

MEMORANDUM

TO: Lt. Richard Ozuna
Hidalgo County Sheriff's Office

Juan Tapia

FROM: Roli Flores, Buyer
Hidalgo County Purchasing Department

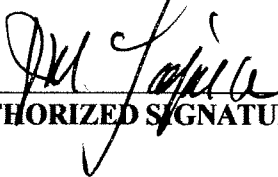
RE: Draft Specifications for: Hidalgo County Sheriff's Office (Adult Detention Facility)-"Service/Maintenance and Repair Agreement for Four (4) Caterpillar and One (1) Kohler 250 Generators"

DATE: December 26, 2007

Please review the following **SPECIFICATIONS** and indicate if they meet all your requirements by marking **APPROVE** (or) **DISAPPROVE** and signing below. If your answer is **DISAPPROVE**, please make any modifications necessary to the specifications and fax back the revised copies to the designated Buyer in the Purchasing Department.

APPROVE

DISAPPROVE



AUTHORIZED SIGNATURE

DATE

Do you currently have funds available to make purchases on this product?

YES

NO

If YES, enter Account Number: 8-1100-421-00-280-001-8-432

Please return this request by Wednesday, January 2, 2007.

EXHIBIT "A"

Hidalgo County Sheriff's Office RFSQ NO. 08-017-ROL

Service/Maintenance and Repair Agreement for Generators

DRAFT SPECIFICATION

The Hidalgo County Sheriff's Office is requesting sealed quotes for a one (1) year term for service/maintenance agreement along with a listing prices for the following P.M. 1, P.M. 2, and P.M. 3 for four (4) Caterpillar and one (1) Kohler 250 (Detroit Diesel) Generators along with a repair hourly rate on an "As Needed Basis" with a mark up for parts, located at the Hidalgo County Sheriff's Office (Adult Detention Center, Motor Pool, and Academy). Participants **must** be authorized factory trained and certified to work on all Caterpillar equipment and its switch gear (I S O Links, and Zenith) along with Kohler (Detroit Diesel) equipment and its switch gear. Participants **must** also use only genuine Caterpillar parts (equal or better) and Detroit Diesel parts (filter, oil, air, diesel, and misc. parts) and able to provide service/ maintenance and repair to generators in accordance with the National Electric Code (N E C), the life Safety Code, and the National Fire Protection Association and the Joint Commission. Technicians must be available twenty-four hours seven days a week. The following services will be provided in accordance with these specifications and the manufacturer recommendations.

Requirements, Terms & Conditions

1. **Please provide with your sealed quote a technician fee on an "As needed basis" per hour (normal and after hours) and the percentage mark up rate for parts for repairing the mentioned generator(s)**
2. **All costs and expenses associated with the preparation and submission of (bid, proposals and / or quotes) shall be responsibility of the bidder and no reimbursements for such charges or expenses shall be passed onto HIDALGO COUNTY.**
3. **The term of the agreement will be for a period of one (1) year.**
4. **Any contract awarded to a successful vendor will be in effect until:**
 - **The contract expires.**
 - **Delivery and acceptance of product and/or performance of services ordered.**
 - **Termination by HIDALGO COUNTY with thirty (30) days written notice prior to cancellation**
5. **HIDALGO COUNTY reserves the right to reject any or all bids submitted, if it is in the best interest to do so.**
6. **The awarded vendor will maintain all insurance requirements and its limits through out the agreement term, as described and listed in exhibit "C" insurance requirements.**

7. Disclosure of Conflict of Interest

Effective January 1, 2006, Chapter 176 of the Texas Local Government Code requires that any vendor, person, consultant or contractor considering doing business with Hidalgo County (“the County”) to disclose in the Conflict of Interest Questionnaire (the “CIQ”) attached as Exhibit D, the vendor, person, consultant or contractor’s affiliation or business relationship that might cause a conflict of interest with the County. By law, the CIQ must be filed with the Hidalgo County Clerk’s Office no later than the seventh business day after the date the person becomes aware of facts that require that statement to be filed. The disclosure requirement applies to a person or business who contracts or seeks to contract with Hidalgo County for the sale or purchase of property, goods or service. Any purchase order or contract resulting from this process shall be considered null and void if the successful bidder fails to comply with Texas Local Government Code Chapter 176. Vendors, consultants, contractors and others who desire to conduct business with Hidalgo County are encouraged to refer to Texas Local Government Code Chapter 176 for the details of this law. An offense under Texas Local Government Code Chapter 176 is a Class C Misdemeanor.

