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A customer magazine
of the ABB Group
South Africa

inTouch



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Benefits of diversifying the workplace

Power and productivity
for a better world™





Carlos Poñe
CEO and Country Manager
ABB South Africa

Serving up solutions

Blackouts, power shortages and substation breakdowns in South Africa have all been visible signs of the need to expand and modernise the ageing electricity power infrastructure in the country. The electricity power capacity build by Eskom will bring on stream increased power supply. Increased supply will have a downstream impact in that transmission and distribution infrastructure will need to be upgraded and modernised. Private power suppliers, including industry with surplus power to supply the grid, independent power producers and renewable power providers, will add to the complexity of the distribution networks.

In this issue of *inTouch* magazine our editorial team covers the modernisation of the City of Cape Town distribution grid. The article highlights the role that ABB in South Africa is playing in helping realise reliable and modern electricity distribution infrastructure.

ABB's power technology solutions for the Cape Town grid, including air-insulated medium voltage switchgear, demonstrates ABB's expertise and products to supply solutions for a secure transmission and distribution system. As technology advances, we have become increasingly reliant on secure electricity supplies which are crucial to support economic growth in a developing country such as ours. Investment in the economy whether in mining, industry or commercial ventures such as international call centres and regional information technology hubs all require stable and reliable electricity supply. We certainly saw how important a reliable electricity supply was for the successful hosting of the Soccer World Cup 2010.

With demand for electricity rising year on year and concern for the environment bringing more renewable energy sources online, transmission system operators are under increasing pressure to enhance the flexibility of their grids to improve capacity and accommodate the demands of deregulated power markets.

As the world leader in power technologies, ABB offers sustainable solutions to the challenges of today, and tomorrow. The ABB transmission and distribution portal provides easy access to information about ABB's power products and services,

expertise in power transmission systems and electrical optimisation, grid reliability and blackout prevention.

This issue of *inTouch* magazine also highlights how ABB continually strives to improve occupational health and safety performance and practices.

ABB's efforts are supported by intensive training programmes. ABB has programmes in place to address HIV/AIDS in eight countries/regions (Brazil, China, Estonia, India, Mexico, Philippines, South Africa and South Korea). ABB in South Africa runs an awareness and prevention programme related to HIV/AIDS. The programme includes presentations from external specialists, distribution of condoms, awareness campaigns and a nutritional programme for shop floor employees. This programme was developed together with the Swedish Workplace HIV and AIDS Programme (SWHAP) in 2004. ABB has run several VCT (voluntary counselling and testing programmes) and continues to run these to promote awareness and measure prevalence.

With the focus on women during August we thought it would be important to bring our readers up to date with ABB's efforts and programme to empower women in the workplace. ABB South Africa has increased the number of women employed by the company, particularly from historically disadvantaged groups. Our Human Resources team has encouraged more women to participate in our management development programmes. We have made appointments in key director positions to our local Board of Directors and in our country management team. At ABB in South Africa we have taken proactive steps to ensure that we increase our procurement sourced from gender empowered enterprises to enable more women to be brought into the economy. A total of 18 000 rural women benefit from Wipcapital's 20% shareholding in ABB South Africa.

Of course, there is more that we can do and we have plans to employ more women and further develop the women we already have in our organisation.

We trust that from the menu of articles that we have served up for you this quarter there will be something for every taste.

Enjoy the articles in this issue and our new look.



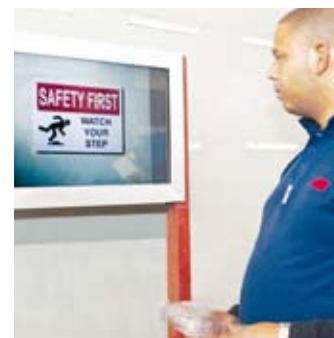
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Innovative monitoring solution

Words Shivani Chetram

Fibre optic multiplexer with network management system ensures reliable and safe supply.

AR20 million contract from Transnet, South Africa's largest freight rail logistics company, for the supply and delivery of multiplexers required nationwide has been won by ABB. The multiplexers are supplied to graphically view data and bring all information to a central point. The equipment will allow Transnet to monitor track condition and rolling stock, thus ensuring the safety and reliability of supply. "ABB's innovative products offer this key freight system of Transnet the opportunity to reliably and safely monitor rail operations," says Carlos Poñe, CEO, ABB in South Africa. "We are pleased to be involved with this project, one that is crucial for the economic development of the country."

Transnet Freight Rail (TFR) has a national synchronous digital hierarchy backbone network that provides high speed con-

nectivity at about 120 sites. However, a low capacity access network is used for narrow band services to signaling control centres, electrical substations and radio high sites. These are all critical for train operations. The existing access network of over 800 multiplexers has reached the end of its lifecycle and is due for replacement and expansion. ABB won the contract to provide this with their FOX product. This will also support TFR's vision to have ethernet everywhere for condition monitoring and proactive maintenance. The multiplexers will reduce delays and stoppages on the freight lines, thus maintaining the supply of products to essential services, e.g. coal to the power plants and iron ore for exports. The network management system will enable controllers to make educated decisions at the Technical Command Centre, thus saving them unnecessary costs.

