

ANDHRA PRADESH STATE ROAD TRANSPORT CORPORATION

Mechanical Engineering Department

No: OP4/2(1)/2022-MED

O/o the VC&MD. RTC House, VJA.

CIRCULAR No: 03/2022-MED, Dt. 25.03.2022

Sub: FIRE ACCIDENTS – Prevention of Bus Fire Accidents – Certain guidelines issued for strict compliance - Reg.

Safety of passengers, workmen and valuable property in the form of buses is our foremost concern. Several instructions were issued through circulars to ensure their safety in carrying out day to day maintenance work at Depots and Workshops.

Despite such standing instructions, bus fire accidents occurred due to negligence in taking proper precautionary measures. Fortunately no fatalities or injuries reported. Some of bus fire incidents are furnished below:

- 1. On 10.04.2021, AP37Z0230, BS-4 Super Luxury bus of Narsapuram Depot caught fire when parked inside the garage and leaving the key with the ignition switch is the reason for the incident.
- 2. On 03.04.2021, AP31Z0473, Indra bus of Kakinada Depot caught fire after travelling 5 KMs due to improper clamping of cables connecting Battery and Isolator switch and continuous rubbing of cables resulted in spark and fire.
- 3. On 26.06.2021 AP29Z3399, Pallevelugu bus of Markapuram Depot was partially burnt when parked in the garage. Since the bus body was completely burnt in saloon area and remaining wiring in driver cabin is found in tact, exact reason could not be established.

It is the primary responsibility of field Managers and Maintenance Supervisors to ensure safe working environment at Depots and Workshops. In order to avoid any such unfortunate incidents in future, the following instructions are reiterated for strict compliance.

- 1) Ensure removal of Key from the ignition switch after parking in Garage / Bus Station.
- 2) Ignition switch barrel shall be fitted firmly to avoid sparks.
- 3) Power supply from Battery to ECU shall be routed through main cut-off switch instead of directly connecting to ECU.
- 4) Check that battery, alternator and starter cables are securely connected.
- 5) Check Head lights and horn are connected through relays.

- 6) Overrated fuses shall not be used . Always close the fuse box Lid to prevent entry of water and dirt. Display rating of fuses on fuse box cover for easy identification.
- 7) Use electrical wires of correct gauge. Avoid twisting of cables. Use crimping tool and suitable connectors for joining the cables.
- 8) Main wiring harness shall never be tampered. Power tapping (for accessories) shall be done from the spare supply points in the fuse box.
- 9) Check all exposed cables are secure and not rubbing against other objects.
- 10) Use Battery cables of proper length to avoid voltage drop and overheating of cables. Ruptured/damaged Battery cables shall be replaced.
- 11) Fix proper rubber grommets around the cables to avoid fouling with cabin floor.
- 12) Loose wiring shall be eliminated. All cables shall be routed in secured manner by using proper routing clamps/tags. Cables shall always be with protective sleeves.
- 13) Avoid cables fouling with hot components like turbocharger, exhaust manifold, silencer pipes etc
- 14) Ensure proper earthing of cables to avoid sparks.
- 15) Do not tamper with lights and sensitive switches provided in luggage booth of high-end buses i.e., ordinary SC/DC Open Bulbs should not be provided.
- 16) Check engine, transmission and surroundings for evidence of oils leakage or mist and clean all oil / grease deposits.
- 17) Ensure that there is no oil / fuel on the engine bay panels.
- 18) Clean all oils or grease deposits or rubbish from the engine, transmission and surroundings.
- 19) Check that all belts and pulleys are secure and free of wear and play.
- 20) Ensure proper brackets to avoid vibration of Alternators.
- 21) Check the temperature gauges are working to indicate overheating.
- 22) Check GI sheet is fitted inside the bonnet to protect the bonnet insulation.
- 23) Ensure no oil leak from the turbocharger waste gate pivot.
- 24) Ensure exhaust system is secure and not leaking.
- 25) Check proper grease in wheel hubs to avoid overheating.
- 26) Check the condition of the Vehicle safety components like Head Lights, Signal Lights, Indicator lights, Horn, Wiper, Vision Mirrors, Windscreen Glasses, Sunvisor etc and correct if required.
- 27) Check and ensure availability of Glass Breakers (Hammers), unexpired Fire Extinguishers in the bus at appropriate places.

28) Ensure Air vent Hatches on the roof top opened freely.

- 29) Check the fault codes in OBD (On Board Diagnostics) scan tool and take corrective action
- 30) Remote and main cut-off switches for Battery to be kept in OFF position during long idle.
- 31) Educate drivers to avoid long cranking.
- 32) Remove Battery cable terminals to the buses having defective/ no battery cut off switch during long idle.

Most of the above instructions are equally applicable in respect of Electric buses also, which are likely to add our fleet in coming months.

The Depot Managers are advised to educate all the supervisors and staff and implement the above instructions without any deviation. There is every chance of fire accident if these instructions are not properly implemented.

Dy.CMEs & DVMS shall cross check the implementation of the above instructions during the Depot inspections.

EDs(Zone) and RMs shall review the instructions during the meetings.

Mar 3. 20 m MANAGING DIRECTOR

Copy to : All EDs , FA&CAO for information Copy to : All RMs for necessary action Copy to : All DyCMEs & DVMs for necessary action Copy to : All Depot Managers for necessary action