

## **VERREF SUPPLIES INDONESIAN NICKEL SMELTERS**

Vereeniging Refractories (Verref) has recently supplied refractory materials to PT Inco and PT Antam smelters. Both smelters are situated in Indonesia on Sulawesi Island, which is approximately 1600 km ENE of Jakarta in Java and between Borneo and New Guinea. Both companies smelt nickeliferrous laterites (oxides) rather than nickel sulphide ores. Final products are nickel matte at PT Inco and ferronickel at PT Antam.

Verref is currently doing trials in the PS converters at PT Inco with three chromag / magchrome qualities and furnace tap blocks in various qualities. There is also a scope to supply alumina castables for the smelter's rotary kilns. PT Inco is about 60% owned by Inco of Canada - now called Valeinco after the take over by Vale of Brazil. Between 1977 and 1979, three 18-metre diameter circulat three electrode 45 MVA Elkem furnaces were constructed. Since then the plant has been continuously upgraded by Elkem and then by Hatch and now consist of four 18 m diameter 80 MVA furnaces.

The feed to the furnaces flows through dries, pre-reduction and sulphurizing rotary kiln and then the electric arc smelting furnaces. The nickel sulphide/iron matte from the furnaces is treated in conventional Pierce-

Smith converters. The matte is exported for further hydrometallurgical treatment.

Production is normally 77,000 tons per annum of nickel-in-matte, but in 2009 it was reduced to 64,000t due to the slowdown in global economy. An increase in capacity to 90,000 tpa is planned.

At PT Antam, Verref recently supplied them with 100 mt of high magnesia refractories by airfreight for the repair of the number 3 EAF. This company is about 65% owned by the Indonesian government.