"ABB's innovative products offer this key freight system of Transnet the opportunity to reliably and safely monitor rail operations."

Carlos Poñe



The multiplexers supplied to graphically view data and bring all information to a central point.

Record transformers for Kuwait

ABB will deliver twelve 703 ton transformers to Kuwait. The transformers, manufactured in ABB's factory in Bad Honnef, Germany, will be installed at three 400kV substations built by ABB in Sulaibiyah, Fintas and Jabriya as part of a \$400 million contract awarded by the country's Ministry of Energy and Water in March last year.

Four out of 12 transformers are intended for the Sulaibiyah substation, four will be installed at the Jabriya substation and the remaining four will be used at the Fintas substation. Five of the transformers have already been delivered and installed; the remaining seven will be delivered and installed at the end of the year.

Travelling by road at five kilometres per hour, the transformers are amongst the largest produced by ABB and operate at 750MVA with voltage levels of 400/300/33kV. "The size of these transformers means that they're the largest in the Middle East," said Mohammed Masri, Sub Region's Division Manager, Power Products, Middle East and Africa, ABB. "We had to transport these transformers at night to avoid any traffic congestion during the operation. Each of these transformers weighs almost as much



Large power transformers en route to Sulaibiyah, Fintas and Jabriya in Kuwait.

as two fully loaded Boeing 747s before take off." Once completed, the three substations at Sulaibiyah, Fintas and Jabriya will be the backbone for the new 400kV voltage network which will transmit an additional 1 500 megawatts of power from the Subiya Power Station presently under construction. ABB will design, supply, install, test

and commission the substations, which will increase transmission voltage from 300kV to 400kV. The higher voltage will help strengthen the grid's reliability and increase its capacity to meet rising demand for electricity and connect the Kuwaiti electricity network to the Gulf Interconnection Grid.

ABB completes acquisition of K-TEK

Integration of instrumentation maker expected to boost offering for oil and gas, water markets.

ABB, the global power and automation technology group completed its acquisition of Prairieville, Louisiana company K-TEK, which becomes part of the Measurement Products business unit within ABB's Process Automation division. With over 350 000 installations since its founding in 1975, K-TEK is recognised as a global leader in level detection technology. The operation employs more than 250 people with facilities in China, Netherlands, India and South

Africa, in addition to the US. Veli-Matti Reinikkala, head of ABB's Process Automation division, noted K-TEK's leadership position in the oil and gas industry, where ABB has a large installed base. "This acquisition will provide our mutual customers in oil and gas, water and other industries with access to an expanded range of leading-edge instrumentation and sensing technologies," he said. "We see a lot of potential for synergy between ABB's extensive geographic

reach and exposure to other industries, and K-TEK's depth in level detection technology." The acquisition is in line with ABB's strategy to pursue growth opportunities that complement the company's product, technology and geographical portfolio. In South Africa the operation comprises manufacturing and sales for level detection and laser measurement technologies and is based in Longmeadow, Johannesburg. The operation employs about 40 people.

Grid reliability

Fast, green, smart and reliable. An award-winning ABB solution is helping a leading US power company to secure grid reliability in one of the country's largest metropolitan areas, integrate large but unpredictable volumes of wind power, react to grid disturbances in record-breaking times, and save almost one million megawatt-hours of energy and associated CO₂ emissions a year.

Increasing capacity

The solution enables Texas-based electric utility, Oncor, to increase the capacity, secure the reliability and improve the energy efficiency of its power network in north Texas and the Dallas-Fort Worth metropolitan area. Oncor is the largest power transmission and distribution company in Texas, serving some three million homes and businesses, including most of Dallas-Fort Worth, the fourth largest metropolitan area in the United States with a combined population of 6.5 million. The solution has also earned Oncor the state's highest award for environmental excellence from the Texas Commission on Environmental Quality.

Saving energy

According to the commission, which made the award in April 2010, the solution eliminates the need to generate an estimated 563 hours of peak-load electricity and saves almost one million megawatt-hours of energy and associated greenhouse gas emissions a year.

The solution provides Oncor with the world's largest and fastest-acting concen-



Installed and commissioned by ABB, the SVC (FACTS) installation at the Parkdale substation, in the Dallas/Fort Worth area of Texas is the world's largest cluster of SVC technology.

tration of static var compensators (SVCs), which react in just 20 milliseconds whenever voltage fluctuations threaten to destabilise the grid. SVC devices provide fast-acting reactive power compensation in high-voltage networks. They enhance stability by countering fluctuations in voltage and current, and allowing more power to flow through the network. Voltage fluctuations are usually caused by increased demand for electricity during peak periods. But in Dallas-Fort Worth, other long-term stress factors are also involved: consistent year-on-year growth in demand, the recent retirement of several local power plants, and the increasing amount of wind power and remote power generation in the Texas energy mix.

