

START UP REPORT

LIFT STATION NUMBER \_\_\_\_\_

--Sample--

<u>Date</u>	<u>Initials</u>	<u>Setting</u>	<u>Item</u>
_____	_____	_____	Pump Ramping as Specified
_____	_____	_____	Minimum pump speed to open check valve
_____	_____	_____	Minimum pump speed set
_____	_____	_____	Lead Pump Start point
_____	_____	_____	Lead Pump Stop Point
_____	_____	_____	Lag Pump Start Point
_____	_____	_____	Lag Pump Stop Point
_____	_____	_____	Lag 2 Pump Start Point
_____	_____	_____	Lag 2 Pump Stop Point
_____	_____	_____	Low Level Alarm
_____	_____	_____	Low Level Alarm Elevation
_____	_____	_____	Verify low level float can not hang up
_____	_____	_____	Verify low level alarm shuts off all pumps
_____	_____	_____	Verify pumps don't airlock in float mode
_____	_____	_____	High Level Alarm Elevation
_____	_____	_____	High Level Produces Level B Alarm
_____	_____	_____	High Level Alarm Upgrade to Level C (time delay)
_____	_____	_____	Verify all pumps start at high level
_____	_____	_____	Pump RPM for pumps running during High level
_____	_____	_____	Verify pumps run in normal mode after high level alarm is reached
_____	_____	_____	Verify high level alarm transmits even if low level alarm is not reached
_____	_____	_____	Dry Well Flooded Alarm
_____	_____	_____	VFD Failure Alarm
_____	_____	_____	VFD Restart with auto reset
_____	_____	_____	VFD Display RPM AMPS
_____	_____	_____	Acceleration ramping time for VFD in standard mode
_____	_____	_____	Deceleration ramping time for VFD in standard mode
_____	_____	_____	Acceleration ramping time for VFD in float mode
_____	_____	_____	Deceleration ramping time for VFD in float mode
_____	_____	_____	Pump Failure Alarm
_____	_____	_____	Pump Seal Failure
_____	_____	_____	Pump High Temp Failure Alarm
_____	_____	_____	Verify Overtemp pump can be overridden by hand mode
_____	_____	_____	Communication Loss Alarm Level B
_____	_____	_____	Communication Loss Alarm Upgrade to Level C (time delay)
_____	_____	_____	Communication Loss Battery Backup

_____	_____	_____	Power Loss/PLC Failure Alarm Level A
_____	_____	_____	Power Loss/PLC Failure Alarm Upgrade to Level C
_____	_____	_____	Phase Failure Alarm Level A
_____	_____	_____	Phase Failure Alarm Upgrade to Level C (time delay)
_____	_____	_____	Phase Fail shut off pump until good power, than auto restart pump
_____	_____	_____	Cabinet Ventilation Failure Alarm Level B
_____	_____	_____	Cabinet Ventilation Failure Alarm Upgrade to Level C (time delay)
_____	_____	_____	Cabinet Ventilation Operation
_____	_____	_____	Cabinet Ventilation Heater Operation
_____	_____	_____	Intrusion Detector Alarm
_____	_____	_____	Cavitation Mode Operation
_____	_____	_____	Discharge Pressure Gauge Correlation to SCP
_____	_____	_____	Discharge Pressure Gauge Piping correct
_____	_____	_____	Verify Flow Meter Flows Match Pump Points
_____	_____	_____	Verify flow meter flow matches at SCP
_____	_____	_____	Verify flow meter flow matches at Water Plant and WW Shop
_____	_____	_____	Verify Check Valve Operation
_____	_____	_____	Verify Pumps indicate Standby for check valve not open
_____	_____	_____	Verify Pumps override check valve fail during high level
_____	_____	_____	Pump Standby Alarm
_____	_____	_____	Pump RPM for pumps running in hand mode
_____	_____	_____	Verify date and time for alarms
_____	_____	_____	Clear check valve failure count at start up
_____	_____	_____	Test SCP lights
_____	_____	_____	Check PLC card lights match laminated drawings
_____	_____	_____	Provide one set of final laminated drawings to be placed in SCP
_____	_____	_____	Provide three set of additional final drawings for engineer
_____	_____	_____	Provide PLC final program on disk to engineer
_____	_____	_____	Provide PLC final program to city computer directory
_____	_____	_____	Provide three hard copies of PLC program to engineer
_____	_____	_____	Verify UPS backup power
_____	_____	_____	Provide power from UPS to flow meter
_____	_____	_____	Verify bubbler panel working, and correlation to pressure transducer
_____	_____	_____	Label all relays in SCP cabinet
_____	_____	_____	Label Fuses in SCP cabinet
_____	_____	_____	Check for bleed valves on pump volute
_____	_____	_____	Check for bleed valves on upper pump jacket
_____	_____	_____	Check pump vibration
_____	_____	_____	Verify zipper tube installed

