

DAIMLERCHRYSLER

NHTSA
WASHINGTON, DC 20590

2007 FEB -8 P 12: 12

OFFICE OF CHIEF
COUNSEL

DaimlerChrysler Corporation
Stephan J. Speth
Director
Vehicle Compliance & Safety Affairs

February 7, 2007

Mr. Anthony M. Cooke
Chief Counsel
National Highway Traffic Safety Administration
400 Seventh Street, S.W. Rm. 5219
Washington, DC 20590

Re: Request for Confidential Treatment of Documents Submitted with an Additional Response to EA06-003

Dear Mr. Cooke:

DaimlerChrysler Corporation ("DCC") is submitting additional information on CD-ROM discs to the NHTSA Office of Defects Investigation in connection with the above referenced Information Request ("IR"). Based on a careful review of the submission, DCC has determined that the documents in Confidential Supplemental Enclosure consist of confidential information that should be accorded confidential treatment under this agency's regulations at 49 C.F.R. Part 512 and Exemption 4 of the Freedom of Information Act ("FOIA"), 5 U.S.C. § 552(b)(4).¹ Therefore, DCC is submitting these CD's together with this request for confidential treatment to the Office of Chief Counsel.

As required by Part 512, DCC is submitting certificates executed by responsible DCC and Robert Bosch Corporation ("Bosch") personnel. The information required by Part 512 is set forth below.

A. Description of the Information (49 C.F.R. § 512.8(a))

The information for which confidential treatment is being sought is a change notice, CN40202-M06, which documents the calibration change for the front crash sensors (Bates page # DCC-EA06-003-000310-000314). There are twenty-one calibration signoff sheets from Bosch on the changed calibration and test data on the different calibrations and two Excel spreadsheets with crash test data on the calibrations (Bates page # DCC-EA06-003-000315-000604).

¹ DCC has taken steps to assure that the CD's are free of any errors or defects that would prevent NHTSA from opening each file on the disc. If, however, the agency is unable to open any of the files, DCC respectfully requests that the agency inform DCC of the issue, so that DCC may take steps to supply NHTSA's Office of Chief Counsel with a disc that is fully functional.

The table attached to this letter will more fully describe the documents.

B. Confidentiality Standard (49 C.F.R. § 512.8(b))

This submission is subject to the substantial competitive harm standard set forth in 49 C.F.R. § 512.15(b) for information that a submitter is required to provide to the agency.

C. Justification for Confidential Treatment (49 C.F.R. § 512.8(c))

This agency's regulation and Exemption 4 of the Freedom of Information Act ("FOIA"), 5 U.S.C. § 552(b)(4), protect the confidentiality of information that would be likely to cause substantial competitive harm to the submitter if disclosed. *See, e.g., 49 C.F.R. § 512.15(b); Nat'l Parks & Conservation Ass'n v. Morton*, 498 F.2d 765, 770 (D.C. Cir. 1974). FOIA Exemption 4 was enacted to prevent disclosures that would "eliminate much of the time and effort that would otherwise be required to bring to market a product competitive with the [submitter's] product." *Public Citizen Health Research Grp. v. FDA*, 185 F.3d 898, 905 (D.C. Cir. 1999). "Because competition in business turns on the relative costs and opportunities faced by members of the same industry, there is a potential windfall for competitors to whom valuable information is released under FOIA. If those competitors are charged only minimal FOIA retrieval costs for the information, rather than the considerable costs of private reproduction, they may be getting quite a bargain. Such bargains could easily have competitive consequences not contemplated as part of FOIA's principal aim of promoting openness in government." *Worthington Compressors, Inc. v. Costle*, 662 F.2d 45, 51 (D.C. Cir. 1981). Substantial competitive harm also may result from disclosures that would reveal a firm's "operational strengths and weaknesses" to competitors. *See Nat'l Parks & Conservation Ass'n v. Kleppe*, 547 F.2d 673, 684 (D.C. Cir. 1976). The information at issue here should be protected under these standards.²

Documents in this submission reveal information about DCC design and manufacturing process changes and the timing of those changes. This information, if disclosed, would reveal to competitors the operational strengths of DCC and Bosch. The release of this information would enable DCC's and Bosch's competitors to improve their own design and manufacturing processes and would cause substantial competitive harm to DCC and Bosch.

