

Biosolids Dewatering Procedure

Sludge Transfer Pump(s)

Sludge Transfer Pump #1 or Sludge Transfer Pump #2

- Check sludge lines – **Valves OPEN**
 - Open applicable sludge lines based on desired digester and presses to operate
- Pump seal water – **ON**
- Main power disconnect, located out side pump room – **ON**
- Secondary power disconnect, located inside pump room – **ON**
- PLC located in Solids Handling Building (SHB) – **CONFIGURED**
 - RDY MDB = Controlled by PLC in Electric Control Center (ECC)
 - F-4 to change
 - RDY HMI = Controlled by PLC in SHB
- Using the Main or Remote PLC touch screen select desired sludge transfer pump – **RUN**
 - Select desired flow rate by adjusting pump speed/Hz

Plant Water Booster Pump System

Plant water booster pumps #1, #2 and #3 are controlled individually using the Main (ECC) or Remote (Press Panel Misc) PLC touch screen and can provide booster pressure in any combination of pumps to any combination of presses

Booster Pump #1

- Check water lines – **VALVES OPEN**
 - Open applicable plant water lines based on desired press and water pump operation
- Main power disconnect located in ECC – **ON**
- Using the Main or Remote PLC touch screen – **Select Pumps Screen**
- Pump screen
 - Booster Pump #1 Start button – **ON**

Booster Pump #2

- Check water lines – **VALVES OPEN**
 - Open applicable plant water lines based on desired press and water pump operation
- Main power disconnect located in ECC – **ON**
- Using the Main or Remote PLC touch screen – **Select Pumps Screen**
- Pump screen
 - Booster Pump #2 Start button – **ON**

Booster Pump #3

- Check water lines – **VALVES OPEN**
 - Open applicable plant water lines based on desired press and water pump operation
- Main power disconnect located in ECC – **ON**
- Using the Main or Remote PLC touch screen – **Select Pumps Screen**
- Pump screen
 - Booster Pump #3 Start button – **ON**

Biosolids Dewatering Procedure

Belt Filter Presses

The plant is equipped with three Ashbrook dewatering presses that can be operated individually or all at the same time

Press #1

- Main panel power disconnect located in ECC – **ON**
- Control power switch - **ON**
 - Display screen
 - Hydraulic pump – **ON**
 - Belt Drive – **ON**
 - Belt speed – **ADJUSTED**
 - Reactor – **ON**

Press #2

- Main panel power disconnect located in ECC – **ON**
- Control power handle - **ON**
 - Hydraulic pump – **ON**
 - Belt Drive – **ON**
 - Belt speed – **ADJUSTED**
 - Reactor (located on polymer panel) – **ON**

Press #3

- Main panel power disconnect located in ECC – **ON**
- Control power switch - **ON**
 - Hydraulic pump – **ON**
 - Belt Drive – **ON**
 - Belt speed – **ADJUSTED**

Ferric Chloride

- Check ferric lines – **VALVES OPEN**
- Control power switch – **ON**
 - Pump stroke – **ADJUSTED 100%**
 - Pump speed – **ADJUSTED**
(Adjusted to obtain desired sludge pH)
- Ferric dilution water
 - Check water lines – **VALVES OPEN**
 - Dilution water control valve – **ADJUSTED**
(Adjusted to approximately 4-1/2 gpm)

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Anionic Polymer

Presses #1, #2, and #3 have individual Anionic Pumps and controls

Anionic Polymer Press #1

- Check anionic lines – **VALVES OPEN**
- Power – **ON**
 - Start button – **ON**
 - Flow Rate / Pump speed – **ADJUSTED**

Anionic Polymer Press #2

- Check anionic lines – **VALVES OPEN**
- Power – **ON**
 - Start button – **ON**
 - Flow Rate / Pump speed – **ADJUSTED**

Anionic Polymer Press #3

- Check anionic lines – **VALVES OPEN**
- Power – **ON**
 - Start button – **ON**
 - Flow Rate / Pump speed – **ADJUSTED**

Cationic Polymer

Presses #1 and #2 share a Cationic Pump, Press #3 has its own pump

Cationic Polymer Press #1 and #2

- Check cationic lines – **VALVES OPEN**
- Power – **ON**
 - Start button – **ON**
 - Flow Rate / Pump speed – **ADJUSTED**

Cationic Polymer Press #3

- Check cationic lines – **VALVES OPEN**
- Power – **ON**
 - Start button – **ON**
 - Flow Rate / Pump speed – **ADJUSTED**