

Addendum No. 1

North Virginia-Stead Pump Station

Contract No. 0607-100
PWP #WA-2007-139

The following information, clarifications, changes and modifications are incorporated into the bid documents for the above referenced project. Any work item or contract provision not changed or modified will remain in full force and effect. In submitting his Bid, each Bidder shall acknowledge receipt of this Addendum in the space provided on the Proposal. The bid date and time and construction schedule have not been changed.

A. SPECIFICATIONS

1. **Section 16412, Fuel Storage Tank.** One of the generator vendors has requested permission to provide an engine-mounted fuel tank beneath the medium voltage generator in substitution for the concrete encased tank as shown on the Plans. In concept this is acceptable, however at a minimum, the following must be provided;
 - a. The fuel storage tank must be seismically rated for the full load of the generator. Seismic design conditions are included in the geotechnical report. As part of the tank submittal, provide seismic calculations stamped by a registered professional engineer licensed in Nevada for the fuel tank.
 - b. The concrete vault containing the fuel tank and generator must also be seismically designed for the full load of the generator and fuel tank. Provide Nevada engineer stamped calculations on the concrete vault.
 - c. The fuel supply to the low voltage generator on the plans is being taken from the large generator tank. If the below-generator tank option is used, either provide a separate 24 hour storage minimum fuel tank below the low voltage generator, or provide fuel piping, and a day tank if required, to bring fuel from the large tank to the small generator.
 - d. Provide fuel leak detection within the double containment area below the fuel storage on the generator.
 - e. All IBC, NFPA, and NEC requirements must be met for the fuel storage below the generator. These include overfill protection, venting, seismic design, fill spill containment, etc. There may also be requirements for explosion-proof electrical equipment depending upon the location of fuel fill and the overflow and venting.
2. **Section 16273, Low Voltage Generator.**
 - a. Par. 16273.2.02.A, pg. 16273-5, approved engine manufacturers, add John Deere to the list of approved engine manufacturers. This acceptance does not waive any other requirements of the technical specifications.

- b. Par. 16273.2.02.K.1, page 16273-6, add Katolight KASSEC Automatic Engine Control as an accepted engine control unit. This acceptance does not waive any other requirements of the technical specifications.
 - c. Par. 16273.2.03.A, page 16273-7, add Marathon to the list of approved alternator manufacturers. This acceptance does not waive any other requirements of the technical specifications.
 - d. Par. 16273.2.05.H, page 16273-12. The intent is to have the entire load bank and its controls housed within the weather/sound absorbing housing of the generator set. If, however, the load bank cannot be installed in this manner without creating a code or listing violation, then it must be externally housed.
3. **Section 16275, Medium Voltage Generator**
- a. Section 16275, Medium Voltage Generator. One vendor has requested permission to supply a 600KW, 4160 volt unit mounted load bank for the generator. This is acceptable as a substitution for the stand-alone load bank.
 - b. Section 16275 Par. 1.03.A, page 16725-3, last sentence: delete "other equipment in the facility" and replace with "controls and instrumentation".
 - c. Section 16275 Par. 2.02.A.1.e.iii, change altitude from 5,000 to 4,700 feet.
 - d. Section 16275, Par. 2.02.A. A request was made to define "continuous" rating. The generator shall be for continuous standby use, not for prime mover use. It could run for the duration of a utility outage, but that is expected to be a matter of days or weeks, not months and years.
 - e. Section 16275.2.06.A.9 We received a request to approve a Katolight housing with sound attenuators on the inlet and outlet. The sound absorbing housing may be made by Katolight or other manufacturers besides any listed as long as it meets sound requirements and the specifications in all applicable sections and sub-sections are met. (1.03D and 2.06 complete, for example). Regardless of supplier, the rate of airflow through the sound attenuating housing will have to be sufficient to keep the engine and alternator temperature rise within codes, specifications and manufacturer's requirements, including any effect from an internal load bank. Clearances for maintenance, and per codes are required within the housing.
 - f. Section 16275 Par. 2.22.A. Medium Voltage generator manufacturers. Add Katolight and Baldor to the list of approved manufacturers. Note that the requirements for the unit to be a prototype tested, series manufactured model still apply.
 - g. Section 16275 Par. 3.02.B, page 16275-26, seismic requirements, delete the words "that will not fail during" and replace with "rated for" the maximum predicted seismic event.
 - h. Page 16275-18, from the top of page through and including paragraph 2.14.B., this text is duplicate to text on the previous page - please ignore the duplicate text.

4. **Section 16415, Metal Clad Switchgear**, Par. 16415.201.H, add MCM Engineering, 597 North 1500 West, Cedar City, UT 84720 to the list of acceptable metal clad switchgear manufacturers.
5. **Page PS-15 “Prevailing Wage”:**
 - Paragraph D: Delete the word “weekly” from the last sentence
Replace with “Monthly”
 - Paragraph E. Delete “each calendar week” from the second sentence
Replace with “each calendar month”

Delete “10 days” from the second sentence
Replace with “15 days”
6. **Question:** Can the successful bidder and his subcontractors keep the bid set of plans and specifications?
Answer: Only the successful general contractor will be permitted to keep the bidding documents. All subcontractors are required to return the bid documents in accordance with the requirements of the Homeland Security deposit within 30 days of the bid opening.
7. **Clarification:** TMWA will accept questions until 5 PM on Thursday, May 3, 2007. A final addendum, if necessary, will be issued on Friday, May 4, 2007.