Please Submit completed CIQ forms to the Hidalgo County Clerk’s Office located at 100 N. Clossner, Edinburg, Texas 78539-Hidalgo County Courthouse COMPLETION AND SUBMISSION OF FORM CIQ IS THE SOLE RESPONSIBILITY OF THE PROSPECTIVE BIDDER.

8. PLEASE SUBMIT NO SUBMITTAL FORM BY FAX IF UNABLE TO QUOTE.

9. ADDITIONAL INFORMATION:

Hidalgo County is requesting that any and all questions, inquiries and clarifications regarding quotes, bids, proposals or statements of qualifications be addressed to, Roli Flores, Buyer, 100 E. Cano St.-4th Floor, Edinburg, Texas 78539. **TELEPHONE INQUIRIES WILL NOT BE ACCEPTED.**

ALL WRITTEN INQUIRIES WILL BE ACCEPTED VIA FACSIMILE NO LATER THAN, Wednesday, Month date year by 5:00 P.M.. Responses to said inquiries will be sent to all applicants via facsimile by no later than, Friday, Month day year by 5:00 p.m.

<u>Description of Generators</u>	<u>Physical Location</u>
1. Cat. 3512 B 750 K.W 1GZ00708	Adult Det. Cen. 701 El Cibolo Rd. F.M. 162
2. Cat. 3512 B 750 K.W 1GZ00709	Adult Det. Cen 701 El Cibolo Rd. F.M. 162
3. Cat. 3412 C 600 K.W 3FZ02548	Law Enf. 711 El Cibolo Rd. F.M. 162
4. Cat. D 304 350 K.W 92B03273	Motor Pool 713 El Cibolo Rd. F.M. 162
5. Kohler 250 250 K.W 2095562	Academy 715 El Cibolo Rd. F.M. 162
6. Generac 100 K W. 125 KVA	Courthouse Sally Port 100 N. Clossner, Edinburg, TX.

SCOPE OF SERVICES / MAINTENANCE FOR GENERATORS

A. The following generators require one (1) P.M. 2 for one of the quarters of this year.

- Gen. 1 Cat. 3512 B
- Gen. 2 Cat. 3512 B
- Gen 3 Cat. 3412 C

B. The following generators require one (1) P.M. 3 for one of the quarters of this year.

- Gen. 4 Cat. D-304
- Gen. 5 Kohler 250

C. Generators will require three (3) P.M. 1 broken down in quarters for the remainder of the year.

- * Gen. 1 Cat. 3512 B
- * Gen. 2 Cat. 3512 B
- * Gen. 3 Cat. 3412 C
- * Gen. 4 Cat. D-304
- * Gen. 5 Kohler 250
- * Gen. 6 Generac SD100

An annual fuel sample with a report will also be required for all generator fuel storage tanks once a year. With an optional price of service for transfer switch scheduled maintenance and load bank testing on all five (6) generators.

DETAILED DESCRIPTION OF SCHEDULED MAINTENANCE SERVICE LEVELS

Scheduled Maintenance LEVEL 1 – Recommended Quarterly

GENERAL

- Visual Inspection – Visual inspection of overall condition of unit to identify foreign objects, loose or broken fittings, guards, and components.
- Wipe off unit – Clean oil, coolant, fuel and acid deposits. Police generator area.

