

25 Ways to (Not) Screw Up a Lift Station

Your answer should be "Yes" to each of the following questions:

- Have you included toxic gas detection?
- Is there enough room for two or more people to work?
- Is all suction piping vacuum-rated (Sch. 80)?
- Have you double-checked for minimum required submergence?
- Are all inlets to the wetwell directed away from the pumps and level controllers?

- Are all VFDs either within 75' of the motors or protected by filters?
- If used, will the VFDs be able to scale up and down through a useful range of conditions?
- Are the starters appropriate to the power supply and demand?
- Have you eliminated any unnecessary "spaghetti bowls" in the piping?
- Is the wetwell as large as you can reasonably make it?

- Will operators be able to maintain the equipment in place?
- Have air-release and vacuum-breaker valves been included at all high points?
- Are all parts of the system adequately heated to prevent freezing?
- Are all electrical components adequately cooled?
- Are gauges shown for every pump discharge (and suction where possible)?

- Will pumps, piping, and valves all pass the largest solids possible without clogging?
- Have you checked the net NPSH (for all pumps, whether self-priming, flooded-suction, or submersible)?
- Can a lone operator remove a clog safely without assistance?
- Will the operators be able to maintain the equipment on their own without special tools?
- Are the motors sized for the worst-case scenario (including a force main break)?

- Have you plotted the future system head curves after sedimentation and buildup have occurred?
- Have you considered all six backup power options?
(fixed and portable generators, PTO, permanent engines, portable pumps, redundant grids)
- Have you specified the material options with the longest expected service lives?
- Would you send your spouse, child, or best friend into this workspace without worrying about their safety?
- Have you eliminated every underground or confined space?
(using self-priming pumps, above-ground valve enclosures, or recessed floors)



If you need assistance finding ways to get to "Yes" on any of the above, contact us:



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