

Other brochures available from
AM Sensors; Process and Oil & Gas



Don't just take our word for it...

Our client list includes:

Magnox Sites

- Oldbury
- Trawsfynydd
- Hunterston A
- Bradwell
- Berkeley
- Sizewell A
- Dungeness A
- Hinkley Point A

EDF Sites

- Hinkley Point B
- Hunterston B
- Heysham 1
- Heysham 2
- Hartlepool
- Torness
- Barnwood



AMS Ltd have registered
as preferred suppliers on the EDF
Hinkley Supply Chain Portal.

ams
INSTRUMENTATION & CONTROL

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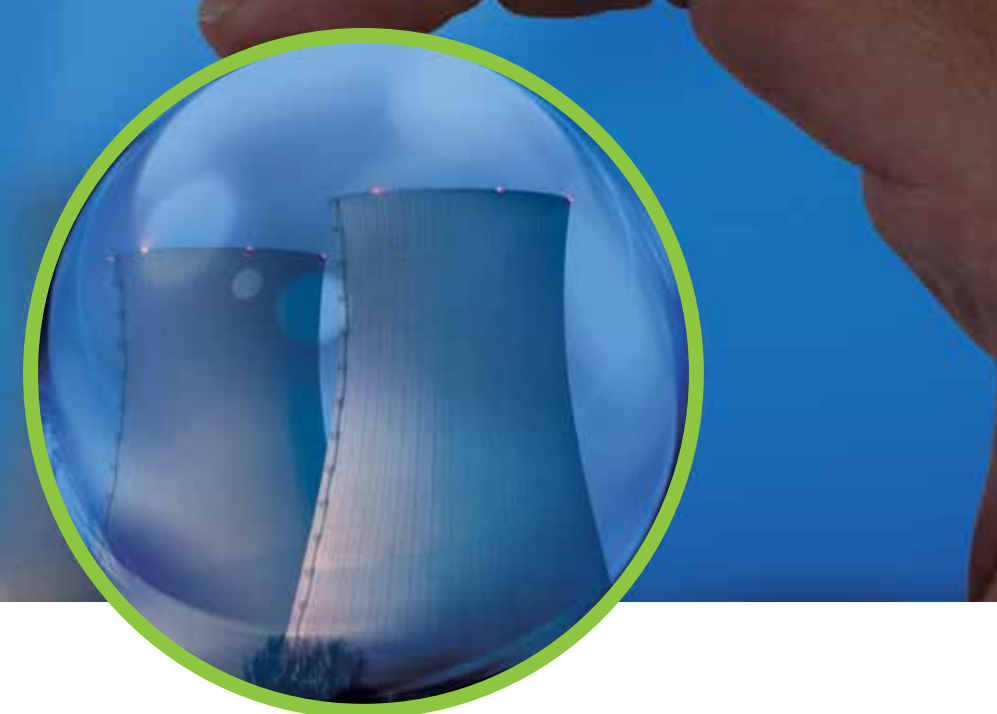


Clarity
when
you
need
it most

FOR THE NUCLEAR
POWER INDUSTRY



Precision instrumentation products



AMS has specific focus on the Nuclear Power Industry. We provide consolidated product supply and support for instrumentation and control solutions using the best available technologies to meet ongoing application needs. Our expertise will optimise your systems and maximise your investments.

Specialist C&I supplier for the Nuclear Power industry

- Product ranges covering all aspects of instrumentation and control including independent advice on product selection for your application
- Custom built sampling equipment
- System integration
- Emphasis approved products
- Products for use in SIL loops
- Trip alarm systems
- Complete panels, fully wired and tested
- Product obsolescence expertise
- Site commissioning

Temperature and Pressure Measurement

We can source any temperature or pressure measurement device to suit your application and preferences. We partner key instrument manufacturers and can advise and supply from one of the most complete ranges of instrumentation available. Our engineers have vast experience in all types of temperature and pressure devices:



- 4-20mA, HART, Profibus and Foundation Fieldbus
- Range of mounting options: head-mounted, DIN-rail, field housing (IP66/67, NEMA 4X)
- SIL2
- Standard and customised programs
- High accuracy, high stability measurement solutions

Level solutions

At AMS we have supplied and commissioned numerous liquid level systems especially to address product obsolescence issues in current nuclear power stations. Our experience and flexibility in providing reverse-engineered solutions covers multiple technologies including SIL and trip alarm systems, radar, mechanical level, ultrasonic and complete bubbler panel systems.

Analytical Instruments

We supply a wide range of high performance and cost effective analysers, we have experience with various manufacturers and can provide analytical solutions as standalone or fully integrated systems.

- Silica & Phosphate
- pH/Redox
- Sodium
- Water sampling systems
- Hydrazine
- Oxygen
- Moisture
- Conductivity

Flow Meters and Computers

We can provide flow meter and associated flow computing technology for virtually any gas or liquid using a variety of technologies:

- Differential pressure devices (orifice, venturi, flow nozzle etc)
- Electromagnetic
- Thermal mass
- Vortex / Swirl
- Coriolis
- Variable area
- Wedge
- Turbine / Positive Displacement
- Ultrasonics, including clamp-on

Recorders, Controllers and Indicators

We can supply, configure, test and commission recorders and controllers, we store your configurations to ensure they are readily available should you require additional units.

