

RETURN SLUDGE FACILITIES

SLUDGE RETURN CAPACITY (% OF ADWF) **10-100**
 TYPE OF PUMPS **CENTRIFUGAL, VERTICAL**
 NO. OF PUMPS **4 PLUS 2 STANDBYS**

WASTE SLUDGE FACILITIES

WASTE SLUDGE PUMP CAPACITY
 (% OF SLUDGE PRODUCED) **0-100**
 TYPE OF PUMPS **POSITIVE DISPLACEMENT**
 NO. OF PUMPS **4, ONE PER CLARIFIER**

CHLORINE CONTACT TANKS

TYPE **PLUG FLOW, STRAIGHT CHANNELS**
 METHOD OF CL₂ MIXING **2 MECH. MIXERS, IN SERIES**
 NO OF CHANNELS **4**
 CHANNEL LENGTH, FT. **300 EACH**
 CHANNEL WIDTH, FT. **7.5**
 CHANNEL DEPTH, FT. **10**
 HYDRAULIC CAPACITY, MGD **125**
 DETENTION TIME, MINUTES:
 @ 90 MGD **13**
 @ 10 MGD (2 CHANNELS ONLY) **58.5**

DISINFECTION SYSTEM

SODIUM HYPOCHLORITE SOLUTION **5-6,000 GALLON TANKS**
 NO. OF RESIDUAL CL₂ ANALYZERS **3**
 METHOD OF MIXING HYPOCHLORITE & EFFLUENT **MECHANICAL**
 NO. OF MIXERS **2 IN SERIES**
 CAPACITY PER MIXER, MGD **62.5**

DECHLORINATION SYSTEM

METHOD **SODIUM BISULFITE SOLUTION**
 MIXING METHOD **NATURAL TURBULENCE**
 SBS/CL₂ RATIO **1.5**
 BISULFITE SUPPLY **2-6,000 GALLON TANKS**

DAF SLUDGE THICKENERS

TYPE **RECTANGULAR, DISSOLVED AIR**
 NO. OF TANKS **2**
 OPERATING MODE **CONTINUOUS**
 NET SURFACE AREA/TANK, FT² **400**
 TOTAL SURFACE AREA, FT² **800**
 SIDEWATER DEPTH, FT² **8.0**
 SOLIDS LOADING RATE, LBS/FT²/HR:
 @ 10 MGD **0.44**
 @ 30 MGD **0.82**
 HYDRAULIC LOADING RATE, GPM/FT²
 WITH RECYCLE: @ 10 MGD **0.45**
 @ 30 MGD **0.88**
 AIR: SOLID RATIO @ 30 MGD **0.03**

ANAEROBIC DIGESTERS

TYPE **HIGH RATE, FLOATING ROOF**
 NUMBER **2**
 DIAMETER, FT. **80**
 SIDEWATER DEPTH, FT. **26**
 ACTIVE DIGESTER VOLUME, FT³:
 EACH **130,700**
 TOTAL **261,400**
 SLUDGE FLOW RATE, GPD:
 @ 10 MGD **53,300**
 @ 30 MGD **110,700**
 SOLIDS LOADING, LBS/DAY:
 @ 10 MGD **17,925**
 @ 30 MGD **37,200**
 INFLUENT SLUDGE SOLIDS CONC., % **4**
 VSS LOADING, LBS/DAY:
 @ 10 MGD **14,570**
 @ 30 MGD **28,650**
 DETENTION TIME (2 DIGESTERS), DAYS:
 @ 10 MGD **36.6**
 @ 30 MGD **17.7**
 VSS UNIT LOADING, LBS/DAY/1,000 FT³:
 1 DIGESTER @ 10 MGD **111.5**
 1 DIGESTER @ 30 MGD **219.0**
 2 DIGESTERS @ 10 MGD **55.8**
 2 DIGESTERS @ 30 MGD **109.6**
 MINIMUM OPERATING TEMPERATURE, °F **95**
 METHOD OF SLUDGE MIXING **GAS**
 NO. OF MIXING GAS COMPRESSORS **4**
 NO. OF SLUDGE HEAT EXCHANGERS **2**

SLUDGE DEWATERING EQUIPMENT

TYPE **HIGH SPEED, SOLID BOWL CENTRIFUGES**
 NUMBER **3**
 FEED SLUDGE AVG. CONCENTRATION, % **2.5**
 SLUDGE CAKE AVG. CONCENTRATION, % **25**
 SLUDGE LOADING, LBS/DAY:
 @ 10 MGD **9,920**
 @ 30 MGD **21,440**
 LOADING RATE PER CENTRIFUGE, LBS/HR
 2 CENTRIFUGES ONLY
 @ 10 MGD **620**
 @ 30 MGD **1,340**

EFFLUENT HOLDING POND

TYPE **EARTH POND WITH HYPALON LINED EMBANKMENT**
 CAPACITY, MILLION GALLONS **4.0±**
 MAX. WATER DEPTH, FT. **8.0**
 FREEBOARD, FT. **3.0**
 EMBANKMENT SLOPE:
 HORIZONTAL : VERTICAL **3 : 1**