

Hospital Generator (C service)

Last Issue Date: 17/01/2018		Type Of Service				
Activity		A	B	C	D	E
1	STATIC CHECKS (Activities 1-24)			Y		
2	INSPECT THE CONDITION OF THE BATTERIES, INCLUDING: a) Check that the batteries are the Vented Stationary Lead Acid type complying with AS4029.1; b) Check the electrolyte level in each cell & record the results. Electrolyte to be replenished only with water complying with AS 2668; c) Check the terminals & connections are tight, clean & corrosion free & apply approved preservative coating to the terminal posts & assemblies; d) Check the battery charger operation incl. the fail alarm & record; e) Check all cell containers for electrolyte leakage; f) Check & record the specific gravity of electrolyte in each cell; g) Before starting the generator, measure and record each battery's voltage; and h) Clean all cells, battery compartments and cabinets.			Y		
3	Check the engine instruments, controls panel and all indicators.			Y		
4	INSPECT THE EXHAUST SYSTEM, ESPECIALLY FOR: a) Condition and any leaks or obstructions; b) Integrity of the fittings and fixings; c) Any signs of overheating including checking adjacent components; d) Condition and operation of the rain flap; e) Condition of flashings and the lagging; f) Condition of flexible connections.			Y		
5	Check the air intake, especially for any restrictions.			Y		
6	Check the air filters.			Y		
7	Check the air intake hoses and pipes, especially for leaks.			Y		
8	Check the condition of the belts & pulleys especially for cracks & fraying.			Y		
9	Check the condition of the fan hub, idler and water pump.			Y		
10	Check the engine oil level and top-up if necessary. Record the level.			Y		
11	Check the operation of the block heater. Record the standby temperature.			Y		
12	Check the lubrication system for condition and leaks.			Y		
13	INSPECT THE FUEL SUPPLY SYSTEM: a) Check the lines for leaks; b) Clean the lift pump sediment chamber and gauze strainer; c) Check the quantity; d) Check the bulk tank fuel level and record; and e) Check the day tank fuel level and record.			Y		
14	Check the operation of the fuel solenoid.			Y		
15	FUEL ALARM SYSTEM: a) Check the system is operational & correctly calibrated; &			Y		

Disclaimer -This TDS is intended to provide guidance only to support Preventative Maintenance servicing activities. All TDS users are encouraged to read and understand the full [Conditions of Use](#) provided on the final page of this document and on the DPTI website.

For more information please contact the applicable Facilities Management Service Provider.



Government of South Australia
Department of Planning,
Transport and Infrastructure

Download Date: 22/12/2020

Hospital Generator (C service)

Last Issue Date: 17/01/2018		Type Of Service				
Activity		A	B	C	D	E
	b) Check the alarm is correctly connected to the BMS and the BMS effectively transmits the alarm to the maintenance staff.					
16	Check the tank breather (for diesel fuelled generators).			Y		
17	Check the engine coolant level and the radiator hoses/connections plus the coolant PH level/condition and record.			Y		
18	Check the cooling system, especially for any leaks.			Y		
19	Check the condition of all auxiliary items especially for correct fixing and for any damaged or stressed components.			Y		
20	Check and clean the generator inlet and outlet grille.			Y		
21	Record the engine hours at the end of the testing.			Y		
22	Analyse the engine oil quality and if required, replace and record.			Y		
23	Check the condensate trap drain (if applicable).			Y		
24	Undertake a general inspection of the area, including: a) Check the lighting; b) Check the ventilation openings are clear and any mechanical ventilation is operating correctly; c) Check the condition and location of the safety signage; d) Check for general cleanliness; and e) Check the communications (phone lines etc.) operate correctly.			Y		
25	DYNAMIC CHECKS (Activities 25-43):			Y		
26	MONTHLY & QUARTERLY LOAD TESTS: a) Check on the oil, cooling water and fuel levels before commencing. b) Refer to the manufacturer's Manual for the test procedure and intervals to record the results. The default interval is 15 minutes. With the Generator running - c) Load the generator to at least 40% of its rated output and run for 4 hours to check the overall performance of the system. This can be done in 3 ways: c1) Using a smart load bank (if installed); or c2) Switching the Hospital's essential power supply to the generator when mains power is available (if a changeover switch is installed); c3) Using an external (portable) load bank. - Where the standing load (Option c2) is below 40% of rated output an external load bank must be connected to make up the shortfall. d) Provide a written report. Record as a minimum: - Voltage. - Load amps. - Water temperature. - Oil pressure. - RPM.			Y		

Disclaimer -This TDS is intended to provide guidance only to support Preventative Maintenance servicing activities. All TDS users are encouraged to read and understand the full [Conditions of Use](#) provided on the final page of this document and on the DPTI website.

