Zinc from Secondary Sources

EZINEX® Process

Title: Design Details of the Engitec "EZINEX" Electrowinning Plant

Paper presented at: Electrometallurgy 2001 – CIM Conference; August 25th-28th, 2001; Toronto, Canada

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Abstract: The EZINEX Process for zinc recovery from steel mill flue dust was installed at the Ferriere Nord steel complex in Italy in 1995. The electrolyte was zinc ammonium chloride, at 70 °C, which requires some novel design features to make the process a practical reality. These included FRP-lined concrete cells, titanium cathodes, graphite anodes with gas spargers and mist suppression gaskets. The cell gasses were collected via a ductwork and a compressor; the collected gases were then recycled back to the anodes as the sparge gas. No ammonia odors were detectable above the cells.This paper describes the design criteria and equipment specifically designed for the process