

Kursk's Akkumulyator JSC Moves to the Next Phase

The [Akkumulyator](#) JSC Battery Manufacturing and Recycling Plant, located some 500 kilometers south of Moscow in Kursk, is in the final stages of a US\$15M refurbishment of its battery assembly areas. Some years ago in conjunction with the Varta company of Germany a "state of the art" blast furnace was installed to cope

into the design for the new equipment and will reduce emissions by fivefold. Furthermore, the General Director of Akkumulyator, Alexander Jaeger, is confident that the upgraded plant will bring the factory into compliance with ISO 9001 standards and enable the company to manufacture the latest maintenance free automotive batteries.



Left to right: Marina Soldatenko, Deputy Technical Manager Electroziariad JSC, Dr. Vladimir Muzalev, Kursk Company Doctor, Alan Haynes, BRM Occupational Nursing Officer and Olga Durneva, Kursk Senior Laboratory Analyst.

with both the increasing demand for lead to meet the growing requirements of the Russian Federation's automotive market, estimated now at 10 million units annually and to comply with the internationally accepted standards for occupational health and environmentally sound recycling.

Indeed, when the new battery assembly plant is commissioned in the summer of this year, the employees will be provided with a ventilated and air-conditioned work environment. The latest extraction and dust control measures have been incorporated

However, hand in hand with the new hardware, Management are in the process of introducing new procedures for monitoring occupational health. These will include tracking lead in blood levels of employees, particularly those employed on the assembly line. As a first step in this process, and a move towards the next phase of the company's internal development, a team from the plant visited the United Kingdom (UK) in December last year to learn more about the biological monitoring techniques currently in use in the European Union (EU) and the United States of America (USA).

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Accompanied by Brian Wilson, ILMC Program Manager, and Marina Soldatenko, Deputy Technical Manager of [Electrozariad](#) JSC, Dr. Vladimir Muzalev, an Akkumulyator Company Medical Doctor and Olga Durneva, Senior Laboratory Analyst at the Kursk plant quality control laboratory, visited the subsidiary of ILMC member [Mount Isa Holdings](#) (MIM), [Britannia Refined Metals Ltd](#) (BRM) at Northfleet in Kent and the analytical laboratories of “Health in Business” at Ellesmere Port in Cheshire.



Olga Durneva testing the ESA LeadCare Portable Lead Blood Analyzer

Setting up and establishing, with the appropriate quality control protocols, a biological laboratory to analyze blood samples is expensive and time consuming. Consequently, while Electrozarriad determine the most suitable and cost effective way of implementing biological testing across the whole of the battery manufacturing sector, ILMC donated an ESA [LeadCare®](#) portable analyzer to enable the medical staff at the Akkumulyator Plant to obtain an early indication of the likely levels of occupational exposure.

BRM Occupational Nursing Officer, Alan Haynes, demonstrated how to use the portable analyzer, explaining that as the test kits are standardized during manufacture, LeadCare® only requires a simple non chemical electronic calibration and the blood samples do not require any refrigeration. Furthermore, the electrodes are coated with a unique gold electrode and there is no mercury or any other toxic material used in the analyzer.



From left to right: Olga Durneva, Marina Soldatenko and Vladimir Muzalev watch Neil McKay demonstrate the correct mixing method for the blood sample

With over thirty years experience, “Health in Business” are the UK’s leading independent specialists in occupational medicine and laboratory services. Just like the medical department at the Akkumulyator Plant in Kursk, “Health in Business” has five occupational health doctors that provide expert advice to industry on any aspects of health at work. Managing Director, Dr. David Gidlow, is proud that the laboratory has the most advanced automated sequential graphite furnace atomic absorption (AA) analytical equipment in the world, offering the full range of hematological and biochemical testing including the analysis of lead in blood.

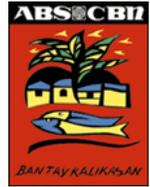


Health in Business’ Senior Analyst, Helen Seymour (left), looks on with Marina Soldatenko (right) as Olga Durneva places the samples in the automatic carousel of the AA.

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ABS-CBN Foundation Launch 'Bantay Baterya' with PRI



ABS-CBN is the premier broadcast network in the Philippines. Its pioneering spirit led to the creation of the first commercial television station in 1953, the first color television broadcast in 1967, and the first satellite transmissions in 1969. This spirit was also demonstrated when six months after the TV station was rebuilt from scratch in 1986 after the 1972 Martial Law shut-down it had become the undisputed top-ranking network in the country. By 1993 its audience share had expanded twelve-fold to a high of 62%. Today, [ABS-CBN](#) programs are still the top ten-rating shows.

In respect of and in response to the loyalty shown to the station by its audience ABS-CBN Broadcasting Corporation made a corporate commitment in 1989 to the public by establishing the "not for profit" [ABS-CBN Foundation Inc](#) (AFI). Initially, the AFI produced television programs for charitable and educational purposes. Its chief concerns then were to generate welfare funds by broadcasting the situations of those in dire need of assistance and ensuring the proper allocation of resources and help.