COOLING SYSTEM

- Radiator/Heat Exchanger – Visual inspection for leaks, damage, and debris. Check louver operation.
- Coolant – Visual inspection for correct level and condition of coolant (rust, oil, and contaminants). Check coolant conditioner concentration and temperature protection. Check filler cap gasket and sealing surface.
- Hoses and Connections – Visual inspection of all hoses for deterioration. Check tightness of connections.
- Fan Drive Pulley and Fan – Check for loose or worn pulleys and lube fan drive bearing. Check fan operation and clearance.
- Fan Belts – Inspect for wear or deterioration. Check tension and adjust as necessary.
- Jacket Water Heater – Inspect for proper operation. Check thermostat settings for proper coolant temperature.
- Water Pump – Visual and operational inspection for leaks or unusual noises.

FUEL SYSTEM

- Fuel Tank – Visually inspect fuel tank system for leaks and fuel level. Test day tank pump for proper operation. Inspect fuel condition for contaminants.
- Water Trap/Separator – Drain water from fuel tank or water separator when possible.
- Fuel Lines and Connections – Inspect for leaks and tightness of connections. Check line brackets.
- Governor and Controls – Inspect governor oil level. Inspect controls and linkage for proper operation. Add oil as necessary.
- Fuel Filters (Primary/Secondary) – Inspect for damage, leaks and proper operation.
- Fuel Pressure – Operational check of gauge and correct pressure.

AIR INDICATION AND EXHAUST SYSTEM

- Air Filter Service Indicator – Note reading. Inspect for proper operation. Reset Indicator.
- Air Filter – Inspect. Clean as necessary
- Air Inlet System – Inspect piping and air filter housing for damage, loose connections, and evidence of leaks. Clean air filters housing if air filter is cleaned or replaced. Check housing seals and gaskets.
- Turbocharger – Inspect for oil leakage or exhaust leakage. Check for unusual noises and proper operation.
- Exhaust Manifold – Inspect for damage, loose or missing hardware, evidence of exhaust leakage and wet-stacking. Load bank recommendation.
- Exhaust System – Inspect silencer and piping for damage, corrosion, or leakage. Check rain cap. Check supports for vibration damage and loose connections.

LUBE OIL SYSTEM

- Oil Level – Inspect for correct oil level and contamination. Visual inspect unit for leaks.
- Oil Pressure – Operational check of gauge for correct pressure. Operational and visual inspection of prelube pump.
- Crankcase Breather – Inspect for proper operation. Check connections and inspect hose for deterioration. Note excessive blowby.
- Scheduled Oil Sample – Obtain oil sample for analysis (optional for Level 1).

STARTING SYSTEM

- Batteries – inspect for damage or leakage, clean acid neutralizer. Clean and tighten all battery cable connections.
- Batteries (Specific Gravity) – Check electrolyte level and specific gravity.
- Battery Charger – Inspect for proper operation, loose terminals, and deteriorated wiring.
- Starting Motor – Inspect electrical connections and wiring. For air starters, inspect oil jar and feeder operation. Operational check for abnormal engagement and cranking noises.
- Alternator – Inspect for proper operation, loose connections, and mounting hardware. Check belts, pulley and voltage output.

ENGINE MONITORS AND SAFETY CONTROLS

- Safety Controls – Check for: loose connections, and wiring deterioration.

- Remote Annunciator and Alarms – Inspect all panel and system alarms.

CONTROL PANEL

- Start Controls – Manual/Auto – Operational check for proper operation. Check automatic start (if allowed).
- Voltmeter – Operational check for correct readings. Check voltage level.
- Ammeter – Operational check for correct readings, if load is available.
- Frequency Meter – Operational check for correct readings. Load and no load readings, if possible.

Scheduled Maintenance LEVEL 2 (Includes All Services Level 1 Inspections, AS Well As The Following) – Recommended Annually.

FUEL SYSTEM

- Fuel Filter – Replace. Inspect for proper sealing and operation.

LUBE OIL SYSTEM

- Oil and Filters – Change. Inspect all gaskets and seals.
- S.O.S – Obtain oil sample for analysis.
- Crankcase Breather – Inspect and clean or replace if applicable.

AIR INDUCTION SYSTEM

- Turbocharger – Check for oil leakage or unusual noises.
- Air Filter – Inspect. Clean or replace as necessary.

