



CITY OF HOUSTON

Administration and Regulatory Affairs Department
Strategic Purchasing Division

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July 16, 2010

Subject: Letter of Clarification No. 7
Onan Generator Equipment Replacement Parts
and Repair Services

Reference: Invitation to Bid (ITB) No.: S44-S23583

To All Prospective Bidders:

This Letter of Clarification is issued for the following reason:

- To revise the above referenced solicitation as follows:
 1. At the City's e-bidding website, Item No. 5's estimated expenditures and units of measure have **changed**.
 2. At the City's e-bidding website, Item No. 6 has been **added**.
 3. In Section B, the attached pages marked "REVISED 7/15/2010" shall be incorporated in its entirety.
- Due to the aforementioned change to the e-bidding items you may need to edit your bid. To do so, please select "Bid Number" and proceed accordingly.

This Letter of Clarification will be considered part of the solicitation referenced above.

Furthermore, it is the responsibility of each Supplier to obtain any previous Letter(s) of Clarification associated with this solicitation.

A handwritten signature in black ink that reads "John Tatman".

John Tatman
Procurement Specialist
Strategic Purchasing Division
832-393-8751

DRH
JGT:DRH:jgt

TECHNICAL SPECIFICATIONS FOR ONAN GENERATOR REPLACEMENT PARTS AND REPAIR SERVICES FOR VARIOUS DEPARTMENTS (CONTINUED):

2.0 SCOPE OF SERVICES:

The supplier shall furnish all supervision, labor, transportation, tools, equipment and supplies necessary to provide on-site generator preventative maintenance.

3.0 SERVICES TO BE PERFORMED SEMI-ANNUALLY FOR THE PARKS & RECREATION DEPARTMENT:

3.1 Basic Preventative Maintenance (PM) for Generator Cooling System:

- 3.1.1 Inspect radiator/heat exchanger for leaks, damage, or obstructions and add coolant (up to four (4) gallons) to bring the coolant to its correct levels.
- 3.1.2 Inspect condition of radiator cap, gaskets for leaks
- 3.1.3 Inspect water pump and cooling system gaskets for leaks.
- 3.1.4 Check coolant for proper antifreeze percentage.
- 3.1.5 Check Supplemental Coolant Additive (SCA) and add as needed (up to two (2) quarts)
- 3.1.6 Inspect flexible water connections for cracking, leaks and pliability
- 3.1.7 Tighten hose clamps.
- 3.1.8 Check belt tension.
- 3.1.9 Inspect belt for cracking and fraying.
- 3.1.10 Inspect pulleys for excessive wear.
- 3.1.11 Check jacket water heater(s) for proper operation and adjust thermostat setting.
- 3.1.12 Lubricate fan drive with bearing lubricant

3.2 Basic Preventative Maintenance (PM) for Generator Lubrication System:

- 3.2.1 Add crankcase oil (up to two (2) gallons of OEM or approved equal engine oil) to bring the oil to its correct level.
- 3.2.2 Inspect oil heater for proper operation and check thermostat seals.
- 3.2.3 Check for excessive crankcase blow-by with engine running.
- 3.2.4 Check crankcase breather; inspect hose and connections.

3.3 Basic Preventative Maintenance (PM) for Generator Fuel System:

- 3.3.1 Inspect flexible fuel lines for cracking, leaks, and pliability.
- 3.3.2 Test day tank pump for proper operation and level.
- 3.3.3 Operate fuel priming pump and check for proper operation and level.
- 3.3.4 Drain water from water separator.
- 3.3.5 Check engine fuel system for leaks.
- 3.3.6 Check governor oil level and add oil as needed.
- 3.3.7 Record fuel level in the main fuel tank.
- 3.3.8 Inspect steel fuel lines for cracks, leaks, and proper line bracket support.
- 3.3.9 Stick the main tank for water (if accessible).
- 3.3.10 Clean primary fuel filter (if screen type).

TECHNICAL SPECIFICATIONS FOR ONAN GENERATOR REPLACEMENT PARTS AND REPAIR SERVICES FOR VARIOUS DEPARTMENTS (CONTINUED):

3.0 SERVICES TO BE PERFORMED SEMI-ANNUALLY FOR THE PARKS & RECREATION DEPARTMENT (CONTINUED):

3.3 Basic Preventative Maintenance (PM) for Generator Fuel System (CONTINUED):

3.3.11 Drain water and sediment from day tank (if accessible).

3.3.12 Lubricate governor linkage.

3.3.13 Test day tank alarms.

3.4 Basic Preventative Maintenance (PM) for Generator Starting System:

3.4.1 Top off electrolyte level.

3.4.2 Check battery and record battery voltage.

3.4.3 Check battery charger and adjust float rate for optimum battery performance life.

3.4.4 Check alternator for proper charge rate and record with engine running.

3.4.5 Check for proper crank termination upon starting.

3.4.6 Inspect and tighten starter motor(s) connections and wiring.

3.4.7 Test and record battery cells electrolyte specific gravity.

3.4.8 Check and record battery voltage dip level during over crank test for minimum voltage required to check for correct voltage output of units to be in accordance with manufacturer(s) specifications (report if repairs are needed).

