identified interrelated failures, and an understanding of the risk. Interim control measures are then agreed upon. Mitigation control measures are documented through the operations risk assessment process which outlines the management of mitigation measures applied. This process is mirrored within RiskPoynt.



Onshore Support and technical authorities further discuss the issue. Discussion ranges around the further understanding of the issue including challenges for continued operation, clarification of standards and agreement that the control mitigation measures are adequate and appropriate to reach ALARP.

Once risk and mitigation measures have been fully understood and applied, the result is communicated across the organization via RiskPoynt’s dashboard visualization. The use of the cumulative risk profile to explain and illustrate is an effective way of demonstrating the integrity status and control of the installation.

Consequently, management discussion and engagement with the installation are brought into focus with clear visibility on status of asset integrity due to competency deficiencies - along with open discussion, better decision making, and effective interventions leading to long-term solutions.

BENEFITS

Immediate

- Sustained industry risk management best practices
- Enhanced barrier model and bow ties analysis for Asset Safety Cases
- Improved risk management process that adheres to IOGP standards
- Increased visibility of Operational Risk exposure to senior management
- Improved open discussion of factors affecting safe operation
- Enhanced ability to perform and validate “What if” scenarios

Ongoing

- Reduced loss of production
- Improved ability to spot events before they escalate
- Enhanced early detection of interdependencies
- Reduced cost of reporting

About Prometheus Group

Prometheus Group is a leading global provider of comprehensive and intuitive enterprise asset management software solutions that work within ERP systems and span the full work management life cycle for both maintenance and operations. Developed jointly with end users, Prometheus software enhances the customer experience for planning, scheduling, and executing work for both routine maintenance and shutdowns and turnarounds, all while protecting the workforce with safety solutions and electronic permit to work. Our straight-forward functionality, graphical visualization, and simple processes enable customers to increase productivity, reduce costs, and improve reporting. For more information, please visit www.prometheusgroup.com.