



**INFORMATION Redacted PURSUANT TO THE FREEDOM OF
INFORMATION ACT (FOIA), 5 U.S.C. 552(B)(6)**

June 6, 2011

Mr. Jeffrey L. Quandt, Chief
Vehicle Controls Division (VCD), NVS-213
U.S. Department of Transportation

National Highway Traffic Safety Administration (NHTSA)
Office of Defects Investigation (ODI)
Room W48-312
1200 New Jersey Avenue SE
Washington, D.C. 20590

Reference: NVS-213dlr; PE11-013

Dear Mr. Quandt:

Attached is Chrysler Group LLC's ("Chrysler") response to the referenced inquiry. In performing the analysis and reaching conclusions, and by providing the information contained herein, Chrysler is not waiving its claim to attorney work product and attorney-client privileged communications.

Chrysler has conducted a reasonable and diligent search of its data repositories for complaints related to the alleged condition. Despite the large volume of subject vehicles in the field, Chrysler has found very few field inputs and no crashes, fires, injuries, legal claims or property damage allegations as a result of the alleged condition. Because there is some anecdotal evidence of excessively corroded rear lower control arms in the field, Chrysler is continuing to investigate and has yet to determine whether an unreasonable risk to motor vehicle safety exists in the subject vehicles.

Sincerely,


David D. Dillon

Attachment and Enclosures

Preliminary Statement

On April 30, 2009 Chrysler LLC, the entity that manufactured and sold the vehicles that are the subject of this Information Request, filed a voluntary petition for relief under Chapter 11 of Title 11 of the United States Bankruptcy Code.

On June 10, 2009, Chrysler LLC sold substantially all of its assets to a newly formed company now known as Chrysler Group LLC. Pursuant to the sales transaction, Chrysler Group LLC assumed responsibility for safety recalls pursuant to the 49 U.S.C. Chapter 301 for vehicles that were manufactured and sold by Chrysler LLC prior to the June 10, 2009 asset sale.

On June 11, 2009, Chrysler LLC changed its name to Old Carco LLC. The assets of Old Carco LLC that were not purchased by Chrysler Group LLC, as well as the liabilities of Old Carco that were not assumed, remain under the jurisdiction of the United States Bankruptcy Court – Southern District of New York (*In re Old Carco LLC, et al.*, Case No. 09-50002).

Note: Unless indicated otherwise in the response to a question, this document contains information through April 21, 2011, the date the information request was received.

1. State, by model and model year, the number of subject vehicles and the peer vehicles Chrysler has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by Chrysler, state the following:

- a. **Vehicle identification number (VIN);**
- b. **Make;**
- c. **Model;**
- d. **Model Year;**
- e. **Drive train (i.e., 4x2 or 4x4)**
- f. **Date of manufacture;**
- g. **Date warranty coverage commenced; and**
- h. **The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).**

Provide the table in Microsoft Access 2003 or 2007, or a compatible format, entitled "PE11-013 PRODUCTION DATA." See Enclosure, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

A1. The 2002 thru 2007 model year (MY) Jeep Liberty for the US market is designated as the KJ model and was built in the Toledo North Assembly Plant in Toledo, Ohio (currently part of the Toledo Assembly Complex). There are no other model years for which the KJ body Jeep Liberty was produced by Chrysler. Throughout this response, the 2002 thru 2005 MY KJs are referred to as the subject vehicles and the 2006 thru 2007 KJs are referred to as the peer vehicles. The subject components – the left and right rear lower control arms – are standard equipment on the subject vehicles. The total number of subject and peer vehicles manufactured by Chrysler for sale or lease for the US market was 734,266 and 238,779 respectively.

The detailed response that lists the production data is provided in Enclosure 1 as Microsoft Access 2010 tables titled "Production Data (PE11-013) Subject" and "Production Data (PE11-013) Peer".

