

# **Exhibit 4**

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**From:** [REDACTED]  
**Sent:** Thursday, April 29, 2010 8:26 AM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Re: Fw: Tire Pressure Sensors

[REDACTED]

The material report is complete and attached. Stress Corrosion Cracking is believed to have caused the failures of the parts provided to the lab. The presence of Iron on the fractured surfaces, possibly from brake dust, is thought to possibly accentuate the corrosion.

## Stress corrosion cracking

**Stress corrosion cracking (SCC)** is the unexpected sudden failure of normally ductile metals subjected to a tensile stress in a corrosive environment, especially at elevated temperature in the case of metals. SCC is highly chemically specific in that certain alloys are likely to undergo SCC only when exposed to a small number of chemical environments. The chemical environment that causes SCC for a given alloy is often one which is only mildly corrosive to the metal otherwise. Hence, metal parts with severe SCC can appear bright and shiny, while being filled with microscopic cracks. This factor makes it common for SCC to go undetected prior to failure. SCC often progresses rapidly, and is more common among alloys than pure metals. The specific environment is of crucial importance, and only very small concentrations of certain highly active chemicals are needed to produce catastrophic cracking, often leading to devastating and unexpected failure.<sup>[1]</sup>

The stresses can be the result of the crevice loads due to stress concentration, or can be caused by the type of assembly or residual stresses from fabrication (e.g. cold working); the residual stresses can be relieved by annealing.

Also, I've asked Engineering to request the supplier to supply or develop data relative to deflation rates when a TPS breaks. Chrysler Engineering doesn't possess this information, so we will initially have to rely on the TPS suppliers to provide it. Personally I'm not sure what that data will contribute to this investigation or how it will be interpreted. What will determine an acceptable vs unacceptable deflation time? I believe the fact that we have millions of vehicles built since 2002 M/Y (each with 4 or 5 TPS) and have no instances of accident or injury related to a broken TPS is sufficient evidence that safety is not negatively affected.

Warranty conditions are not high, again in my opinion, due to the fact that each vehicle has 4 separate chances to have a TPS break. The '09 JC has the highest 5MIS rate at 47 c/1000.

At this time I'm not sure what we tell the fleet customer or the regular retail customer, other than keep the original valve stems caps firmly in place and keep the valve stems clean and free from corrosive elements. If the

caps are missing or have been replaced with non-OEM caps, then some additional unknown action by the customer might be required to reduce the likelihood of future breakage. What that action would be and how it would get communicated is tbd. Logistically I don't know how you would communicate this information or what constraints would apply.

[REDACTED]

[attachment "135639mr.doc" deleted by [REDACTED] JTE/DCC/DCX]

[REDACTED] LCP/DCC/DCX

[REDACTED]

04/28/2010 05:59 PM

cc [REDACTED]

Subject

Re: Fw: Tire Pressure Sensors



What are we waiting for from 'management'?

What is the analysis of the materials/failures (complete?)

Your conclusion (I think we agreed) was that it was non safety, and we discussed collecting times for the tires to deflate as sufficient justification of the position.

With that conclusion in hand, what is it that we need to tell the fleet customer?

We can discuss in the am.

Thanks,

[REDACTED]