3.5 Basic Preventative Maintenance (PM) for Generator Exhaust System:

3.5.1 Inspect flexible exhaust coupling for cracks and excessive leakage.

3.5.2 Check for abnormal exhaust characteristics with engine running (signs of wet stacking).

3.5.3 Inspect exterior of exhaust manifold for oil/fuel slobbering (signs of wet stacking).

3.5.4 Inspect exhaust rain protection and exhaust outlet screening.

3.5.5 Drain water in the exhaust moisture traps.

3.5.6 Inspect exhaust manifold(s) for broken or missing hardware.

3.6 Basic Preventative Maintenance (PM) for Generator Intake System:

3.6.1 Inspect all air filters for plugging and deterioration.

3.6.2 Test air cleaner indicator.

3.6.3 Check all air intake(s) piping for damage and loose connections.

3.6.4 Inspect air cleaner seal for pliability and sealing.

3.6.5 Inspect turbocharger for excessive end play clearance and seal leakage.

3.7 Basic Preventative Maintenance (PM) for Generator Installation:

3.7.1 Make walk around inspection of complete installation.

3.7.2 Inspect generator set vibration isolators and adjust as needed.

3.7.3 Check for unit on-line capability in less than 10 seconds.

3.7.4 Check for abnormal noise or vibrations.

3.7.5 Re-check oil level while running.

3.7.6 Re-check for leaks with engine running.

TECHNICAL SPECIFICATIONS FOR ONAN GENERATOR REPLACEMENT PARTS AND REPAIR SERVICES FOR VARIOUS DEPARTMENTS (CONTINUED):

3.0 SERVICES TO BE PERFORMED SEMI-ANNUALLY FOR THE PARKS & RECREATION DEPARTMENT (CONTINUED):

3.7 Basic Preventative Maintenance (PM) for Generator Installation (CONTINUED):

- 3.7.7 Check for proper operation of remote fan motors, thermostats, circulating pumps and solenoid valves.
- 3.7.8 Check inlet and discharge louvers for proper operation with engine running and stopped.

3.8 Basic Preventative Maintenance (PM) for Generator Control Panel:

- 3.8.1 Operational check of illumination and safety lamps.
- 3.8.2 Check proper operation of engine and generator instruments with generator running.
- 3.8.3 Adjust governor control for optimum performance and frequency.
- 3.8.4 Adjust voltage regulator for proper voltage.
- 3.8.5 Check for and tighten loose terminals.
- 3.8.6 Check tightness of relays in the control systems.
- 3.8.7 Inspect for excessive dirt accumulation and vacuum as needed.
- 3.8.8 Test auto-start system.
- 3.8.9 Test safeties and pre-alarms on control and annunciator panels.

3.9 Basic Preventative Maintenance (PM) for Generator and Voltage Regulator:

- 3.9.1 Check rotor air gap for correct clearance.
- 3.9.2 Inspect rotor and starter for damage and excessive oil or dirt build up.
- 3.9.3 Inspect couplings and guards for loose or missing parts.
- 3.9.4 Lubricate generator bearings with OEM and/or approved bearing lubricant.
- 3.9.5 Check tightness of generator leads and voltage regulator control wiring.
- 3.9.6 Strap and tape any wiring or generator leads with rubbing or worn insulation.
- 3.9.7 Inspect rotating rectifiers.
- 3.9.8 Clean and adjust voltage droop potentiometer.
- 3.9.9 Check exciter.

3.10 Upon Completion of Basic Preventative Maintenance (PM):

- 3.10.1 Reset all controls to automatic once service is complete.
- 3.10.2 Set Circuit breaker to correct position once service is complete.
- 3.10.3 Check fuel valves for correct position once service is complete.
- 3.10.4 Check voltage regulator is "On" and not tripped once service is complete.
- 3.10.5 Check battery charger is on once service is complete.
- 3.10.6 Check day tank controls are on once service is complete.
- 3.10.7 Check louver controls are on once service is complete.
- 3.10.8 Check jacket water heater(s) are on once service is complete.

