

MONTENAY ENERGY RESOURCES OF MONTGOMERY COUNTY TRAINING MANUAL DEVELOPMENT

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ABSTRACT

Montenay Energy Resources of Montgomery County Inc. (MERMCI) operates a two boiler, mass burn, 1200 tons per day, 32 MW waste to energy plant in Conshohocken, Pennsylvania. MERMCI has demonstrated a continuing dedication to safe, efficient, and environmentally safe plant operation. Plant management recognizes the impact that operators have on their success, and set forth to develop plant specific operator training materials, to ensure the continuing success of their operation. The development process was a joint effort. A training consultant worked with the plant staff to develop systems descriptions while the plant staff developed operating procedures. A development process was implemented that produced technically accurate, easy to use materials on schedule and on budget.

PROJECT GOALS

The safe and efficient operation of a waste to energy plant depends on the correct and timely interaction of the various systems and components of the plant. A key component in the operation of the plant is the operating crew. Well trained operators are necessary to solve unusual, ill-defined problems and take the necessary actions to combat problems as they arise. The variety of equipment found in a modern waste-to-energy plant and the complexity of the overall operation clearly demand that an operator be effectively trained and have the ability to interpret resource material such that the operator's performance optimizes the man-machine interface. As demonstrated by the EPA's requirement for a plant manual that meets specific requirements, the cornerstone of any successful operation is complete and accurate documentation. This documentation, containing the information the operator uses on a daily basis in performing job activities, consists of detailed operations manuals.

In order to maintain their excellent operating record, MERMCI set forth to develop plant specific operator training materials.

The goal of the training manuals is four fold:

1. Provide comprehensive training materials for new operations personnel.
2. Provide a readily available source of information for use by the operators for day-to-day operation of the plant.
3. Satisfy the requirements of the Code of Federal Regulations "40 CFR Part 60 Section 60.56a(f)" that require all plants to have a comprehensive plant operations manual.
4. Provide a manual suitable for the QRO Board of Examinators to use in qualifying plant personnel.

TRAINING MANUAL DESIGN

Training Manual Concerns

Prior to developing the new manuals, plant training was preformed using vendor manuals, plant drawings, and generic materials. These materials are well organized, in binders according to plant systems. While these documents contain valuable information, the information of interest to the operators is often scattered in the documents and difficult to find. The vendor materials are also stand-alone documents describing specific equipment. They usually offer little or no information on system operation. Since plant operation, especially from the control room, is based on controlling system parameters the vendor materials were totally inadequate. Also, the vendor materials were quite voluminous, over 36 binders. This made the task of locating specific information difficult.

A major goal in developing the training manuals was to produce materials that would not only serve as accurate, concise plant specific training materials, but that could also be used as readily available references for day to day plant operation.