

KPI	Unit	Dahej	Daye	Yunan	Tongling	Saganoseki	Naoshima	Gresik	Onsan	Kansanshi	Mufulira	Hamburg East	Miami	Garfield	Altonorte	Ilo	Sterlite Copper (Thoothukudi)	Graphical Representation
Total Sulphur Recovery	%	97.4	98.8	100.3	99.8	98.5	99.5	99.4	98.2	98.9	97.4	N/A	98.2	99.6	98	96	99.83	Refer to Figure 8
SO <sub>2</sub> Fixation in Sulphuric Acid Plant	%	93.3	97.4	98.7	98.3	95.9	79.4	97.7	97.5	98.9	95.1	N/A	98.2	99.6	98	96	99.43	Refer to Figure 9
Technology used in Sulphuric acid plant	Y/N	MECS	N/A	N/A	Chemetics	Outotec (Lurgi)	Outotec (Lurgi)	Outotec (Lurgi)	Outotec (Lurgi), MECS	Outotec GmbH	MECS	Outotec (Lurgi)	Outotec (Lurgi)	MECS	Outotec (Lurgi), MECS	Chemetics	Chemetics	Refer to Figure 10
Use of tail gas scrubbers if any, in Sulphuric acid plant	Y/N	Yes	N/A	Yes	N/A	N/A	Yes	N/A	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes	Refer to Figure 11

N/A= Facility level information is not available in public domain

Figure 8: Sulphur Recovery

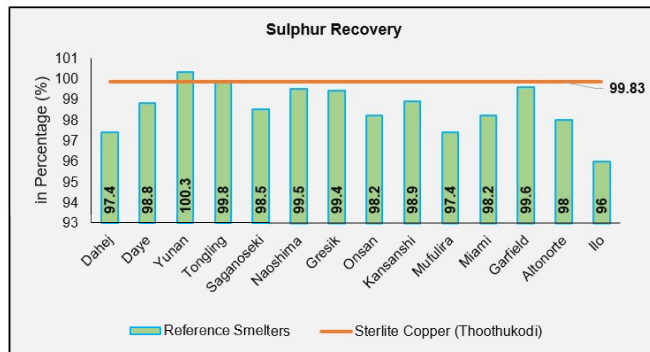


Figure 9: SO<sub>2</sub> Fixation in Sulphuric Acid Plant

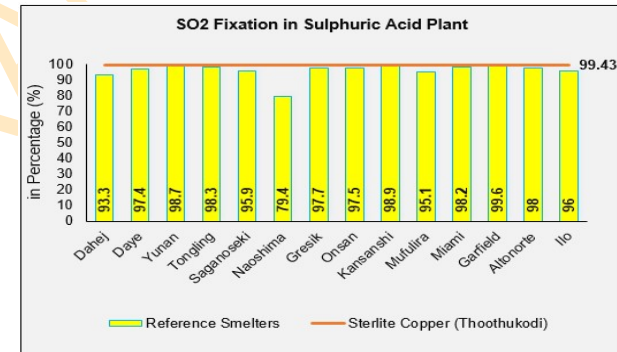


Figure 10: Use of Sulphuric Acid Plant Tail Gas Cleaning System

Copper Smelters	Presence of Tail Gas Scrubbers	
	Gas Scrubber	N/A
Dahej	Yes	
Daye		
Yunan	Yes	
Tongling		
Saganoseki		
Naoshima	Yes	
Gresik		
Onsan	Yes	
Kansanshi		
Mufulira		
Hamburg East		
Miami		
Garfield		
Altonorte		
Ilo		
Sterlite (Thoothukudi)	Yes	

Yes  
 Facility level information is not available in public domain

Figure 11: Technology used in Sulphuric Acid Plant

Copper Smelters	Technology used in Sulphuric acid plant			
	Outotec	MECS	Chemetics	Others
Dahej		MECS		
Daye				
Yunan				
Tongling			Chemetics	
Saganoseki	Outotec			
Naoshima				
Gresik				
Onsan		MECS		
Kansanshi				
Mufulira				
Hamburg East	Outotec			
Miami				
Garfield		MECS		
Altonorte	Outotec			
Ilo			Chemetics	
Sterlite (Thoothukudi)			Chemetics	

Yes  
 Facility level information is not available in public domain