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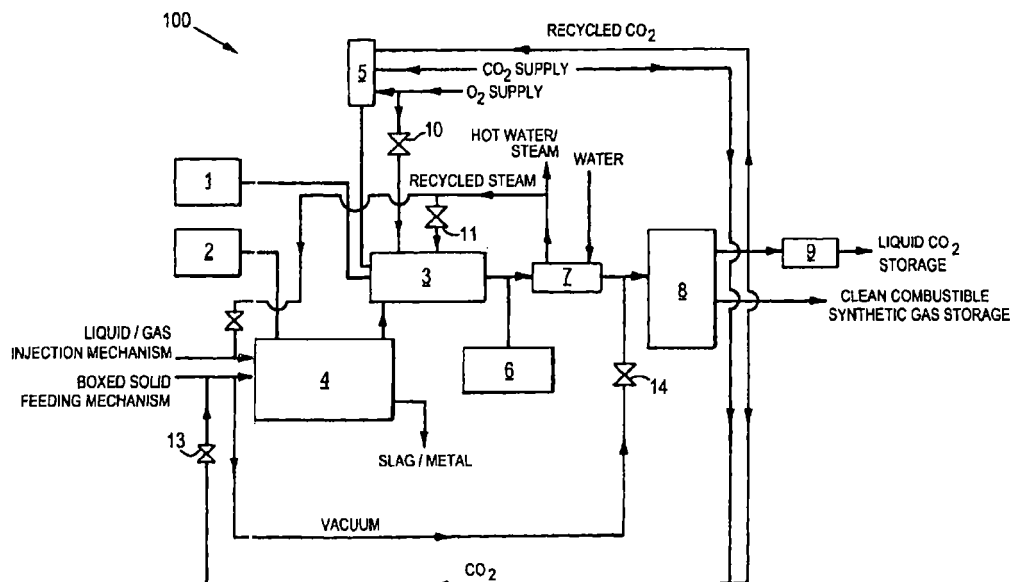
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(54) Title: HAZARDOUS WASTE TREATMENT METHOD AND APPARATUS



(57) Abstract: An apparatus and method for treating the off-gas byproduct of a waste treatment system using a plasma torch. The off-gas of a graphite electrode plasma arc furnace includes carbon black or soot which must be removed. The plasma torch employs a carbon dioxide and oxygen mixture as a working gas to avoid the creation of nitrogen oxides and other toxic by-products. The plasma torch ionizes the working gas, resulting in the creation of carbon monoxide and reactive oxygen, which assists in eliminating carbon black/soot from the off-gas. Oxygen and steam are atomized and injected into the chamber housing the plasma torch system. A process control feedback system monitors the content of the output gas and controls the operation of the injectors and the plasma torch.

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ACTION

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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