gas contained in the exhaust gas after the treatment by the exhaust gas treatment unit; and a treatment agent addition management unit that calculates an addition amount of the acid gas treatment agent with which the post-treatment acid gas concentration (C1) measured by the post-treatment exhaust gas analysis unit is always equal to or less than a predetermined managed concentration (C2) and instructs the treatment agent supply unit to supply the acid gas treatment agent in the calculated addition amount to the exhaust gas treatment unit, the exhaust gas treatment system further including: an incineration object supply amount measurement unit that is located upstream of the exhaust gas treatment unit and measures a supply amount of an incineration object; a treatment agent supply amount measurement unit that measures a supply amount of the acid gas treatment agent supplied from the treatment agent supply unit; and a server unit that gathers and analyzes information data from at least the post-treatment exhaust gas analysis unit, the treatment agent supply amount measurement unit, and the incineration object supply amount measurement unit and, based on a result of the analysis, determines whether the post-treatment acid gas concentration (C1) is proper in relation to the managed concentration (C2) by calculating an average deviation concentration range (C2 − C1) of the post-treatment acid gas concentration (C1) from the managed concentration (C2) or an excessive-addition cost of the acid gas treatment agent on a basis of the average deviation concentration range (C2 − C1) to determine whether the average deviation concentration range (C2 – C1) or the excessive-addition cost of the acid gas treatment agent is within a threshold, and, only when the average deviation concentration range (C2 – C1) or the excessive-addition cost of the acid gas treatment

agent exceeds a threshold and it is determined as not proper in the relation therebetween, makes a determination to reduce the addition amount of the acid gas treatment agent such that the average deviation concentration range (C2 – C1) becomes a positive value and narrow, wherein the addition amount of the acid gas treatment agent to be calculated by the treatment agent addition management unit is an amount prepared by adding a predetermined excessive amount as a safe amount to a minimum addition amount required for treating the acid gas at the exhaust gas treatment unit.

[0012]

(2) The exhaust gas treatment system according to (1) above, in which the server unit further includes information data on a unit price for the acid gas treatment agent and a unit price for incineration object disposal.

[0013]

(3) The exhaust gas treatment system according to (1) or (2) above further including, upstream of the exhaust gas treatment unit, a pre-

treatment exhaust gas analysis unit that measures an exhaust gas amount and a pre-treatment acid gas concentration prior to the treatment by the exhaust gas treatment unit, the pre-treatment acid gas concentration being a concentration of the acid gas contained in the exhaust gas, and the server unit further includes information data from the pre-treatment exhaust gas analysis unit.

[0014]

(4) The exhaust gas treatment system according to (1), (2) or (3) above further including, downstream of the exhaust gas treatment unit: a fly ash collection unit; a treatment temperature measurement unit that measures a treatment temperature at any position from the exhaust gas treatment unit to the fly ash collection unit; and a fly ash analysis unit that analyzes alkalinity of fly ash treated by the fly ash collection unit, and the server unit further includes information data from the treatment temperature measurement unit and the fly ash analysis unit.

[0015]

[0016]

(5) The exhaust gas treatment system according to any one of (1) to (4) above, in which the treatment agent addition management unit further has a function of notifying a person in charge of the exhaust gas treatment system or a person concerned such as a treatment agent supplier of the excessive-addition cost over a certain period.

[0017]

(6) The exhaust gas treatment system according to any one of (1) to (5) above, in which the server unit further has a function of collecting information data on the post-treatment acid gas concentration (C1) and the managed concentration (C2), recording the information data over time, and notifying a person in charge of the exhaust gas treatment system or a person concerned such as a treatment agent supplier of the information data.

