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AmeriGas - Rethinking the status quo - Addressing safety, ergonomics, and productivity through integrated automation

John Carey

Avanceon – Exton, USA

AmeriGas, the nation's largest propane company, serves millions of customers across all 50 states. Residential, industrial and commercial customers count on AmeriGas propane for heating, cooking, motor fuel, and other essentials. AmeriGas Propane Exchange plants also refurbish and fill millions of propane exchange cylinders a year. Servicing a business that grew up overnight dictated a very labor-intensive process requiring significant manpower and human touches. Heavy cylinders are typically physically forced through a manual sorting, refurbishing and filling process with a few semi-automated stations. This process wasted time, taxed workers and raised many ergonomic and safety concerns. In the interest to be innovative and solve their business problem, AmeriGas selected Avanceon of Exton, PA to address the issue by introducing an integrated and automated work center concept. Avanceon's team devised a solution that reduced safety issues and significantly diminished ergonomic issues while increasing productivity, all with less than half the staff. The streamlined automated system reduced the manufacturing floor footprint by 50% while allowing the plant to more than double its capacity, with less handling and operator "touches" at each step. From design to implementation and support, Avanceon collaborated with AmeriGas to create a customized solution that was vetted every step of the way by an AmeriGas process owner team. An agile execution approach was used to gain staff buy-in regarding the look and feel of the system while cutting the normal schedule in half. This project included a full turnkey approach with all engineering disciplines, including site planning, building design, line layout, equipment selection, machine design, controls, instrumentation, integration and reporting. This large-scale success demonstrates how a holistic and innovative approach can overcome multiple interrelated and complex challenges. In this session, Avanceon will share their innovative approach, technology solutions and unique approach to the project execution that allowed this challenging project and initiative to be a success.

Biography

John Carey has over 40 years' experience in machine and process control. He has held position in engineering, operations, and project management. He has a Bachelor's degree from Spring Garden College and did his graduate work at Penn State University. He holds patents in process control and sensor development. He was a Senior Principal Development Engineer at Honeywell, Group Manager for a Dupont/Xerox joint venture, and has held various positions at Avanceon over the past 10 years. He was the Project Manager/Construction Manager on the AmeriGas project.

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