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SUBJECT VEHICLE SAFETY DATA SHEETS

ANRARA has received the following information from Mr. Ron Moore asking for any input into the design, location and implementation of a VSDS system, (Vehicle Safety Data System) to be affixed to all new vehicles. This proposed system is similar to a system used in many Fire Services called SCIDS or Stored Chemical Information Data Systems. Information about a potential hazard or problem is fore warned by pre planning or in this case of VSDS, the fixation of an appropriate safety sticker/s to a new vehicle.

In brief, the system that Mr. Moore proposes would see the attachment of a sticker with that vehicle's relevant safety information clearly marked. This information would contain items such as, where and what type of SRS Air Bags were fitted to that particular vehicle, where the battery was located, if any SIPS systems were fitted etc.

Once a design can be achieved, then the car manufactures can be lobbied to have these safety stickers placed on ALL new vehicles sold or brought into Australia.

The areas of safety do not only extend to Rescue personnel, but health care workers, law agencies, the salvage and also the vehicle repair industries.

If after reading and or distributing this article to your personnel you have some feed back, please contact ANRARA's Technical Officer, Mr Greg Bain by any of the following:

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The "Vehicle Safety Data Sheet" (VSDS) system a proposal by Ron Moore

When responders are summoned to hazmat calls, one source of critical information on the properties of the chemicals involved comes from Material Safety Data Sheet (MSDS) forms. These standardized forms are required to be provided by chemical product manufacturers. In addition to use at hazardous material emergencies, MSDS forms are also used in training and pre-incident planning for target hazard occupancies.

In the field of vehicle rescue, I feel it is just as important that responding personnel quickly know the exact type and location of certain features on the crashed vehicles they confront on the street. To immediately know the location of items such as all front and side impact airbags, airbag crash sensors, the vehicle battery, fuel tank and seatbelt pretensioners would be extremely valuable.

Information such as this, immediately available at a crash scene, can improve responder safety and improve our vehicle rescue operational efficiency. A more efficient extrication effort can reduce victim entrapment time thereby reducing injuries and potentially increasing the chances of survival for occupants trapped in vehicles.

Based upon the success of the nationwide hazardous material MSDS concept, I propose a new vehicle safety standard requiring safety information be provided by the manufacturer of the vehicle. This information form shall be known as the "Vehicle Safety Data Sheet" or "VSDS". The VSDS information shall be present on each vehicle in the form of two factory-installed adhesive decals (placard) about the size of a postcard. The VSDS placard shall be mounted in a minimum of two separate and standardized locations on every vehicle sold in the US. The VSDS placards will allow all emergency responders to go to the crash vehicle and obtain critical safety information immediately at the scene.

The VSDS placard design-

The VSDS placard is to consist of artwork or black and white line drawing. The diagram shall represent the actual vehicle looking down from a higher point of view. The front of the vehicle will always be at the bottom of the form. The perspective is slightly three-dimensional, allowing for a bird's eye of the vehicle as seen from above and slightly to the driver's side.

The VSDS shall use black ink and be printed on a safety yellow background adhesive label. An additional red color ink along with simple and easily understood symbols shall be used to locate specific safety items on the VSDS diagram such as battery, fuel tank and airbag units.

On the VSDS placard artwork, vehicle doors can be shown in the open position. Drawn in this manner, the VSDS placard will indicate door hinge locations and which way a door opens. (If it is a third door on an extended cab pickup truck that opens backwards, for example, the VSDS diagram will reveal this fact). The VSDS form will incorporate only artwork icons and some simple text that any fire, EMS or law enforcement responder will be able to read and understand. (Even at 3AM in the middle of a rain storm)

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VSDS Locations-

The VSDS motor vehicle safety standard must require and standardize on two VSDS mounting locations. These VSDS locations shall remain the same for ALL vehicles regardless of make, model or style. These locations should be remote from each other. With two separate locations, responders will have the greatest chance of at least one VSDS placard being available to responders at any crash. In order for this system to work, it is essential that the VSDS placard be in two locations and that the locations remain the SAME on every vehicle.