[0018]

(7) In a second aspect, an exhaust gas treatment method including the steps of: treating, by an exhaust gas treatment unit, acid gas contained in exhaust gas; supplying, by a treatment agent supply unit, an acid gas treatment agent to the exhaust gas treatment unit; measuring, by a post-treatment exhaust gas analysis unit, a post-treatment acid gas concentration (C1), the post-treatment acid gas concentration (C1) being a concentration of the acid gas contained in the exhaust gas after the treatment by the exhaust gas treatment unit; and calculating, by a treatment agent addition management unit, an addition amount of the acid gas treatment agent with which the post-treatment acid gas concentration (C1) measured by the post-treatment exhaust gas analysis unit is always equal to or less than a predetermined managed

concentration (C2) and instructing the treatment agent supply unit to supply the acid gas

treatment agent in the calculated addition amount to the exhaust gas treatment unit, the exhaust gas treatment method further including the steps of: measuring a supply amount of an incineration object by an incineration object supply amount measurement unit located upstream of the exhaust gas treatment unit; measuring, by a treatment agent supply amount measurement unit, a supply amount of the acid gas treatment agent supplied from the treatment agent supply unit; and gathering and analyzing, by a server unit, information data from at least the post-treatment exhaust gas analysis unit, the treatment agent supply amount measurement unit, and the incineration object supply amount measurement unit and, based on a result of the analysis, determining whether the post-treatment acid gas concentration (C1) is proper in relation to the managed concentration (C2) by calculating an average deviation concentration range (C2 — C1) of the post-treatment acid gas concentration (C1) from the managed concentration (C2) or an excessive-addition cost of the acid gas treatment agent on a basis of the average deviation concentration range (C2 — C1) to determine whether the average deviation concentration range (C2 – C1) or the excessive-addition cost of the acid gas treatment agent is within a threshold, and, only when the average deviation concentration range (C2 – C1) or the excessive-addition cost of the acid gas treatment agent exceeds a threshold and it is determined as not proper in the relation therebetween, making a determination to reduce the addition amount of the acid gas treatment agent such that the average deviation concentration range (C2 – C1) becomes a positive value and narrow, wherein the addition amount of the acid gas treatment agent to be calculated by the treatment agent addition management unit is an

amount prepared by adding a predetermined excessive amount as a safe amount to a minimum addition amount required for treating the acid gas at the exhaust gas treatment unit.

[0019]

[0020]

CLAIMS

1. An exhaust gas treatment system comprising:

an exhaust gas treatment unit that treats acid gas contained in exhaust gas;

a treatment agent supply unit that supplies an acid gas treatment agent to the exhaust gas treatment unit;

a post-treatment exhaust gas analysis unit that measures a post-treatment acid gas concentration (C1), the post-treatment acid gas concentration (C1) being a concentration of the acid gas contained in the exhaust gas after the treatment by the exhaust gas treatment unit; and

a treatment agent addition management unit that calculates an addition amount of the acid gas treatment agent with which the post-treatment acid gas concentration (C1) measured by the post-treatment exhaust gas analysis unit is always equal to or less than a predetermined managed concentration (C2) and instructs the treatment agent supply unit to supply the acid gas treatment agent in the calculated addition amount to the exhaust gas treatment unit,

the exhaust gas treatment system further comprising:

an incineration object supply amount measurement unit that is located upstream of the exhaust gas treatment unit and measures a supply amount of an incineration object;

a treatment agent supply amount measurement unit that measures a supply amount of the acid gas treatment agent supplied from the treatment agent supply unit; and

a server unit that gathers and analyzes information data from at least the post-treatment exhaust gas analysis unit, the treatment agent

supply amount measurement unit, and the incineration object supply amount measurement unit and, based on a result of the analysis, determines whether the post-treatment acid gas concentration (C1) is proper in relation to the managed concentration (C2) by calculating an average deviation concentration range (C2 — C1) of the post-treatment acid gas concentration (C1) from the managed concentration (C2) or an excessive-addition cost of the acid gas treatment agent on a basis of the average deviation concentration range (C2 — C1) to determine whether the average deviation concentration range (C2 – C1) or the excessive-addition cost of the acid gas treatment agent is within a threshold, and, only when the average deviation concentration range (C2 – C1) or the excessive-addition cost of the acid gas treatment agent exceeds a threshold and it is determined as not proper in the relation therebetween, makes a determination to reduce the addition amount of the acid gas treatment agent such that the average deviation concentration range (C2 – C1) becomes a positive value and narrow,

wherein the addition amount of the acid gas treatment agent to be calculated by the treatment agent addition management unit is an amount prepared by adding a predetermined excessive amount as a safe amount to a minimum addition amount required for treating the acid gas at the exhaust gas treatment unit.

