



## Component Classification (Q-List)

**EPM uses a proven streamlined approach for determining safety classification of components in nuclear power plants. This simple process was developed in 1984 and has been updated over the years to maintain consistency with current industry guidance; it is based on ANSI/ANS Standards and is tailored to accommodate specific client licensing commitments. This process results in accurate classification of all components at a very low cost.**

*Classification Criteria:* The basis for identifying safety classification boundary breaks has always been a subject for debate throughout the industry. Using the EPM approach, a clear and concise set of ground rules is presented that allow the user to easily determine the safety classification for all types of components. Classification boundary breaks between safety-related and nonsafety-related portions of systems are pictorially depicted to provide added guidance for the engineer. Reactor Coolant Pressure Boundary, containment penetrations and limited volume/closed systems are all addressed.

*System Safety Function Sheets:* The starting point in the classification process begins at the system level. In our process we create a set of system safety function sheets that are used in conjunction with the classification criteria to determine the component's safety function and classification status. Through a comprehensive review of the plant accident analysis and licensing basis, the function sheets are tabulated on a system-by-system basis to document and categorize the various functions associated with each system. Upon completion, the engineer is provided with the necessary tools to complete the task at hand: an easy-to-use, self-contained package of safety design basis information for the entire plant.

*Experience:* EPM has completed Q-list projects for several BWR and PWR plants. These projects have ranged from the pilot program implementation stages to complete Q-lists resulting in the classification of over a quarter of a million components. The process/procedures developed under these projects has been in place at our clients' sites and used on a daily basis.

*Results:* EPM has found that many utilities have conservatively classified components to a higher classification than needed due to a lack of understanding of specific licensing requirements and utility commitments. EPM's process and methods eliminate any over-conservatism and ambiguity

