

A photograph of a large industrial facility, likely a power plant. In the background, a tall, grey, hourglass-shaped cooling tower rises into a clear blue sky, with a plume of white steam or smoke emerging from its top. In the foreground, there is a complex network of industrial equipment, including large white cylindrical tanks, silver-colored pipes, and various valves. The scene is brightly lit, suggesting a sunny day.

THE WORLD'S LEADING PLANT
INTEGRITY TECHNOLOGY FOR
THE POWER INDUSTRY

iDEAS
engineering



For over 20 years, IDEAS have provided pro-active and reactive Plant Integrity and Maintenance Support, Integrity Monitoring, Design and Problem-Solving Services on Pressurised Plant. Our expertise on new and ageing plant integrity, combined with the latest measurement & analysis tools and our unique Integri-Tech™ technology, bring timely and cost-effective solutions to our customers worldwide. Our senior engineers have experience in both nuclear and conventional power generating facilities.

NOBODY PROVIDES OUR DEPTH OF INTEGRITY SERVICES

Using industry accepted field Measurement, Modelling, Analysis and prediction methods, including Stress, FEA, Flow, CFD and Fitness for Service technology, we offer a broad range of support services that can be used to 'design out' problems, validate current plant status, predict future life and solve problems not just measure or analyse them. We use our Integri-Tech™ technology to find the root cause, offer solutions to system problems or monitor them to mitigate risk and ensure your plant integrity is high and likelihood of failure is low.

NOBODY RESTORES INTEGRITY FASTER

When integrity problems occur on existing plant then IDEAS can make field measurements and feed the results direct to their engineering team to find the correct modifications to make, or permanent monitoring arrangement to install. It's only by tightly integrating field measurement and analysis that IDEAS can offer their unique rapid and often fixed-fee service to restoring plant integrity. Our High Energy Piping and Hanger Monitoring and Weighting service has been tailored to closely match your maintenance requirements.

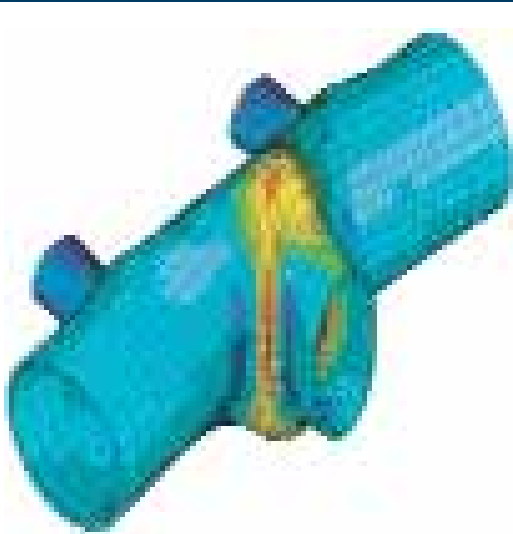
NOTHING MONITORS PLANT LIKE INTEGRI-TECH™

Integri-Tech™s methods quantify the Integrity of the Critical Plant, unlike risk or inspection based techniques. On Ageing or New Plant, it can be used for periodic or permanent monitoring of critical systems where accurate and continual assessment of current and future plant integrity is vital to meet the ever increasing demands of the Pressure Systems, HSE, Legal or other Regulators. Integri-Tech™ determines when periodic integrity monitoring should be carried out whilst the permanent monitoring capability allows continuous predictions of future plant integrity permitting inspection priority schedules based on true operating measurements. Integri-Tech™ can also be used for Plant Life Extension.

NOBODY SUPPORTS YOU BETTER

Sample IDEAS Services for Design Support, Plant Integrity Compliance & Maintenance, Problem Solving and Plant Integrity Monitoring

- Integrity Design Support & Specialist Services
- Engineering Stress, Flow & Vibration Analysis
- Stress, Finite Element, Structural Analysis and Integrity Assessments
- Design & Operational Code Compliance Assessments of Piping, Pressure Vessels and Structures
- Heat transfer and Thermal Assessments
- Computational Fluid Dynamics – Steady state and Transient Flow Analysis
- Defect, Fracture, Fatigue, Fitness for Service & Life assessments
- Natural Frequency Measurement and Modal Analysis
- Plant Integrity Assessment/Compliance through Monitoring, Health Checks and Audits
- Fitness for Service Assessments, **FFS**
- Plant Integrity/Health Monitoring, **PHM**
- Structural Health Monitoring, **SHM**
- Plant Integrity - Periodic or Live Continuous Integrity/Health Monitoring & **FFS**
- Spring Hanger Weighing & Load Monitoring
- High Energy Piping **FFS** Assessments and Continuous Monitoring
- Ground Settlement Effects Monitoring & Automated **FFS** on Tanks & Pipelines
- Steady State & Transient Vibration Monitoring & Automated Fatigue and **FFS** Analysis
- Fatigue and Fitness for Purpose Assessments & Monitoring
- Displacement, Load and Strain Monitoring
- Vibration, Temperature, Static & Dynamic Flow Analysis and Measurements/Monitoring
- Ageing Plant Integrity and Remaining Life Assessments, **RLA**
- API 597 & BS 7910 **FFS** Assessments
- Plant Life Extension **PLE** & Life Cycle Analysis, **LCA**
- Corroded Defect **FFS** & **RLA** Assessment on Piping and Pressure Vessels
- Erosion **FFS** & **RLA** Assessment on Piping and Pressure Vessels
- Piping and Small Bore Branch (**SBB**) Vibration & Fatigue Life Assessment
- Plant Integrity Problem Solving



iDEAS engineering

Maintaining Plant Integrity through Design, Inspection, Fitness for Service & Monitoring

More Quantification

More Confidence

More Speed

More Support

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More Value + Less Risk

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