

SAFETY, HEALTH AND ENVIRONMENT

A safe and healthy working environment allied to responsible use and management of our natural resources are integral elements of Altron's commitment to sustainable development. Throughout the group, Safety, Health and Environment (SHE) policies and systems are in place to ensure that our manufacturing and production facilities conform to best human resources and environmental practices wherever possible and that any negative impact from waste disposal or pollution is appropriately managed and mitigated.

A formal environmental management reporting system is being implemented throughout the group to comply with the reporting requirements of the JSE Social Responsibility Investment (SRI) Index. Both Altron and Altech have qualified for this index annually since its inception and BTG qualified for the first time in 2005.



Final inspection of industrial battery cells by Quality Department – Port Elizabeth Factory, before being booked into stock and despatched to Ophirton DC Power Marketing warehouse.

Regular audits are conducted by internal audit and by an accredited external independent consultant and quarterly reports are submitted to the various audit and risk management committees and boards. Reported issues include: water use and discharge; land use; solid and hazardous waste output and disposal; gaseous emissions; major environmental violations; safety and security; prosecutions and fines; accidents and incidents.

During the period under review, no prosecutions were brought against any company of the group for the contravention of any environmental laws.

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On-site medical facilities at the Aberdare Cables factory in Johannesburg.

Safety and health

Operational risk management committees continue to emphasise SHE issues as a pivotal component of our key business objectives. Beyond legal compliance, Altron is committed to achieving a high level of SHE performance at both a corporate and operational level.

Safety regulations on all sites are not negotiable, and performance is reported quarterly at board meetings throughout the group. Using the Occupational Health and Safety Act as the minimum benchmark, a risk and safety policy at operational level throughout the group spans health and safety representatives; occupational injury; disease and accidents; first aid; fire procedures; and record keeping and training.

ISO Certification

Several group operations, particularly those in our primary manufacturing group, Powertech, have ISO 14001 certification governing the implementation and maintenance of environmental management systems.

They also have defined roles and responsibilities including: procedures for monitoring and measuring; procedures for training, guidelines and awareness; emergency plans; objectives and targets; audit and review; and corrective and preventive actions. All operations maintain aspect and impact registers and conduct monthly audits which are externally reviewed. Operator and staff training is an ongoing requirement of these certifications, and new and existing employees undergo specific training in their work-related skills.

Scrap battery cells at the Willard Batteries Port Elizabeth factory being loaded onto a Sutherland Transport company truck, for delivery to Frys Metals, for recycling.



A recycling success

One of the most exceptional environmental success stories of our time lies in the recycling of lead-acid batteries. In the USA, lead-acid batteries are the most highly-recycled consumer products at 93% (42% for newspapers, 55% for aluminium cans, and 40% of plastic soft-drink bottles). This success story is partly due to the life cycle of the lead-acid battery – such as those used for electric wheelchairs – which is 98% recyclable.

At Willard and Sabat Batteries the recycling of lead-acid batteries is a multi-stage process. Initially, the battery is broken apart in a hammermill. Broken pieces go into a vat or flotation pond where the lead and heavy materials sink to the bottom while the plastic floats. At this stage, polypropylene (or plastic) pieces are scooped away and liquids drawn off, leaving the lead and heavy metals behind. The plastic pieces are washed, air-dried and melted together into an almost liquid state. The molten plastic is then put through an extruder that produces small uniform pellets, which are used to manufacture new battery cases.

The lead grids, lead oxide and other lead parts are cleaned and melted in a smelting furnace with additives to help remove impurities. The molten lead is poured into ingot moulds. After a couple of minutes, the impurities (or dross) float to the top of the still-molten lead in the moulds and are scraped away. The ingots are then left to cool, after which they are removed and ready to be resmelted to produce new lead plates and other parts for new batteries.

Old battery acid is handled in two ways:

- The acid is neutralised with an industrial compound similar to household bicarbonate of soda. This turns the acid into water which is treated, cleaned and tested to ensure it meets clean water standards, and then released into the sewerage system.
- Old battery acid is processed and converted into sodium sulphate, an odourless white powder used in laundry detergent, glass and textile manufacturing. In this way, a potentially noxious substance is transformed into a useful, reusable product.

