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New 1.2Mtpa Copper Smelter Hosts 6th ISASMELT™ TSL Workshop

Every two years licensees of Xstrata Technology's (XT) ISASMELT™ Top Submerged Lance (TSL) smelting process meet to visit the latest smelting facility using ISASMELT™ and to participate in workshop sessions where process improvements and plant modernizations are presented and discussed. This year's workshop was held in Arequipa, Peru and was hosted by Southern Peru Copper Corporation, the owners of the new 1.2Mtpa ISASMELT™ that commenced operation during 2007. Each licensee presented their latest production data and innovations for improved smelting efficiency. Workshop sessions were then held enabling the licensees to share ideas for further improvement.

"The workshop sessions were particularly successful in creating detailed technical dialogue between all the sites" according to XT's General Manager of Pyrometallurgy, Mr Philip Arthur. "This is the 6th workshop we have held, and it has been one of the most successful due to the high level of interest and commitment to sharing experiences by all the participants. It certainly builds on the already high level of expertise in the group" he said.

Participants from Australia, Belgium, Canada, Chile, China, Germany, Kazakhstan, Peru, USA and Zambia took part in the event covering discussions on copper, lead, scrap and nickel smelting. Plant tours to the Southern Peru Copper Corporation (SPCC) Ilo smelter and Doe Run Peru (DRP) smelter in La Oroya were held to enable the ISASMELT™ family members to see the latest technical innovations.

The Ilo copper ISASMELT™ plant treats up to 1.2 million tonnes per annum (Mtpa) of copper concentrate. The ISASMELT™ furnace replaced an El Teniente reactor and two reverberatory furnaces. Commissioning of the ISASMELT™ plant commenced in February 2007 enabling the smelter to meet new, more stringent environmental regulations. The reputation of ISASMELT™ as a clean, efficient technology that can be installed for relatively low capital cost resulted in it being chosen by SPCC over competing technologies.

The DRP smelter will have a nominal capacity of 280,000 tonnes per annum of new concentrate and is scheduled to commence operation during 2009. The ISASMELT™ technology was chosen to treat DRP's complex copper concentrate blend. The

technology was chosen to improve environmental performance and to achieve separation of minor elements into the off gas stream for collection and further treatment.

The workshop participants from Kazakhstan were from Kazzinc JSC, who are installing two ISASMELT™ plants, one for copper and one for lead. The copper plant will treat 356,000 tonnes per annum copper concentrate in an ISASMELT™ furnace and use the ISA PROCESS™ tank house cell technology to produce 70,000 tonnes per annum of copper cathode. 291,000 tonnes of mixed lead concentrates will be treated in a lead ISASMELT™ furnace to produce lead bullion and a lead rich slag. The lead rich slag will be treated in a lead blast furnace to produce lead bullion. They are on target to start up the copper plant in 2009 and the lead plant in 2010.

The time taken to be at the workshop has proven invaluable for all participants. In particular, the new ISASMELT™ licensees obtained good start up hints from the experienced users of the technology.

ISASMELT™ furnaces treating copper and lead concentrate operate without a water cooled lining. Outstanding refractory campaign life of up to 3 years is achievable with no refractory repair required during a campaign. This is made possible by applying quality engineering and refractories, meticulous attention to refractory installation and the use of a sophisticated process control system. Rebricking at the end of a campaign is a simple maintenance procedure requiring only 2-4 weeks. Productivity gains are realized with longer campaign life as there is more time for the furnace to operate over the years. This feature is an example of how the XT TSL technology package adds value to the user.

XT, Kazzinc and DRP are looking forward to successfully commissioning the new lead and copper ISASMELT™ plants in 2009 and 2010.

About ISASMELT™

ISASMELT™ is a Top Submerged Lance (TSL) smelting technology that was developed at Xstrata Copper's Mount Isa copper smelter in Australia during the 1980's and 1990's. The process uses an air cooled lance to inject oxygen enriched air and fuel into a molten bath. ISASMELT™ furnaces with a combined annual capacity of more than 6,000,000 tonnes of copper bearing feed are located in numerous smelters around the world.

If you would like to learn more about how ISASMELT™ can help your metallurgical facility please visit the ISASMELT™ website www.isasmelt.com or contact the ISASMELT™ team via email at isasmelt@xstratatech.com.au