ENCLOSURES

- RATINGS
- MATERIALS OF CONSTRUCTION
- OPTIONS
TYPICAL NEMA RATINGS

- NEMA Type 1
- NEMA Type 12
- NEMA Type 3R
- NEMA Type 4
- NEMA Type 4X
- NEMA Type 7
Enclosure Options

- Climate Control (Vents, Fans, Air Conditioners)
- Mounting (Pad, Wall, Strut)
- Profile (Tall 2-Door, Low Double Sided)
- Accessibility (Dead Front)
- Future Additions (Spare Space, Equipment Sizing)
Components

- Disconnects  (Fuse vs. Breakers)
- Generator Provisions
- Motor Protection  (Fuses, Breakers, Thermal)
- Motor Controls  (Starters, Soft Starters, Drives)
- Transformers
- Logic  (Relay, Controllers, PLC)
- Alarm Dialers / Telemetry
- Pilot Devices
- Intrinsically Safe
Disconnects

Fusible or Circuit Breaker
Generator Provisions

Auto / Manual Transfer Switches and Generator Connection
Motor Protection
Motor Controls
Transformers
Logic
Alarm Dialers / Telemetry
Pilot Devices
Intrinsically Safe
Maintenance

- Corrosion Control
- Component Inspection
- Wire Inspection
- Level Device Maintenance
Corrosion Control

- Keep Enclosure Dry (Rust Inhibitors, Door Gaskets, Panel Heaters)
COMPONENT INSPECTION

- Socket Mounted Devices in Sockets
- Light Bulbs (Pilot Lights / Enclosure Lights)
- Blown Fuse Indicators
- Tripped Breaker Indicators
- Tight Connections (Mounting / Wire)
- Visible Damage
WIRE INSPECTION

- Color
- Insulation
- Frayed Ends
- Off Termination Points
- Other Visible Damage
COMMON LEVEL DEVICES

- Float Switches
- Pressure Type Level Transmitters
- Bubbler Systems
- Ultrasonic Level Transmitter/Transducers
- Radar Level Transmitters
## Float Switch Maintenance

<table>
<thead>
<tr>
<th>Task</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cleaning Stilling Well, Floats or Float Guide</td>
<td>Every one or two weeks</td>
</tr>
<tr>
<td>2. Calibrate</td>
<td>Check linkages upon cleaning floats</td>
</tr>
<tr>
<td>Task</td>
<td>Frequency</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1. Clean Diaphragm</td>
<td>Check every week until a history is established. A coated diaphragm will cause faulty readings</td>
</tr>
<tr>
<td>2. Calibrate</td>
<td>Every monthly or after cleaning</td>
</tr>
</tbody>
</table>
## BUBBLER SYSTEMS MAINTENANCE

<table>
<thead>
<tr>
<th>Task</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. Check Air Flow to Dip Tube</td>
<td>Daily. Accuracy is dependant upon air flow bubbling out at the end of the pipe at the tank bottom</td>
</tr>
<tr>
<td>2. Calibrate Level Transmitter</td>
<td>Every two months</td>
</tr>
<tr>
<td>4. Check Air Filter</td>
<td>Weekly. This could have an effect on the air flow to the dip tube.</td>
</tr>
</tbody>
</table>
ULTRASONIC LEVEL SYSTEMS MAINTENANCE

<table>
<thead>
<tr>
<th>Task</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. Calibrate (Verify)</td>
<td>Every three months or per regulations from DEQ</td>
</tr>
<tr>
<td>2. Clean off Sensor Head</td>
<td>During calibration. Sensor can become coated with condensation causing false readings</td>
</tr>
</tbody>
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