



MAINTENANCE CHECK LIST

Below is a list of eight essential priority areas for station maintenance. While certainly not all inclusive, this list of items is a bare bones approach to preventive maintenance, and can provide a solid foundation for a maintenance program for the station(s) in your systems.

1. Pumps –

- A. Pump motors should be lubricated every six (6) months, or as indicated by the motor manufacturer, with approximately one (1) cubic inch (about two (2) pumps on the grease gun) of grease (usually a multipurpose lubricant such as Lithium EP NGLI Grade #2).

Be sure that the grease relief plug on the opposite side of the motor from the grease zerk being used, is pulled so that the old grease will be removed as the new grease is applied.

If motor uses an oil bath bearing, change the oil yearly. If motor is in a constant run application or hazardous condition, change oil more frequently.

- B. Turn the pumps off and on. Listen, watch and feel the motor to determine if it is in fact operating, and check for “vibrations”. Also check the pump seal for leakage or adjust packing as required.

When adjusting pump packing, the motor should be running. The packing ring should be cool to the touch when properly adjusted.

- C. While pump is on the design curve, check motor running amps.
- D. If a pump sets static or seldom runs, it should be run fifteen (15) minutes once a month.
- E. Proper fluid levels should be checked and maintained on the diesel motors.
- F. Diesel generator should be exercised on a regular basis and transfer switch tested.

2. Valves –

- A. Control valve drain lines, pilots, speed controls and limit

switches should be exercised, when practical, to determine that it is operating properly, and its timing is correct. Any trim line screens or strainers should be cleaned twice annually.

- B. Manual valves should be opened and closed. Gear operated butterfly valves should be re-greased as needed. Swing check valves should be checked for operation.

3. Electrical Controls –

- A. Starters, relays and other contactors should be energized and de-energized to determine operation. All switches, selectors and circuit breakers should be turned on and off. All connectors should be checked for snugness. There should be no relay chattering or burnt odor from the panel. Once a year, turn all electrical apparatus off, leave all circuit breakers on, check electric meter (there should be no movement in the electric meter disc as movement indicates electric power is being used). Movement may indicate trouble in the electrical circuits (potential ground fault).

4. Leakage –

- A. No flanges, fittings, couplings or other connections should leak. Check sensing lines and hydraulic power lines to control valve pilots for leaks. Also drain lines from hydraulic pilots, dehumidifiers and packing glands on packed pumps should be inspected.
- B. The presence of condensation indicates that the dehumidifier or heater or both, are not working properly. Heat in the station must be maintained at 60°F or higher for complete dehumidification.
- C. Ground water leakage through hatch gaskets or conduit entrances can occur and should be checked.

5. General – Conveniences such as lights, sump pump, heater, dehumidifier, exhaust fans and receptacles

- A. Should be used to verify they are in working order. The exhaust fans should be lubricated with a few drops of SAE non-detergent oil every six (6) months or so. Sensing lines to pressure switches and gauges and drainage lines should be flushed periodically. The ladder should be checked for tightness and damage. The paint coating should be checked and touched up as needed.

6. Cathodic Protection –

- A. Magnesium anodes should be replaced at no longer than five (5) year intervals and possibly more often.
- B. Impressed voltage cathodic protection systems should be recalibrated annually or sooner.

7. Record Keeping –

- A. A written record or check list should be maintained in the station itself for reference to determine when each specific maintenance item has been attended to and when it must be checked again.

8. Housekeeping –

- A. Perhaps the least costly, most overlooked and by the same token the most significant items in any preventive maintenance program is simply good housekeeping. This type of routine and constant care is prerequisite to maintaining a reliable piece of equipment. A clean well-kept station is where preventive maintenance begins.

Items above are general maintenance procedures but shall not be limited to the above items. Following these steps will not prolong the life of your station indefinitely, but it will guarantee that you will get the longest most trouble-free service from your equipment that is possible.