Not content with being a mere broker of resources, AFI later restructured itself to accommodate a more developmental approach to affect strategic sectors of society. This all around approach has become a model for its mission to provide a better quality of life for every Filipino. All developmental programs for the grassroots now cover a wide range of issues with a focus on issues that do or will affect children, now or in the future:

- ◆ Care for victims of child abuse or disasters
- ◆ Child care
- ◆ Educational multimedia programs
- ◆ Small business financing
- ◆ Community based environmental initiatives

In support of this the last objective the AFI launched the [Bantay Kalikasan](#) (protect the environment), first as a telephone "hotline", where the general public could report environmental violations in confidence. The program now responds to current environmental issues, including a watershed rehabilitation program, an anti-smoke campaign, and provision of food relief to upland communities affected by land conversion and deforestation.

Towards the end of last year, and in conjunction with the country's largest automotive battery recycler, [Philippine Recyclers Inc](#) (PRI) and the [Philippine Department of the Environment and Natural Resources](#) (DENR) through the offices of the [Environmental Management Bureau](#) (EMB), AFI added another initiative and one of the first under the Philippine Government's Environmental



Back, left to right: Marlo Mendoza, AFI Program Director; Irving Guerrero, PRI VP and General Manager; Front, left to right: Jacob Tagorda, PRI President, Karla Andaya, ABS-CBN Broadcasting Corporation.

Partnership Project (PEPP) to *Bantay Kalikasan* fund raising activities, that is, *Bantay Baterya*, the collection of scrap automotive batteries.

PRI's own [Balik Baterya](#) collection scheme for used automotive batteries operates throughout the Philippines through the Motorlite Battery distribution and sales network. Irving Guerrero, PRI VP and GM, confirmed that the scheme is currently responsible for collecting about 60% of the used car batteries in the Republic or 120,000 units a month.

Nevertheless, a considerable number of spent batteries are not recycled and generally end up in domestic garages, sheds, out-houses and back yards. It is in these places that children are at the greatest risk and the AFI have prepared a series of community based educational programs and publicity campaigns to draw attention to the potential health and safety risks associated with discarded batteries.

With the communication resources of the ABS-CBN Broadcasting Corporation and the support of TV personalities such as Karla Andaya and Lia Andanar, AFI Program Director Marlo Mendoza has set a collection target of 40,000 used batteries to be collected each month and is confident that the money raised by the local communities will provide much needed financial support for the organization's childhood and environmental initiatives. The *Bantay Baterya* scheme complements perfectly the *Balik Baterya* initiative and PRI are committed to purchase all of the scrap batteries collected by AFI.

Callao Project Update

By Graham Kenyon

The Callao risk reduction project continues to make steady progress. The project is addressing elevated blood lead levels in children living in the port city of Callao, Peru. Concentrate storage warehouses are a source of lead exposure in the community, and over the past year the warehouse operators have been implementing measures to reduce dust emissions from their properties. Management plans have been approved by the [Ministry of Energy and Mines](#) and the Callao Municipality has established regulations to ensure consistency in the efforts to improve performance. Whilst monitoring data remains limited at this stage, there is an indication that the situation is beginning to improve.

The "Round Table" forum (Mesa Redonda) is now firmly established as a vehicle for sharing information amongst the various parties. These include the warehouse operating companies within the Mining Society, the Ministry of Energy and Mines, the [Ministry of Health](#) (DIGESA), the [Port Authority](#) (ENAPU), the Municipality of Callao, and 'EcoCallao', a consortium seeking to build a new, comprehensive storage and load-out facility at Callao.

The framework of the program comprises several elements: source reduction, monitoring, case management, education and communication, community risk reduction, and occupational health. Each of the participants has primary responsibilities in these areas, but they are also working cooperatively together with the other interested parties through several subcommittees that have already been formed.

The primary focus in 2000 has been on source reduction. However, several studies were also initiated to better define the nature and extent of the exposure problems. These included an environmental impact study; comprehensive studies of the social make-up of the community to aid the development of appropriate education and risk reduction programs; and a follow-up blood lead survey. A priority for 2001 is a monitoring program of the environment and the local population to measure the effectiveness of the various activities taking place.

ILMC is actively participating on an ongoing basis, assisting with advice on process, education and technical aspects of the program based on experience with similar problems that have been successfully resolved. ILMC is also arranging for technical resource personnel to support the training of local physicians in the latest techniques for the diagnosis and treatment of pediatric lead intoxication.

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Helen (left) reviews the analytical results with Olga, Marina and Vladimir on the laboratory monitor.

For three days, under the direction of the Laboratory Manager Neil McKay and the Senior Analyst Helen Seymour, Olga, Vladimir and Marina went through the theory and practice of the determination of lead in blood by atomic absorption spectroscopy.

Presentation material, notes and handouts were prepared in both English and Russian and covered all aspects of safety, the stringent hygiene requirements essential in biological laboratories, instrument control functions, sample preparation and storage and the six steps in the analytical process, including atomization and pyrolysis. The practical training included the calibration of the various types of AA instruments against known standards and the analysis of blood samples from a UK battery manufacturer.

On their return to the Akkumulyator Plant, Olga and Vladimir will set out the requirements for an initial screening of a section of the workforce and in conjunction with the Plant Management and Electroziariad decide how to implement a pilot study. ILMC and Electroziariad will visit Kursk again in the summer to review progress.

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