Zinc from Secondary Sources

EZINEX® Process

Title: The EZINEX® Process – A New and Advanced Way for Zinc E.W. from Chloride Solution

Paper presented at: World Zinc 1993, I.G. Mattew Ed., Australian Institute of Mining and Metallurgy; October 10th-13rd, 1993; Parkville, Australia

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Abstract: Zinc bearing materials containing chlorides and fluorides of alkali metals, such as EAF dust, Waelz oxides, galvanizing ashes, zinc & brass foundry fumes and converter fumes are little attractive, both technically and economically for processing in ISF plant or in a conventional zinc sulphate electrolysis works. The EZINEX® Process allows for the recovery of high purity zinc in cathode form, from these materials, regenerating the leaching liquor. The process is based on a new electrochemical system which depolarizes the anode reaction with reduction of the cell voltage, compared with the traditional sulphate electrolysis method. The electrolyte, based on a chloroamino complex, allows for the recovery of other valued metals present in the zinc bearing materials such as lead, copper and silver, these being recovered as a metallic cement consequently improving the economics of the process.