- Single loop and advanced control loop instruments
- Paper and video graphic recorders
- Indicators

Sampling Equipment

Our sampling equipment is used throughout nuclear power stations in the UK. Supplied as either hand-held or trolley-mount units, they have been specifically designed to meet the requirements of the nuclear power industry.

- Portable 'in hand' samplers
- TOUs (Total Oxidation Units)
- Particulate samplers
- Reaction Tube sampling for Tritium, Carbon 14 and Sulphur 35 oxidation



Reaction Tubes

We supply glass reaction tubes and tube furnaces including an improved direct replacement for the previously supplied Severn Science tubes used in Tritium, Carbon 14 and Sulphur 35 oxidation processes which have been approved by EDF and Magnox.

Laboratory Glassware

AMS supply a range of laboratory glassware for use with our own sampling systems and with older products. We have a wide range of standard products readily available and, if required, we can manufacture to meet a unique requirement.

Peace of mind

Through us you will have access to all of the control and instrumentation products you will ever need with one, consolidated product supply service. As well as bringing you extensive product and application knowledge to maximise your investment, our engineers will always be ready to take your call if you need help. AMS ensure that stocks of critical spares are readily available to get you up and running as quickly as possible should you encounter a problem. We not only configure your instrumentation to your exact needs, we store those configurations to ensure ease of additional installations.

Accreditations

AMS is approved to UKAS ISO9001 for Quality Control, UKAS ISO14001 for Environment Protection and OHSAS 18001 for Health and Safety. We are also UVDB Achilles B2 verified for supplying to the utility sector and a range of experience across various nuclear industry standards. Further information is available on our website.

Whatever instrumentation
you need to meet your
application, preference and
budget - we can help you.



• **Cooling Water Plant**
Flow, Pressure, Wet Analysis, Control, Temperature

• **Standby Generation Plant**
Level, Flow, Pressure, Temperature

• **Environmental**
Sampling Systems
Gas Analysis
Stack Monitoring

• **Gas Circulation**
Pressure
Flow
Temperature
Moisture

• **Effluent Treatment Plants**
Level
Flow
Wet Analysis

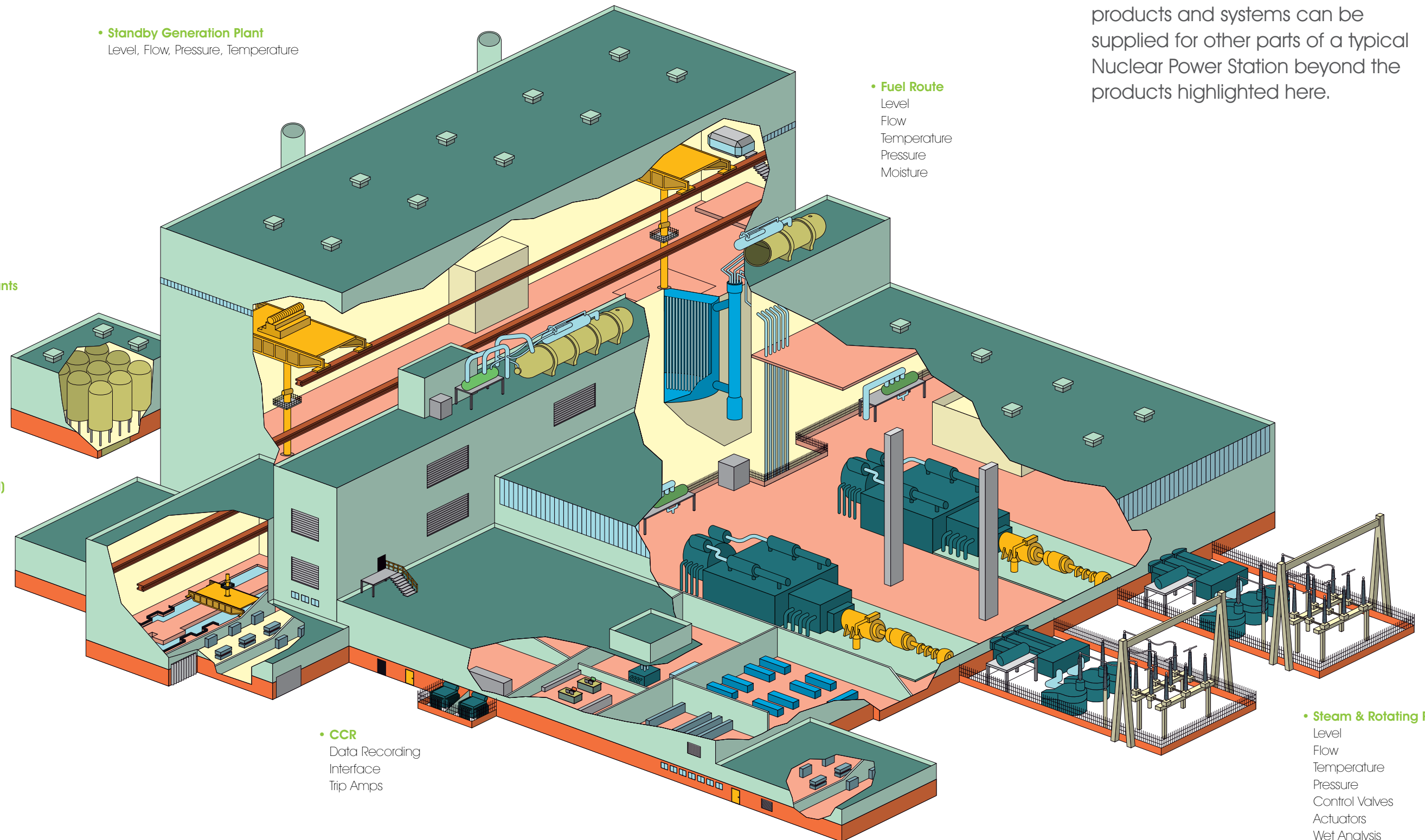
• **Storage (Gas & Liquid)**
Level
Flow
Pressure
Control

