



INDUSTRY BRIEF

Nuclear

Dependable control for decommissioning,
waste treatment and site services.

 MATRIX



What matters most

Working to the safety case

The site's safety case sets the safety classification of each function. Control systems must be designed, documented and tested to the level it requires, with evidence your safety case owners can use.

Modifications under control

Under the site licence, changes to plant need proper categorisation, review and approval. Clear design documents, tested software and complete records make each change easier to justify and accept.

Plant that lasts decades

Decommissioning and waste programmes run for decades. Obsolete controls must be replaced without disrupting operations, with systems your team can maintain long after the project ends.

Security and cyber

Control systems on a licensed site fall within its approved security arrangements. Networks, remote access and removable media must be designed and managed to meet them.

The standards that shape your project

Standard	What it covers
ONR Safety Assessment Principles	The principles the ONR uses to judge safety cases, including for control and instrumentation.
Nuclear site licence conditions	Conditions on every nuclear site licence, such as LC 17 management systems and LC 22 modification.
IEC 61513	General requirements for I&C systems important to safety in nuclear power plants.
IEC 62138	Software for computer-based nuclear I&C systems performing Category B or C functions.
IEC 61508	Functional safety of electrical, electronic and programmable safety-related systems, across the whole safety lifecycle.
Nuclear Industries Security Regulations 2003	Security of civil nuclear sites, including cyber security, which the ONR assesses against its Security Assessment Principles.

The standards listed are those most often relevant to control-system work in this sector. Which apply to your project, and how, is agreed with you at specification stage.

From specification to long-term support



On a licensed site, the licensee stays in control. We work within your arrangements for modifications, quality and security, match design effort and evidence to the classification your safety case sets, and prove new logic against a simulation before it reaches site. You get the design, code and records to run, maintain and justify the system.

Systems we engineer

- Ventilation and filtration control
- Waste treatment and packaging plant
- Effluent treatment plant control
- Site utilities and infrastructure
- Obsolescence upgrades and migrations
- Alarm handling and control room HMIs

PLATFORMS WE WORK WITH

Siemens TIA Portal, S7 and PCS 7 • Rockwell • ABB • Schneider • Mitsubishi • Beckhoff • Emerson DeltaV • Honeywell • GE • WinCC, Ignition, AVEVA (Wonderware), FactoryTalk, iFIX and Citect SCADA

The evidence you receive at handover

✓ Functional design specification

✓ I/O list and cause-and-effect

✓ Alarm list and HMI interface

✓ FAT and SAT records

✓ As-built drawings and source code

✓ Method statements for common faults

Why customers choose us

Standards first

An ISO 9001 certified quality system, designing to the standards your sector demands, plus any you specify.

You own the system

Clear structure, open interfaces and complete documentation, so you can support it yourself or with any vendor.

Tested before site

Control code is version-controlled and tested against a simulated plant before factory and site acceptance.

Multi-vendor

Siemens, Rockwell, ABB, Schneider, Mitsubishi, Beckhoff, Emerson, Honeywell and GE platforms.

In it for the long term

For us a project is not finished until the control system is decommissioned. 24/7 support is available under a support agreement.

OUR PROMISE

Standards-led, fully documented control systems that you own and can support.

GET IN TOUCH

Talk to us about your project

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