Based on the above considerations and/or hypotheses, the agglomeration suppression device 8 in Fig. 1 includes a metal ratio estimation unit 83 that estimates the metal ratio ([Mg, Ca, Al]/[Na, K] and the like) of alkaline earth metals (Mg, Ca, and the like) and/or earth metals (Al, and the like) to alkali metals (Na, K, and the like) in the furnace 11.

[0040]

The metal ratio estimation unit 83 may directly measure a metal ratio such as “Ca/K” in the furnace 11, but it is practically difficult to measure in the high-temperature furnace 11. Therefore, the metal ratio estimation unit 83 estimates a metal ratio such as “Ca/K” based on the measurement results of the combustion ash measurement unit 81 and/or component information acquired by the fuel component information acquisition unit 82.

[0041]

The combustion ash measurement unit 81 measures the combustion ash generated by combustion in the furnace 11 continuously or intermittently (for example, several times a day or an hour). The combustion ash to be measured by the combustion ash measurement unit 81 can be acquired from each part of the CFB boiler. Specifically, the combustion ash measurement unit 81 measures at least one of the following: combustion ash (so-called bottom ash) separated