Synectics has provided a complete surveillance solution for BP’s ambitious North Sea Quad 204 project, which replaces the existing Schiehallion Floating Production Storage and Offloading facility (FPSO).

Quad 204 is a major redevelopment of the greater Schiehallion and Loyal fields. A new 270m long FPSO – the Glen Lyon – will replace the old Schiehallion FPSO, located in the North Sea, 150km from West Shetland.

**Project need**
Designed to be operational for at least the next 25 years, and with exposure to extreme, wet, and saliferous weather conditions, the new FPSO required a solution that would provide longevity of operation with equipment that would withstand tough environmental conditions.

Contracted to supply telecoms and security systems for the new FPSO, Page Europa needed a comprehensive surveillance solution to ensure the safety of the crew, as well as to detect and alert personnel to emergencies.

Page Europa has worked with Synectics extensively in the past, on North Sea and other global oil and gas projects. Given Synectics’ unique understanding of the challenge – having designed and supplied the original surveillance solution for the Schiehallion FPSO – the global surveillance solutions specialist was tasked with delivering on the project brief.

**Comprehensive coverage**
More than 80 COEX C3000 ATEX-certified PTZ camera stations, predominantly comprised of the C3000-V models with wiper, will be deployed on the vessel. Positioned in key locations, the camera stations will protect the vessel, and monitor operational areas and accommodation blocks – home to up to 125 people at any one time. To meet the particular requirement of flare monitoring, camera stations were supplied with extended zoom capability.

The hazardous area camera stations are compact, reliable, and durable, and offer continuous rotation pan and tilt. The cameras also incorporate variable speed, providing greater control and preset accuracy to ensure smooth, proportional movement in all types of weather and motion conditions. Also supplied were COEX FEWS/2 wash systems, a vital tool that enables cleaning of the camera window to ensure clarity of video footage in spite of the conditions experienced in the North Sea.

“The surveillance solution we’ve developed for the Quad 204 project blends camera durability, system reliability, and intelligent integration to ensure its people, processes, and assets are protected well into the future.”

Amedeo Simonetto
Business Development Director, Synectics

Synectics protects Quad 204 FPSO

Synectics

OIL & GAS
**IP networked solution**
To minimize storage space requirements, analog video signals from the cameras are digitized and compressed with a Synectics e100 H.264 encoder, and feed directly into the Synergy command and control platform in the vessel’s communications hub.

Using Synergy, operators at the three networked workstations can quickly and easily view a map of the vessel that shows each camera’s location and status, select cameras as required, and control them with full PTZ and zoom capability.

The system can be programmed to detect anomalies, intrusions, or security breaches and immediately alert operators to a potential threat with live footage from the nearest cameras. It also allows resolution and frame rate to be adjusted according to requirements. For example, a low-risk area may normally require low-resolution footage, but if a threat is detected in that area the operator can immediately enhance the image quality for monitoring and evidential purposes.

Remote viewing of live and recorded footage, both onshore and offshore, allows operators to monitor the FPSO and its operations at all times.

**Integration capabilities**
The Synergy surveillance command and control platform also integrates with the FPSO’s Telecommunications Supervisory System and its video conferencing system. This second integration enables the feed from any camera to be pushed to the central conference facility, making it ideal for security briefings and, should the need arise, emergency response meetings.

**Synectics’ view**
Amedeo Simonetto, Business Development Director at Synectics, said: “Quad 204 is one of the most important subsea redevelopment projects in the world. The surveillance solution we’ve developed for it blends camera durability, system reliability, and intelligent integration to ensure its people, processes, and assets are protected well into the future.”