

Solutions



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Mike Lancaster,
Head of Events &
Regional Affairs,
Chemical Industries
Association (CIA)

UK chemical industry: responding to the recession

The latest figures from the office of national statistics confirm what we all know, that production in the UK fell off a cliff in the latter part of 2008 and remains at the lowest level in many people's memories.



What has happened in the UK chemical industry broadly reflects this picture, but in many ways it is sector specific with agrochemicals and pharmaceuticals doing quite well in most cases, while those supplying the construction and automotive industries have generally had a particularly hard time.

Many companies have had to take hard decisions but the industry is responding well as exemplified by the winners and short listed candidates for the chemical industries awards recently held in Edinburgh. For example those entering the manufacturing and resource efficiency award, sponsored by ABB and won by Pentagon Fine Chemicals, have all shown innovative solutions to improving efficiency and reducing manufacturing costs to enable them to compete effectively on the global stage. Without exception all finalists had focused on getting the best out of employees at all levels.



Index of production for UK - Source ONS

It is clear that companies that come out of the recession best prepared to take advantage of the opportunities that lie ahead will be not only the ones with appropriate systems and procedures but those that have invested in skills and training and have an embedded culture where all employees are encouraged to contribute ideas and work as a team to move the company forward. ■



ABB wins 5 year Centrica Storage Ltd contract for onshore / offshore asset integrity

Centrica Storage Limited (CSL) has awarded ABB Engineering Services a five year contract to manage and maintain the asset integrity of pressurised plant, topside structures, subsea structures and pipelines at four of its on and offshore North Sea gas production and storage sites.



This contract, worth around £5m over 5 years is the latest success for ABB's UK based consultancy and engineering services business for demanding industries including oil & gas, chemicals and pharmaceuticals.

ABB will take full responsibility for the inspection of the relevant facilities and will manage external contractors as well as meeting all client company and regulatory requirements. It is committed to extending the working lives and performance of the plant involved as well as reducing operating costs without compromising integrity. The Centrica Storage operation based in Humberside, includes the Easington terminal and Rough field. It is a long term strategic operation for Centrica and also provides energy security to the UK gas market.

According to Peter Hunt, Business Development Director for ABB Engineering Services, *"We have unrivalled experience in the Oil and Gas industry. Over the past two years our business in this sector has grown dramatically with a key area of growth being our asset integrity and inspection business. We have completed ten offshore integrity management projects and Humberside is a strategic growth area for ABB"*.

Trevor Gregory Chief Executive Officer of ABB in the UK added *"Centrica is a key long term customer to ABB and this further builds our long term relationship with them, this contract win shows that with our focus on business improvement and cost control we really can deliver what we promise."*



Back: Peter Hunt, ABB & Dan Rayne, Procurement Manager, Centrica
Front: Kevin Walls, ABB & Austin Dixon, Engineering Manager, Centrica

Glenn Sibbick, Operations Director of CSL commented, *"ABB has the expertise and the operational experience we need to help maintain the integrity of our assets. We have been impressed by their approach to building long term customer relationships, setting shared objectives and meeting key performance indicators (KPI). In our business it's vital that our suppliers understand and demonstrate real commitment to health and safety and appreciate the regulatory environment that we operate in."*

Environmental Hazard Review (EHR) allows E.ON to focus efforts in protecting the environment



The E.ON Generation business has embarked on a pilot programme to identify and assess the environmental risks associated with the failure of equipment and devices at its UK Generation operations. The goal of the programme is to focus maintenance activity and resources more efficiently. In order to deliver this goal, E.ON turned to ABB Engineering Services experienced Environmental Team.

Using a methodology based on the ABB EHR technique, a team of E.ON personnel led by an ABB study leader, assessed the potential for environmental harm from E.ON's Combined Heat and Power (CHP) operations at Kemsley in Kent. The review identified various equipment and device failure scenarios and went on to assess the suitability of existing prevention and mitigation measures including the existing maintenance regime.



E.ON site in Kemsley, Kent

The output of the review was a risk profile for the asset which provided a clear indication as to which areas required additional focus. ABB is working with E.ON to develop the methodology further to allow integration with E.ON's other risk management tools and to develop a roll out programme across other generating assets.

