ATTACHMENT C

Equipment That Could Be Upgraded to Conserve Water

Current Equipment	Upgrade Equipment
Radiation therapy - linear accelerator	Take water from reject side of the linear accelerator heat exchangers and pump to cooling towers and reuse for evaporative cooling
X-ray Processor	Digital Processor
	Retrofit continuous flow-through systems with flow control equipment
Sterilizers	Water Savings Sterilizers
	Install steam condensate tempering systems. (Water-Mizer is a tempering device that mixes cold water with hot water discharged from sterilization equipment to reduce the discharged water temperature.) Makes use of high-temperature-sensing probe that causes use of minimal amount of injection water into discharge leaving the sterilizer
	Preplace water-induced vacuum devices on sterilizers with electric pumps, retrofit kits are available
	Maintain sterilizers in "standby" mode rather than "om" mode.
Laundry	Install high efficiency washers which use environmentally friendly detergents (H2E)
	Wash full loads
	Reduce water level to minimize water required to wash.
Garbage disposal	Institute Composting
Dishwasher	Increase maintenace frequency of solenoid valves and water switches functioning properly in pre-wash, wash, and rinse tanks High efficiency, with high temperature rinse and/or ultrasonic pre-rinse
Refrigeration equipment - refrigerators, ice machines, freezers	Recover condensate for reuse
Ice Machine	Air cooled
Food Steamers	Connection-less or boiler-less
Soda/Beverage Islands	Turn Off continuous flow used to clean drain trays. Clean as needed.
Steam Boilers - Continuous blow down	Modernize treatment approach and improve make-up of water quality
	Reuse boiler blowdown
	Return steam condensate to boiler for reuse
Vacuum pumps	"Dry" vacuum pumps with liquid rings.
Cooling towers	Reclaimed water condensate coolers
	Install water cooling towers with delimiters to reduce drift and evaporation
	Incorporate 'Hybrid" cooloing towers - use "dry" portion with climatic conditions that are favorable and only use "wet" portion in peak conditionss
	Control blowdown quantity by using an automated conductivity controller, and by maintaining proper cooling tower water chemistry
	Cooling towers should be operated at six or more cycles of concentration for maximum water-efficiency

Equipment That Could Be Upgraded to Conserve Water

Single Pass Coolers	Eliminate. Upgrade cooling plant involving a recirculated chilled water loop.
	Install a closed-loop system that uses a recycled chilled glycol solution instead of water to cool air-conditioning equipment
Faucets	Install "Water Sense" faucets, where applicable
Hand washing sink faucets	Infrared control - Hands Free
Plumbing fixtures	Install flow reducers and aerators on aplicable plumbing fixtures
Showers	Install low flow shower heads
Toilets	Install high efficiency toilets based on MaP tests. MaP are 3rd party maximum performance test that determine how much waste is fliushed away instead of their ability to clear away a minimal amount of media
	Retrofit flushometer toilets with water saving diaphragms
Toilets (Continued)	Install toilet tank water displacement devices
Urinals	Install high efficiency urinals
Irrigation	Install soil moisture controllers
	Use water based irrigation controllers
	Use drip irrigation for flower beds
	Remove turf/grass and replace with drought tolerant plants
	Install a graywater collection system for onsite subsurface irrigation using graywater collected from bathtubs, showers, bathroom wash basins, and laundry water.