Attachment to Specification Book

PROPOSED SEQUENCE OF CONSTRUCTION

DEFINITIONS

1. **Contractor**: The prime contractor holding the contract with Griffin HealthCare for Phase 2 Emergency Generator
2. **Griffin HealthCare (GHC)**: The hospital, utilizing their in-house staff and outside contractors for support if needed.
3. "**G1**": Existing 1250kW generator to remain.
4. "**G2**": Existing 250kW generator to be removed.
5. **GEN-1**: New nomenclature for the existing 1250kW generator to remain.
6. **GEN-2**: Nomenclature for new 1250kW generator

CONTRACTOR PROPOSED METHOD OF PROCEDURE

The Contractor is responsible to develop a Method of Procedure (MOP) detailing the steps he/she or GHC will take for each part of their work, including providing a schedule which accounts for lead times for major equipment and anticipated quantity and duration of interruptions or shutdowns of specific electrical distribution within the Hospital. The MOP must be presented to, and approved by GHC and the Engineer prior to commencing with any work described here-in.

EARLY PHASE (by Project Contractor)

1. Coordinate work all trades hired by this Contractor so that an expedited installation can occur without any delays due to improper planning and coordination.
2. Coordinate with GHC for work and equipment being provided by GHC, including transfer switches, conduit and wiring supporting the transfer switches, as well as interfacing the work provided by this Contractor with that being provided by GHC.
3. Procure long lead items such as Generators and Switchgear, provide shop drawings as soon as possible.
4. Disconnect and remove existing fuel transfer system and piping to extent possible while leaving "G1" and "G2" operational, connected to the temporary fuel supply.
5. Coordinate steps necessary to reverse door swings and install new concrete pads in Generator Room

SPRINKLER SYSTEM WORK (by Project Contractor)

1. Revise sprinkler system piping and heads in Generator and Essential Distribution Rooms.

FUEL SYSTEM INSTALLATION (by Project Contractor)

1. Install new fuel maintenance system, fuel transfer system and daytank for existing GEN-1.
2. Install new FOS&R piping from capped ends of piping provided under Phase 1 into generator room to new fuel maintenance system and fuel transfer system.
3. Connect new fuel system pumping and fuel maintenance system to generator GEN-1.

4. After GEN-1 is determined to be fully operational, and being fueled from Phase 1 fuel tank, coordinate with GHC for disconnection and removal of existing temporary fuel tanks and associated piping into generator room, including connections to existing generator fuel systems
5. Installation of GEN-2 daytank, including connecting into the new fuel transfer system and maintenance system shall be included with the installation of GEN-2.

EXISTING 250KW GENERATOR "G2" REMOVAL (by Project Contractor)

1. Disconnect and remove feeder from Generator "G2" to manual transfers switch and from manual transfer switch to Panel "DEDP", including the removal of manual transfer switch.
2. Revise feed of Panel "DEDP" to be from 400A-3P C/B formerly feeding the manual transfer switch.
3. Remove existing intake air louver to facilitate removal of "G2" through areaway. This will be re-installed and left in operating condition until the installation of GEN-2 is scheduled.
4. Remove 250kW generator "G2" including daytank, radiator discharge plenum connection to aluminum plenum wall, day tank, connection to temporary fuel supply system and exhaust system up to roof. Install temporary patch to aluminum plenum wall.

ESSENTIAL DISTRIBUTION SWITCHBOARD – EQESBB (by Project Contractor and GHC)

1. Install new Switchboard (furnished by GHC) on new concrete housekeeping pad.
2. Contractor shall coordinate with GHC for connection of new essential feeder connections to automatic transfer switches at Chillers "CH-1", "CH-2" and "CH-3", Motor Control Centers "MCCB" and "MCCP". Connection to transfer switches and breakers in EQESBB provided by GHC. Contractor shall be present at any time GHC is working on equipment provided by Contractor. Conduit entries into EQESBB shall be done by Contractor, conduit extension from point terminated by GHC to enclosure of EQESBB will be by Contractor.
3. GHC shall provide essential feeder conductors from breakers in EQESBB to the automatic transfer switches serving Chillers "CH-1", "CH-2" and "CH-3", Motor Control Centers "MCCB" and "MCCP" to the emergency terminals of the ATSs. Connections of conductors to breakers by GHC in EQESBB shall be supervised by Contractor.

NEW STANDBY GENERATOR TRANSFER SWITCH – ATS-GEN (by Project Contractor and GHC)

1. Install new Transfer Switch (furnished by GHC) on concrete housekeeping pad.
2. Intercept existing feeder from GEN-1 to "MSEDP", connect/extend feed from GEN-1 as required to normal terminals of ATS-GEN. Connect/extend to "MSEDP" to load terminals of ATS-GEN.

NEW 1250KW GENERATOR – GEN-2 (by Project Contractor)

1. Install Generator (provided by Contractor) on new housekeeping pad.
2. Connect generator to new fuel system.
3. Connect radiator discharge plenum to aluminum plenum wall.
4. Install new exhaust piping up to roof.
5. Install new day tank, and FOS&R piping to fuel transfer and maintenance systems, connect radiator discharge to aluminum plenum wall.
6. Connect GEN-2 2000A output breaker #2 to emergency terminals of ATS-GEN.

7. Connect 2000A S.T. generator output breaker to EQESBB.
8. Install new intake air louver assembly in place of original intake air louver assembly in areaway wall.
9. Startup, test and leave generator GEN-2 ready for use to feed ATS-MCCB, ATS-MCCP, ATS-CH1, ATS-CH2 and ATS-CH3.
10. Startup and test new EQESBB and ATS-GEN in accordance with specifications.
11. Startup and test new ATSs ATS-MCCB, ATS-MCCP, ATS-CH1, ATS-CH2 and ATS-CH3 in accordance with specifications.

MISCELLANEOUS COORDINATION TASKS

1. The existing generator "G2" is anticipated to be rigged out of the Basement level through the intake air areaway, and new generator GEN-2 is anticipated to be rigged into place on the Basement level through the intake air areaway. To accomplish rigging in and out of the generator room, the existing intake air louvers will need to be removed and reinstalled at least twice (removal of "G2" and installation of new GEN-2). Care should be taken in the handling, disassembly, and reassembly of existing louvers until permanent new louvers are ready to be installed. Once generator GEN-2 is inside the Generator Room, permanent louvers may be installed.
2. The new Switchboard EQESBB and Transfer Switch ATS-GEN are anticipated to be rigged into the basement through the overhead door into the areaway at the east end of the Mechanical room, then through the mechanical space into the Generator Rm.
3. In order to provide the complete Essential Equipment Branch System, there will be several shutdowns and interruptions required. Provide GHC with adequate notice and coordinate with GHC as to timing and duration so that Hospital operation is minimally affected.

END of PROPOSED SEQUENCE OF CONSTRUCTION

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