Business	ISO	OHASA	Other
Altech			
Altech NamiTech	9001		VMC [®]
Altech UEC Multi-Media	14001		
Powertech			
Aberdare Cables			
● Stanford Road	9001 14001 (2005)		BASEC/ISO 9001 compliant
● Lambda	9001		
● Pietermaritzburg	9001 14001 (2005)		
● Aberdare Network Services	9001		BASEC/ISO 9001 compliant
● Edenvale	9001		
● Gauteng	9001		
● Jet Park	9001		
● Alcon Marepha	9001		
ABB Powertech Transformers	14001, 18001 (2005), 9001	Compliant	
Crabtree	9001 14000, 18000 (2005)		
Whiteleys	9001 (2005)		
Desta Power Matla	9001 14000 (2005)		
Strike Technologies			
Tridonic SA	9001		ENEC (European standard, including VDE and CE marks)
Willard Batteries			
● Port Elizabeth	14001		
● Industrial	9001		
● Automotive	ISO-TS 16949		Q1 (Ford); QS 9000 (GM), VDA 6 (VW and BMW).

Years in brackets denote latest certification.

Blood-lead monitoring

Managing the lead content in the blood levels of relevant employees is a priority at Willard and Sabat Batteries. Using legal compliance as a minimum benchmark, the company has developed rigorous standards for monitoring blood-lead levels in employees exposed to inorganic lead while working – from annual tests in non-lead areas to monthly monitoring for employees working in lead areas.

If an employee's blood-lead level exceeds the company's prudent limits, explicit mitigation steps are immediately instituted. These include removing the affected worker from the lead area, investigating the possible source and notifying the appropriate co-workers and safety representatives. No employees are returned to the lead area until their blood-lead levels are well below the stipulated threshold.

The potential biological effects of lead are constantly monitored, and the company has a range of additional investigations which are conducted when lead is suspected of causing ill-health.

Education and counselling sessions ensure that employees are thoroughly familiar with the sources of lead in the workplace, the potential dangers of exposure and the importance of biological monitoring and medical surveillance. Precautionary measures are emphasised, including the use of protective equipment and adherence to environmental, housekeeping and personal hygiene practices. In addition, meticulous training is conducted on disposing of waste material containing lead and cleaning sites at which lead or material containing lead has been used, handled or processed.

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Left to right: Moegamat Abrams and Peter Louw of Aberdare Cables Standford Road demarcating excess paper from the Paper Department for recycling.

Effluent pH reading check being taken on raw factory battery effluent by Chemical Initiatives employee at Willard Batteries Port Elizabeth factory. All battery effluent is held in retainer tanks and treated before being released into the municipal sewerage system. Acid is neutralised before being released in terms of the Company ISO 14001:2004 standards.

Waste management

Waste management projects at the manufacturing and operational level in Altron include the controlled separation and disposal of hazardous waste; transport, storage or trading of this waste; recycling and reclamation of waste materials, and the auditing of the legal compliance of contracted waste disposal companies.

For operating companies handling hazardous chemical substances, the highest level of housekeeping standards is required. These standards must prevent fire, spillage, ingestion and contamination. In monitoring hazardous chemicals, daily checks take place and waste disposal is offsite, conducted by reputable waste disposal contractors with verified certification.

In the Altron group, the process with the largest environmental impact is soldering at Altech UEC

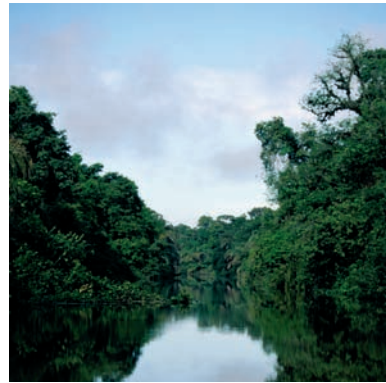


Multi-Media which results in lead waste. The waste is disposed of according to strict regulations by contractors that have supplied Altech UEC Multi-Media with proof of their compliance with water and waste bye-laws and the National Environmental Management Act of 1998 (as amended). To comply with European Community requirements, the company has implemented a programme to remove lead from the soldering process during 2006 for products supplied into European markets. Processes

involving volatile organic compounds (VOC) are also being phased out, with a water-based process due in mid-2006. All other waste material generated in manufacturing Altech UEC Multi-Media decoders is recycled. Additionally, in terms of its product design, only recyclable packaging material is used. A modern water-based paint plant has been installed to eliminate the use of harmful solvents in traditional oil-based paints.