For more information please contact the applicable Facilities Management Service Provider.



Government of South Australia
Department of Planning,
Transport and Infrastructure

Download Date: 22/12/2020

Hospital Generator (C service)

Last Issue Date: 17/01/2018		Type Of Service				
Activity		A	B	C	D	E
	- Oil used. - Diesel used. - The date, duration and performance of the generator. e) Once the test is done check the oil, cooling water & fuel levels. QUARTERLY LOAD TEST (if applicable): NOTE: This quarterly test does only needs to be done where a load bank (Option c1 or c3) is used for the monthly tests. In addition to the monthly load test, for 15 minutes, undertake a partial Hospital load test to test that the changeover equipment of the essential infrastructure is operational. LOAD TEST NOTES: 1) If a manual changeover switch is installed, extra time and care is to be taken where large motors are installed to avoid excessive inrush currents while energising back to mains supply. For example, a 10sec delay for a 40kW motor is considered adequate. 2) Do not undertake the Load Test if it causes significant disruption to the hospital services. 3) Site approval is required before the Load Test is undertaken.					
27	Check the condition and operation of the starting system.			Y		
28	Check the instrument panel starting sequence.			Y		
29	Check and record the battery charging voltage with the generator running.			Y		
30	Check for noise and vibration.			Y		
31	Check and record the actual water temperature against the motor gauge indication.			Y		
32	Check the air flow through the radiator.			Y		
33	Check the actual engine speed against the motor tachometer indication.			Y		
34	Check the engine speed stability and record.			Y		
35	Check the condition and operation of the fuel pump, including calibration (for diesel fuelled).			Y		
36	Check the operation of the speed governor.			Y		
37	Check for leaks especially fuel, water and oil while the motor is operating.			Y		
38	Check the condition and operation of the fuel make up pump and valves (if installed).			Y		
39	Check the air intake, especially for restrictions.			Y		
40	Check the air flow and cooling through the generator.			Y		
41	Check the fuel supply and top up as required.			Y		
42	Check, measure & record the output amps, voltage & frequency at: a) No load conditions. b) Load conditions.			Y		

Disclaimer -This TDS is intended to provide guidance only to support Preventative Maintenance servicing activities. All TDS users are encouraged to read and understand the full [Conditions of Use](#) provided on the final page of this document and on the DPTI website.

For more information please contact the applicable Facilities Management Service Provider.



Government of South Australia
Department of Planning,
Transport and Infrastructure

Download Date: 22/12/2020

Hospital Generator (C service)

Last Issue Date: 17/01/2018		Type Of Service				
Activity		A	B	C	D	E
43	Check that all systems are back to their normal positions.			Y		
44	Provide a written report on the condition and operation of the generator including any costed remedial work.			Y		
45	Record all readings and results in the log book.			Y		

Disclaimer -This TDS is intended to provide guidance only to support Preventative Maintenance servicing activities. All TDS users are encouraged to read and understand the full [Conditions of Use](#) provided on the final page of this document and on the DPTI website.

For more information please contact the applicable Facilities Management Service Provider.



Government of South Australia
Department of Planning,
Transport and Infrastructure