• **Fuel Route**
Level
Flow
Temperature
Pressure
Moisture

• **CCR**
Data Recording
Interface
Trip Amps

• **Steam & Rotating Plant**
Level
Flow
Temperature
Pressure
Control Valves
Actuators
Wet Analysis

Instrumentation and control products and systems can be supplied for other parts of a typical Nuclear Power Station beyond the products highlighted here.



Customised instrumentation and control

Our knowledge, skills and expertise combine to provide customised instrumentation and control systems - whether it's a unique solution for a new process or the need to address product obsolescence.

All equipment is fully inspected and tested prior to dispatch and, if required, a full Factory Acceptance Test (FAT) can be arranged. Our independence ensures that you get the best solution to meet your process needs at every level – performance, reliability, specification and budget. Furthermore, we can integrate your existing equipment within the design required.

Experience spanning many areas of nuclear instrumentation needs

- Complete instrumentation cubicles/panels. Fully wired, tested and documented to your standards.
- Custom built sampling equipment including Total Oxidation Units, Particulate Samplers and Moisture Samplers
- Calibrated Reaction tubes – Calibrated in-house to approved EDF and Magnox standards.
- Portable flow test rigs
- Bubbler level systems
- Portable and fixed recording solutions
- Reverse engineering for product obsolescence

Sampling Equipment

All of our samplers have a high impact, perspex door for visibility and robustness. An internal, foam-lined area with clips is incorporated for the safe carrying of glass sample bottles. Portable 'in hand' samplers are available in standard and advanced models housed in a light duty carry case for easy transportation.



Tritium sampling system

We have the
knowledge, skill
and expertise
to meet your
requirements.

Total Oxidation Units (TOUs)

Trolley-mounted single (air) or dual (air and CO₂) stream detection units for use in carbon 14, tritium and sulphur detection processes. The units oxidise the sample gas within a reaction tube in a heated environment before flowing through bubbler sample bottles. Sample pressures and temperatures are displayed along with the flow rate and flow total. The units incorporate automatic furnace temperature control to any set point up to 1200°C.

Particulate Samplers

We manufacture high and low pressure, trolley-mountable particulate samplers. The high pressure units are designed to accept reactor gas (CO₂) up to 40 BarG. Low pressure units sample air between 2 BarG and atmospheric pressure. These samplers are self-contained pump systems for extracting sample gas from vents, HVAC ducts, room spaces etc. The gas is passed through a purpose-built filter assembly to capture airborne particulates on a special removable membrane (GFA filter paper).

Moisture Samplers

We manufacture moisture sampling systems to monitor and control the levels of moisture within reactor gas. These units are mounted in a custom designed cubicle to meet your exact needs.

Services in our range

The range of services that we offer is designed to enable you to get exactly what is required. From assistance in product selection to life time care contracts, we work with you to ensure you have full support.

Total consolidated product supply

Our understanding of nuclear applications and the instrumentation products available ensures that we can source all of your instrumentation requirements. Our engineers will be able to help you make the best product selection and our teams will take away the pain of multi-vendor purchasing.

Configuration

We will configure your products and systems so they operate to meet the requirements of the application. We also offer a configuration archive service enabling pre-configured spares to be shipped quickly if you need them.

The range of services that we offer is designed to achieve exactly what you need.

Managed spares holding

By controlling our stock levels we are able to hold consignment stock ensuring that critical items are readily available as and when you need them. Combined with our configuration archive service, this means that we can get fully configured instruments to you within an agreed time scale.

Calibration

To comply with current regulations and to help keep your instrumentation running and efficient, we have accredited equipment and facilities to calibrate your instruments either in-house or on-site to recognised national standards.

Training

Whether you need a customised course for your installation or training in the theory and application of instrumentation and control – we provide in-house or on-site training to meet your needs.

Documentation

AMS are able to provide a full package of documentation to support our products and services we offer, for example; material certificates, pressure test and calibration, to mention just a few. This can be offered in a databook to encompass the total supply. We also provide product substantiation against British, European and customer specific standards.