The processes Bosch employs to develop and release calibrations, how they analyze data, and communicate with DCC regarding development, would cause substantial competitive harm to Bosch because competitors could use this information to improve their own processes, calibrations, analytical procedures and processes and communication procedures with customers without spending the time and resources that Bosch spent. This would allow competitors to compete more effectively against Bosch.

² As noted above, DCC is providing a table that identifies the confidential information on the enclosed discs, and specifies the location of the information (by enclosure number and, where applicable, by folder and sub-folder as well as the Bates page numbers). The table also briefly states the basis for the confidentiality claims.

In addition, some of the documents provide information about the performance and operational capacities of suppliers. The disclosure of such information could relieve competitors of the costs and burdens of independently identifying and assessing suppliers, thereby enabling them to bring products competitive with DCC's products to market more quickly and at less cost. *See SMS Data Prods. Grp., Inc. v. United States Dept. of Air Force*, Civ. A. No. 88-0481-LFO, 1989 WL 201031, at *4 (D.D.C. May 11, 1989) (submitter of information had spent years developing a network of subcontractors, and release of the information would give competitors the information "without needing to expend the same time and resources").

D. Class Determination (49 C.F.R. § 512.8(d))

The information for which confidential treatment is sought does not fit within a class determination.

E. Duration for Which Confidential Treatment is Sought (49 C.F.R. § 512.8(e))

Because DCC anticipates that the information will be competitively sensitive indefinitely, DCC requests that the information be accorded confidential treatment permanently.

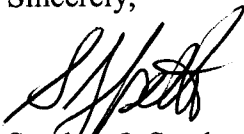
F. Contact Information (49 C.F.R. § 512.8(f))

Please direct all inquiries and responses to the undersigned at:

800 Chrysler Drive, CIMS 482-00-91
Auburn Hills, MI 48326
248-512-4188
SS6@dcx.com

If you receive a request for disclosure of the information for which confidential treatment is being sought before you have completed your review of our request, DCC respectfully requests notification of the request(s) and an opportunity to provide further justification for the confidential treatment of this information, if warranted.

Sincerely,


Stephan J. Speth

cc: Kathleen DeMeter

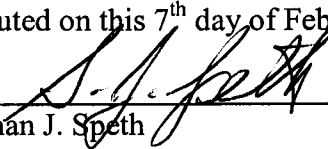
Attachment and Enclosures

Certificate in Support of Request for Confidentiality

I, Stephan J. Speth pursuant to the provisions of 49 C.F.R. Part 512, state as follows:

- (1) I am DaimlerChrysler Corporation's Director, Vehicle Certification, Compliance and Safety Affairs and I am authorized by DaimlerChrysler Corporation to execute documents on its behalf;
- (2) I certify that the information contained in the attached documents is confidential and proprietary data and is being submitted with the claim that it is entitled to confidential treatment under 5 U.S.C. 552(b)(4);
- (3) I hereby request that the information contained in the indicated documents be protected on a permanent basis;
- (4) This certification is based on the information provided by the responsible DaimlerChrysler Corporation personnel who have authority in the normal course of business to release the information for which a claim of confidentiality has been made to ascertain whether such information has ever been released outside DaimlerChrysler Corporation;
- (5) Based upon that information, to the best of my knowledge, information and belief, the information for which DaimlerChrysler Corporation has claimed confidential treatment has never been released or become available outside DaimlerChrysler Corporation, except to certain contractors of DaimlerChrysler Corporation with the understanding that such information must be maintained in strict confidence;
- (6) I make no representations beyond those contained in this certificate and, in particular, I make no representations as to whether this information may become available outside DaimlerChrysler Corporation because of unauthorized or inadvertent disclosure (except as stated in paragraph 5); and
- (7) I certify under penalty of perjury that the foregoing is true and correct.