Integrating renewable energy

The SVCs enable Oncor to integrate this renewable energy and reduce its dependence on locally generated fossil-fueled power, thereby reducing greenhouse gas

emissions and improving the environment in the Dallas-Fort Worth area. The SVCs have been operating at the Parkdale substation in Dallas since June 2009. In the first 10 months of operation they successfully responded to 38 power grid events that threatened grid stability.

The results of the installation have been so successful that Oncor has ordered two additional SVCs from ABB, which are currently being installed at the utility's Renner substation in Plano, a northern suburb of Dallas. SVCs are part of ABB's family of flexible AC transmission systems (FACTS) solutions that increase the capacity of existing transmission networks by as much as 50% while at the same time improving their reliability. ABB delivered the Parkdale solution in the record and unrivalled time of just 14 months. ABB is a global leader in FACTS technologies and has more than 700 installations in operation or under construction around the world, around 50% of the total market.

China

World's longest and most powerful transmission link. ABB has achieved another significant milestone with the commissioning of the Xiangjiaba-Shanghai project, the world's first ultrahigh-voltage direct current (UHVDC) transmission link to go into commercial operation. ABB was the main technology supplier to State Grid Corporation of China (SGCC) and the project was completed in 30 months, one year ahead of schedule. The ±800 kV Xiangjiaba-Shanghai UHVDC link has the capacity to transmit up to 7 200 megawatts (MW) of

power from the Xiangjiaba hydropower plant in southwest China to Shanghai, the country's leading industrial and commercial centre about 2 000 kilometres away. The new link is able to meet the electricity needs of about 24 million people, and sets a new benchmark in terms of voltage levels and transmission capacity, superseding the 600kV (kilovolt) Itaipu transmission line in Brazil, which was also delivered by ABB.

South Korea

Power systems for deep water drilling rig. ABB has won an order worth \$20 million to provide complete power systems, drilling drive and propulsion systems for a new deep water drilling rig to be built by Daewoo Shipbuilding and Marine Engineering (DSME) at its shipyard in South Korea. The end customer is Brazilian ship owner Petroserv, which will operate the drilling rig for Petrobras. The rig is scheduled to be commissioned by early 2012.

UAE

Substation to strengthen transmission network in UAE. A new substation from ABB will serve the electricity needs of developments planned at Sudah Port and the Al Hayl industrial areas of Fujairah, one of seven emirates that make up the United Arab Emirates. The turnkey contract includes the supply of gas-insulated switchgear, 500-megavolt ampere (MVA) power transformers, reactors, substation automation systems, as well as protection and telecommunication equipment. The order comes from the Abu Dhabi Transmission & Despatch Company (TRANSCO), a subsidiary of the Abu Dhabi Water and Electricity Authority (ADWEA). ABB will design, supply, install and commission the substation, which will have a power rating of 400/132-kilovolts (kV).

Norway

Integrated process automation for new silicon production line. ABB has delivered a comprehensive automation and power solution for Elkem Solar's production line at its new facility in Kristiansand, Norway. The new facility will produce highly processed silicon for the global solar cell industry. ABB's scope of supply includes comprehensive electrical and automation systems integrated on the common System 800xA platform. Elkem Solar, part of the Norwegian Orkla Group of companies, recently invested \$700 million in a new facility, which will produce 6 000 metric tons of high-purity silicon a year. With the new facility Elkem will meet the increasing market demand for high quality silicon for the solar cell industry. Limited availability of such silicon is a major bottleneck for growth in the solar power industry.

ABB's Q2 results improve



Joe Hogan
ABB's chief executive officer

Global economic recovery. ABB's orders grew 5% in the second quarter of 2010, led by increases of more than 20% in each of the company's automation divisions on the strength of the global economic recovery.

Industrial customers continued to invest in energy-efficient automation and power solutions to increase productivity and quality. Investments by utilities in large power transmission projects, however, remained cautious in most regions. As a result, base orders (below \$15 million) grew 15% in local currencies while large orders (above \$15 million) declined by 37%. The order backlog has grown 5% since the beginning of the year.

Revenues were 5% lower than the year-earlier period, mainly due to order declines in 2009 and the beginning of 2010 that flowed through to sales in the second quarter. Earnings before interest and taxes (EBIT) decreased to \$975 million, resulting in an EBIT margin of 12.9%. Included in EBIT are additional project costs in the Power Systems division of \$80 million. Excluding net losses on derivative transactions and restructuring-related costs, the EBIT margin was 14.6%. Sav-

ings in the quarter of more than \$400 million from the company's cost take-out programme played a key role in maintaining profitability. Cash from operations in the quarter was \$649 million, down versus the same quarter a year earlier, while net income amounted to \$623 million. "The strong second quarter results show how we are using our improved cost base and leading position in key industrial markets to take maximum advantage of the global economic recovery," said Joe Hogan, ABB's CEO. "It's the great strength of ABB's portfolio that automation can drive profitable growth during a period of lower power demand.

