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(54) Title: ON-SITE GENERATION, PURIFICATION, AND DISTRIBUTION OF ULTRA-PURE ANHYDROUS AMMONIA

(57) Abstract: A system and method for generating, purifying, and using ultra-pure ammonia on-site, such as at a semiconductor manufacturing facility. The system includes an ammonia generation system configured to generate ammonia including carbon dioxide, water, and other impurities. A purification system is provided with the generation system in the manufacturing facility and is linked to the output of the generation system. The purification system processes the effluent from the ammonia generation system to remove substantially all of the carbon dioxide, water, and other impurities to produce an outlet stream of ultra-pure ammonia. The system further includes a point of use system provided at the same manufacturing facility to utilize the outlet stream of ultra-pure ammonia.



WO 2005/116525 A2