Executed on this 7th day of February, 2007



Stephan J. Speth

**CERTIFICATE OF ROBERT BOSCH LLC IN SUPPORT OF REQUEST FOR
CONFIDENTIALITY RELATED TO DAIMLERCHRYSLER COPORATION'S
RESPONSE TO NHTSA EA06-003**

I, Joachim Schmidt, pursuant to the provisions of 49 C.F.R. Part 512, state as follows:

(1) I am the Director of Engineering Restraint Systems for Robert Bosch LLC and I am authorized by Robert Bosch LLC to execute documents on its behalf;

(2) I certify that the information contained in the Bosch calibration sign-off sheets and Excel spreadsheets containing results of computer simulations conducted by Bosch being submitted by DaimlerChrysler Corporation on February 7, 2007 related to EA06-03 are confidential and proprietary data and are being submitted with the claim that it is entitled to confidential treatment under 5 U.S.C. § 552(b)(4);

(3) I hereby request that the information contained in the Bosch documents be protected on a permanent basis;

(4) This certification is based on the information provided by the responsible Robert Bosch LLC personnel who have authority in the normal course of business to release the information for which a claim of confidentiality has been made to ascertain whether such information has ever been released outside Robert Bosch LLC;

(5) Based upon that information, to the best of my knowledge, information and belief, the information for which Robert Bosch LLC has claimed confidential treatment has never been released or become available outside Robert Bosch LLC, except for disclosures to DaimlerChrysler with the understanding that such information must be maintained in strict confidence;

(6) I make no representations beyond those contained in this certificate and, in particular, I make no representations as to whether this information may become available outside Robert Bosch LLC because of unauthorized or inadvertent disclosure (except as stated in paragraph 5); and

(7) I certify under penalty of perjury that the foregoing is true and correct.

Executed on this 7th of February, 2007 in Farmington Hills, Michigan.

Signature



**ATTACHMENT TO REQUEST FOR CONFIDENTIAL
TREATMENT OF CERTAIN DOCUMENTS SUBMITTED IN
CONNECTION WITH SUPPLEMENTAL RESPONSE EA06-003
WITHIN SUPPLEMENT ENCLOSURE CONFIDENTIAL**

QUESTION # SOURCE	ENCLOSURE	FILE/DOCUMENT NAME	DOCUMENT DESCRIPTION	BATES PAGE #	CONFIDENTIALITY JUSTIFICATION
14 (7-21-06 response) DCC	Supplement	CN40202-M06	Change notice documenting calibration change and DCC/Supplier operational procedures	DCC- EA06-003- 000310- 000314	This change notice is confidential on the ground that competitors could improve their own design and manufacturing processes and compete more effectively against DCC.
4 (12-22-06 response) Bosch	Supplement	920090-9246 sign off	Test data for the calibration and the analysis of the data	DCC- EA06-003- 000400- 000410	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	92008F-9246 sign off	Test data for the calibration and the analysis of the data	DCC- EA06-003- 000389- 000399	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	92008E-9246 sign off	Test data for the calibration and the analysis of the data	DCC- EA06-003- 000374- 000388	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	92008D-9246 sign off	Test data for the calibration and the analysis of the data	DCC- EA06-003- 000363- 000373	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	92008C-9246 sign off	Test data for the calibration and the analysis of the data	DCC- EA06-003- 000352- 000362	Confidential on the grounds that document reveals design testing information.
4 (12-22-06	Supplement	92008B-9246 sign	Test data for	DCC-	Confidential on the

