

ABSTRACT

EPRI Project: "Tritium Management by Design"

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In 2002, EPRI assembled a team of industry experts from the liquid radioactive waste processing, liquid and solid effluents, and chemistry disciplines. The objective was to provide an industry document that provides guidance and considerations for use when developing a sensible long-term liquid processing effluents strategy. In 2003, the team and EPRI released the product document that addresses liquid effluents strategy optimization.

Part of that process identified the importance of balancing a site's liquid, solid, and gaseous effluents. Tritium management is one area that many stations struggle to manage relative to production, concentration, control, and exposure. Several stations have also adopted unique operational and processing strategies for managing the impact of tritium on plant programs.

This year, EPRI was tasked by utilities with developing an interactive analytical tool to input actual or hypothetical plant data to evaluate actual or proposed program changes. The tool will be used to track and trend data, and provide a graphical output display showing production, inventory, and release paths with real time or projected values for tritium concentrations and the resultant exposure. Additional reports would be included in this concept as recommended by a utility support team. This paper will summarize this project's current status and schedule.