"The experience brought to this process by ABB has been extremely beneficial in clarifying exactly what we wanted from this process. We intend over the forthcoming months to roll this process out over all our generation sites. It is a valuable tool that will assist us in managing the environmental risk posed by our operations." - Matthew Brown, Environmental Advisor, Generation Operations. ■

Systems Migration Compliance

Dennis Young-Cannon the Life Sciences Compliance Manager for ABB Engineering Services is always amazed how often compliance is not used as a key tool to reduce business system project costs, provide best fit to business requirements and reduce ongoing operational costs. Often 'validation' is seen as a burden, a necessary evil or even worse the tail end charlie of the project. The aim of any business system change is to deliver operational benefit as quickly and cost effectively as possible. Yet as evidenced by considerable independent studies more projects fail to deliver the original benefit, timescale or cost than actually deliver.



Dennis Young-Cannon, Life Sciences Compliance Manager, ABB

The annual Standish chaos report in 2007 stated that project success rates have increased to 34%! ABB's System Migration Compliance (SMC) product has been developed to assist in overcoming the top five reasons for project failure. They can be summarised as: failure to engage experienced users on the project, failure to translate user input into engineering design and delivery, not giving equal priority to operational readiness as to the IT system delivery and qualification, poorly defined requirements and finally failure to leverage supplier input. The SMC approach helps to overcome these issues by giving emphasis to three key project roles; the end user, the technology supplier and the compliance partner and playing to their strengths.

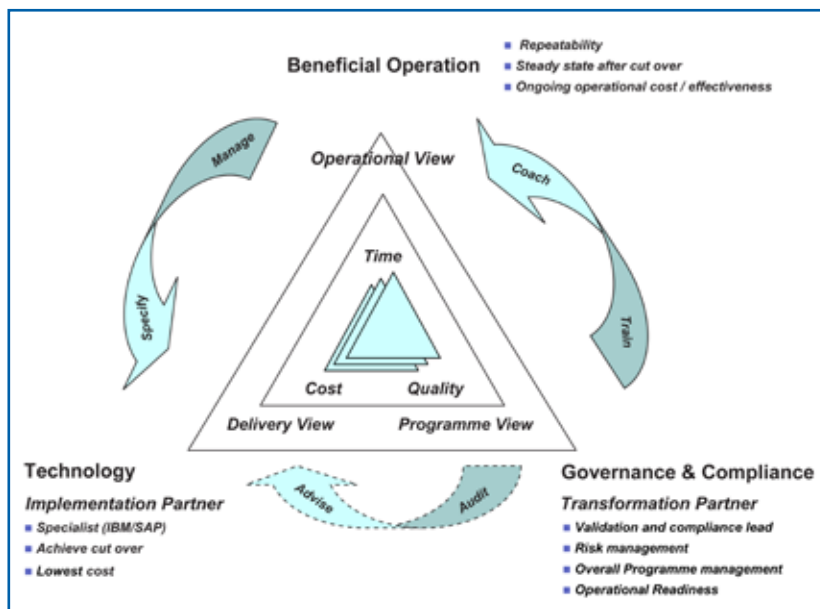
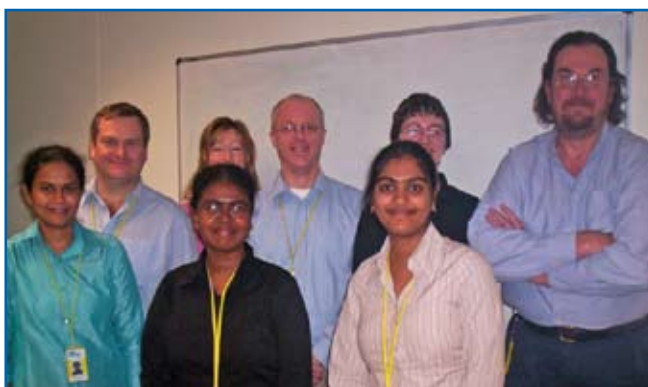


ABB has used risk based validation which was inherent in GAMP⁴, now enshrined in GAMP⁵, for many years. Historically we have found that the approaches available to the computer system compliance arena can pay dividends when applied at the project level. This is especially true when you consider other compliance requirements have similar validation and procedural rigour, e.g. SOX. Therefore the earlier compliance is considered in a project the greater the benefits can be achieved. The aim is to ensure that the technical aspects of the project are grounded in the requirements of the operational business and the people side is also brought into the project – what will the operators do on day one of go live?