"We feel more confident about the recovery in most of our markets than three months ago and believe that our short-cycle businesses will continue to perform well over the rest of 2010. After the severe industrial recession of the last two years, customers have started again to invest in technologies for energy efficiency and productivity. We expect customer capital expenditures, especially on the power side, to recover later in 2010 and into 2011," Hogan said.

Highlights

- Orders up 5%, base orders 15% higher
- Revenues down 5%, pace of decline slows versus previous quarter
- Operational performance lifted by more than \$400 million savings in the quarter

Unlocking secrets under the ice

Drilling ice cores north of the Arctic Circle takes stamina, determination and most of all, electricity. In these isolated conditions very little happens without power.

Greenland is dotted with research stations that are trying to establish the history of the Earth's atmosphere. The scientists hope that understanding the past will help to predict the future of our climate.

Bruno Stocker, one of ABB's senior experts on electrical installation and the head of the company's experimental and testing laboratory for power electronics in Turgi, Switzerland, and a hand-picked selection of reliable ABB low-voltage products, joined the crew of the North Greenland Eemian Ice Drilling station – NEEM – earlier this year. An international research project was set up at the station in 2007 to retrieve ice cores from the second-to-last warm interglacial period, the Eemian, about

115 000 years ago. Friends of Stocker at the University of Bern, which is involved with the project, told their 60-year-old colleague that NEEM's electrical installation needed some attention. Stocker leapt at the chance to help out. NEEM is operational only from mid-April to mid-August. The rest of the year it is simply too dark and cold to work. That means researchers have to make the very best of the time they have at the station, which is reliant on a 125-kW diesel generator for all of its electrical power.

No power, no research

Up to 36 people live and work at the station and, without electricity, nothing can be done: no drilling for core samples, no



01

research and no work. Stocker took unpaid leave from his job at ABB and plunged into planning his trip, ordering equipment and materials that would be needed north of the Arctic Circle. "I was glad I could use ABB products," he said.

Studying ice cores from Greenland's interglacial period 115 000 years ago helps scientists predict how our own climate might change in future. The anthropogenic (man-made) greenhouse effect is projected to warm the earth by 1.1°C – 6.4°C by the end of this century, depending on the emission scenario chosen by humankind. Studying Greenland's ice to see how various aspects of the Eemian climate developed can help scientists project how our own climate might change in future. Students,



teachers and specialists like Stocker have all volunteered to help drill for core samples of old Eemian ice. Analysis of the ice cores reveals much about past climate conditions, including temperatures, atmospheric impurities and the concentration of greenhouse gases at the time.

In camp, Stocker set about making the camp's electrical power secure and safe, installing a new fuse box, secure cable connections and circuit breakers, and built a control panel for the drilling machine. The job was challenging. For example, if a screw went missing, "I just had to think of something," he said. When a co-worker accidentally severed a power cable with a snow blower, there was no spare cable, so Stocker had to splice the

wires back together one at a time. After one-and-a-half hours, the power was back on. Improvising made the job exciting, he said. "I would be happy to go back for a third drilling season next year."

01 Bruno Stocker beside the electrical panel he installed. The cables in the picture supply power to all of the camp's tents.

Powering a city's distribution network

Words Chesney Bradshaw

As pressure to upgrade urban electricity distribution infrastructure grows, ABB is well positioned to tap into South Africa's multi-billion Rand electricity infrastructure expansion programme.

A shining example of how ABB's technology is assisting to strengthen the electricity distribution grid is that of the City of Cape Town, where ABB has recently completed power projects and is supplying technology to upgrade substations. It was ABB's power technology that powered up the Cape Town Stadium ahead of the 2010 Fifa Soccer World Cup in one project, and in the second it continues to support the major maintenance and replacement for the City of Cape Town's ageing power grid. The latter project is scheduled for completion by 2011 and is part of Cape Town's growth and infrastructure upgrade plans.

Upgrading and expanding

While the cost of electricity in South Africa remains among the world's lowest, the country's strong economic growth, increasing industrialisation and a mass electrification programme led, by early 2008, to demand for power catching up to the maximum level of supply. As a result, state energy company Eskom has embarked on a massive programme to upgrade and expand the country's electricity infrastructure. However, the backlog in

this programme is simply increasing – and exponentially – and government needs to respond with swift action. The blackouts of 2008 were a decisive turning point. Minister in the Presidency responsible for the National Planning Commission, Trevor Manuel, admitted in December when he shouldered the blame, on behalf of President Jacob Zuma's government, for not having convened the structures set up in 2008 to respond to the power crisis, following the electricity blackouts earlier in that year. He admitted to a false sense of security about the state of electricity supply in South Africa. He said that as the economy emerged from recession, electricity demand growth would 'put the current supply under pressure'.

One reason for the hiatus in activity is that after decades of power neglect during which there were few new power developments, the skills simply no longer existed in sufficient quantity in South Africa. Those with experience in constructing new power plant and in establishing the distribution network had either found new engineering careers or emigrated. This works to the advantage of companies like ABB which have access to the global pool of specialist power skills. The South African

power programme has two components: a proposed power conservation programme, designed to reduce demand from large customers by between 8% and 15%; and demand-side management (DSM) measures at commercial and residential level, with a strong focus on solar water heating.

