CLAIMS

[Claim 1] An exhaust gas treatment apparatus, comprising:

a second reductant supply part, disposed in a flow path of combustion exhaust gas of a fuel containing a first reductant that is capable of reducing a specific substance, for supplying a second reductant for reducing the specific substance in the combustion exhaust gas to the combustion exhaust gas; and

a first reductant decreasing part, disposed upstream of the second reductant supply part in the flow path, for decreasing the first reductant in the combustion exhaust gas.

[Claim 2] The exhaust gas treatment apparatus according to claim 1,

wherein the second reductant supply part is disposed only downstream of the first reductant decreasing part in the flow path.

[Claim 3] The exhaust gas treatment apparatus according to claim 1 or 2,

wherein the first reductant decreasing part includes a reductant decomposition catalyst to promote oxidative decomposition reaction of the first reductant.

[Claim 4] The exhaust gas treatment apparatus according to any one of claims 1 to 3,

wherein the first reductant decreasing part includes a first reduction catalyst to promote reaction between the specific substance and the first reductant.

[Claim 5] The exhaust gas treatment apparatus according to any one of claims 1 to 4,

wherein the specific substance includes a nitrogen oxide.

[Claim 6] The exhaust gas treatment apparatus according to claim 5,

wherein at least one of the first reductant or the second reductant includes ammonia or urea.

[Claim 7] The exhaust gas treatment apparatus according to any one of claims 1 to 6, comprising a second reduction catalyst disposed downstream of the second reductant supply part in the flow path to promote reduction reaction of the specific substance.

[Claim 8] The exhaust gas treatment apparatus according to any one of claims 1 to 7, comprising a control device configured to adjust a supply amount of the second reductant from the second reductant supply part, on the basis of a concentration of the specific substance in the flow path downstream of the first reductant decreasing part and upstream of the second reductant supply part.

[Claim 9] The exhaust gas treatment apparatus according to any one of claims 1 to 8, comprising a control device configured to adjust a supply amount of the second reductant from the second reductant supply part, on the basis of a concentration of the specific substance in a stack through which the combustion exhaust gas from the flow path is discharged.

[Claim 10] A combustion facility, comprising:

a combustion apparatus configured to burn a fuel containing a first reductant that is capable of reducing a specific substance; and

an exhaust gas treatment apparatus according to any one of claims 1 to 9 configured to treat combustion exhaust gas of the fuel from the combustion apparatus.

[Claim 11] An exhaust gas treatment method, comprising:

a step of, in a flow path of combustion exhaust gas of a fuel containing a first reductant that is capable of reducing a specific substance, supplying a second reductant for reducing the specific substance in the combustion exhaust gas to the combustion exhaust gas; and

a step of decreasing the first reductant in the combustion exhaust gas at a position upstream of where the second reductant is supplied in the flow path.