For the remainder of Altron's non-manufacturing operations, the environmental effects are managed as far as possible. The electricity that is consumed is limited to use for lights and computers and other office equipment. Water consumption is for drinking purposes and bathroom facilities. Both these resources are monitored. No ground water is drawn for any of Altron's operations. The operational activities in the Altron group do not impact on biodiversity, protected or sensitive areas, heritage sites, fresh water resources or related ecosystems.

During the review period, considerable modifications took place at the Battery Group factories in Port Elizabeth to address the emission of pollutants – such as acid vapour and lead dust – into the atmosphere. In addition, considerable capex has been



allocated to ensuring emissions of liquid acid effluent are neutralised and managed within legal requirements. The required permits for these processes are in place. Water from the battery-charging baths is pumped into a holding sump, pH corrected and re-used in the charging process. All lead waste is recycled and re-used in the battery manufacturing process.

Altech NamiTech's manufacturing process is toxin free. Waste material that cannot be recycled is disposed of using specialist waste disposal companies which all comply with environmental best practices. Water is no longer used in any part of the manufacturing process and an electricity-saving project has been implemented.

Floor refurbishment

In the manufacturing of lead-acid batteries, two hazardous chemical substances, namely sulphuric acid and lead, are used. Sulphuric acid is a highly corrosive chemical substance and about 95% of its usage on site is concentrated in the battery/cell accumulator charging facilities or charge rooms. The handling of the acid causes continual minor spillages which, if not effectively controlled, can detrimentally affect the environment in terms of contamination or pollution of the soil and subterranean water systems under the concrete floor.

Willard Batteries accepts the responsibility for ensuring that the environment is not compromised. Care is, therefore, taken to protect the floors in the charge room areas, as

well as in areas where smaller quantities of sulphuric acid are used. This is done by means of a floor coating which seals and protects the areas to which it is applied. The floor coating consists of a mixture of "silicone sand" and an A.B.E. sealant and is applied to the floor areas as an epoxy coating. The coating prevents any seepage into the subterranean soil and water and is either completely stripped off once a year (during shutdown), if the wear and tear of the year has been particularly severe, or carefully repaired where the coating has been breached.

Global reporting initiative

Altron's incremental progress towards compliance with GRI guidelines is detailed on pages 171 – 183.

Recycling toxic lead-acid batteries into indigenous trees

Willard Batteries has embarked on an innovative venture which is contributing to enhancing our environment and improving the quality of life for fellow South Africans.

Through this project, every scrap battery traded in on a new Willard Battery will result in money being invested to plant indigenous trees in disadvantaged community areas. The funds are donated to Food and Trees for Africa for various urban greening projects around the country.

In the past decade, a vast number of people have relocated from rural to urban areas, largely due to perceived job opportunities in and around major cities. The result of this influx has been the formation of large informal settlements with little or no town planning. Use of space is poor and characterised by ever-decreasing quality in the land, the water and the air.

The environmental and social consequences of rapid urbanisation on our environment cannot be ignored. Food and Trees for Africa recognised that environmentally-sound urban development must include urban greening. This is a comprehensive term used to describe all urban vegetation management (green spaces or urban vegetated areas) including urban



Willard Batteries has been instrumental in planting over 4 000 indigenous trees.

agriculture/permaculture and urban forestry. Urban forestry is the planning and management of trees, forests and related vegetation to create, or add value to, the local community in an urban area. Through urban greening, areas become more pleasant to live in, contribute to the quality of the air, the reduction of global warming and carbon dioxide, and eventually to civic pride and a sense of community – the essence of sustainable urban development.

To date, Willard Batteries has been instrumental in planting over 4 000 indigenous trees – a project which promises to reap untold and sustainable rewards for future generations of urban residents.