Beefing up Cape Town's power grid

In this context, the City of Cape Town is one of the more progressive distributors of power in South Africa. It is no surprise that it turned to ABB to access its international skills to help light up Cape Town Stadium ahead of the 2010 Soccer World Cup, and to beef up its power grid. ABB's switchgear technology is part of a three-year frame agreement with the City of Cape Town, explains Sophie Roch-Bernhard, local business unit manager for substations at ABB South Africa. "The agreement that began in 2009 runs through to 2011. It includes 200 panels of medium voltage switchgear, SCADA and other power products for nine different substations. The total value of the switchgear ordered by the City of Cape Town was R135 million. "This order is an excellent reference for ABB in South Africa and particularly that we have been able to supply gas-insulated switchgear





(GIS) technology to a customer who is technically strong," she says.

Products supplied

At the Mouille Point substation, which powers the City of Cape Town Stadium, ABB supplied and installed GIS technology from the ABB global focused feeder factory in Ratingen, Germany. The Mouille Point substation comprises 30 medium voltage GIS ZX1.2 type switchgear panels. For the Cape Town Stadium itself ABB supplied UniGear air-insulated 11 KV switchgear panels as part of the four quadrant substations. This design comprises a main incoming substation which distributes to three other transformer feeder substations. The UniGear switchgear for this installation was supplied from ABB's local factory in Johannesburg. The nine other substations, which range from 12 KV, will be supplied with GIS ZX1.2 switchgear. These substations are: Roggebaai, Sea Point, Foreshore, Strand, Oakdale (Bellville), Retreat, Parow South, Eversdale and Century City.

Top technology

Barry Addinall, ABB senior sales engineer for front-end sales division of power products in Cape Town, adds: "This is a

breakthrough in the market for ABB, not just in marketing but technologically as the City of Cape Town has adopted GIS. We are excited that our technology came out tops." Addinall says the breakthrough will result in further orders for the ABB technology: for instance, Stellenbosch Municipality has also just ordered the same switchgear for its main intake substation.

Accessing international skills

ABB has access to rare international skills. For instance, Thomas Schmidtchen, sales manager for medium voltage GIS, relocated for six months to South Africa from the ABB feeder factory in Germany to support the GIS product range locally. At the time he said: "I am here to get to know colleagues, customers and market requirements and do business development to raise awareness of the product. The City of Cape Town project is important for us and I expect increasing acceptance of the product by other cities." The City of Cape Town plans to invest over half a billion rand in the Metropole's electricity network in the current financial year. Its extensive electrical infrastructure consists of more than 70 main substations with transformers and switchgear, as well as

thousands of kilometres of electrical cables and overhead power lines criss-crossing the city from Atlantis and Gordon's Bay down to Cape Point. Fuelling further demand for ABB's technology will be the construction of Eskom's Medupi and Kusile coal-fired power stations, which would further grow the transmission market. Furthermore, the municipalities have ageing electricity infrastructure but as demands from their mining, industrial, commercial and residential customers grow for improved supply and reliable service, companies such as ABB are well positioned with global and local expertise, domestic manufacturing and engineering expertise.

Special Report – Health & Safety

Words Eubulus Pillay

ABB strives to provide a safe and healthy working environment at all sites and facilities that it owns and operates.

It is ABB policy to provide a safe and healthy workplace for employees and sub-contractors and to protect them from injury. The OHS Management System (OHSMS) has been formulated with reference to the Occupational Health and Safety Act, Act 85 of 1993 to guide all our employees and sub-contractors to carry out their work safely.

Training programmes

Training programmes are in place to ensure that all employees and sub-contractors are provided with adequate safety training in order to perform their work safely.

ABB has safety procedures in place for all sub-contractors and visitors when they arrive at all our sites. While sub-contractors ensure that their teams are attired in the required safety gear, ABB, where applicable, provides the necessary safety gear to its employees. Employees undergo mandatory safety training such as OJT and all prescribed OHS training.

Safety committees

Monthly safety committee meetings are held at each ABB site throughout South Africa and are attended by safety representatives. Thereafter the minutes are distributed to all staff in accordance with regulations under Section 13 of the Occupational Health and Safety Act, Act 85 of 1993 and

the Constitution of the Health and Safety Committee of each ABB site.

Reporting

Near misses, property damage or injury are reported to prevent recurrence of such incidents. Line Managers, the OHS Manager, supervisors, engineers and injured incumbents investigate or assist in investigation and issue the accident report to the OHS Manager for documentation.

The Country Sustainability Controller submits accident reports to the Group in the event of serious or fatal accidents.

Inspection

The management team, OHS inspection committee and first aiders participate in inspection programmes such as regular site observational tours, weekly workplace inspection and monthly first aid box inspection to identify unsafe acts and conditions and take preventive measures against occurrence of accidents.

