Steam generators are some of the most vital components in a nuclear power plant. As part of the manufacturing process, the drilling of the tube sheet holes and the subsequent installation of the tubes are critical to the ultimate quality of the unit. Over the years, MHI has monitored this process by gauging the tube sheet holes and the final inserted tubes inside diameter throughout the manufacturing process. As part of MHI’s ongoing efforts to constantly improve its products, MHI has teamed with Laser Techniques Company (LTC) to develop a highly accurate and repeatable laser-based measurement system. This system will enable a significant improvement in the quality control process for the production of nuclear steam generators.