D15. USING POLLUTION PREVENTION TO REDUCE HAZARDOUS WASTE GENERATION AND HANDLING/DISPOSAL COSTS

A growing number of state and local regulations are requiring the development and implementation of pollution prevention (P2) plans for the reduction or minimization of hazardous and nonhazardous wastes. These plans serve as a framework for achieving waste reductions, thereby improving the environment. The P2 options implemented for waste reduction ultimately reduce the cost of operations, especially when the life-cycle costs of managing and handling wastes are considered.

A P2 plant generally defines the type of wastes involved and helps to reduce and minimize waste. Initially, a methodology or set of guidelines were lacking to develop P2 plans. EPRI tailored a Collaboration project to develop a generic pollution prevention plan and workbook. A method of producing the P2 plans outlined in the workbook was developed by preparing P2 plans. A number of source reduction and waste minimization options were identified to reduce hazardous waste generation. Examples of options that were considered, evaluated, and implemented included switching to nonhazardous cleaning solvents, use of steam cleaning in place of solvents, maximizing the use of contaminated diesel as fuel, and on-site distillation of liquid paint waste.

As a result of evaluating and implementing several of the options, hazardous waste generation may be reduced by 70% at one site. The options are expected to lower the overall costs for handling and disposal of the waste by about $32,000 per year. P2 should be regarded as an ongoing process. The results of implementing P2 options should be reviewed annually, and additional opportunities to reduce wastes further should be evaluated.