Acting as the independent party within the project, with a clear remit for quality, risk and business readiness, allows ABB to help all parties work towards the required business or project benefit delivery and smooth transition. ABB has a strong track record in delivering complex IT projects which have spanned technologies, countries and cultures. This was particularly true for Pfizer's Global Financial Shared Service (GFSS) Europe centre. GFSS was rolled out across Europe and ABB's compliance specialists were involved in the establishment of the Pfizer offshore validation team and continuous improvement of the migration project process. This has helped Pfizer maintain an aggressive rolling migration programme whilst significantly reducing ongoing operational costs.



The Pfizer team

The advantage of the SMC approach is that it interweaves the compliance requirements from the very beginning of the project through to the operational performance. In any industry the consequences of late or failed projects can prove difficult and costly, but in regulated industry a compliance failure can be disastrous.

The application of GAMP⁵ risk based compliance methodology to the project has been demonstrated to facilitate on time to budget IT system delivery that not only satisfies regulation requirements but also reduces ongoing compliance and operational costs. ■

ABB secures strategic life extension study with DONG Energy

DONG Energy, as a part of their vision to double the anticipated field life of their Siri field, is implementing a programme of integrity and maintenance management to sustain production until 2020.



ABB & DONG Energy Project Team

The objective is to increase the reliability and production efficiency of the facilities, whilst optimising life cycle costs. This will be achieved by a more proactive approach to asset integrity.

DONG Energy, Denmark, selected ABB Engineering Services as a partner to deliver a life extension study of the Siri complex. The methodology of the study is based upon ABB's established asset life process.



Siri platform

The findings from the study will provide DONG Energy with future life extension options, including an investment profile for these options and actions required to extend field life. ABB will systematically evaluate the current state and remaining life of existing facilities and identify critical areas and potential solutions.

This will involve providing specialist support in all key disciplines and working closely with DONG Energy in delivering this study in 2009.

SIL assessments and verification at Solvay Interox

ABB Engineering Services has been helping Solvay to review their instrumented safety systems. Solvay makes hydrogen peroxide at the Warrington site. Like other owners of plants which pre-date recent standards requiring a demonstration of protection against un-revealed failures, Solvay needed to assess how critical their instrumented safety systems are to confirm that they are being tested at the right intervals.



Solvay Interox, Warrington

They asked ABB to apply its TRAC (Trip Reliability and Availability Calculator) software tool to help do this as efficiently as possible. With the guidance of an ABB process safety consultant, TRAC records the assessment of risk, as calculated by an experienced team of operations, process, instrumentation and maintenance personnel. TRAC also records the role of the instrument in the basis of safety.

An instrumentation engineer then defines the architecture of the system (typically comprised of a detection device, a logic solver and an actuation device) in TRAC and the tool adds reliability data for the components which allows the user to select the correct test interval.

The tool keeps a permanent locked record of the assessment but can also be used to check the effect of changes in design, operations or the instrumentation itself that might need to be made as the plant develops to suit production requirements.



TRAC navigator

ABB supports 'Ageing plant' conference

Neil Henry of ABB gave a presentation at the IMechE 'Ageing plant: Experiences from industry and regulators' conference held at the Thistle Hotel in Middlesbrough. Neil's presentation was entitled 'The management of ageing plant: Predicting age related damage'. There were 110 people registered at the event including delegates from Huntsman, Ineos, ExxonMobil, Centrica and ConocoPhillips.



ICIS 2nd Bio Resource conference

ABB exhibited and gave a paper at the ICIS 2nd Bio Resource conference held on Teesside. Charles Bennett gave a presentation on 'Practical experiences of biomass feasibility projects' to delegates from Ciba, Pentagon Chemical Specialties and Ensus.



Delegates at the ICIS 2nd Bio Resource conference

Mature assets conference

ABB Engineering Services exhibited at the mature assets conference in Aberdeen. Brian Hudson delivered a paper on 'Offshore platform life extension' to an audience of oil and gas industry operators.



Offshore platform

Pressure systems failures

ABB exhibited at the IMechE seminar on 'Pressure systems failures' in London. There were over 140 delegates at the event including representatives from Shell, Centrica and ConocoPhillips.

Energy Institute's offshore safety and integrity conference

ABB principal consultants Andy Hollins and Ian Herbert gave a presentation entitled 'Safe life extension of offshore installations' at the Energy Institute's offshore safety & integrity conference held in Aberdeen. The presentation reviewed the challenges faced by the operators of offshore installations as these are now being required to operate for as much as 20 years beyond their original design life.



