Integrity management for downstream oil and gas facilities
Providing reliable assets, competent people and effective systems
Integrity management for downstream oil and gas facilities

We help deliver the benefits of effective integrity management across the whole business:

- **Operations** - avoid unscheduled outages
- **Maintenance** - more accurate prediction of maintenance spend
- **Sales** - reliable product availability
- **Management** - predictable business performance achieving planned output and costs

Many of the oil and gas assets around the world are operating beyond their nominal design life. The challenges to maintain production capability in a cost effective way whilst preserving the integrity of those assets?

Implementing integrity management requires that all aspects of operations essential to safety and integrity are properly designed, constructed, tested, operated, inspected and maintained in a sustainable holistic and systematic way.

### Capabilities

We help customers improve their integrity management using a risk based approach, to help focus limited resource and time. We also ensure appropriate attention is given to those assets perceived as ‘less critical’.

ABB’s asset integrity suite including: health check; asset ageing / life extension and auditing approaches, has been developed over many years of practical application to provide effective support to business decision-making.

### Our experience

ABB have helped many companies improve the integrity of their assets by addressing the key issues across the whole life cycle. Our clients value our capabilities in asset integrity management for a wide range of reasons including:

- A vast array of knowledge and experience on asset integrity that has been developed over many years of helping clients in the oil and gas industries with their problems
- A one-stop shop for all aspects of integrity management tailored to suit specific needs
- Our ability to view things from an operational perspective, backed up by deep technical expertise, means the solutions we provide are of immediate application and benefit

We have helped improve the effectiveness of inspection and testing programmes, whilst ensuring detrimental impact on operations is minimised.

We have helped to ensure integrity management systems are sustained and improved by auditing and training, and with the development of necessary procedures.

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**Asset life cycle.**

1. **Scope definition**
2. **Design**
3. **Procurement**
4. **Fabrication, construction and testing**
5. **Handover / acceptance**
6. **Commissioning**
7. **Operation**
8. **Service inspection**
9. **Maintenance, repairs and replacement**
10. **Life extension: Modification and re-rating**
11. **Decommissioning**
12. **Dismantling, demolition and disposal**
Our approach

We help focus on achieving the required plant availability, throughput and quality from both:

- Routine operations / maintenance / inspection activities
- Targeted anticipation of plant aging to address problems before they cause equipment failure / unscheduled downtime

The approach does not just apply to mechanical equipment, but also to safety critical protective systems, electrical, instrumentation and control systems, and people. As a norm, we will work with our clients, as an integrated team, delivering the agreed aspects and we will simultaneously pass on our knowledge.

Benefits

Our clients tell us that they derive the following benefits from engaging our services:

- Technical justification to support continued licence to operate
- Stakeholder confidence in continuing in reliable and safe operation
- More informed investment decision - future CAPEX and OPEX requirements
- Improvement to bottom line - avoidance of production lost, avoidance of unplanned / unnecessary expenditure and improved operation, inspection and maintenance

“The working relationship with ABB was fantastic.”

“The working chemistry was excellent.”

“We have certainly chosen the right partners.”