

#### **D4. ZERO PLASTICS AND THE RADIOLOGICALLY PROTECTED AREA LOW LEVEL WASTE LOCKOUT PROGRAM**

The "zero plastics initiative" and radiologically protected area (RPA) low level waste (LLW) lockout program represent an integrated, phased approach to eliminating single-use plastic materials, aggressively reducing other disposal materials, and controlling all materials entering or exiting an RPA. A key components of the program was the identification of good waste management practices and techniques that could be shared with utilities pursuing similar objectives.

The project team evaluated and characterized existing solid LLW management programs, focusing special attention on LLW minimization practices that impact LLW generation, including sources reduction and recycling activities. In the second phase, the team identified all plastic and other disposable materials used in an RPA. They also analyzed the normal composition of the dry active waste (DAW) steam to identify which material were the major contributors to solid LLW volumes. This information was used to identify alternatives for undesirable materials and to prioritize implementation according to their percentage contribution to LLW generation volumes. Finally, the team defined the scope and prerequisites for an RPA LLW lockout program.

The anticipated result was a dramatic reduction in solid LLW generation rates, LLW disposal volumes, and associated LLW program costs. The rate of DAW generation had decreased by more than 50%, and each site is expected to achieve at least a 75% reduction within one year. The cost for implementation is minimal and should be recovered quickly by savings elsewhere in the plant's budget, including a reduction in LLW processing and disposal costs as well as a decrease in the budgeted cost for purchasing disposable materials. Given the motivation to become more competitive, sites should begin pursuing program for eliminating plastic and other disposal materials from their RPAs as quickly as possible.

*For more, "Zero Plastics and the Radiologically Protected Area Low Level Waste Lockout Program," EPRI TR-105834, Final Report, November 1995.*