

**DEVICE AND METHOD FOR OBSERVING ABNORMALITIES IN CIRCULATING
FLUIDIZED BED BOILER**

ABSTRACT

An abnormality observation device (1) of a circulating
5 fluidized bed boiler (2) comprises an operation data acquisition
part (21) for acquiring operation data composed of sensor data (x_1 -
 x_k) of the circulating fluidized bed boiler (2), an abnormality
determination part (34) for determining whether or not there are
operation abnormalities in the circulating fluidized bed boiler
10 (2) on the basis of the Mahalanobis distance (D^2) of the operation
data, an image data acquisition part (22) for acquiring image data
of predetermined image regions (16a-16e) of the circulating
fluidized bed boiler (2), and an operation data synchronizing
recorder (36) for synchronizing and storing the sensor data (x_1 - x_k)
15 and the image data of the image regions associated with the sensor
data (x_1 - x_k) when the abnormality determination part (34)
determines there to be an operation abnormality.

(Figure 1)

2 Circulating fluidized bed boiler
20 21 Operation data acquisition part
22 Image data acquisition part
24 Temperature sensor
26 Pressure sensor
27 Flow rate sensor
25 28 Camera
29 Input part
31 Display part
32 Unit space creator
33 Temporary recorder
30 34 Abnormality determination part
36 Operation data synchronizing recorder