CLAIMS

1. A combustion plant (1) with a flue gas outlet (3), which has nozzles (11 to 14) on opposing sides (15, 16) of the flue gas outlet (3), so as to inject a fluid into the flue gas, characterized in that the nozzles (11 to 14) are arranged, oriented and designed, and the pressure and volumetric flow rate of the injected fluid can be set such that the flue gas (38) is moved back and forth along a wavy line (37) within the flue gas outlet (3), characterized in that the wavy line (37) has at least three, and preferably more than four reversal points (44 to 48), and characterized in that the primary nozzle direction (17 to 20) of the two nozzles (11 to 14) arranged on opposing sides (15, 16) of the flue gas outlet (3) lies at an angle of at least 5°, preferably of more than 10°, from a line (23) connecting the nozzles (11 to 14).

2. The combustion plant according to claim 1, characterized in that the fluid is a gas.

3. The combustion plant according to claim 2, characterized in that the gas is air.

4. The combustion plant according to claim 2, characterized in that the gas is steam.

~~5. The combustion plant according to one of the preceding claims, characterized in that the primary nozzle direction (17 to 20) of the two nozzles (11 to 14) arranged on opposing sides (15, 16) of the flue gas outlet (3) lies at an angle of at least 5°, preferably of more than 10°, from a line (23) connecting the nozzles (11 to 14).~~

5~~6~~. The combustion plant according to one of the preceding claims, characterized in that the primary nozzle direction (17 to 21) of ~~a~~ the nozzle (11 to 14) deviates from the shortest connection (25) to the opposing side (15, 16) of the flue gas outlet (3) by an angle (24) of at least 5°, preferably of more than 10°.

6~~7~~. The combustion plant according to one of the preceding claims, characterized in that the primary nozzle direction (17 to 21) of at least one nozzle (10 to 14) deviates from a horizontal plane (27) in the flue gas outlet (3) by an angle (26) of at least 5°, preferably of more than 10°.

7~~8~~. The combustion plant according to one of the preceding claims, characterized in that the combustion plant (1) has a furnace grate (2) for combustion.

8~~9~~. The combustion plant according to claim 7~~8~~, characterized in that the flue gas outlet (3) of the furnace grate (2) expands in the direction of flow of the flue gas (38).

9~~10~~. The combustion plant according to claim 7~~8~~ or 8~~9~~, characterized in that the flue gas outlet (3) has a lower area (33) and an upper area (34), wherein the access (29) from the furnace grate (2) to the flue gas outlet (3) in the lower area (33) is arranged offset to the upper area (34).

10~~11~~. The combustion plant according to one of claims 7~~8~~ to 9~~10~~, characterized in that at least one nozzle (10) is arranged above the furnace grate (2) in the direction of flow of the flue gas (38) before the flue gas outlet (3), so as to inject fluid into the flue gas (38).

11~~12~~. A method of~~for~~ operating a combustion plant (1), in particular according to one of the preceding claims, in which at least a portion of combustion air (39 to 43 and 49) is added to the flue gas (38) through the nozzles (11 to 14) arranged on opposing sides of the flue gas outlet (3), characterized in that the combustion air (39 to 43 and 49) is added as primary combustion air (49) and secondary combustion air (39 to 43) or as secondary combustion air (39 to 43) during operation of the combustion plant (1) at several varyingly different addition points (2, 10 to 14).

12~~13~~. The method according to claim 11~~12~~, characterized in that the combustion air ratio is held constant.

13~~14~~. The method according to claim 11~~12~~ or 12~~13~~, characterized in that the combustion air (39 to 43 and 49) is added distributed to the nozzles (10 to 14) and grate (2).

14~~15~~. The method according to one of claims 11~~12~~ to 13~~14~~, characterized in that the distribution of partial volume flows to these nozzles (10 to 14) is controllably varied.

15~~16~~. The method according to one of claims 11~~12~~ to 14~~15~~, characterized in that, during operation of the combustion plant (1), the distribution of the combustion air (39 to 43 and 49) over the individual addition points (10 to 14, 4) is carried out in a NO_x, CO and/or O_2-optimized manner.

16~~17~~. The method according to one of claims 11~~12~~ to 15~~16~~, characterized in that the distribution of combustion air (39 to 43 and 49) is split among the nozzles (10 to 14) in the flue gas outlet (3) in such a way as to

achieve a nearly constant burnout (gas and/or solid burnout) per unit time.