Background
The worldwide steam generator (SG) market is changing as increasing numbers of utilities opt to replace their SGs. Tube inspections, rather than tube repairs, now dominate the SG work scope. Additionally, plants with replacement SGs often experience shorter outages, have reduced inspection scopes, or are able skip inspections altogether. Westinghouse has developed the suitcase eddy current system to meet this changing environment.

Description
The Westinghouse suitcase eddy current system consists of several components that can be transported to site in a few suitcases and can be easily hand-carried to the work area. The cornerstone of the system is the Pegasys™ robotic system. Pegasys is a lightweight inspection robot that uses tube-walking technology. It is designed to inspect SG tubes quickly, efficiently and reliably. Pegasys is also capable of delivering small-scale plugging, in-situ leak testing and stabilizer insertion operations.

The second component of the suitcase eddy current system is the OMNI-200 all-in-one tester. This state-of-the-art unit integrates a frequency generator, probe pusher, motor control unit and power supply, greatly reducing setup time and minimizing personnel exposure.

Benefits
The modular design of the combined suitcase eddy current system and elimination of interconnection cables reduces:

- Equipment volume
- Setup and teardown time
- Breakdowns and malfunctions
- Cumulative personnel dose
- Inspection and repair critical path time

Experience
Westinghouse’s suitcase eddy current system was introduced to the U.S. market in 2006. It is now the standard system deployed throughout the Westinghouse worldwide fleet.