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(54) Title: WATER WASH METHOD AND SYSTEM FOR A CARBON DIOXIDE CAPTURE PROCESS

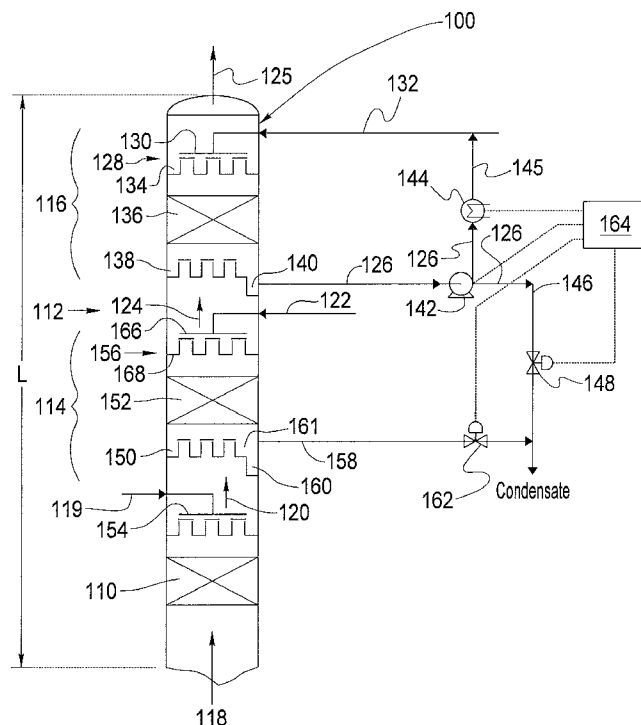


FIG. 1

(57) Abstract: A system and method for recovering a solvent from a decarbonated flue gas in an absorption column (100), the decarbonated flue gas (120) having had carbon dioxide absorbed and removed by vapor-liquid contact with a carbon dioxide absorbing solution (119) containing the solvent. The system includes an emission control section (114) configured to bring a water stream (122) substantially free of the solvent into contact with the decarbonated flue gas (120) to recover the solvent from the decarbonated flue gas (120) and to form a solvent containing wash water (160) and a reduced solvent containing flue gas (124) and a flue gas cooling section (116) configured to bring cooled wash water (132) into contact with the reduced solvent containing flue gas (124) to cool the reduced solvent containing flue gas (124) and condense water from the decarbonated flue gas thereby forming a cooled flue gas (125) and used wash water.



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