

SOP For Pump Inspection/De-Rag

Significant Aspect/Risk addressed: Pump stations

Potential effects if SOP not followed: sanitary sewer overflows, public health issues, employee health and safety.

This SOP is for the inspection of Dry Well Submersibles.

1. Shut off any power supply to pump which will be inspected.
2. Lock out Tag out all power supply, Follow Lock out tag out procedures.
3. Close both the suction and discharge valves. Lock out tag out the Valves
4. Break the bolts on the inspection plate let pump and volute drain.
5. After water drains finish pulling inspection plate. If water does not stop check valves to ensure they are seated.
6. Look and see if rags are present/ check condition of volute and impeller.
7. Once inspection is done and rags are removed install inspection plate making sure it fits the contour of the volute and check gasket or O ring condition replace if needed and tighten bolts.
8. Remove lock out tags from valves.
9. Open suction and discharge valves
10. Remove lockout tags from power supply and turn on all breakers.
11. Open vent lines to purge air out of system
12. Allow water in wet well to rise to assist in purging the air out of the pump.
13. Turn pump on and make sure it operates properly.
14. Let pumps go through a couple of cycles before leaving station to make sure everything is working properly.

This is the SOP for wet well submersibles.

1. Back truck into position to use crane on truck or use the hoist at station if truck is not equipped with one.
2. If a pump is operational pump down the level so top of pump is showing so retrieval bracket is visible.
3. Turn pumps to off position turn breakers off and lock out tag out.
4. Lower hook down using crane or hoist and hook bracket.
5. If neither pump is working use the special chain hook to pull pump.
6. Once tension is on the cable jerk the cable to break the pump away from the pump base once it is free continue hoisting up the pump
7. Set pump down on solid level surface.
8. Remove the bolts that hold the pump to the volute
9. Raise the pump a few inches off the ground and tap with mallet to separate the two
10. Once the pump and volute are separated check for rags and remove check condition of the impeller and volute.
11. Check O-ring ,Put pump back together and lower back into place in wet well
12. Once pump reaches the base jerk the cable to ensure pump is seated.

13. Remove lock out tags and turn power back on to pump.
14. Run pump to see if it is operating and pumping (check flow meter to see GPMs being pumped)
15. Let pumps go through a couple of cycles to makes sure station is working properly