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(54) **Title:** WATER SPRAY FUME CLEANSING WITH DEMAND-BASED OPERATION

(57) **Abstract:** A system and method is provided for demand-based control of a cold water spray system of an exhaust ventilation system. Embodiments include determining a demand load of a cooking appliance that generates cooking effluent in a vicinity of an exhaust hood, and determining a temperature of water in the cold water spray system. The cold water spray system is controlled in response to at least one of the determined appliance demand load and the determined temperature of water in the cold water spray system to maintain a low temperature of water in the cold water spray system below a predetermined temperature threshold, thereby enabling efficient removal of contaminants from the exhaust hood by the cold water spray system.



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