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(54) Title: A PROCESS AND SYSTEM FOR QUENCHING HEAT, SCRUBBING, CLEANING AND NEUTRALIZING ACIDIC MEDIA PRESENT IN THE FLUE GAS FROM THE FIRING OF FOSSIL FUEL

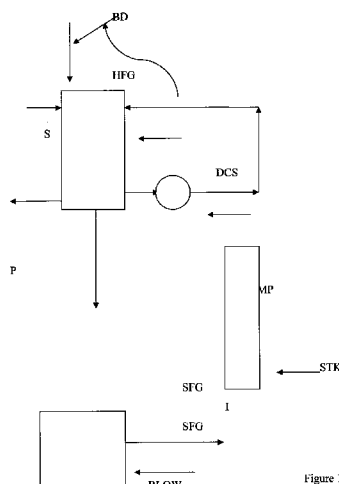


Figure 1

(57) Abstract: The present invention provides a novel process for quenching heat, scrubbing, cleaning and neutralizing the hot and dirty fossil fuel fired flue gas liberated by a fossil fuel fired boiler using the high temperature and high pressure present in fossil fuel fired boiler blow-down comprising the steps of quenching the fossil fuel fired flue gas by evaporating sufficient quantity of water from sea water / scrubbing liquid and mixing vapors thus generated with hot and dirty flue gas; using the high temperature and high pressure present in fossil fuel fired boiler blow-down (waste water) for atomizing/spraying high alkalinity sea water/ scrubbing liquid on said flue gas to neutralize the acidic substances in said flue gas.