The presentation included a review of an asset life extension study for an offshore installation recently undertaken by ABB. The study provided the operator with the technical justification for the ongoing operation of the asset. The actions required to maintain the integrity of the asset over its extended life cycle were identified, together with the projected investment profile necessary to sustain the installation to the new end of life date.

Feedback from the conference organisers was that 'The delegates were impressed with the level of information presented' - delegates included managers and engineers from the offshore operating companies active in the North Sea.

Manufacturing and Process Excellence conference

ABB Engineering Services held a Manufacturing and Process Excellence conference in Leeds. Neil Blackhall of ABB opened the event and the speakers included Dr Diana Montgomery, Chief Executive of the Chemical Industries Association (CIA) who discussed 'catalyzing leadership in process safety' and Nick Lindop, General Manager of Pentagon Fine Chemicals who presented 'maintaining the competitive advantage - a role for sustainable development after the olympics'.

Other speakers included Johnson Matthey, Lucite International, Nippon Gohsei, Robinson Brothers and Rio Tinto Alcan. ▶



Speakers from the Manufacturing and Process Excellence conference

ISPE annual awards

ABB Engineering Services attended the annual ISPE awards dinner at Harrogate. The dinner followed on from a series of lectures which focused on 'Quality by Design (QBD)'.

The QBD concept is at the heart of ABB's Process Analytical Technology (PAT) solution which pulls together our automation, advanced measurement and consultancy offerings to meet this emerging need for the Life Sciences Industries.

ABB pressure relief training courses - travel the world

The ABB pressure relief training courses have increased in popularity over the last few years and we now run 4 open courses per year with over 100 attendees.



Pressure relief training course

The course is IChemE approved and is now a part of many companies training programmes.

It has also developed to include updated modules on discharge and disposal, mechanical equipment and changes in the codes etc.

In addition to the open courses we have also run a number of site based courses and have recently

secured an agreement from BP to provide pressure relief training on a Global basis.

ABB provided pressure relief training to their engineers Worldwide. The traditional open course, modified to meet BP specific needs was held in Houston, Sunbury and Jakarta and future courses will be held in Baku and Trinidad.



Delegates from the course run in Jakarta, Indonesia

CIA site managers' meeting

ABB hosted the CIA (Chemical Industries Association) site managers' meeting in Daresbury and over 30 senior customers attended from



around the NW. Allen Ormond and Olga Siddons both gave presentations regarding 'competency and ageing workforce'. The feedback from the event was excellent.

ABB Engineering Services consultant awarded Institution of Mechanical Engineers (IMechE) prize.

Andy Hollins, ABB Engineering Services, has been awarded the IMechE's 'Moss Prize' for his paper entitled 'ATEX offshore: the assessment of existing mechanical equipment installed in hazardous areas on offshore installations'.



Andy and other institution prize winners joined the process industries division board for lunch and following this Bob Stannard, chairman of the process industries division board, presented the winners with their awards.



From Left: Eddie McGee, Andy Hollins, ABB, Bob Stannard, Process Industries Division Chairman, IMechE, Dr Donald MacKenzie, Head of Department of Mechanical Engineering, University of Strathclyde. (Photograph courtesy of IMechE)

Engineering day at Grangefield School

Joydip Sanyal of ABB organised a full day event 'Engineering day at Grangefield School'. There were 30 students from Years 7, 8 & 9. Mike Sonley gave an introduction about ABB as an engineering organisation. The event was supported by Paul Lister, Shiv Talsania, Alexa Mbugua and Kym Merryweather. Stephen Barber and Mike Sonley judged structures made out of spaghetti and marshmallows by different groups.



Pupils and Teachers from Grangefield School with members of ABB

Conferences are major industry forums focusing on key topic areas.

Conferences - September 2009		
17th September	Process Safety Management	London



Seminars

Seminars are focused on industry 'hot topics' and include inputs from external speakers.

Seminars - September 2009 to October 2009		
2nd September	Human Factors in Practice	Cardiff
10th September	Energy Masterclass - Energy Management	Cardiff
15th September	Demolition & Remediation	Grimsby
22nd September	Alarm Management in Practice	Manchester
22nd September	Energy Masterclass - Energy Management	Grangemouth
24th September	Integrity Management in Practice	Aberdeen
29th September	Site Based Projects and Modifications	Warrington
6th October	Energy Masterclass - Energy Strategy	Grimsby
6th October	Automation Upgrades & Hot Cut-Over	Hull
13th October	Risk Based Inspection	Leeds
20th October	Energy Masterclass - Effective Energy Auditing	Grangemouth
20th October	Environmental Permitting Regulations	Cardiff
27th October	Maintenance and Reliability in Practice	Cardiff



Technical training

Training courses provide in-depth knowledge on key subjects as part of an engineer's professional development.

