Client:

NWKG

Kategorie: Switch room.

High-availability control room supervises processes of oil storage in caverns

JST control room: The control room of the Nord-West Kavernengesellschaft mbH (NWKG), which has a fully redundant technical design, secures oil storage in salt caverns at the gates of the coastal city of Wilhelmshaven in Lower Saxony. The control room professionals from JST are convincing here with an overall concept that takes into account both technical and ergonomic aspects as well as the demand for maximum availability.

Hundreds of meters below the earth's surface (underground), up to 11.5 million cubic meters of crude oil can be stored in deep-lying salt deposits in artificially created caverns on the periphery of Wilhelmshaven. This is the way these huge underground reservoirs work: Oil is lighter than water. When oil is pumped into the salt cavern, it displaces the water that fills the cavern. If, on the other hand, water is pumped in, the oil floats to the top and is thus forced out of the cavern.

https://www.jungmann.de/

After almost twelve years, cooperation with JST again

In order to permanently monitor the processes of oil storage and retrieval and also its emplacement, the operators of the new control room have a 24/7 view not only of camera images, but also of pressure sensors, pumps and drives. "We run the cavern operation with this highly available control room," summarizes Lars Janßen, head of electrical engineering at NWKG. The engineer worked with the Jungmann team more than a decade ago to implement a control room. Today, almost twelve years later, he has used the new construction of the NWKG administration building to benefit again from the know-how of the JST experts when planning a new control room.

Operators consciously involved in the decision

"Even the workshop in the control room simulator was a perfect introduction," reports Lars Janßen. "We were able to see and touch everything on site, operate the technology and directly imagine the benefits the new installation will bring. It helped a lot that the operators accompanied us on this visit and that they were deliberately included in the decision-making process."

Interactive experience in the new control room: Zoom, rotate, nighttime view and change of perspective – here you can experience control room concepts in **interactive 360 degree visualisations**! How does the new control room look? How can the operator consoles be optimally positioned? How big should the monitor wall be? With professional 3D studies and virtual tours – here at NWKG in Wilhelmshaven – these and many other questions can be answered at an early stage of the project. Light influences, colours, spatial conditions – there are almost no limits to the design possibilities. Go on a three-dimensional journey of discovery now!

In case of critical malfunctions, red flashing light pulses

In fact, NWKG employees were spontaneously enthusiastic about the possibilities realized with JST components in the new control room: ergonomic furniture with the Stratos control room console, the OPAL X11® acoustic ceiling sail, and extensive furnishings with customized cabinet and sideboard solutions – all equipped with the AlarmLight, which generates attention with red-flashing light pulses in the event of critical fault messages. In addition, a large screen wall whose high-resolution displays are perfect for cross-screen BigPicture presentations, for example, thanks to ultra-narrow frames.

MultiConsoling® performs all requirements

With the implementation of MultiConsoling® technology, several requirements could be performed at the same time: Thanks to an intuitive user interface, effortless handling of the entire control room operation is now possible. With only one mouse and one keyboard per workstation, all systems can be used in a flexible manner. Project manager Lars Janßen particularly likes the so-called MouseHopping, with which the cursor slides directly from the workstation monitor to the displays of the video wall.

Virtual machines comfortably integrated

Even virtual machines could be easily integrated into the control room applications via MultiConsoling®. The GrabberVM® enables comfortable integration and establishes the connection to desired sessions.

NWKG control room before and after renovation

Maximum availability as the top priority

Another requirement that JST performs with the new control room: Maximum availability is the top priority for the operation of the cavern facility near Wilhelmshaven. Lars Janßen: "We have set up highly available technology here. That is of great importance to us." All systems were designed with full redundancy. Corresponding service level agreements and PSM (Proactive System Monitoring) provide additional security.

„The cooperation with JST went perfect as always!"

Frank Emken // Lars Janßen // Olaf Meiland // Olaf Biller // Dirk Lüders

Project Realization // Project Management // Operator // Operator // JST Consultant

> „The entire system is equipped with full redundancy. Such complex requirements for highly redundant systems are among the tasks for which we at JST are predestined. With our solutions, these availability requirements can be performed effortlessly.“

Dirk Lüders

JST Consultant

REQUEST AN OFFER WITHOUT OBLIGATION

The components used in this project:

DisplayWall with special S-PVA panels for reliable 24/7 operation - optional with proactive alarm function

MultiConsoling® **System** – complete control room system for workplace, monitor wall and other systems

![JST JUNGMANN Systemtechnik logo]

myGUI® user interface - in the intuitive 3D design of your control room for maximum user comfort

Stratos X11® control room desk – optional with height adjustment and proactive AlarmLight system

24/7 Recaro operator chair – optional with seat surface extension

Planning /3D planning – architecture, ergonomics and technology from a single hand

OPAL X11® – acoustic ceiling sail – for optimization of sound level and lighting

Surrounding furniture – individually manufactured solutions "Made in Germany"

ControlRoom-Automation – secure and fast processing of alarms

GrabberVM® system – convenient integration of virtual machines

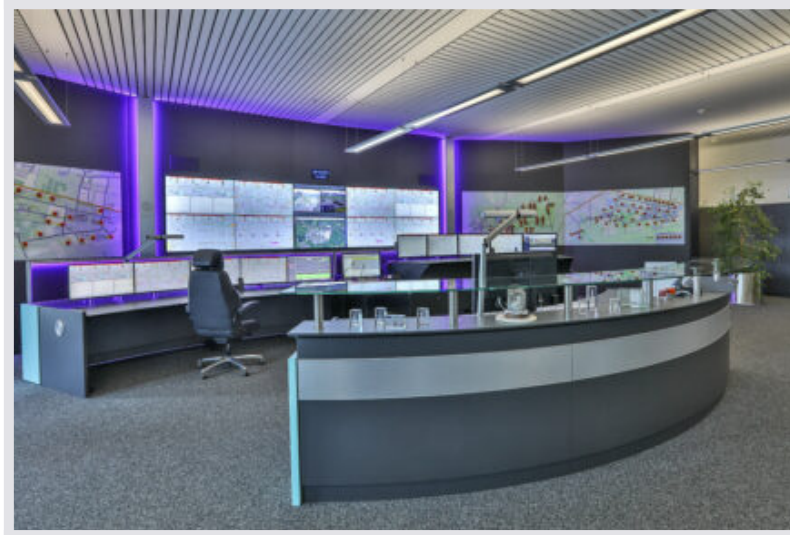**AlarmLight** – safe, visual alarm detection

MouseRadar – more visibility for your mouse cursor

Audio system – for acoustic signals and alarms

PSM Proactive System Monitoring – monitoring of all devices based on permanent status and diagnostic data

Other projects with a similar task

https://www.jungmann.de/

STORAG ETZEL, Friedeburg

Find out more

Stadtwerke Steinburg GmbH, Itzehoe

Find out more

TraveNetz, Lübeck

TRAVE.NETZ

Find out more