QUESTION # SOURCE	ENCLOSURE	FILE/DOCUMENT NAME	DOCUMENT DESCRIPTION	BATES PAGE #	CONFIDENTIALITY JUSTIFICATION
response) Bosch		off	the calibration and the analysis of the data	EA06-003-000337-000351	grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	920089-9246 sign off	Test data for the calibration and the analysis of the data	DCC-EA06-003-000315-000336	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	920093-9246 sign off	Test data for the calibration and the analysis of the data	DCC-EA06-003-000456-000470	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	920092-9246 sign off	Test data for the calibration and the analysis of the data	DCC-EA06-003-000441-000455	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	920091-9246 sign off	Test data for the calibration and the analysis of the data	DCC-EA06-003-000411-000425	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	920094-924B sign off	Test data for the calibration and the analysis of the data	DCC-EA06-003-000486-000500	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	920094-9246 sign off	Test data for the calibration and the analysis of the data	DCC-EA06-003-000471-000485	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	920095-9246 sign off	Test data for the calibration and the analysis of the data	DCC-EA06-003-000501-000515	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	920095-9246B sign off	Test data for the calibration and the analysis of the data	DCC-EA06-003-000516-000530	Confidential on the grounds that document reveals design testing information.

QUESTION # SOURCE	ENCLOSURE	FILE/DOCUMENT NAME	DOCUMENT DESCRIPTION	BATES PAGE #	CONFIDENTIALITY JUSTIFICATION
					information.
4 (12-22-06 response) Bosch	Supplement	920096-9246 sign off	Test data for the calibration and the analysis of the data	DCC-EA06-003-000531-000545	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	920096-924B sign off	Test data for the calibration and the analysis of the data	DCC-EA06-003-000546-000560	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	920097-924B sign off	Test data for the calibration and the analysis of the data	DCC-EA06-003-000576-000589	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	920097-9246 sign off	Test data for the calibration and the analysis of the data	DCC-EA06-003-000561-000575	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	920098-924B sign off	Test data for the calibration and the analysis of the data	DCC-EA06-003-000605-000619	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	920098-9246 sign off	Test data for the calibration and the analysis of the data	DCC-EA06-003-000590-000604	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	920091-924B sign off	Test data for the calibration and the analysis of the data	DCC-EA06-003-000426-000440	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response) Bosch	Supplement	92.0102.924B.xls	Crash test data using various calibrations	N/A Excel spreadsheet	Confidential on the grounds that document reveals design testing information.
4 (12-22-06 response)	Supplement	9C.0009.9C03.xls	Crash test data using various	N/A Excel	Confidential on the grounds that

QUESTION # SOURCE	ENCLOSURE	FILE/DOCUMENT NAME	DOCUMENT DESCRIPTION	BATES PAGE #	CONFIDENTIALITY JUSTIFICATION
Bosch			calibrations	spreadsheet	document reveals design testing information.

DAIMLERCHRYSLER

February 7, 2007

Kathleen C. DeMeter
Office of Defects Investigation
National Highway Traffic Safety Administration
U.S. Department of Transportation
400 Seventh Street, S.W.
Washington, D.C. 20590

DaimlerChrysler Corporation
Stephan J. Speth
Director
Vehicle Compliance & Safety Affairs

Reference: NVS-212mjl; EA06-003

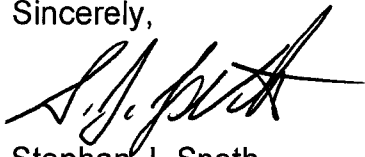
Dear Ms. DeMeter:

This document contains DaimlerChrysler Corporation's ("DCC") supplemental response in the referenced investigation regarding alleged front airbag crash sensor failures on some 2005 and 2006 model year Dodge Caravan, Dodge Grand Caravan, and Chrysler Town & Country ("RS") vehicles. By providing the information contained herein, DCC is not waiving its claim to attorney work product and attorney-client privileged communications.

On July 21, 2006 and December 22, 2006, DCC provided written responses to NHTSA ODI Information Requests in this investigation. Since that time, however, DCC has discovered additional information that may be responsive to questions in those IRs. Specifically, there was a change to the calibration of the main crash sensor, which is not a subject component in this investigation but is part of the crash protection system in the subject vehicles. DCC did not identify this change as at the times that it was preparing its original responses because the change notice documentation did not appear to be responsive to any of the questions. DCC is supplying these documents at this time and supplementing its original responses, as indicated in the Attachment.