Technical training courses - September 2009 to October 2009		
8th - 10th September	Pressure Relief *	York
9th - 10th September	IEC 61508 / 61511 & SIL Determination *	Leeds
15th September	ATEX / DSEAR for Mechanical Technicians	Aberdeen
16th September	Working with CDM Regulations	Grangemouth
29th - 30th September	Essentials of Pressure Systems *	Edinburgh
1st October	Electrostatic Ignition Hazards *	Leeds
5th - 9th October	Hazard Study Leaders	Warrington
6th October	The Organisation Workshop	London
6th - 7th October	Design & Operation of Piping Systems *	Leeds
7th October	SIL Awareness Training for Control / Electrical Technicians	Cardiff
8th October	Changeover Excellence	Dublin
8th October	Legislative Awareness Training - PSSR / PED & PUWER	Grangemouth
14th - 15th October	Area Classification *	Sedgefield
14th October	Hazard Study Awareness *	Dublin
20th - 21st October	Alarm Management *	Edinburgh
21st October	An Understanding of Process Safety Management	Aberdeen
22nd October	Working with CDM Regulations	Grimsby



* IChemE approved course. All training courses are in association with the Energy Institute (excl. Changeover Excellence)

All of the above events are organised and delivered by ABB Engineering Services.

For more information on: Seminars please telephone: +44 (0)1642 372029 or e-mail: seminars@gb.abb.com

Training courses please telephone: +44 (0)1642 372064 or e-mail: courses@gb.abb.com

ABB Engineering Services invests in Hull

Following a string of successful projects and contracts in the Humber region, ABB Engineering Services has announced an expansion of their business into Hull. ABB's customer base in the region has grown significantly over the last 18 months and includes healthcare giants Reckitt Benckiser, Smith & Nephew, Seven Seas as well as processing companies BP, Nippon Gohsei, Total Lindsey Oil Refinery, Centrica, ConocoPhillips, Huntsman and Corus.



The new ABB Humber team with members of the Humber Chemical Focus, HSE and Hull Forward. From left: John Holmes, Hull Forward. Councillor John Robinson, Hull City Council. Paul Laurence, IChemE. Peter Hunt, ABB. Laura Gray, Humber Chemical Focus. Paul Taylor, ABB. Helen Berry, HSE. John Walkington, ABB.

Peter Hunt, Business Development Director, ABB, said: *"The move allows us to provide better service to our existing customers and puts us in a good position to develop the business opportunities here in the Humber region, particularly in the growing healthcare and renewable energy sectors. The Deep business centre offers us an impressive business environment."*

ABB Engineering Services now employs 20 people in the region to service its clients and the new office provides a base for up to 12 people at any time. John Holmes, Chief Executive, Hull Forward, the economic development company for the city charged with strengthening Hull's economy and accelerating its ongoing regeneration, commented: *"As one of the city's key growth sectors as identified by an extensive piece of research undertaken by IBM consultants, there is a huge opportunity to maximise the potential of the renewable energy and healthcare technology sectors here in the Humber region. Attracting and sustaining successful companies such as ABB is a top priority and shows that even in the currently challenging economic climate there are still opportunities for growth in some markets."*

Glyn Hughes, Chief Executive of Humber Chemical Focus has been working closely with ABB on a number of collaborative projects and events. He commented: *"The Humber region is home to one of the largest and most diverse chemical economies in the UK, spanning bulk petrochemicals, polymer manufacturing, pharmaceuticals, commodity chemicals and is well positioned to be at the forefront of investment for the ever growing biofuel industry. Attracting high quality service sector companies such as ABB compliments and enhances the region's ability to meet current and future demands."* Over the last year ABB's business has grown both in the UK and overseas, with 25% of business now in regions such as South Africa, Asia and the Middle East. In addition to this, ABB recorded an attendance of 2,500 delegates to their events and seminars throughout the UK. ■

If you have any comments or feedback in the ABB Engineering Services Newsletter please contact: Graeme Collings - graeme.collings@gb.abb.com



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