Risk assessment

Line Managers conduct the risk assessments which are reviewed by the OHS representative and safety briefings on risk control. Sub-contractors conduct risk assessments on all work while service engineers conduct job hazard assessments prior to the commencement of work.

Sub-contractors

ABB only engages sub-contractors who are reputable and fully aware of the Group's OHS obligations.

Hazardous substances

ABB has established a system to ensure that the storage, movement, use and disposal of hazardous materials and chemicals are managed to eliminate or reduce them to an acceptably low level of risk to safety and health. This is applicable to the hazardous materials kept in the store and those used in the production floor. Line Managers assess the MSDS and educate the involved employees on the proper handling of the hazardous substances and chemicals.

Maintenance regime

The ABB maintenance programme ensures that the machinery and equipment used in the premises do not represent any hazards which might affect the safety and health of employees. Line Managers authorise competent persons to carry out the maintenance or inspection of the machinery or equipment.

Emergency preparedness

All employees are given clear instructions on the action to be taken during an emergency to protect fellow personnel from injury, the assets belonging to ABB, customers on





A sample of the weekly safety message posted on the LCD screens at the Alrode Motor Factory.

Everyone in ABB is responsible for health and safety. Leadership and accountability are important for both managers and employees.

site, the environment and the reputation of ABB and its ability to continue its production to meet commitment.

Fire Safety Managers formulate the Fire Emergency Plan (FEP) and brief all involved personnel on their responsibilities. ABB mitigates the effects of an incident / accident if it occurs, by providing fire fighting equipment and proper emergency response training.

It is the responsibility of all employees and sub-contractors to be familiar with the emergency escape routes and nearest exits which are clearly outlined on route maps placed throughout each ABB site.

Occupational health programmes

Occupational health programmes protect all employees from chemical and physical health hazards such as noise, toxic gases, vapours or dust and radiation. Managers ensure all affected employees and sub-contractors observe and follow the instructions of the programmes.

Project safety management

ABB has established a health and safety plan for the purpose of setting out the management of risks for projects and service contracts. The plan enables the organisation to consider health and safety risks

FACT FILE

ABB South Africa's recent health and safety successes

305 incident/accident free days at Anglo Coal – Zondagsfontein Zubilo Colliery

This Coal Mine is located in the Province of Mpumalanga, approximately 170kms south east of Johannesburg. Prone to high winds and extreme weather conditions, the area has a vast amount of both open cast and shaft mines and about six large power stations in the area. Under these conditions, ABB has achieved over 40 000 incident/accident free man-hours worked to date.

500 000 fatality free shifts at Impala Platinum Mines 16 Shaft – Rustenburg

Operating at the tallest mine winder head-gear in the world, the ABB team are faced with extremely hazardous and high risk conditions on a daily basis, specifically, working at extreme heights and in confined spaces.

The ABB Process Automation Project Team has once again received a safety award for outstanding safety performance and achiev-

ing 270 incident/accident free days. In order to promote and maintain a positive safety culture on site, a recognition program is in place which rewards operatives who contribute to safe working practices on a weekly basis, and set an example to others in aspiring to maintain a high level of safety awareness. The project has recently reached the milestone of 500 000 fatality free shifts.



We will ‘Deliver safely, on budget, on time, in full, and to the right quality’.

throughout the project planning process so that risks are controlled to a level that is as low as is reasonably practicable.

Project managers ensure that there is a health and safety plan for the above scope. It is the responsibility of the project team, including the sales and proposal personnel, to formulate a health and safety plan at pre-tender stage. The project team reviews the plan during the construction stages.

Promotional activities

ABB safety representatives engage in promotional activities at the various sites to create and sustain safety awareness among all employees at all levels of employment in the organisation. It is the responsibility of the steering committee to organise regular OHS activities. Some of the promotional activities include:

OHS notice-boards

Notice-boards display information such as OHS policy, in-house rules and regulation, monthly accident statistics and other safety circulars. These notice-boards are displayed at locations frequented by high volumes of employees.

Digital media signage

This comprises a series of LCD screens that are distributed throughout the office and factory areas. In the factory areas OHS notices (announcements and alerts) are posted on the screens. At the induction areas at selected sites there are LCD screens where

the ABB safety induction video is screened to visitors and new employees.

OHS quiz

OHS quizzes are organised after the in-house OHS training courses to maintain interest in OHS.

Safety alerts

Safety information from the ABB Group is disseminated through email to relevant personnel. Some of this information is posted on the OHS notice-boards. This joint effort from ABB management and staff is a step in the right direction towards creating a culture of safety in the work place.

Special Message



Nthabiseng Dube

Director: Marketing and Communications

Our goal is to prevent any work injuries and fatalities, by fully integrating health and safety into all we do. We encourage safety leadership at every level, recognise that behaviour is key, that all incidents are preventable, and we identify appropriate resources to achieve world-class performance.