These additional documents do not change DCC's overall assessment of the alleged condition as set forth in its prior responses.

Sincerely,



Stephan J. Speth

Attachment and Enclosures

July 21, 2006 IR Submission - Supplemental Response:

14. Describe in detail the MY 2005 frontal air bag system and the differences between the MY 2005 system and the MY 2006 system. Also, describe all other frontal restraint system changes that have been made and any vehicle changes that may affect the vehicle performance with respect to compliance with Federal Motor Vehicle Safety Standard (FMVSS) No. 208.

Original Response:

A14. The front crash sensing system in the subject vehicles consists of the occupant restraint controller (ORC) and two up front crash sensors. The ORC is mounted in the passenger compartment and includes diagnostic capability, the microprocessor, the crash sensing algorithm, and the main crash sensors. The ORC uses a predetermined threshold range to determine when to deploy the front seat belt pretensioners and the frontal airbags (and at what deployment level). The up front sensors provide input to the ORC that can slightly modify this range for some types impacts but they do not make the decision to deploy in any crash. The ORC also continuously monitors all of the passive restraint components including the front crash sensors and circuits and illuminates an airbag MIL to let the customer know that a fault is present and the vehicle should be serviced.

The frontal restraint system for both the 2005MY and 2006MY subject vehicles have the following common components: seat belts that include an "active" three-point lap and shoulder belt in all outboard seating positions; front row seat belts with a buckle-mounted pretensioner and a retractor with engineered load-sensitive belt payout capacity; a frontal airbag system that includes multiple stage inflation capable airbags for the driver and passenger front seating positions, a driver's knee bolster airbag, multiple point crash sensors, and a diagnostic and warning system that includes a MIL illumination to indicate when faults are present; and a vehicle structure that is designed to crush in a controlled manner to enhance occupant protection.

The following is a description of the airbag system changes and other FMVSS 208 performance-related component changes to the subject vehicles for the 2005 and 2006 model years. However, the changes with regard to the subject components are not included in the response to this question because this information has previously been provided in response to PE05-061, Question 9 and will be updated in response to EA06-003 Question 17 when that response is submitted on August 7, 2006. It is also important to note that none of the following changes affected vehicle performance with respect to compliance with FMVSS 208.

The passenger air bag was modified on September 6, 2004 to increase venting to enhance head restraint during a frontal impact event. The driver's seat belt retractor was changed to enhance the load limiting feature. The torsion bar specifications on the passenger side retractor were changed. These retractor modifications were made to improve performance in flat frontal impacts. These changes occurred for both retractors on November 8, 2004.

The 8.7E ORC module was originally released at 2005 MY launch for all applications of the subject vehicles. A mid-model change introduced the 8.7+ ORC module for all non-side airbag applications and the 8.7E ORC module continued to be used for vehicles equipped with side airbags. Both of these modules are designed to provide equivalent frontal crash performance but each has its own software calibration. Also, there is a difference in how the modules handle up front sensor faults, as described in the answer to question 10, above. The subject vehicles were manufactured during the phase-in timeframe for compliance with the advanced airbag requirements of FMVSS 208. A significant volume of the subject vehicles manufactured in the 2004 calendar year were certified as complying with the previous version of FMVSS 208. All of the vehicles in the subject population were built with up front sensors regardless of the version of FMVSS 208 the vehicle was certified to. See Enclosure 11 – System Differences for a timing analysis of the compliance strategy and the design changes referenced above.

Supplemented Response:

The response is correct as written above. However, there was an additional change to the air bag system in the subject vehicles involving the calibration of the ORC module that may affect frontal air bag performance, particularly in a 25 mph ODB crash, which is one of the crash tests specified in FMVSS No. 208. Beginning with vehicles produced in mid-April 2004, the calibration was changed from the "9246" calibration to the "924B" calibration. The revised calibration reduces the likelihood of relatively late air bag deployments in a 25 mph ODB crash, with or without up front sensors ("UFS") (i.e., it essentially eliminates the likelihood that the air bag will deploy later than 90 ms after impact). This calibration change did not affect the compliance of the subject vehicles with FMVSS No. 208, since the vehicles fully comply with either calibration. The change is discussed in the Supplemental Enclosure which contains documents not previously provided to ODI. They are being supplied to the Office of Chief Counsel under separate cover with a request for confidential treatment.