TECHNICAL SPECIFICATIONS FOR ONAN GENERATOR REPLACEMENT PARTS AND REPAIR SERVICES FOR VARIOUS DEPARTMENTS (CONTINUED):

3.0 SERVICES TO BE PERFORMED SEMI-ANNUALLY FOR THE PARKS & RECREATION DEPARTMENT (CONTINUED):

3.10 Upon Completion of Basic Preventative Maintenance (PM) (CONTINUED):

- 3.10.9 Check remote radiator fan controls are on once service is complete.
- 3.10.10 Check auxiliary water pump controls are on once service is complete.
- 3.10.11 Supplier shall be responsible for disposal of used oil, fluids, filters, batteries and various hazardous items in accordance with all applicable local, state and federal laws.
- 3.10.12 Supplier shall provide a daily work report on each unit detailing services performed (including hour meter reading if applicable). The supplier shall secure a signature from a Parks and Recreation Department representative (with COH employee number) at time of completion of each unit leaving site and/or facility. This shall be done prior to supplier submitting invoice for payment by the department.
- 3.10.13 All items that are to be reported to the department for additional services shall be submitted at time of signature by department for services performed at each site/facility to the Parks and Recreation Department designated representative. All reports must be submitted in writing.
- 3.10.14 Supplier shall notify department designated representative seven (7) days prior to starting any services to be performed on each semi-yearly basis.

4.0 SERVICES TO BE PERFORMED ANNUALLY FOR THE PARKS & RECREATION DEPARTMENT:

- 4.1 Annual two (2) hour load bank test.
- 4.2 Change engine oil using OEM or approved engine oil.
- 4.2 Change oil filters.
- 4.4 Change primary and secondary fuel filters.

5.0 ACCEPTABLE MOTOR OILS AND LUBRICANTS:

All oils and lubricants provided by the supplier must meet or exceed American Petroleum Institute (API) Service Specifications SG, SF/CC, and CD. Acceptable brands are:

- ARCO
- Chevron
- Exxon
- Penzoil
- Shell
- Texaco
- Quaker State
- Valvoline
- Citgard
- Caterpillar

5.0 WORK REPORT TO BE PROVIDED BY SUPPLIER:

The daily work ticket per each vehicle shall reflect the following information:

- 5.1 Date service performed
- 5.2 Location (physical address)
- 5.3 Vehicle shop number/license tag number
- 5.4 Check list of services provided with a total of oils/fluids and parts by item listed

TECHNICAL SPECIFICATIONS FOR ONAN GENERATOR REPLACEMENT PARTS AND REPAIR SERVICES FOR VARIOUS DEPARTMENTS (CONTINUED):

5.0 WORK REPORT TO BE PROVIDED BY SUPPLIER (CONTINUED):

- 5.5 Signature and printed name of person performing service.
- 5.6 Results of visual inspection and all other parts or repairs needed.
- 5.7 Dates of service by location

6.0 SCHEDULE FOR PREVENTATIVE MAINTENANCE:

- 6.1 Semi-annual maintenance shall be performed between the dates of April 15th and May 30th of each calendar year.
- 6.2 Annual maintenance shall be performed between the dates of November 1st and December 15th of each calendar year.

7.0 LOCATIONS AND TYPES OF PARKS AND RECREATION DEPARTMENT'S ON-SITE GENERATORS:

- 7.1 Gragg Building-IT Generator-Stationary
2999 South Wayside
Cummins Onan
Model Number GGHD-4485354
Serial Number H000136092
- 7.2 North Shepherd Maintenance Facility-Stationary
4719 North Shepherd
Houston, TX 77018
Onan
Model Number LSG-8751-6003C
Serial Number 0530764TT
- 7.3 Sabine Maintenance Facility-Stationary
115 Sabine
Houston, TX 77002
Minneapolis-Moline Twin Units
Model Number HD524
Serial Number 35500098
- 7.4 Facilities Management and Development-Pull Behind Unit
6200 Wheeler
Houston, TX 77023
Ingersoll Rand
Power Source G60
Model Number G60
Serial Number 373035UFQB55
- 7.5 Fleet Maintenance Division-Stationary/Mounted on Trailer
6200 Wheeler
Houston, TX 77023
Cummins Power Generator
Model Number DKAE-5671544
Serial Number F040650792
- 7.6 Forestry-Stationary
12025 Sowden
Houston, TX 77055
Generac
Model Number 10080350200
Type SD150
Engine