Download Date: 22/12/2020

Special Comments and Technical Data

C SERVICE 3 MONTHLY - REFER TO E03B FOR THE FULL SCHEDULE
REFER TO E03BAA FOR THE A SERVICE
REFER TO E03BA FOR THE B SERVICE
REFER TO E03BB FOR THE D SERVICE
REFER TO E03BE FOR THE E SERVICE
THIS SERVICE SPLIT ONLY TO BE UNDERTAKEN FOR APPROVED SITES.
PRIOR TO EACH LOAD TEST APPROVAL IS REQUIRED FROM THE SITE.
LOAD TESTS CAN ONLY BE UNDERTAKEN IF THERE IS NO SIGNIFICANT
DISRUPTION TO HOSPITAL SERVICES. NOTE: FOR THIS TO BE DONE
THE SITE MUST HAVE THE APPROPRIATE ESSENTIAL & NON ESSENTIAL
POWER SET UP SUCH AS UPS, CIRCUITRY AND SWITCHING.
NOTIFY THE SITE REPRESENTATIVE AND THE FACILITY MANAGER IF
IT IS NOT POSSIBLE TO UNDERTAKE A LOAD TEST.
THE ACTIVITIES AND FREQUENCIES DETAILED ABOVE ARE OF A
GENERIC NATURE AND MAY NEED TO BE VARIED TO SUIT THE
MANUFACTURER'S RECOMMENDATIONS AND SITE REQUIREMENTS.
FOR ADDITIONAL INFORMATION REFER TO AS3009.
THE MONTHLY LOAD TEST REQUIREMENTS (ACTIVITY 26)
ARE THE MINIMUM TO MEET AS3009. THE ANNUAL LOAD TEST
REQUIREMENTS ARE MORE STRINGENT THAN THE
MONTHLY LOAD TEST REQUIREMENTS & ARE RECOMMENDED GOOD
PRACTICE TO: CHECK THE GENERATOR IS CAPABLE OF SUSTAINING
THE ESSENTIAL LOAD FOR AT LEAST 4 HOURS.
SEALED BATTERIES THAT CANNOT BE TOPPED UP WITH WATER & ARE
ON CONSTANT CHARGE ARE NOT TO BE USED AS THEY MAY EXPLODE.
VENTED STATIONARY LEAD ACID TYPE BATTERIES COMPLYING WITH
AS4029.1 ARE TO BE USED. REPLACEMENT TIMEFRAME IS 70%
(DEFAULT) OF THE DESIGN LIFE NOMINATED BY THE MANUFACTURER,
EXAMPLES ARE:
DESIGN LIFE OF 10 YEARS = REPLACE AT 7 YEARS (DEFAULT)
DESIGN LIFE OF 5 YEARS = REPLACE AT 3.5 YEARS (DEFAULT)
SERVICE TECHNICIANS MUST WEAR CORRECT PPE DUE TO THE
POTENTIAL EXPOSURE TO BATTERY (SULPHURIC) ACID.

Disclaimer -This TDS is intended to provide guidance only to support Preventative Maintenance servicing activities. All TDS users are encouraged to read and understand the full [Conditions of Use](#) provided on the final page of this document and on the DPTI website.

For more information please contact the applicable Facilities Management Service Provider.



Government of South Australia
Department of Planning,
Transport and Infrastructure

Download Date: 22/12/2020

5 of 6

Conditions of Use

A TDS should be used as a generic guide for Facilities Management Service Providers (FMSP) to deliver Facilities Maintenance Services, specifically Preventative Maintenance in accordance with the DPTI [Agency Work Procedure Manual](#).

Users of a TDS should familiarise themselves with the following **Conditions of Use**:

1. You use the information and data contained in any TDS published by DPTI at your sole risk. DPTI-AGFMA does not have the expertise to provide complete or accurate technical data schedules and provides these technical data sheets merely as a starting point and/or guide.
2. If you rely on the information in a TDS you are responsible for ensuring, by independent verification, its accuracy, currency and completeness. DPTI cannot guarantee that the information contained in a TDS meets the standards or requirements of legislative requirements.
3. A TDS is not an exhaustive list of tasks or obligations that may be required and is generally generic in nature. DPTI does not oblige the user of a TDS to rely on it to the exclusion of other sources of information. For example, manufacturer's requirements may need to be followed for additional and / or alternative tasks and for additional and / or alternative servicing frequencies. You should always check the primary source of information such as the Australian Standards, manufacturer's specifications, legislation and other standards before undertaking any work to which a schedule may apply.
4. You must apply appropriate risk management principles and carry out all tasks in accordance with obligations under the [Work Health and Safety Act 2012](#).
5. You must not use a TDS unless you meet the specific competency requirements for preventative maintenance servicing works and are capable of applying the TDS to your trade or area of expertise. A TDS is only to be used by people who are specifically instructed by DPTI to use them and only for work undertaken in South Australia.
6. DPTI, its agents, instrumentalities, officers and employees make no representations, express or implied, as to the accuracy of the information, the data contained in a TDS or the suitability of a TDS for a particular purpose.
7. DPTI does not provide legal advice. DPTI accepts no liability, howsoever arising, for any loss resulting from the use of a TDS and any information or data or reliance placed on them.
8. DPTI may change information and data in a TDS without notice.
9. DPTI may revise this disclaimer at any time by updating these Conditions of Use.