

RISK MANAGEMENT: ATMS HELPS GAS PIPELINE CONSTRUCTION PROJECT REGAIN CONTROL

CUSTOMER

Gas Pipeline Construction Project with multiple international stakeholders

LOCATION:

Caspian Region and Europe

PERSONNEL:

~15 000

REQUIREMENT:

Unified Risk Management across locations, legislations, project phases, stakeholders and management systems

SOLUTION:

- Adopting Pisis ATMS for Risk Management
- Standardising Risk Matrices
- Standardising Workflow

RESULT:

- Streamlined risk management
- Reduced risk and safer working
- Better structure for creating HAZOPS, SILs & associated actions
- Better communication between stakeholders at all project phases, locations and management systems
- Time saving



BACKGROUND: THE PROJECT

This customer leads a project for the construction of a new natural gas pipeline spanning 1850 km from Azerbaijan to Europe.

The construction includes a 19km section of pipeline beneath the sea, as well as above-ground facilities (compressor, measurement, pigging and valve stations), two take-off stations, temporary camps, pipe storage areas and even access roads.

15000 personnel are employed by a variety of stakeholder and partner companies to work on pipe manufacturing, construction, and support.

The project is certified to the ISO 9001, 14001 and OHSAS 18001 standards. As such, Risk Management is an integral part of managing their work.

- They track and manage risk from different sources, including environmental risks
- They work to cross-country legislation.
- They manage actions that were generated to mitigate risks and ensure close-out as part of the project management process.

CHALLENGE: MANY SYSTEMS, TOO MANY SPREADSHEETS

Due to the large number of people working on the project and its wide geographical area, it became apparent that risk and associated actions needed to be managed centrally, so that everyone could access all relevant information from anywhere, at any time.

To add more complexity, many of the stakeholders and partner companies had their own company management systems already, some of which included their own way of managing risk. These internal systems were not accessible to people outside of that organisation, making collaboration difficult, and often introducing additional hurdles to the safe working of all.

A unified system for Risk Management had to be found, which:

- worked for all stakeholder companies across all project phases, locations and company management systems
- was accessible from anywhere.

The project started to use spreadsheets to manage risks, but soon found out that this was too large a task for spreadsheets to handle:

- Multiple copies of spreadsheets were created, often with discrepancies between them. Management and personnel could not be certain that they were working to the latest information. Decision making, and co-ordinating work was difficult.
- Spreadsheets were not accessible from all project locations.
- Workflow was difficult to implement and track using spreadsheets.

SOLUTION: PISYS ATMS & RISK MATRICES

A number of project personnel had already used Pisis ATMS Action Tracking Management System, and they approached Pisis for help.

- ATMS was introduced in all project locations and stakeholder companies, giving everyone a common system to work with.
- Pisis built a 'risk matrix' functionality into ATMS, which allows users to set up custom matrices to suit their needs. Many engineers were already familiar with risk matrices, and did not have to learn a new approach - this saved on training times and associated costs.
- Pisis assisted with migrating actions from existing spreadsheets into ATMS and provided training so that personnel were quickly able to use the system independently.

RELEVANT ATMS FEATURES

- Pisis ATMS is cloud-based, and all information is centrally held and accessible from anywhere.
- With ATMS, all project stages and actions are saved electronically in a central location and are accessible from anywhere.
- ATMS allows the creation and tracking of actions to mitigate risks across the whole project, to structure actions, projects and sub-projects, and manage the workflow all the way to closure.
- ATMS automatically keeps a record of all changes to an action, making sure that all people involved are kept informed.
- The newly added Risk Matrix feature allows users to create and customise risk matrices to their own methods, terminology and colour coding.

RESULTS

- A unified process for managing Risk across all project stages, locations, stakeholder companies and management systems.
- Structure for creating studies, HAZOPS and SILS and associated actions.
- Better and more streamlined risk management
- Better record keeping
- Reduced risk to personnel, the environment and assets - because of better communication
- involvement of all partners, contractors and stakeholders when required
- saving all project stages centrally
- the reassurance that all actions are closed out before a task progresses to the next stage.

EXAMPLE OF A CUSTOMER-CREATED RISK MATRIX:

		Consequence				
		E - Rare	D - Unlikely	C - Possible	B - Likely	A - Almost Certain
Likelihood	5 - Catastrophic	10 (H)	18 (H)	22 (H)	28 (H)	25 (H)
	4 - Major	10 (M)	14 (M)	18 (M)	21 (M)	23 (M)
	3 - Moderate	6 (L)	9 (L)	13 (L)	17 (L)	20 (L)
	2 - Minor	3 (L)	5 (L)	8 (L)	12 (L)	16 (L)
	1 - Negligible	1 (L)	2 (L)	4 (L)	7 (L)	11 (L)

For more information of how Pisis could help with risk management, please contact us:

PISYS 30
providing technical solutions for years

Pisis House
Grandholm Crescent
Aberdeen
AB22 8AA

+44 (0) 1224 672460

Info@pisis.co.uk

<https://pisis.co>



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