Dec. 22, 2006 IR Submission - Supplemental Responses:

- 2. Furnish DaimlerChrysler's assessment of the driver's frontal air bag system performance in the September 13, 2006 NHTSA 25-mph, left 40%-offset deformable barrier crash test of a DaimlerChrysler Minivan. In this test, the left front crash sensor in the test vehicle was disconnected prior to the test. The 5th-percentile female driver dummy had a neck tension measure of 3349 N at 111 ms after impact (exceeding the 2620 N maximum allowed under FMVSS 208). This assessment must include, but is not limited to, DaimlerChrysler's assessment of the following:**
 - a. The manner in which the test was conducted**
 - b. Whether the performance of the frontal air bag system in this test was consistent with the system design, and;**
 - c. Any and all consequences of the disconnection of the left front crash sensor prior to the test.**

Original Response:

- A2. DCC has reviewed the information about the referenced test provided by ODI and has not identified any anomalies in the test setup (test speed, barrier overlap, dummy positioning, etc) to date. However, the performance of the frontal airbag system in this test was inconsistent with the design because the airbag deployed at 98 milliseconds, which is later than expected. When the left front sensor was disconnected prior to the test, the ORC in this vehicle defaulted to backup calibration mode which utilizes its internal accelerometers alone (disregards input from both UFSs) to decide if, when and at what output level an airbag deployment should occur in a frontal impact. Based on simulation data provided to DCC by Robert Bosch Corporation for the backup calibration mode (document previously provided to ODI in an IR response as ENCLOSURE 6 - CONFIDENTIAL for EA06-003 on August 11, 2006), DCC had been aware that if a UFS was not operational, there could be some delay in airbag deployment; however, 98 milliseconds is outside the range of possibilities that Bosch identified.

With regard to the response of the 5th percentile driver dummy, DCC has conducted an extensive analysis and concluded that the neck tension measure of 3349 N for the driver dummy is not a true indication of the potential for injury in a 25mph ODB crash because of an artificial spike in the neck tension measurement.

There are several factors which have led DCC to this conclusion. The first observation is that the head acceleration near the peak tension is in the downward direction, but it is clear from the video of the test that the airbag did not produce a force in that direction. See ENCLOSURE 3 – CONFIDENTIAL which is being supplied to the Office of Chief Counsel under separate cover with a request for confidential treatment. Also, DCC's extensive experience with airbags and crash testing indicates that the duration of the spike is much shorter than is physically

possible with airbag loading. The most striking observation, however, is that the onset of the 3349 N neck tension spike clearly starts prior to the airbag, or any other vehicle component, contacting the head of the dummy. The airbag does not touch the head at all during the first half of the spike and does not develop a significant load (1900 N max) on the head until after the spike is over. Therefore, the airbag cannot be a source of the neck tension.

The test data shows that the tension in the neck is increasing virtually simultaneously with downward acceleration of the head. The only plausible physical explanation for this is that something is "pulling down" on the head through the neck with a high force for a very short time. It is likely that it was due to some internal mechanism within the dummy. DCC has assembled a brief history of known problems regarding the Hybrid 3 dummies noting that forces can inappropriately be transmitted from one part of the dummy to another due to its internal construction. See ENCLOSURE 4 – CONFIDENTIAL which is being supplied to the Office of Chief Counsel under separate cover with a request for confidential treatment. This report includes references to an SAE task force that had been assembled to investigate this problem. DCC is not certain whether one of the issues described in this document, or perhaps some other issue, is responsible for the force spike.

