



Andhra Pradesh State Road Transport Corporation
Office of the Managing Director, Bus Bhavan, Hyderabad - 500 624.

No: OP4/760(1)/2015-MED

Date: 09.05.2016

To
The Regional Managers,
APSRTC
GNT, VJA, WG, EG, VSP & NEC Regions.

Sub: **TRIALS** - Conducting field trials on “HP POWERKOOL” coolant at VJA & VZM
Zone depots for 6 months - Instructions issued - Reg.

Presently ‘Anti freeze coolant additive’ supplied by PC sources i.e., M/s Vinni Chemicals & M/s UP Vikas Corporation is being used as engine coolant at all depots. Several field complaints were reported on damages of cooler plates due to corrosion and pitting after using the coolant.

The “HP Powerkool” engine coolant supplied by M/s HPCL is being used at certain depots of VJA, VSP & TPT regions on trial basis and the performance is found to be satisfactory.

After detailed study and analysis, it is decided to conduct trial of using HP Powerkool at all depots of VJA & VZM Zones for a period of 6 months. The existing antifreeze coolant shall be drained from the vehicles and supplied to the nearby depots of NLR & KDP Zone for reuse (for top-up only) based on the condition of the coolant drained.

The HP Powerkool shall be mixed in 5% concentration by volume with clean de-mineralized water (supplied through ZWSs) to get the best results. The coolant change periodicity is 2.0 lakh kms. For topping up due to evaporation losses, pure de-mineralized water shall only be added. **Addition of HP Powerkool is required only in the case of external coolant leakages.** The detailed directions on usage of HP Powerkool are enclosed herewith.

You are therefore, requested to advise the concerned for using the “HP Powerkool” engine coolant supplied by M/s HPCL on entire fleet (excl. High end AC buses).

EXECUTIVE DIRECTOR (E&IT)

Encl: Directions on usage

Copy to: EDs/VJA & VZM for information.

Copy to: CCOS/HO for information & necessary action.

Copy to: COSs of VJA & VZM for necessary action.

Copy to: WMs of VJA & VZM with an advice to supply adequate quantity of demineralised water.

Copy to: Dy.CMEs of GNT, NRT, VJA, MTM, WG, EG, NEC, VSP(U) & VSP(R) with an advice to monitor the trial and furnish the performance feedback on quarterly basis.

DIRECTIONS ON USAGE OF 'HP POWERKOOL' COOLANT ADDITIVE

- 1) **DRAIN**: Drain the existing coolant (Antifreeze mixture) completely into a clean container and collect the same into barrels duly filtering the dust & dirt. The coolant drained from the vehicles shall be transferred to other nearby depots for re-use (*top-up purposes only*).


(Dispose off the used coolant if the coolant has covered the stipulated kms of 3.20 lakhs or 2 years)

Ensure that existing coolant is drained completely from both engine & Radiator.

- 2) **FLUSHING**: Flush the system with flushing compound as per recommended procedure to remove corrosion byproducts, as well as all residues before filling fresh coolant.
- 3) **MIXTURE PREPARATION**: Prepare the coolant mixture using **HP Powerkool (5% in volume)** and **De-mineralized**. For one liter of clean Demineralized/ Distilled water, use 50 ml of HP Powerkool. Example: For a total coolant system capacity of 24 liters, take 1.2 liters of HP Powerkool and 22.8 liters of clean demeneralized water.
- 4) **FILLING**: Fill the system with fresh coolant mixture duly ensuring proper condition of hoses and hose clamps.
- 5) **REPLENISHMENT**: For the purpose compensating low coolant level owing to evaporation losses, *add only clean De-mineralized water*. There is no need to fill the coolant mixture added with HP Powerkool unless there is loss of coolant due to external leakages.
- 6) **IMPORTANT PRECAUTION**: *Fitment of rated Pressure cap* for the Radiator is *very essential* to get the best performance and avoid coolant loss.
- 7) **WATER QUALITY COMPLIANCE**: Procure "*Portable Water-hardness tester*" for checking the water hardness. The water hardness testers can be purchased locally at an approximate cost of Rs 600 to 700/- *Always use pure De-mineralized water only*. Otherwise, it is difficult to get rid of the formation of scales in the water passages of engine block & radiator in spite using HP Powerkool.
- 8) **COOLANT CHANGE INTERVAL**: Change the coolant completely *at every 2.0 lakh kms* using HP Powerkool.
- 9) **RECORD MAINTENANCE**: Maintain a separate register for monitoring the trial. Enter the particulars of vehicle-wise coolant changes and record the observations on performance.

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