

**STANDARD OPERATING PROCEDURE
SLUDGE PUMPING STATION**

RECORDS

1. Record sludge totalizer meter reading.
2. Initial and date the 7 day flow chart.
3. Record level currently in Digester that you will be pumping from (Dig. 4 or 5)
4. Record flush water meter reading.

PUMP PREPARATION

1. Manually open either BV1-SL or BV2-SL depending on which pump that you will use.
2. Open bleed off line on pump.
3. Open seal water valve for pump.
4. On Control Panel (CS1) put selector switch to "HAND" for Digester that will be pumped from either Dig. 4 or 5.
5. Put switch directly beneath the switch that you put in hand to the "OPEN" position. This will open PV1-SL or PV4-SL.
6. When air is bled from pump, close bleed off line valve
7. On Control Panel (CS1) return switch that is in "HAND" position to the "AUTO" position.
8. Return switch that is in "OPEN" position to the "OFF" position.

PIG PREPARATION

1. Open chain valve BV5-SL.
2. Open drain valve and bleed pressure off.
3. When pressure is bled off, remove cap from pig insertion line.
4. Coat pig with soap and insert into line, using plunger push pig into line as far as the plunger will allow.
5. Lubricate gasket and re-install cap on pig line.
6. Close chain valve BV5-SL.
7. Close drain valve.
8. Slightly open chain valve BV6-SL.

**START-UP FOR
PUMPING SLUDGE**

1. Call Ina Rd. and tell centrifuge operator that you are ready to pump sludge.
2. If Ina Rd. is ready, turn on ~~power switch~~ at MCC panel for pump that you are going to use
3. Turn selector switch on MCC to "AUTO".
4. BEFORE PUSHING ANY START SEQUENCE BUTTON BE SURE TO CHECK ON THE CONTROL PANEL THAT ALL VALVE LIGHTS ARE INDICATING CLOSED (RED). On control panel (CS1) push START SEQUENCE button for digester that you are pumping from, either DIG. 4 or 5.
5. After motor starts and hydraulic valve opens adjust chain valve BV6-SL to obtain 600 gpm flow (60 on meter), do this slowly.
6. Record readings on round sheet as necessary

START-UP FOR FLUSHING

1. After pumping the required amount of sludge by digester level or by totalizer meter reading, push STOP SEQUENCE button on the control panel (CS1).
 2. When motor stops, close chain valve BV6-SL.
 3. Record totalizer and dig. level readings.
 4. Install another pig according to the "PIG PREPARATION" instructions paying SPECIAL ATTENTION to the pressure in the pig line.
 5. Call Ina Rd. centrifuge operator and tell him that you are starting to flush, open chain valve BV6-SL slightly.
 6. BEFORE PUSHING ANY START SEQUENCE BUTTON BE SURE THAT ALL VALVE LIGHTS ON CONTROL PANEL ARE INDICATING CLOSED (RED). On the control panel (CS1) push the flush "START SEQUENCE" button.
 7. After motor starts and hydraulic valve opens use chain valve BV6-SL to obtain 450 gpm flow rate.
Note: The flow rate will increase during the flush pumping cycle, DO NOT ALLOW FLOW RATE TO EXCEED 500 gpm.
- Note: Prior to flushing it will be necessary to bleed air from the flush water pump in Pump Sta. 2.

SHUT DOWN

1. When Ina Rd. calls and say they received the second pig, push the flushing STOP SEQUENCE button on control panel (CS1).
2. After motor stops, close chain valve BV6-SL, close pump inlet valve, close seal water valve, on MCC put selector switch to OFF, pull power switch to OFF.
3. Record totalizer and flush water readings.
4. Do the computations as necessary and call Ina Rd. centrifuge operator and give him the pertinent numbers.

*******IF ANYTHING SEEMS TO BE OUT OF THE ORDINARY,
NOTIFY THE SHIFT SUPERVISOR IMMEDIATELY*******