Everyone in ABB is responsible for health and safety but to ensure leadership and accountability it is important to define the responsibilities and accountabilities of managers and employees. ABB Group defines and communicates the health and safety responsibilities of the Board, the CEO, Executive Committee members, and senior managers. This is important to demonstrate commitment and leadership in health and safety, and to embed the ABB policy.

Systems are in place to reinforce the line management responsibility and accountability for OHS and to make both the consequences for non-compliance and rewards or recognition for best practice much more transparent and visible throughout ABB. We will ‘Deliver safely, on budget, on time, in full, and to the right quality’.

The women who power ABB South Africa

Words Pamela Manda

With the new democratic era in South Africa, many companies are embracing change and realising the need to increase gender diversity in the workplace.

The benefits of diversifying the workplace are clear to ABB which has made much progress in bridging the gender gap, by recognising the important role of women in the workplace.

Gender diversity campaign

One of the many ways in which ABB continues to advance the role of women in the workplace, is through its gender diversity campaign. There has been a recent roll-out of various surveys on gender diversity, which look at issues such as how ABB can attract more female employees at different levels of seniority and different backgrounds and what barriers there are for the career advancement for women within the organisation. This is a positive step towards understanding how the organisation can improve and implement policies that encourage career growth for women

and gender diversity within the organisation. In the Middle East, ABB has helped women in the Gulf broaden professional perspectives through internal and external initiatives. One such initiative is ABB's involvement in the Dubai Women's College (DWC) work experience programme, which has encouraged women in the United Arab Emirates to be afforded hands-on work experience. A few years ago ABB South Africa also demonstrated its drive to empower women through its black empowerment initiative, by selling 20% of its operations to Women's Investment Portfolio Holdings Limited (WIPHOLD), an empowerment company owned and managed by black women. Of the 1 500 ABB South Africa employees, 27% are female. To recognise the hard work and contributions that women make to ABB's success, we interviewed some successful women who have made ABB South Africa their home.

Of the 1 500 ABB South Africa employees, 27% are female.



Irene Makhumbeni is an inspirational woman who has made a success of her career with ABB. Makhumbeni, who has been with ABB for 29 years, taped coils for rotors

at the Alrode-based Motor factory for 21 years. She is now an internal sales administrator for the automation technology's spare parts department. Makhumbeni's position enables her to coach new employees in her department on the sales process and technical skills they will need to tackle their new role. "This is a great opportunity for me to interact with new colleagues and pass on the skills and knowledge I have gained over the years. I think women need to show their potential and not think of the workplace as a man's world. There is so much we can achieve, we just need to believe in ourselves," she says.



Wilani Le Duarte, local account manager for the mining and minerals business unit, has had a successful and rewarding career with ABB South Africa. She has been with ABB for more than 15 years

and holds a Bachelor of Commerce Marketing Degree. She has worked in several roles with ABB, including document Office Controller for Majuba Power Station and Sales Engineer for Front End Sales (FES). It is this extensive experience with the organisation that has ensured that she is comfortable in her new role. Her current role includes assisting the global account managers as the interface to the key mining houses in South Africa, customer relations management and educating our market on ABB and its products. ABB South Africa has made much progress and is ensuring greater representation of women in the workplace, but much more can be done to encourage, uplift and empower women in the workplace.



Keshree Pillay, a general ledger controller, has been with ABB's finance department for more than 10 years. "Over the past few years, ABB South Africa has

begun employing more females, especially in the finance area. I think it's an indication that the organisation realises that women are able to have successful careers in addition to being wives and mothers," says Pillay, who is currently studying for towards a Bachelor of Commerce Degree. As a mother and career woman, who herself was inspired by her mother to achieve her goals, Pillay is hopeful that women will continue to advance their roles in the workplace. "I hope ABB will do more to advance the careers of women," says Pillay.

Caring for HIV/AIDS orphans

Words Chesney Bradshaw

Caring for orphans of HIV/AIDS has been made more challenging with slow economic performance. But corporate donors such as ABB have this year stepped up their contributions to ensure that the most vulnerable in society are protected. Employees at ABB South Africa have opened their hearts and are giving more this year including blankets, clothes, toys and cash.

Economic difficulties have resulted in, for example, millions of dollars being lopped off donation budgets from countries such as Canada, Germany, France, Ireland, Italy and The Netherlands, to name a few. Dwindling funds have NGOs battling to keep their doors open, some retrenching staff to keep their heads above water, while others are re-assessing their funding models and services provided to communities.

The UNICEF report 'Africa's Orphaned and Vulnerable Generations: Children Affected by AIDS' (2006) estimates that more than 12 million children have been orphaned in sub-Saharan Africa. Worldwide the total number of orphans resulting from the pandemic is 15 million (UNAIDS, 2006). In South Africa the number of orphans as a result of HIV/AIDS is estimated at more than 2.3 million, according to the South African Child Gauge 2008/2009, using figures from the Statistics South Africa General Household Survey 2007.

Joslyn Walker, a spokesperson for Noah (Nurturing Orphans of HIV/AIDS for Humanity) says, "The vulnerability of these children represents part of a vicious cycle. Their circumstances put them at high risk for exploitation and abuse, and therefore expose them to HIV. Lack of access to health care, education and social support perpetuates the conditions of poverty."

