Magnetic and Electrical Separation, Vol. 10, pp. 203–206
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Publishers imprint.
Printed in Malaysia.

NEWS BRIEFS

KHD PERMOS SEPARATORS FOR INDIA

KHD Humboldt Wedag AG, Germany, have supplied two Permos magnetic separators to Timbio Co., India, for treatment of iron ore. Throughput of one separator (600 mm dia × 2500 mm width) is approximately 70 t/h. The separators will be used for dry treatment of the iron ore. Pilot-plant tests showed that the grade of the iron concentrate could be increased from 48% to 60%.

JONES SEPARATORS FOR AUSTRALIA AND BULGARIA

KHD Humboldt Wedag AG supplied two Jones magnetic separators type DP 335 to the Australian subsidiary DRI of BHP. The machines are being used for beneficiation of iron ore in the new iron ore plant at port Hedland in Western Australia. KHD also installed the Jones separator DP317 in the Kremnikovtzi steel works in Bulgaria.

TRIBOELECTRIC SEPARATORS TREAT QUICKLIME

Two Carpco triboelectric separators are in operation in Westlime's new quicklime production plant in Western Australia. It is claimed that these separators provide a higher quality quicklime product with low silica content. Silica and limesand are oppositely charged and separated when they pass through the oppositely charged electrodes. The separator is capable of processing 15 to 20 t/h of non-conductive materials, such as carbonates, phosphates and others.

5T CRYOFILTER INSTALLED IN GEORGIA, USA

The Carpco Cryofilter 5 T/1000 superconducting magnetic separator was installed at Dry Branch Kaolin near Macon, Georgia, USA. The separator can process 100 t/h of kaolin slurry at the magnetic field of 5 T. The machine operates in a continuous mode and its process time is nearly 100%. The cryogenic system uses low-maintenance "cold head" technology. The input power for the full operation of the system is claimed to less than 15 kW.

YBM MAGNEX INTERNATIONAL, INC.

YBM's shares were delisted from the Toronto Stock Exchange and a number of law firms have filed class action lawsuits. The complaints allege that YBM, through one or more of its subsidiaries, engaged in a continuous practice of laundering money accumulated by organised criminal activities in Russia. The fate of YBM is important to the magnetics community, as YBM had acquired both Crucible Magnetics (now Crumax Magnetics Inc.) and the Philips Electronics rare earth permanent magnet business.

MAGNAQUENCH INTL. HAS A NEW OFFICE

Magnaquench International, Inc. has opened a European office in Tubingen, Germany, to serve as a sales and customer service centre for its magnetic powders and magnet products. The centre will have a laboratory equipped for magnetic testing and other measurements. The contact numbers are: Tel.: 49-7071-400-635, Fax: 49-7071-400-641.

BROOKHAVEN COMPLETED MAGNET PRODUCTION

The Brookhaven's RHIC Magnet Facility completed the magnet production for the RHIC (Relativistic Heavy Ion Collider). In total, some 1800 RHIC magnets have been assembled and/or tested at the

Magnet Facility. These contained over 21 million meters of superconducting wire and required over 900 000 technician hours for manufacture.

MAGNET CONSORTIUM FOR PLASMA EXPERIMENT

Two of the initial firms supplying superconducting magnets for CERN's LHC proton collider, Noell of Würzburg, Germany and Ansaldo of Genoa, Italy, have joined forces to supply fifty superconducting magnets for DM10M for the Wendelstein 7-X plasma experiment currently being built in Germany. Each of the superconducting coils weighs 3 tonnes and measures $3.4 \times 2.5 \times 1.4$ m.

Nd-Fe-B PRODUCTION

TDK Corporation has reportedly doubled its production capacity of neodymium permanent magnets at its Narita plant in Chiba prefecture, Japan. The company planned to increase production of Nd magnet material to 200 tonnes per month by spring, 2000.

MAGNETIC CELLS IN TROUTS

Researchers from the University of Auckland, New Zealand determined that magnetite particles found in the nose of trouts function as magnetic compasses. The magnetoreceptor cells in the trout's snout were detected by a magnetic force microscope. More information can be found on www.sbs.auckland.ac.nz/rg/exbiol/biomag.html

SUN'S MAGNETIC FIELD HAS DOUBLED

Data on solar magnetism from the ESA-NASA spacecraft *Ulysses* indicate that the coronal magnetic field of the Sun has doubled in the past 100 years. This could have a bearing on observed climate changes

on Earth. Since the solar wind is linked to the Sun's magnetic field and itself affects the amount of cosmic radiation hitting the Earth's atmosphere and seeding cloud cover, an increasing solar magnetic field may have an impact on the Earth's average temperature which has risen by 0.6°C in the last 100 years.

PERMANENT MAGNET INDUSTRY HAPPENINGS

Magnaquench International, Inc., announced the opening of a 3000 m^2 technology centre located at Research Triangle Park, NC, USA. The company also opened a European office in Tübingen, Germany.

Morgan Crucible Co. plc., UK, purchased Crumax Magnetics, Inc., from YBM Magnex International. The company also purchased rights to the Vacuumschmelze plants in Hanau, Germany, Oklahoma City, USA, Horna Streda, Slovakia and Pontian, Malaysia, from Siemens AG.

University of Birmingham, UK, opened a Net Shape Laboratory to develop the production of Nd-Fe-B permanent magnets.

Electron Energy Corporation (EEC), PA, USA, has added a new line of polymer-bonded rare earth permanent magnets that offer the advantage of weight, size, price and size, for a number of applications. The new polymer-bonded magnets complement the company's line of rare earth sintered magnets.

LIQUOR MAGNETISATION

A novel application of Nd-Fe-B permanent magnets is being explored in Mongolia. The use of permanent magnets at Wulanhote Liquor Plant involves magnetising alcoholic beverages during processing to decrease the harmful effects of alcohol. The magnetisation mechanism is not fully understood and the plant is collaborating with academia to determine the basis of the process. (*RIC News, December, 1999*).