Human beings do not have such internal mechanisms and forces cannot be transmitted in this manner. Therefore, the spike in measured neck tension is an artifact of the dummy and not an indication of potential neck injury in the real world. Apart from this artificial spike, the highest neck tension occurs during the airbag loading at approximately 122 milliseconds with a magnitude of approximately 1900 N. This is well below the 2620 N maximum limit specified in FMVSS No. 208, and all other injury criteria values are acceptable. Therefore, even if a malfunction in the UFS were to cause the airbag to deploy at 98 milliseconds in a 25 mph ODB test, it would not pose a safety issue.

Supplemented Response:

(DCC is addressing only the first paragraph of its original response. The balance of the original response to this question still reflects DCC's position.)

DCC has reviewed the information about the referenced test provided by ODI and has not identified any anomalies in the test setup (test speed, barrier overlap, dummy positioning, etc) to date. When the left front sensor was disconnected prior to the test, the ORC in this vehicle defaulted to backup calibration mode which utilizes its internal accelerometers alone (disregards input from both UFSs) to decide if, when and at what output level an airbag deployment should occur in a frontal impact. Because the vehicle tested by ODI was manufactured in February 2004, the air bag sensor utilized the "9246" calibration. Based on simulation data prepared by Robert Bosch Corporation ("Bosch"), when one or both UFSs are

inoperative, there is some possibility that time-to-fire ("tff) in vehicles with the 9246 calibration will be greater than 90 ms in 25 mph ODB crashes. Thus, DCC recognizes that the tff of 98 ms in the ODI test is a possible, although relatively unlikely, outcome.

DCC wishes to point out that Bosch's simulation data indicates that there is no likelihood of a tff above 90 ms in a 25 mph ODB crash in vehicles equipped with the 924B calibration, which was installed in subject vehicles manufactured beginning in mid-April 2004, either in the primary calibration (with UFS) or the backup calibration (without UFS).

- 4. Describe in detail, and produce copies of all documents related to, the frontal air bag deployment requirements or criteria when (1) the Occupant Restraint Controller (ORC) is in backup calibration mode (i.e., front crash sensor(s) has set a fault code) and (2) the ORC is in normal calibration mode (i.e., no front crash sensor fault code) in the subject vehicles.**

Original Response:

- A4. There are two versions of Occupant Restraint Controller (ORC) available in the subject vehicles. The 8.7E ORC module was originally released at 2005 MY launch for all applications of the subject vehicles. A mid-model change introduced the 8.7+ ORC module for all subject vehicles not equipped with side airbags and the 8.7E ORC module continued to be used for vehicles with side airbags. Both ORC modules are designed to provide equivalent frontal crash sensing performance. For each ORC module, the deployment target criteria are listed along with the results in separate worksheets for the driver airbag, passenger airbag and seat belt pretensioners / inflatable knee bolsters. There are additional tabs for the targets and results when in the backup calibration mode. See ENCLOSURE 6 – CONFIDENTIAL which is being supplied to the Office of Chief Counsel under separate cover with a request for confidential treatment.

There was a 2005 mid-model year modification that affected the way in which the sensor system reacts to faults in one of the UFSs. In vehicles produced in the first part of the 2005 model year, when one UFS fails, the ORC switches to the backup mode, and it disregards input from both UFSs. In vehicles produced after the 2005 mid-model year change, if one UFS fails, the system will stay in the primary (normal) calibration mode, and the ORC will continue to monitor input from the functioning UFS in deciding whether, when and at what level to deploy the airbag. In these later vehicles, the system will only go into the backup calibration mode if both UFSs have failed.

Supplemented Response:

- A4. The original response is accurate; however, there was also a mid-model year calibration change to the software in the ORC module. The originally released calibration, designated as "9246", was changed to a new calibration, designated as "924B," in subject vehicles produced beginning in approximately mid-April 2004. This change only affected vehicles with the 8.7e ORC module because the 8.7+ ORC module had not yet been introduced into production at that time. The change is discussed in the Supplemental Enclosure, which is being supplied to the Office of Chief Counsel under separate cover with a request for confidential treatment.