

## The study on the removal process of gypsum-ash sludge for recovering $\Delta P$ of GGH in FGD system

이승민\*, 임한귀, 권혁철<sup>1</sup>  
한전전력연구원; <sup>1</sup>에이취아이엠테크  
(lsm3467@kepco.co.kr\*)

The amount of energy consumption increases continuously in proportion to the economic growth and industrial development, however, the required energy is mainly produced from the combustion of fossil fuels, which causes an emission of air pollutants. For the prevention of air pollution, the fossil plants have used FGD(Flue gas desulfurization) system. As a part of it, the GGH(Gas Gas Heater) is plugged by hard sludge of gypsum-ash mixed with ash and mist omitted from boiler and absorber. It accelerates GGH plugging and rises up  $\Delta P$  of GGH, which affects negatively stable operation of FGD system. To recover  $\Delta P$  of GGH, we have begun to explore the method of removing hard sludge in GGH. The removal method of hard sludge was the treatment by using chemical cleaning reagents and high pressure washing equipments. Organic and inorganic chemicals and cleaning processes were selected to dissolve hard-sludge. By this method, the efficiency of removal hard sludge was above 90% and  $\Delta P$  of GGH was recovery at initial pressure.