TABLE 4.5-20
GEYSERS POWER PLANT UNITS
HYDROGEN SULFIDE ABATEMENT SYSTEMS

Unit	Net (MW) Capacity	Year	Status / Location	H_2S Abatement Systems[a]
1	0		Retired.	
2	0		Retired.	
3	0		Retired.	
4	0		Retired.	
5	53	1971	Active/Sonoma Co.	Incinerator, Caustic, and Metal Chelate.
6	53	1971	Active/Sonoma Co.	Incinerator, Caustic, and Metal Chelate.
7	53	1972	Active/Sonoma Co.	Incinerator, Caustic, and Metal Chelate.
8	53	1972	Active/Sonoma Co.	Incinerator, Caustic, and Metal Chelate.
9	53	1973	Active/Sonoma Co.	Caustic and Metal Chelate.
10	53	1973	Active/Sonoma Co.	Caustic and Metal Chelate.
11	106	1975	Active/Sonoma Co.	Incinerator, Caustic, and Metal Chelate.
12	106	1979	Active/Sonoma Co.	Incinerator, Caustic, and Metal Chelate.
13	133	1980	Active/Lake Co.	Stretford and Metal Chelate.
14	109	1980	Active/Sonoma Co.	Stretford and Metal Chelate.
15	0		Retired.	
16	113	1985	Active/Lake Co.	Stretford and Metal Chelate.
17	113	1982	Active/Sonoma Co.	Stretford and Metal Chelate.
18	113	1983	Active/Sonoma Co.	Stretford and Metal Chelate.
19	0		Never built.	
20	113	1985	Active/Sonoma Co.	Stretford and Metal Chelate.
21	0		Never built.	
	1,224			

[a] The abatement systems are as follows:

Incinerator: This process burns H_2S to form SO_2, which is then scrubbed in a quench tower and dissolved into the quench water. The quench water is transferred to the cooling tower basin.

Caustic: Sodium hydroxide, which absorbs H_2S, is added to the cooling water at the inlet of the condenser.

Stretford: This process chemically oxidizes the H_2S to elemental sulfur.

Metal Chelate: This process involves an iron chelate solution and air, which are added to the circulating water. The solution, oxygen, and H_2S react to produce elemental sulfur, which is suspended in the circulating water.

SOURCE: Pacific Gas and Electric Company, *Proponent's Environmental Assessment: Pacific Gas and Electric Company's Proposed Sale of The Geysers Geothermal Power Plant*, January 14, 1998.