

Several related, similar systems, managed in a coordinated way to obtain benefits and control

### Challenge

As a part of Electrical Systems, Building Tech provides you with communication systems, fire detection and control systems, CCTV systems, clock systems, security and access control systems and lighting and small power systems.

These solutions are generally used for all tasks in nuclear installations – new-build projects, modernization, projects related to replacement, refurbishment and back fitting.

### Solution

Numerous references for Building Tech (BT) systems plus know-how as a turn-key supplier for NPPs means:

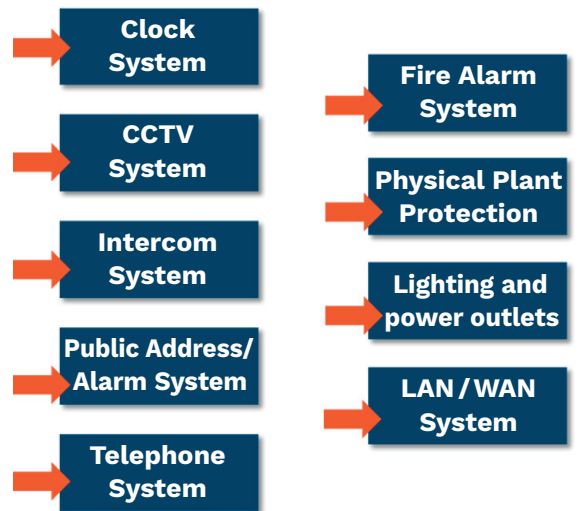
- Comprehensive knowledge of the NPP technology and the specific BT requirements and solutions related to this
- Comprehensive knowledge about the international nuclear standards, codes and regulations
- Experience with BT systems for new NPPs (NB) and for modernization projects (IBB), long distance coordination and project follow-up
- Experience in turn-key sub-contracting (work sharing) of BT systems

The Fire Detection and Control System (FDCCS) in the whole power plant serves to detect fires at an early stage and to report fire locations to a central operator station in the Main Control Room (MCR). It also actuates appropriate fire protection equipment in certain cases (fire dampers and fire suppression systems).

Communication Systems enable convenient and effective communications inside and between buildings as well as with offsite locations.

The Lighting and Socket Systems include all equipment for indoor lighting, power installations (socket-outlets) and dedicated outdoor luminaries.

Physical Protection includes mechanical, civil, administrative, Electrical Physical Protection (EPP) and conceptual measures.

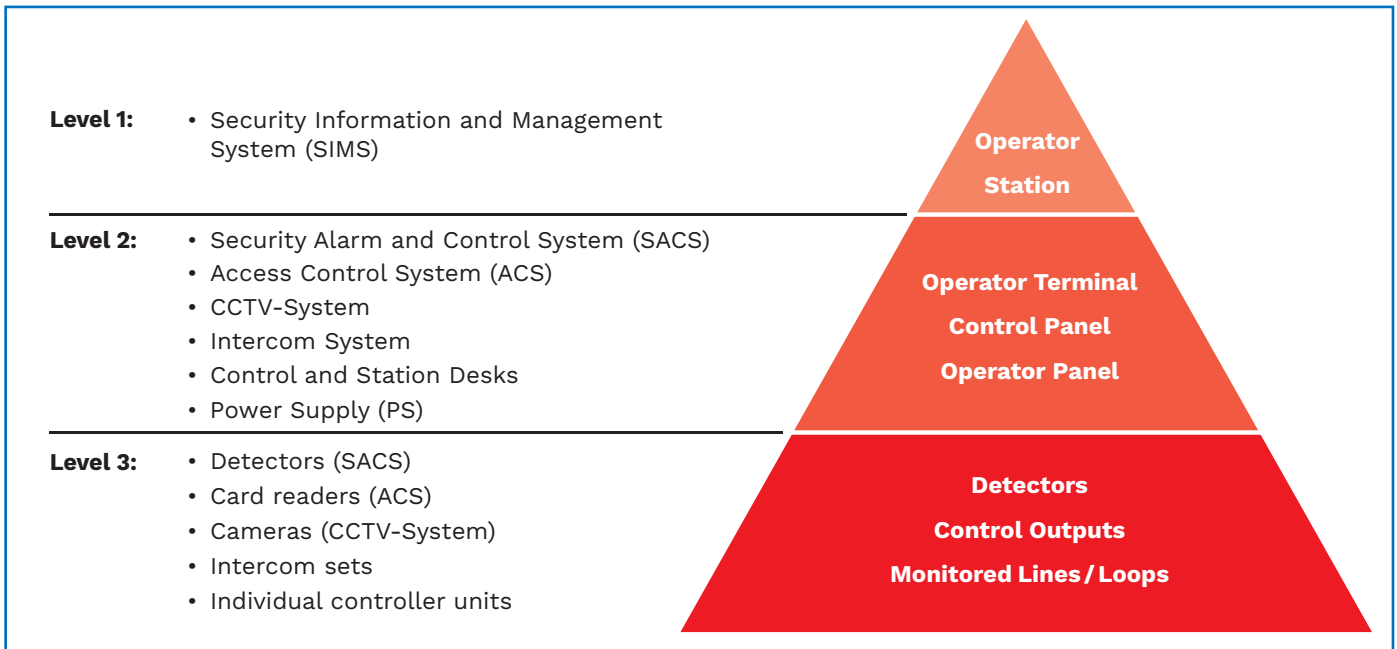


BT Overview

### Customer benefits

- Standard configurations (EPR, KERENA, ATMEA, VVER etc.)
- Improved internal and external costs
- Improved general coordination, interface coordination
- Customer service
- Continuous improvement
- Competitive cost-reduction hardware and software solutions
- Optimization of project schedules due to our wide range of experience
- Coordination of planning and optimization of resources among different projects
- Short term support for procurement, calculations and internal projects
- Management complexity

**Your performance**  
is **our** everyday **commitment**



System Architecture: Electrical Physical Protection (EPP)

## Technical information

### Experience

As part of Electrical Systems we have operated in the Electrical Systems industry for more than 35 years.

We offer solutions that can be used for almost any task in nuclear installation – new-build projects, modernization, projects related to replacement, refurbishment and back fitting.

## Key figures

**> 15.000** Cables in NI (approx. 1/3 of all cables of NI)

**> 300** Floor standing cabinets in NI and TL

**> 650** Wall mounted cabinets in NI (with anchor plate in 3D) and TL

Up to **50.500** devices in total

BT Systems are installed in every room

## References

- Olkiluoto 3 - Complete scope such as fire detection and alarm system, lighting and socket systems, loudspeaker system, siren system, telephone system, LAN network, Intercom system, Clock system, CCTV system, Security systems.
- Angra 2 + 3
- FRM 2
- KKI 2
- Biblis
- Mochovce
- Kozloduy
- Atucha
- Taishan 1+2 - Basic and detail design of fire detection and alarm system, lighting and socket systems, loudspeaker system, siren system, telephone system, LAN network, Intercom system, Clock system, CCTV system, Security systems.
- Oskarshamn 2 - Complete scope for the following systems: fire detection, alarm, lighting and socket, telephone, LAN network, Intercom, Clock, CCTV, Security systems
- Trillo

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