

General Electric Systems Technology Manual

Chapter 8.0

Radioactive Exhaust / Waste Processing Systems

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8.0 RADIOACTIVE EXHAUST / WASTE PROCESSING SYSTEMS

The Radioactive Waste Processing Systems are support systems designed to collect, process, store, and prepare for off site shipment and disposal, plant wastes which contain or could contain radioactive material. The radwaste systems consist of the following:

1. Offgas System (Gaseous Radwaste) (Section 8.1)
2. Liquid Radwaste System (Section 8.2)
3. Solid Radwaste System (Section 8.3)

8.0.1 Offgas System

The Offgas (OG) System functions to reduce the off site exposures at the nearest site boundary to less than the established maximum limit. The Offgas System performs its function by reducing the offgas volume, by recombining radiolytic hydrogen and oxygen into water, and delaying passage of krypton and xenon, by adsorption on charcoal, to permit decay.

8.0.2 Liquid Radwaste System

The liquid waste disposal is a batch controlled process. Water and other process solutions are collected in tanks, processed, and again collected as batches in tanks. The tanks are analyzed for radioactive material and chemical content to determine both the method of processing and reusability as condensate or disposal off site by dilution in an effluent canal. Processing consists of filtration, demineralization, distillation, concentration, and decay.

8.0.3 Solid Radwaste System

The Solid Radwaste System is used to process wet and dry solid waste for shipment from the facility. Wet wastes are dewatered and packaged in 55 gallon drums. Dry wastes are compacted to reduce free volume and packaged in approved shipping containers or 55 gallon drums as required.