ENGINE MONITORS AND SAFETY CONTROLS

- Gauge Accuracy – Check oil pressure, water temperature, and alternator gauge for accuracy.
- Safety Controls – Inspect for proper operation, loose connections, and wiring deterioration. Check all safety controls for proper operation.
- Remote Annunciator and alarms – Inspect and test alarms for proper operation.

GENERATOR

- Generator Rear Bearing – Lubricate if applicable.
- Vibration Isolators – Check for proper adjustment and condition.

CONTROL PANEL

- Circuit Breakers – Inspect for free movement and tight connections, if accessible.

Scheduled Maintenance LEVEL 3 (Includes All Services Previously Listed Under Level 1 and Level 2. As Well As The Following) – Recommended Every Three (3) Years:

COOLING SYSTEM

- Coolant – Drain, flush and replace coolant.
- Thermostats – Replace
- Fan Belts – Replace
- Hoses – Replace all cooling system hoses including jacket water heater hoses.

STARTING SYSTEM

- Batteries – Test
- Alternator Belt - Replace.

AIR INDUCTION AND EXHAUST SYSTEM

- Air Filter – Replace
- Adjust Valves and replace cover gaskets (as dictated by manufacturer's Operation and Maintenance Guide).

TRANSFER SWITCH SCHEDULED MAINTENANCE – Recommended Annually

INTERIOR WIRING COMPONENTS

- Perform visual inspection of all wiring and connections for signs of tracking, overheating, and insulation deterioration.
- Check and tighten, where necessary, all control circuit wiring terminals.
- Check manual switches for free movement and contact continuity.
- Check all time delay settings and adjust to the customer's specifications.
- Check condition of main and arcing contracts and auxiliary contracts.
- Check all common and ground wires. Measure and record resistance to ground readings.
- Check lug connections and mounting insulator bolts (de-energized switch).
- Megger test generator windings and rotor for proper resistance.
- Check for proper transfer operation and sequencing of time control relays.
- Calibrate all phase and voltage sensitive relays.
- Perform infrared heat scan on all cable connections. Clean and torque as necessary.

ENCLOSURE

- Wipe down.
- Clean interior of enclosure and remove accumulated dust and/or dirt.
- Check door closure, locking bar, and mechanism for proper operation.

MISCELLANEOUS

- Record findings of the inspection. Note corrective action taken.
- Report unsafe conditions.
- Report recommendations for replacement of major components.

LOAD BANK TESTING – Required Annually For Most Applications (SEE NFPA 110 & NFPA 99)

In addition to your Scheduled Maintenance services, we also recommend having a two – (2) hour Load Bank Test performed annually, in conjunction with your regular service. This test will prevent a condition known as “wet stacking”, which is the presence of carbon particles,

unburned fuel, acids and condensed water in the exhaust system, which accumulates due to incomplete combustion caused by low combustion temperatures. The presence of continual black smoke during operation is an indication what wet stacking is occurring.

The NFPA 110 states the following regarding Load Bank Testing (this also applies to NFPA 99 for Healthcare Facilities, pertinent information is underlined):

6-4 Operational Inspection and Testing.

6-4.1* Level 1 and Level 2 EPSS's, including all appurtenant components, shall be exercised under load at least monthly.

Exception: If the generator set is being used for standby power or for peak load Shaving, such use shall be recorded and shall be permitted to be substituted for scheduled operations and testing of the generator set, provided the appropriate data are recorded.

6-4.2* Generator sets in Level 1 and Level 2 service shall be exercised at least once monthly, for a minimum of 30 minutes, using one of the following methods.

- (a) Under operating temperatures conditions or at not less than 30 percent of the EPS nameplate rating
- (b) Loading that maintains the minimum exhaust gas temperatures as recommended by the manufacturer

The date and time of day for required testing shall be decided by the owner, based on facility operations

6-4.2.2 Diesel-powered EPS installations that do not meet the requirements of 6-4.2 shall be exercised monthly with the available EPSS load and exercised annually with supplemental loads at 25 percent of the nameplate rating for 30 minutes, followed by 50 percent of the nameplate rating for 30 minutes, followed by 75 percent of the nameplate rating for 60 minutes, for a total of 2 continuous hours.