B. **PLANS**

1. Sheet A5.1, Door Schedule. Revise the door sizes as follows:
 - a. Doors 100A and 100D, change the door size to **3’0” by 7’10”**.
 - b. Door 100B, change the door size to **6’4” by 7’10”**.
 - c. Doors 101A and 101B, change the door size to **6’4” by 8’6”**. Please note door 101B is being relocated from the south side of the electric room to the east side of the electric room to accommodate the electric panels as discussed below in this Addendum.
 - d. Door 102A, change the door size to **3’0” by 7’10”**.
2. Sheet A6.1, A6.2, and specification Section 04200. Color mix for block. The random mix color choice for the exterior block shall be 4 random colors, 25% each color. Colors to be selected by the Architect after submittal of samples. The interior block is gray smooth-faced block.
3. Sheet S3.1, Detail 2/S3.1. Note the surge tank supports are not shown in this detail, but are clearly shown in Detail 10/S5.2.
4. Sheet S5.2, Detail 14/S5.3 This detail does not show any vertical reinforcing steel. Include vertical bars with standard horizontal hooks (at top and bottom) at 6 inches o.c. around the perimeter of the pedestal. All bars shown to be #5 at 6” spacing each way and each face.

5. Sheet C1, detail box at the top, the address of the site is shown incorrectly. Change the site address from “4001 Washington” to “1401 Washington”.
6. Sheet C2
 - a. Plan View, on the discharge pipeline near the meter vault, there is an error in the stationing labels. Change the “10+30” station label to “10+40”, change the “10+40” label to “10+60”, and the tie-in point to be at 10+67.58. The stationing in the profile detail 1/C2 is correct, however the tie-point has been revised slightly as listed below.
 - b. Change the tie-in point to the discharge pipeline to be at the north flange face of the butterfly valve and the location is as follows:

Sta. 10+67.58

Coordinates: N: 14,873,386.92

 E: 2,274,474.79

Invert Elevation = 4648.76
 - c. On sheet C2 the blow off assembly on the discharge line was omitted from the profile at station 10+55.00. The blowoff assembly is to be installed as shown on the Plan.
7. Sheet C3
 - a. The 18” RCP culvert across the entrance driveway was inadvertently left off in this drawing. The culvert crosses the driveway as shown on sheet C2.
 - b. Add 400 lineal feet of rip-rapping on the existing drainage ditch channel from the South Highland Pump Station south to the existing 24” headwall at the south side of the property. The rip rap is shown on the enclosed detail from the site plan.
8. Sheet C5
 - a. Materials list, item number 20, delete the “thread-o-let”.
 - b. Materials list, item number 24, change to a 27’ x 42” dia. flange by flange pipe. This pipe may be either ductile iron or welded steel, but restrained joints are required.
9. Sheet C8

Materials callouts 15, 18, and 24 are used but not listed. Their meaning is the same as that shown on sheet C7. Thus item 15 is a 42” butt strap, item 18 is a 42” butterfly valve, and item 24 is a 42” flanged pipe section, as described above.
10. Sheet D1
 - a. Detail D/D1. Provide 2” thick polyisocyanurate rigid foam insulation to all vault walls, roof, and lid, in addition to the insulation on the PE tubing.
 - b. Detail F/D1. 1” rigid pipe insulation shall be “Armaflex High Density Foam Insulation”, or equal.

11. Sheet D5

Detail H/D5. Replace the detail with the detail enclosed with this addendum. The revised detail incorporates the 2" air release valve into the piping.

12. Sheet M1

The 70"x28" return air duct and the 24"x24" and 40"x25" supply air duct is to terminate 1'-0" shorter than it is shown on sheet M-3 to avoid conflicts with the access ladder.

13. Sheet E02

a. Anode Wells. Note the cathodic protection anode wells depicted in Detail 4/CP2 are not shown on the electric site plan. These wells are to be field located approximately 20' off the building and at 20' spacing as shown on Detail 4/CP2.

b. SPPCo Service Location

The location of the SPPCo primary service to the transformers has been changed. Please see the enclosed provisional SPPCo drawing. An enlargement of the drawing is also included for legibility. Full size copies of the drawing will be available upon request.

14. Sheet E05

a. Electrical Room Equipment:

- i. The Contractor is responsible to fit and position all equipment into the space with all required clearances, five feet minimum in front of MV equipment, 30" minimum behind MV equipment with access panels, and door width plus 3 feet in front of the metering sections. We believe that the maximum front-to-back size of standard MV switchgear that will fit is 92" (7'-8") in the 16' space.
- ii. Switchgear rear access must be with lift-off panels with handles, and these shall not have active components such as meters. The hinged door such a component would require needs more than the 36" or less clearance available behind the switchgear.
- iii. Remote metering is allowed, but not required. If used, 1.5" RSC with only two ninety degree bends is the conduit required by SPPCo. A conduit for telephone for remote metering is required.
- iv. If remote metering is not provided, a conduit for telephone for SPPCo remote metering is required to each utility metering bay for SPPCo use.

Attachments (4):

SPPC-zoom; SPPC-full; Detail H/D5; Site Plan

End of Addendum No. 1