2. The exhaust gas treatment system according to claim 1, wherein the server unit further includes information data on a unit price for the acid gas treatment agent and a unit price for incineration object disposal.

3. The exhaust gas treatment system according to claim 1 or 2, further comprising, upstream of the exhaust gas treatment unit, a pre-treatment exhaust gas analysis unit that measures an exhaust gas amount and a pre-treatment acid gas concentration prior to the treatment by the exhaust gas treatment unit, the pre-treatment acid gas concentration being a concentration of the acid gas contained in the exhaust gas,

wherein the server unit further includes information data from the pre-treatment exhaust gas analysis unit.

4. The exhaust gas treatment system according to claim 1, 2, or 3, further comprising, downstream of the exhaust gas treatment unit:

a fly ash collection unit;

a treatment temperature measurement unit that measures a treatment temperature at any position from the exhaust gas treatment unit to the fly ash collection unit; and

a fly ash analysis unit that analyzes alkalinity of fly ash treated by the fly ash collection unit,

wherein the server unit further includes information data from the treatment temperature measurement unit and the fly ash analysis unit.

5. The exhaust gas treatment system according to any one of claims 1 to 4, wherein the treatment agent addition management unit further has a function of notifying a person in charge of the exhaust gas treatment system or a person concerned such as a treatment agent supplier of the excessive-addition cost over a certain period.

6. The exhaust gas treatment system according to any one of claims 1 to 5, wherein the server unit further has a function of collecting information data on the post-treatment acid gas concentration (C1) and the managed concentration (C2), recording the information data over time, and notifying a person in charge of the exhaust gas treatment system or a person concerned such as a treatment agent supplier of the information data.

7. An exhaust gas treatment method comprising the steps of:

treating, by an exhaust gas treatment unit, acid gas contained in exhaust gas;

supplying, by a treatment agent supply unit, an acid gas treatment agent to the exhaust gas treatment unit;

measuring, by a post-treatment exhaust gas analysis unit, a post-treatment acid gas concentration (C1), the post-treatment acid gas concentration (C1) being a concentration of the acid gas contained in the exhaust gas after the treatment by the exhaust gas treatment unit; and

calculating, by a treatment agent addition management unit, an addition amount of the acid gas treatment agent with which the post-treatment acid gas concentration (C1) measured by the post-treatment exhaust gas analysis unit is always equal to or less than a predetermined managed concentration (C2) and instructing the treatment agent supply unit to supply the acid gas treatment agent in the calculated addition amount to the exhaust gas treatment unit,

the exhaust gas treatment method further comprising the steps of:

measuring a supply amount of an incineration object by an incineration object supply amount measurement unit located upstream of the exhaust gas treatment unit;

measuring, by a treatment agent supply amount measurement unit, a supply amount of the acid gas treatment agent supplied from the treatment agent supply unit; and

gathering and analyzing, by a server unit, information data from at least the post-treatment exhaust gas analysis unit, the treatment agent supply amount measurement unit, and the incineration object supply amount measurement unit and, based on a result of the analysis, determining whether the post-treatment acid gas concentration (C1) is proper in relation to the managed concentration (C2) by calculating an average deviation concentration range (C2 — C1) of the post-treatment acid gas concentration (C1) from the managed concentration (C2) or an excessive-addition cost of the acid gas treatment agent on a basis of the average deviation concentration range (C2 — C1) to determine whether the average deviation concentration range (C2 – C1) or the excessive-addition cost of the acid gas treatment agent is within a threshold, and, only when the average deviation concentration range (C2 – C1) or the excessive-addition cost of the acid gas treatment agent exceeds a threshold and it is determined as not proper in the relation therebetween, making a determination to reduce the addition amount of the acid gas treatment agent such that the average deviation concentration range (C2 – C1) becomes a positive value and narrow,

wherein the addition amount of the acid gas treatment agent to be calculated by the treatment agent addition management unit is an amount prepared by adding a predetermined excessive amount as a safe

amount to a minimum addition amount required for treating the acid gas at the exhaust gas treatment unit.