In summary, the engine needs to be exercised at monthly intervals. This must be done at the manufacturer's recommended operating temperature, which can only achieved by running it under recommended load (usually 30 % to 50 % of the generator's designed capacity). If this is not possible due to the inability to transfer adequate building loads to the generator, a Load Bank Test will be required to satisfy the supplemental load requirement.

Load Bank Testing for a minimum of two continuous hours at 80-100 % of the nameplate rating on the customer's generator, which will exceed the requirements of the requirements of the National Fire Protection Association. Unless otherwise specified by the customer.

MEGOHMETER TESTING

Test main stator, main rotor, exciter, and exciter rotor. Record data for reference.

FUEL ANALYSIS – Recommended Annually

Fuel analysis should include, but is not limited to testing for the following in accordance with ASTM D 975 Requirements for Diesel Fuel Oils (from Chevron "Diesel Fuels Technical Review", Copyright 1998, P.34):

Property	Test Methods (*)	Low Sulfur No. 1-D	No. 1-D	Low Sulfur No. 2-D	No. 2-D	No. 4-D
Flash Point C, min	D 93	38	38	52	52	55
Water and Sediment, % vol, max	D 2709 D 1796	0.05	0.05	0.05	0.05	0.05
Distillation temperature, C 90 % vole covered Min	D86	288	288	282 338		
Max						
Kinematic Viscosity, 40 C sCt Min	D445	1.3 2.4	1.3 2.4	1.9 4.1	1.9 4.1	5.5 24
Max						
Ash, % mass, max	D482	0.01	0.01	0.01	0.01	0.1
Sulfur, % mass,max	D2622	0.05	0.05	0.05	0.05	2
Copper strip corrosion, 3 hr at 50 C, max rating	D130	No. 3	No. 3	No. 3	No. 3	
Cetane number, min	D613	40	40	40	40	30
One of he following: 1) Cetain index min 2) Aromaticity, % vol, max	D976 D1319	40 35		40 35		
Ramsbottom carbon residue on 10 % distillation residue, % mass, max	D524	0.15	0.15	0.35	0.35	

EXHIBIT "B"

BID PAGE

**HIDALGO COUNTY SHERIFF'S OFFICE
"SERVICE/MAINTENANCE AND REPAIR AGREEMENT FOR
GENERATORS"
BID NO.: 08-017-ROL**

TOTAL PRICE PER SERVICE (for term):

A. The following generators require one (1) P.M. 2 for one of the quarters of this year.

- Gen. 1 Cat. 3512 B
- Gen. 2 Cat. 3512 B
- Gen 3 Cat. 3412 C

\$ _____

B. The following generators require one (1) P.M. 3 for one of the quarters of this year.

- Gen. 4 Cat. D-304
- Gen. 5 Kohler 250

\$ _____

C. Generators will require three (3) P.M. 1 broken down in quarters for the remainder of the year.

- Gen. 1 Cat. 3512 B
- Gen. 2 Cat. 3512 B
- Gen. 3 Cat. 3412 C
- Gen. 4 Cat. D-304
- Gen. 5 Kohler 250
- Gen. 6 Generac SD100

\$ _____

An annual fuel sample with a report will also be required for all generator fuel storage tanks once a year. With an optional price of service for transfer switch scheduled maintenance and load bank testing on all six (6) generators.

D. Technician Fee

1. Normal hours \$ _____ (specify hours) _____ to _____

2. After hours \$ _____ (specify hours) _____ to _____

3. Mark up rate for parts _____ %

BIDDER/COMPANY NAME: _____

ADDRESS: _____

CITY/STATE/ZIP CODE: _____

PHONE & FAX NO.'S: _____

CELLULAR & BEEPER NO.'S: _____

AUTHORIZED SIGNATURE: _____

PRINTED NAME: _____

TITLE: _____