



Raw Water Station Generator & MCC Upgrades Questions

Project #1607

Request for Proposal for Engineering Services

Addendum II

10-27-2023

1. Due to the proximity of the diesel fuel storage tank and refueling operations to the canal, a fuel unloading spill containment structure is recommended. Please confirm such a structure should be included in the design.
Answer: The fuel storage tank which feeds the existing generator will eventually be replaced with a self-contained diesel type generator placed outside the building. The new generator must be capable of running all four existing raw water intake pumps. The containment structure must be removed after all electrical improvements are in place.
2. Is a gravel or asphalt driveway needed between the road and the pump station?
Answer: No.
3. Should the design include the removal of the large wall louvers and providing air-conditioning in the electrical room?
Answer: Wall louvers can stay in place. The adjacent room (former chemical injection room) will be utilized to house the new electrical equipment and will need to be air conditioned.
4. Existing variable frequency drives (VFDs) for the two (2) WTP pumps are open chassis design and not equipped with local overcurrent protective devices (OCPDs), bypass contactors or harmonics mitigating devices. To increase reliability and improve power quality, replacing these drives with enclosed configured VFDs equipped with bypass contactors and line reactors is recommended. Please confirm replacement/upgrading of the two (2) existing drives should be included in the design.

Answer: Confirmed. Replace the old drives with new enclosed VFDs equipped with local overcurrent protective devices (OCPDs), bypass contactors or harmonics mitigating devices.

5. To further improve overall system reliability, relocating the VFDs from the chemical room into the electrical room is recommended. This would allow a single air-conditioning system to reduce the likelihood of overheating the drives and remove electrical distribution and control equipment from the chemical room. Please confirm relocating the drives into the electrical room is desirable.

Answer: The former chemical room will be utilized to house the new electrical equipment. This room will be the new electrical room and will need to be air conditioned.

6. The existing motor control center (MCC) contains a 480V-to-120V stepdown transformer and load center. Please confirm all 120V branch circuit wiring in the building and from the pump station will require splicing and/or replacement to some extent to re-connect these circuits to new OCPDs.

Answer: Confirmed.

7. Should existing indoor and outdoor building lighting and site lighting be replaced with LED lighting fixtures?

Answer: Yes

8. Should existing wiring devices (light switches, convenience receptacle outlets, etc.) be replaced?

Answer: Yes

9. Are any changes/modifications/upgrades needed to the existing SCADA panel to accommodate signals from the new generator and/or automatic transfer switch?

Answer: Currently, we do not have any signals for the generator on our existing SCADA. We only have Raw Water Pump signals for running the pumps. No SCADA signal is required for the new generator.

10. Is there a need to add limit switches to the building doors to provide an intrusion alarm via SCADA?

Answer: For security reasons, this feature would be convenient if it is possible to add this via SCADA.

11. Please describe in more detail the extent to which concrete repair is needed and what, if any, repairs, refinishing, or refurbishment is needed to the interior walls and ceilings and exterior walls of the building.

Answer: Minor concrete , masonry, and interior wall and ceiling refurbishment work is required. The engineering plans will call for removal and disposal of all abandoned mechanical equipment, including fuel tank and existing fuel containment system, electrical and chemical injection equipment, new housekeeping pads, removal of interior

concrete curb and floor patching, cleaning of floors, walls, and ceiling. Apply new interior paint on walls and ceiling. Apply new concrete floor sealer.

12. Are any repairs or refurbishments needed to the existing building personnel doors, thresholds, hinges, locksets, etc.?

Answer: Yes, replace all door hardware accessories including new keys.

13. Is there any Civil Engineering work required for this project other than the minor cosmetic repairs (such as concrete wall painting and concrete floor coating) and the removal of abandoned chemical injection equipment as addressed in the RFP?

Answer: No civil engineering work is required other than some architectural refurbishment to the building interior as noted above.

14. Have any electrical upgrades been identified for the two pumps operated and maintained by Liberty Steel?

Answer: Not currently. Please add an allowance to the fee proposal for the electrical upgrades for the two Liberty Steel pumps.

15. Will the new generator be required to start the Liberty Steel pumps now or in the future?

Answer: Yes. The generator should be capable of running all four pumps.

16. Is the new generator engine to be diesel-fueled? If yes, will the existing diesel fuel tank be used to serve the new generator?

Answer: New generator must be a self-contained diesel tank type.

17. Will the new equipment (motor control center, automatic transfer switch, and engine generator) be purchased by the City or will the new equipment be included under the construction contract to be provided by the Contractor?

Answer: The City anticipates having all the electrical equipment procured through the Contractor.

18. What is the start / stop control sequence for the two city pumps?

Answer: The pump operation alternates between the On/Off position on a weekly basis and this is controlled by SCADA from the City's WTP.