VARS – providing safe transport for toxic materials

SIA VARS

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Manufacturing & Distribution

· Founded in 1991

· Headquartered in Ventspils, Latvia

· Handles 205,000 tonnes of acrylonitrile a year

· Operates on a 24-hour basis

· Uses Kaspersky Industrial CyberSecurity

SIA VARS specialises in the storage and shipment of liquid chemicals (acrylonitrile), overseeing the journey from rail to sea shipment

The company is the only petrochemical terminal in the Baltics for receiving, storing and shipping acrylonitrile. A number of factors make the terminal unique: it is located in a free economic zone of an ice-free deep-water port, has convenient transport links and collaborates closely with chemical and petrochemical terminals located nearby.

The VARS petrochemical terminal includes several key sites with critical infrastructure:

· A loading/unloading platform, equipped with loading points that can simultaneously handle 12 rail tank cars or 20 rail containers, enabling product loading at a rate of up to 110m^3/hr
· A tank farm of six tanks, each holding 2,000m3
· Onshore and offshore product pipeline sections - two strings with a diameter of 200mm and each with a pipeline length of 1,200m
· A gas cleaning unit designed to capture and clean acrylonitrile vapours from exhaust gases that form during loading and unloading operations and during storage in tanks
· A fixed offshore shipping berth.

No more than 10 people are employed across all of these key sites, making efficient process automation key to the safe operation of the business.

Challenge

As operations at VARS involve the handling of hazardous toxic materials, it is very important to eliminate any human errors. Operational processes are therefore automated and managed by ICS/SCADA. Because of this reliance on automation, information security is critical. A random virus attack or internal security breach may present a threat not only to the business itself but also to employees and the environment, as the company is located only 120 metres from the Baltic Sea and is very close to the populated area of Ventspils.

The stable running of the shipment terminal is essential to the business. "If the VARS terminal stops operating, this could disrupt the normal functioning of the plant, which would cause significant financial losses and technology problems associated with the restarting of the chemical facility," says VARS Technical Director, Roman Yanukovich. The fact that this is an industrial network, however, means it is impossible to use standard IT security software designed for corporate environments.

The Kaspersky Solution

"Having spoken with our partner SIA Latus SARDZE and having studied the market, we opted for the Kaspersky Industrial CyberSecurity solution to protect the industrial control system for the acrylonitrile shipment and storage line," says VARS Technical Director, Roman Yanukovich. "What interested us most was the application control whitelisting mode that only allows trusted programmes to be launched."

"Kaspersky Industrial CyberSecurity meets our requirements in full and has also enabled functions such as device control as well as centralised control and monitoring of the protected units."

Roman Yanukovich,
Technical Director, SIA VARS

Security
Cyber security functionality adapted
to work in an isolated environment

Control
Application control whitelisting ensures only
trusted applications are launched
on operator workstations

Performance
kaspersky Industrial CyberSecurity
optimised to operate in conditions of
heightened fault tolerance

Latus SARDZE and Kaspersky worked together to identify the major priorities for the deployment of Kaspersky Industrial CyberSecurity. The operating system had to be rebooted within a strict time period, a process window had to be created, resource consumption by the product needed to be manageable and notifications could not be shown on the ICS/SCADA operator's display.

"The Kaspersky solution meets our requirements in full and has also enabled functions such as device control as well as centralized control and monitoring of the protected units," Roman Yanukovich summarised.

Fruitful partnership

"VARS intelligently assesses the threat landscape and sees an ever-growing volume of industrial cyber-attacks, so the introduction of a special solution to protect the industrial network was more than just well-timed," says Latus SARDZE Director, Andrey Kamenskiy. "This is a really interesting project for us. The Latus SARDZE team provided its facilities to debug software deployment issues and to train personnel. It also played a direct role in the design, installation and support of the functional modules of the system at the deployment site."

**Kaspersky
Industrial
CyberSecurity**

Kaspersky Industrial CyberSecurity is a portfolio of technologies and services designed to secure operational technology layers and elements of your organization - including SCADA servers, HMIs, engineering workstations, PLCs, network connections and even engineers - without impacting on operational continuity and the consistency of industrial process.

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