Building capacity

ABB South Africa has been supporting organisations that care for orphans of HIV/AIDS for the past five years, investing close to R3 million in programmes to help build capacity in communities to take care of orphaned and vulnerable children (OVCs). Capacity building takes place through training, infrastructure and financial support. The company supports Noah, a non-profit organisation, which cares for 25 000 orphans in Gauteng and KwaZulu-Natal (KZN). ABB also supports a programme in the Western Cape Province where it has linked with Starfish, another non-profit organisation devoted to supporting orphans of HIV/AIDS with a strong presence in the province, to provide funding to the Etafeni Day Care Centre in Nyanga.

Through the centre in Nyanga ABB supports close to 350 children made vulnerable or orphaned by HIV/AIDS, providing them

"The vulnerability of these children represents part of a vicious cycle. Their circumstances put them at high risk for exploitation and abuse, and therefore expose them to HIV. Lack of access to health care, education and social support perpetuates the conditions of poverty."





with a day-care programme which includes nutritional and educational programmes for toddlers and teenagers. The after-care programme provides English-language extra lessons, computer skills and environmental awareness. The centre is using the ABB-sponsored WWF/Western climate change game.

These projects within the programmes that ABB supports care for close to 1 500 orphans in three provinces every day of the week, providing nutrition, education and follow-up visits to primary care-givers. Apart from the basic services required for the children ABB is also working with Noah and Starfish to increase the level of care given to include emphasis on education.

Meeting demands

The organisations supporting the care of HIV/AIDS orphans expanded rapidly in the boom times to meet the demand of ever-higher levels of orphan numbers. They now have to refocus the support and funding models taking care to not reduce their reach and services provided to orphans in existing programmes. Many challenges remain such as the lack of funding for food, burnout of staff and volunteers, overcoming stigma and discrimination to OVCs and escalating material needs, according to research by Khulisa Management Services.

Continuing support

With such huge challenges facing the agencies that work directly in the community to care for orphans of HIV/AIDS, it has become even more important for

companies such as ABB to continue to support organisations such as Noah and Starfish which are trying to achieve comprehensive care for orphans as a result of the AIDS pandemic.

Starfish

Janet Mackay – Regional Programme Manager, Starfish Greathearts Foundation, gives a firsthand account of ABB's support.

We at Starfish have nothing but praise for the generosity of the funding provided by ABB which makes a real difference to the children of Etafeni. Besides the funding which ABB provides, there is genuine interest in the children and real heart in their giving. The donation of sports (soccer and netball) clothes to the after-care children has made a real impact and drawn them together as a team with an identity, which in turn gives them a real sense of belonging. It's that sense of belonging which is so vital in the lives of these children made vulnerable by HIV and AIDS.

Recently Starfish was able to involve the Etafeni soccer teams – girls and boys – in a soccer challenge in Stellenbosch. The highlight was presenting themselves as a team and being able to hold their own, meeting with Vanessa Haywood, film star from *District 9* and being lucky enough to win tickets to the Spain vs Portugal World Cup soccer match in Cape Town. A year ago they did not have the confidence to enter such a soccer challenge, but thanks to ABB's support and Etafeni's nurturing of the children, they are blossoming!

The WWF/ABB climate change game has become a firm favourite amongst the children and they beg to be able to play it – at the same time learning more about the world and the environment around them. Thank you ABB for your continued support of Starfish and investment in tomorrow – our children.

Our businesses

ABB is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact.

Power Products



Power Products are the key components to transmit and distribute electricity. The division incorporates ABB's manufacturing network for transformers, switchgear, circuit breakers, cables and associated equipment. It also offers all the services needed to ensure the performance of products and extend their lifespan. The division is subdivided into three business units.

Power Systems



Turnkey systems and services for power transmission and distribution grids and for power plants are offered by this division. Substations and substation automation systems are key areas. Additional technologies include flexible alternating current transmission systems (FACTS), high-voltage direct current (HVDC) systems and network management systems.

Process Automation



The Process Automation division provides products and solutions for instrumentation, automation and optimisation of industrial processes. Industries served include oil and gas, power, chemicals and pharmaceuticals, pulp and paper, metals and minerals, marine and turbocharging. Key customer benefits include asset productivity and energy savings.

Low Voltage Products



The division manufactures low-voltage circuit breakers, switches, control products, wiring accessories, enclosures and cable systems to protect people, installations and electronic equipment from electrical overload, and makes KNX systems that integrate and automate a building's electrical installations, ventilation systems, and security and data communication networks.

Discrete Automation and Motion



The Discrete Automation and Motion division provides products, solutions and related services that increase industrial productivity and energy efficiency, which are central to its offering. Its motors, generators, drives, programmable logic controllers (PLCs), power electronics and robotics provide power, motion and control for automation applications.

The ABB Group of companies operates in around 100 countries and employs about 117 000 people.
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Certainly.