I propose requiring one VSDS placard to be applied to the underside of every hood. This primary location would be accessed by opening the hood, allowing the VSDS form to be read by responders standing outside the vehicle.

A standard location is needed for a second VSDS placard. A second exterior location that would be suitable for all types of vehicles is under or behind the rear license plate. For this location to work, rescuers would have to quickly unscrew the license plate to reveal the VSDS placard information. Another location to consider for the second VSDS placard is on the inside of the fuel filler door if slight modifications are made to the design of the filler door hinge. Potentially a removable form, (laminated placard) could be secured inside this small fuel door.

Instead of being on the vehicle's exterior, the second VSDS placard could be required to be inside the vehicle. The best inside location that would work for all vehicles would be glued to the inside of the driver's side sunvisor. This is a location currently used by automakers for posting airbag safety notices as required by current motor vehicle safety standards. This location inside the vehicle would allow first responder law enforcement and EMS personnel inside the crashed vehicle to quickly learn of important safety information without having or requiring any effort to open the hood or remove license plates.

VSDS information-

The information displayed on the VSDS placard is a line art drawing or diagram specific for the actual vehicle the VSDS form is applied to. The VSDS diagram reveals specific features and options on the vehicle as actually provided by the manufacturer. The VSDS placard diagram shall include locations of;

- all airbag units (dual front airbags, side torso, side head protection, knee airbag, foot airbag, rear seat passenger airbags, etc)
- all airbag crash sensor locations and sensor mode of operation
- (electrical, mechanical, pressure sensitive design),
- airbag system control module,
- airbag capacitor drain time
- engine or alternative power plant location, (ex: hybrid vehicle with gasoline engine and electric motor)
- battery location(s) and vehicle grounding system (+ or -),
- primary electrical wiring (from battery to starter and from battery to battery for dual systems),
- fuel tank position, type of material and tank capacity,

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- fuel pump location and fuel line routing (fuel tank to engine)
- electric seats & door locks
- hinge/latch locations for all front, side, sliding doors, rear doors or hatchback, rear tailgate, trunk, etc.
- door side impact collision beam design, positions, material
- seatbelt types for each seating position
- seatbelt pretensioner locations,
- reinforced structural areas (example: high strength-low alloy steel, B-pillar side impact reinforcement, etc)
- other important vehicle features or unique construction materials including;
 - type of energy absorbing system in bumpers
 - presence of magnesium or other unique alloys,
 - convertible with pop-up roll bar,
 - tilt & telescoping steering column,
 - power seats, driver & passenger,
 - integrated child safety seats,
 - power adjustable brake and accelerator pedals,
 - power sliding minivan doors,
 - passenger side front airbag cutoff switches,
 - thermostat controlled electric cooling fan,

VSDS Training-

For a rescuer, the vehicle will now be able to tell us just what we need to know at a glance. This VSDS information shall also be available in hardcopy form and shall be posted online so responders can use it and study it in advance during vehicle rescue and EMS training and rescue pre-planning activities.

At the present time, Firehouse magazine has corresponded on my behalf directly with Dr Richard Martinez, Director of NHTSA. He has personally replied and was enthusiastic about an effort such as this. I hope to be able to muster support from key fire service organizations such as IAFF, IAFC, and the NVFC. Political influence by the Congressional Fire Service Institute, Congressman Curt Weldon, Representative Steny Hoyer and others in the political arena will make our voices heard within the federal government and the Department of Transportation specifically.

At this time, I need a "brain trust" of interested fire service people to support this plan and recommend changes and additions to the VSDS concept presented. Through a grass-roots fire service effort, we can make VSDS placards on new vehicles a reality for a future vehicle model year.

Ron Moore

SOURCE
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