

Case Study

KVA LINTH ENERGIE + RECYCLING

Niderurnen, Switzerland

Branch

Waste incineration, recycling & energy production

Project

Complete redesign of operator workplaces in the Linth waste incineration plant command room. Optimization for 24/7/365 operations.

kva linth
energie + recycling





Customer

In the modern **KVA Linth** plant, waste is not simply incinerated, but is used to generate thermal energy for electricity and district heating. KVA Linth also separates iron scrap from incineration residues. With the realization of far-reaching renovations, the consortium (arising from the merger of 28 local municipalities) has made a clear commitment to environmental protection. The ecological impact has been reduced to an absolute minimum.

The Linth waste incineration plant uses the waste heat from waste recycling to supply customers with ecological district heating. A district heating network functions like a large central heating system. Instead of generating heat in each individual building, the Lint waste incineration plant supplies an entire region.

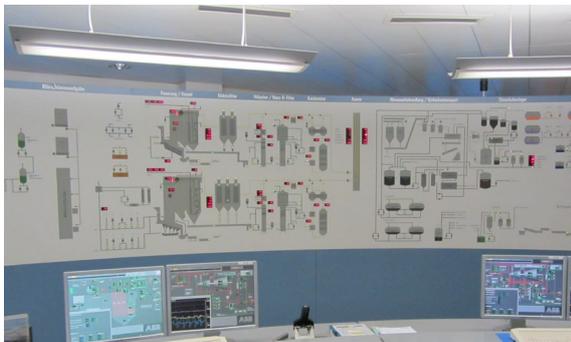
Background

The commando room is the switching centre of the Linth waste incineration plant. The entire plant is controlled and monitored from here around the clock, 365 days a year. The crane that feeds the incinerator with refuse is also operated from here. The commando room was completely renovated in 2016, including the deployment of a new process control system that makes it easier to evaluate and process data. A static circuit diagram made way for a modern dynamic video wall, the workplaces were redesigned for ergonomics and the technical furniture was replaced.

Video wall

The static so-called "mosaic" mimic diagram was replaced by a dynamic video wall consisting of 10x 60" modern rear projection cubes. The video wall offers full flexibility with regard to the switching and display of sources. It displays not only the new 800xA distributed control system from ABB, but also CCTV video images of the incinerator itself, office information, alarms, etc.

The generous video wall is the eye-catcher in the new control room. It is also used for educational purposes and for public relations, e.g. during public tours of the facilities.



Before: A static circuit diagram



After: A dynamic video wall



WEYTEC smartCONTROL

With WEYTEC smartCONTROL, every image on the video wall is freely selectable, placeable and scalable. The dispatchers can use shortcuts on the tailor-made keypads of the smartTOUCH keyboards to select between different video wall presets. This makes it much more intuitive and faster than ever before to use the new process control system.

The Project with ABB

When KVA Linth decided to renew their control system, they opted to completely redesign the commando room. ABB was the general contractor and after conducting their own research, ABB chose the WEYTEC solution as the smart addition to the overall package. The WEYTECdistributionPLATFORM makes it possible to display all information sources on any screens, including the video wall, and to operate the entire working environment via a single multifunctional keyboard.



Ergonomic handling
of all systems

Benefits

All KVA Linth systems are now available at every desk and there are no longer different keyboards for different systems. Noisy PCs have been removed from the commando room and are now stored in a central, secure and efficiently cooled system room. This results in **more ergonomic and efficient workplaces** for the operating personnel.

The new video wall is much more flexible than its predecessor: it dynamically displays all image material (process control system, video camera streams, office programs, etc.) and is faster, easier and more efficient to control.



Reference

Mr. Roland Huber, Chief Electrician Maintenance at KVA Linth comments on this project:

"The modernization of the control room has increased security and improved operating procedures. All in all, it has significantly improved ergonomics at the workplace.

The Linth waste incineration plant now benefits from enhanced operations, system monitoring, security, data analysis and better working conditions for the personnel."

Facts & Figures

Workplace Optimization

- 2 Operator workplaces with 4 screens
- 1 Operator workplace with 2 screens

Multifunctional Keyboards

- 3 WEYTEC smartTOUCH keyboards with customized keypads

KVM over IP

- IP Remote II
- 16 Transmitters / 7 Receivers

WEYTEC distributionPLATFORM

- 8 Sources

Video wall

- 5 x 2 60" Rear-projection Cubes
- Integrated smartCONTROL to manage the video wall



The idyllic location of the Linth waste incineration plant in the Linth region