

# CAMPUS PLANNING, DEVELOPMENT & MAINTENANCE OFFICE CPDMO

# UNIVERSITY OF THE PHILIPPINES MANILA

The Health Sciences

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**Project** 

COMPREHENSIVE PREVENTIVE MAINTENANCE FOR THE STAND BY

**GENERATOR SET WITHIN UP MANILA** 

Location

U.P. Manila Campus, Ermita Manila

#### SCOPE OF WORK

The SUPPLIER shall provide for one (1) year preventive maintenance program for Five (5) Genset unit enumerated below

The SERVICE PROVIDER shall Perform the Quarterly Comprehensive Preventive Maintenance (PM) for one year for the following Generator Set units of the UNIVERSITY:

#### Area Served/

Capacity	
75 KVA	2016
75 KVA	2016
75 KVA	2016
220 KVA	2011
500 KVA	2009
	75 KVA 75 KVA 75 KVA 220 KVA

#### INSPECTION:

Service Level I- QUARTERLY PREVENTIVE MAINTENANCE

Genset Technician will inspect generator set every three (3) MONTHS (quarterly), Service Level I is a detailed inspection of all genset systems to determine if each system is functioning within the acceptable standards and this consist of a walk around inspection.

## Walk around inspection

### **Cooling System**

Check coolant level, Maintain level within 13mm(1/2 inch – or as specifiead the the catalog of the genset if any) to bottom of filter neck or proper level on sight gauge (if equipped). Inspect worn out, broken or loose belts. Adjust if necessary. Check or replace hoses if necessary. Check/inspect radiator fins for debris, loose, breoken guard and leaks.

# **Fuel System**

Check for leaks. Drain water separator (if equipped). Check fuel tanks level., primary and secondary fuel filter and clean primary fuel filter if necessary.

# Air Induction and Exhaust System

Inspect and clean or replace air filter element. Check air filter indicators for proper operation. Inspect turbo charger for proper operation, check for leaks and turbine/ compressor wheel endplay and redial clearance on the turbine wheel and shaft.

# **Lubricating Oil System**

Check oil level between the Add and Full marks on the depthstick, Change oil if already due, replace filters. Clean crankcase breather if necessary.

# **Starting System**

Check / Inspect starter operation, inspect to loose connection. Clean top of batteries. Check electrolyte level. Check for loose connection, Check/ inspect battery charger operations and records charging amperage reading.

# **Control Panel**

Visually inspect: Check for loose, broken or damaged wiring or components. Check/ inspect engine protective devices and test proper operations. Check that all switches, breakers are in proper operation for automatic starting.

#### **Power Generator**

Check/inspect visually and inspect for loose connection and burnt wires.

#### Sanitation

Clean generator set including surroundings and coordinate with the end user for any trash that needs to be disposed off. Start the engine and check all gauges, oil pressure, fuel gauge, rpm (frequency) and voltage reading. Perform minor adjustment if necessary.

**Automatic Transfer Switch (If installed)** 

Checking of ATS inspection parameters, mild tuning of control setting if necessary. Simulation/ testing of ATS from normal power to emergency power and visa versa. Simulation/testing of voltage sensing relay function. Cleaning of ATS compartment.

Response Time in Case of Emergency Call

The SERVICE PROVIDER shall also be readily available in case a problem with the critical genset operation occurs. Immediate response for service or repair may even be availed anytime of the day even during night time and holidays. Response time should be within one (1) hour especially for failure of genset to operate especially for those serving critical operation occur. The SERVICE PROVIDER shall arrive with the complete tool, willing to lend a back up battery and battery charger to series and activate the existing malfunctioning batteries if any.

The service provider shall also furnished and submit a written Service Progress Report to the end user after the inspection showing the finding and recommendations. The technician engineer shall be in uniform every visit for service.

#### Quotations

Repair quotation based on the genset technicians findings/ analysis during emergency/ scheduled inspection will be submitted automatically for University of the Philippines Manila, CPDMO or respective colleges or units Administrative Officers approval.

Change Oil and replacement of Oil and Fuel Filter - Service Level II

The service provider shall conduct a once a year change oil and replacement of oil and fuel filter which is included in the total contract price for the entire comprehensive generator set preventive maintenance program.

Prepared by the Technical Working Group:

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17 OCT 2016