_____	_____	_____	Verify Zipper tube grounded at both ends
_____	_____	_____	Verify specified hangers on pump cables
_____	_____	_____	Verify seal offs poured on electrical to wet side
_____	_____	_____	Verify air compressor is on separate 20 amp circuit
_____	_____	_____	Verify power monitor is on separate breaker
_____	_____	_____	Verify transfer switches can be locked in either position
_____	_____	_____	Verify generator receptical has been tested with city generator
_____	_____	_____	Verify disconnects have provisions to lock in off and also on positions
_____	_____	_____	Verify bakelite labels on all disconnects, transfer switches, starters, VFD's, SCP, Power panels, winter/summer switch, etc.
_____	_____	_____	Verify correctly typed directories in power panels, numbers to match breakers
_____	_____	_____	Verify operation of doors and locks
_____	_____	_____	Verify operation of hatches, lock post on exterior hatches
_____	_____	_____	Verify exterior valve boxes have appropriate labeled lids
_____	_____	_____	Verify valve wrenches fit exterior valves
_____	_____	_____	Verify uniset screws on uniflanges
_____	_____	_____	Verify water back flow device does not leak
_____	_____	_____	Verify operation of check valve back flow devices work, and do not leak
_____	_____	_____	Verify that sump pump pit is clean
_____	_____	_____	Verify sump pump works
_____	_____	_____	Verify sump pump check valve works
_____	_____	_____	Verify all bolts, screws and supports on ventilation system are stainless steel
_____	_____	_____	Verify all bolts and anchors are stainless steel
_____	_____	_____	Verify coatings on PVC coated steel conduit are not damaged
_____	_____	_____	Verify operation of wet side inlet gate, no excessive leaks, smooth operation
_____	_____	_____	Verify dry side knife valves are clean, do not leak, and operate smoothly
_____	_____	_____	Received spare parts for pumps
_____	_____	_____	Received spare parts for air compressor
_____	_____	_____	Received O&M manuals
_____	_____	_____	Received spare keys for new locks
_____	_____	_____	Returned checked out keys
_____	_____	_____	Verify station is clean
_____	_____	_____	Verify all equipment is clean

- |       |       |       |   |
|-------|-------|-------|---|
| _____ | _____ | _____ | Verify surge protector is hardwired in as shown on drawings                       |
| _____ | _____ | _____ | Verify surge protector works properly   |
| _____ | _____ | _____ | Verify specified thermostats are installed  |
| _____ | _____ | _____ | Verify unit heaters have adjustable thermostats, and summer fan switches          |
| _____ | _____ | _____ | Verify no leaks in dry side lower structure                                       |
| _____ | _____ | _____ | Verify water on lower dry side floor goes to sump, and does not pond              |
| _____ | _____ | _____ | Verify stainless steel bolts on all piping  |
| _____ | _____ | _____ | Verify ceiling thermostat is correct model and range specified                    |
| _____ | _____ | _____ | Verify ceiling thermostat opens ceiling damper when temperature exceeds set value |
| _____ | _____ | _____ | Verify dry fan starts, and exhaust damper open when dry side lights turned on     |
| _____ | _____ | _____ | Verify all chain rail set ups   |
| _____ | _____ | _____ | Verify chain rail has all stainless steel hardware                                |
| _____ | _____ | _____ | Verify operation of chain hoist and trolleys                                      |
| _____ | _____ | _____ | Verify length of chains on hoist, and also push button cord length                |
| _____ | _____ | _____ | Verify hoist trolley operation  |
| _____ | _____ | _____ | Check for strain relief on hoist power cord                                       |
| _____ | _____ | _____ | Check for correct male, female fittings on air lines                              |
| _____ | _____ | _____ | Check to see that floats are type P mount   |
| _____ | _____ | _____ | Verify that winter and summer settings are marked on rheostat                     |
| _____ | _____ | _____ | Verify all penetrations through walls, floors, ceilings are sealed                |
| _____ | _____ | _____ | Verify all handles on ball valves are stainless steel                             |
| _____ | _____ | _____ | Review Test And Balance report, file with O & M manuals                           |
| _____ | _____ | _____ | Verify operation of all dampers   |
| _____ | _____ | _____ | Verify access to filters on cabinet ventilation system                            |
| _____ | _____ | _____ | Verify access to fan and heater access panels                                     |
| _____ | _____ | _____ | Verify all concrete joints are sealed   |
| _____ | _____ | _____ | Verify manhole lids   |
| _____ | _____ | _____ | Verify floating manholes, shims removed, chimney seals installed                  |
| _____ | _____ | _____ | Verify exterior door stops are installed  |
| _____ | _____ | _____ | Remove all masking from painting  |
| _____ | _____ | _____ | Clean up all blast material from painting   |
| _____ | _____ | _____ | Verify all painting is complete   |