From:	Stephen Healy
To:	Chris Nevers; Linc Wehrly
Subject:	Fw: GM SCR discussions with ARB - copy to EPA
Date:	04/20/2009 03:02 PM
Attachments:	Warning Stgy_01Apr09_rev_w_CARB_rev1.pdf

FYI
----- Forwarded by Stephen Healy/AA/USEPA/US on 04/20/2009 03:02 PM -----

andrew.s.barren@gm.com
Sent by:
andrew.s.barren@gm.com

Received Date:
04/20/2009 01:31 PM
Transmission Date:
04/20/2009 01:31:06 PM

To Stephen Healy/AA/USEPA/US@EPA, Gregory Orehowsky/DC/USEPA/US@EPA, Jason Gumbs/DC/USEPA/US@EPA

cc randall.c.harvey@gm.com, rob.sutschek@gm.com, steve.bollinger@gm.com, william.w.watson@gm.com

Subject GM SCR discussions with ARB - copy to EPA

Steve,

Per our conversation today, I'm forwarding the notes we took from our discussions with ARB on the subject of HD diesel SCR inducement.

Andy Barren
General Motors

------- Email/notes from GM to ARB regarding April 1, 2009, meeting on SCR inducement strategies -------

TO: Duc Nguyen - ARB

SCR Inducement Strategy

We discussed our SCR strategy with you and your staff last week (April 1, 2009) and had a number of issues to resolve before proceeding. Attached is the presentation material GM reviewed at the April 1 meeting. A brief summary of the outcome is below:
- ARB asked what constitutes (level change) a fuel fill? ARB indicated that we need to be consistent with the guidance and they expect the % change to be less than 40% (where we are today). CBI / Ex. 4
CBI / Ex. 4
- ARB indicated they will scrutinize any inducement based on a single sensor (need redundancy or significant robustness). This was highlighted by the vehicle speed sensor. If the vehicle speed sensor is lost, the default would eliminate the vehicle speed inducement (55 mph limit or 5 mph limit). The system needs to have a secondary means to limit speed or torque. After much debate, the team felt this would require a virtual vehicle speed calculation CBI / Ex. 4 GM
CBI / Ex. 4 - ARB will consider and respond.

- ARB asked if the "0% pump pressure" referenced in level #9 of the DEF Level strategy was regarding fuel pump pressure. The answer is no, it refers to DEF pump pressure. GM indicated we'd fix the documents to clarify this.
- ARB asked if we could meet the EPA guidance for freeze protection, but just at idle. CBI / Ex. 4 (starting with frozen tank, idle 70 minutes, be able to inject urea).

CBI / Ex. 4

- ARB feels if a customer has poor quality urea, it's the customers fault. CBI / Ex. 4

CBI / Ex. 4

- ARB's feels any wiring/connector is not tamper resistant, regardless if it takes extraordinary measures to disconnect or cut wires.
- ARB will review the complete strategy and provide feedback on what is and is not acceptable (other than noted above). Warning Stgy 01Apr09 rev w CARB rev1.pdf