federal emergency management agency

MOUNT ST. HELENS TECHNICAL INFORMATION NETWORK

Friday, May 30, 1980

BULLETIN #2b- "Driving and Vehicle Maintenance in Heavy Ash Areas"

The following advice is provided by the U.S.Army Tank-Automotive Research and Development Command from Warren.Michigan and the Washington State Patrol. This advice is based on experience and field tests now being conducted with State Patrol cars in heavy ash/dust areas. The U.S. Department of Transportation concurs with this advice.

- (1) Avoid driving in heavy dust conditions unless absolutely required.

 The more dense the dust, the more urgent the requirement should be for driving.
- (2) When required to drive in dense dust, keep speed down to 35 mph or lower. Do not follow too close to car ahead. Use headlights on low beam
- (3) Change oil often. In very dense dust change at 50-100 mile intervals. Light dust conditions change oil at 500-1000 mile intervals. Lubricate all chassis components at each oil change.
- (4) Clean air filter by backflushing filter paper with compressed air (30 psi). Caution: Blow element from inside (clean side) to outside (dirty side). DO NOT strike filter against anything. Air clean only. If unsure, have a qualified mechanic perform the air filter service.

Inspect filter for dents or torn paper. Clean the inside of the filter and the filter cover with damp cloth before reinstalling filter.

Reinstall filter in housing and tighten on cover very tight, approximately one full turn with pliers after hand tightening. Do not exceed one full turn with pliers or you may damage the system.

(5) DO NOT install hose from carburetor air intake (air cleaner) to

inside of car. Outside dust and ash will be drawn into vehicle.

- (6) Wrapping air cleaner element with a silk stocking or cheese cloth is of questionable value. It will not improve air cleaner filtration and may actually cause serious leaks if not installed correctly. Rags, or any other intended filtering material, should not be placed over the carburetor inlet inside the air cleaner element, serious damage to the engine and/or loss of vehicle control may result.
- (7) Cover passenger compartment vent inlet (located at base of windshield and usually under hood) with thick, loosely woven felt-type material to filter air into vehicle. With vent filter in place, keep heater blower on high. Blower will slightly pressurize inside of vehicle and keep dust from entering through body gaps or holes. If a vent filter is <u>not</u> installed, keep air conditioner and heater blowers off.
- (8) Have service garage clean wheel brake assemblies every 50-100 miles for very severe road conditions, or every 200-500 miles for heavy dust conditions.
- (9) Have service garage clean alternator winding with compressed air after heavy accumulation or every 500 to 1000 miles or sever dust exposure.
- (10) Wash engine compartment with garden hose or steam cleaner. Be sure to seal off air intakes and electrical components before cleaning.
- (11) Commercial truck filters can be installed to increase the filtering capacity of the air cleaner, as the Washington State Patrol has done. However, this is expensive and should only be attempted by trained garage mechanics or experienced personnel. This would be beneficial for vehicles operating continuously in extreme dust conditions.

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(12) Air filter restriction gauges can be installed by qualified machanics. The gauge will tell you when your air filter requires servicing in order to avoid overservicing.