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**(54) Title (EN):** LOW NOX AND CO COMBUSTION BURNER METHOD AND APPARATUS

**(54) Title (FR):** PROCÉDÉ ET APPAREIL ASSOCIÉS À UN BRÛLEUR DE COMBUSTION À FAIBLES ÉMISSIONS DE NOX ET DE CO

**(57) Abstract:**

**(EN):** Emissions of NO<sub>x</sub> and/or CO are reduced at the stack by systems and methods wherein a primary fuel is thoroughly mixed with a specific range of excess combustion air. The primary fuel- air mixture is then discharged and anchored within a combustion chamber of a burner. Further, the systems and methods provide for dynamically controlling NO<sub>x</sub> content in emissions from a furnace by adjusting the flow of primary fuel and of a secondary stage fuel, and in some cases controlling the amount or placement of combustion air into the furnace.

**(FR):** Les émissions de NO<sub>x</sub> et/ou de CO sont réduites au niveau d'un conduit d'évacuation par des systèmes et des procédés dans lesquels un combustible primaire est intimement mélangé avec une plage spécifique d'air de combustion en excès. Le mélange combustible primaire-air est ensuite évacué et introduit dans une chambre de combustion d'un brûleur. En outre, les systèmes et les procédés permettent de réguler de manière dynamique la teneur en NO<sub>x</sub> dans des émissions provenant d'un four par réglage de l'écoulement de combustible primaire et d'un combustible d'étage secondaire, et, dans certains cas, réguler la quantité ou le placement de l'air de combustion dans le four.

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