2. State the number of each of the following, received by Chrysler, or of which Chrysler is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles and the peer vehicles:

- a. **Consumer complaints, including those from fleet operators;**
- b. **Field reports, including dealer field reports;**
- c. **Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;**
- d. **Property damage claims; and**

- e. **Third-party arbitration proceedings where Chrysler is or was a party to the arbitration; and**
- f. **Lawsuits, both pending and closed, in which Chrysler is or was a defendant or codefendant.**

For subparts “a” through “d” state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

In addition, for items “c” through “d” provide a summary description of the alleged problem and causal and contributing factors and Chrysler’s assessment of the problem, with a summary of the significant underlying facts and evidence. For items “e” and “f” identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

- A2. The following summarizes the reports identified by Chrysler that relate to, or may relate to, the alleged condition in the subject vehicles. Chrysler has conducted a reasonable and diligent search of the normal repositories of such information.
- a. There are 22 consumer complaints (Customer Assistance Inquiry Request or CAIR) that may relate to the alleged condition for the subject vehicles, which represents 19 unique VINs. There are no CAIRs that may relate to the alleged condition for the peer vehicles.
 - b. There are no field reports of the alleged condition for either the subject or peer vehicles.
 - c. There are no reports of the alleged condition causing a crash, fire, injury or fatality for either the subject or peer vehicles.
 - d. There are no reports that allege property damage for the either the subject or peer vehicles.
 - e. There are no third-party arbitration proceedings involving Chrysler for the subject or peer vehicles.
 - f. There are no legal claims involving the subject or peer vehicles for the alleged condition.

Based on the analysis of these complaints for the subject vehicles, Chrysler has determined that all of the responsive complaints are CAIRs and that there are 19 unique VINs. Of these unique VIN complaints, the largest category (7 unique

VINs) references a broken rear lower control arm without explaining if the issue was related to corrosion, thus it is not clear if these complaints represent the alleged condition (subject component failure due to excessive corrosion). The remaining unique VIN complaints reference rusted rear lower control arms (6 VINs) or rusted and broken rear lower control arms (6 VINs).

- 3. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:**
- a. Chrysler's file number or other identifier used;**
 - b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);**
 - c. Vehicle owner or fleet name (and fleet contact person),**
 - d. Vehicle owner's address**
 - e. Vehicle owner's telephone number;**
 - f. Vehicle's VIN;**
 - g. Vehicle's make, model and model year;**
 - h. Vehicle's mileage at time of incident;**
 - i. Incident date;**
 - j. Report or claim date;**
 - k. Whether a crash is alleged;**
 - l. If a crash occurred, Chrysler's assessment of the cause of the crash;**
 - m. Whether property damage is alleged;**
 - n. Number of alleged injuries, if any; and**
 - o. Number of alleged fatalities, if any.**

Provide this information in Microsoft Access 2003 or 2007, or a compatible format, entitled "PE11-013 REQUEST NUMBER TWO DATA." See Enclosure, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

- A3. The detailed response that lists the customer complaints (there are no legal claims or field reports) from Request No. 2, as requested in Items a. through o. is provided in Enclosure 3 in a Microsoft Access 2010 table, titled "Request Number Two Data (PE11-013) Subject". There are no responsive complaints for the peer vehicles.
- 4. Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Chrysler used for organizing the documents.**
- A4. Copies of all documents within the scope of Question No. 2 are provided in Enclosure 4 – Field Data. The documents are for the subject vehicles and are all CAIR reports (there are no field reports or legal claims for the subject vehicles and no responsive complaints from Question No. 2 for the peer vehicles). The

CAIR summaries are submitted in one .pdf file and the related documents are arranged in folders by CAIR number.

5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Chrysler to date that relate to, or may relate to, the alleged defect in the subject vehicles and the Peer vehicles: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

Separately, for each such claim, state the following information:

- a. Chrysler's claim number;
- b. Vehicle owner or fleet name (and fleet contact person)
- c. Vehicle owner's address
- d. Vehicle owner's telephone number;
- e. VIN;
- f. Model Year
- g. Repair date;
- h. Vehicle mileage at time of repair;
- i. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- j. Labor operation number;
- k. Problem code;
- l. Replacement part number(s) and description(s);
- m. Concern stated by customer; and
- n. Comment, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2003 or 2007, or a compatible format, entitled "PE11-013 WARRANTY DATA." See Enclosure, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

- A5. The total number of warranty claims that may relate to the alleged condition, for both the subject and peer vehicles, are listed below. Chrysler has separated the warranty data based on analysis of the customer complaint data provided in response to Question No. 2, where the data shows a distinct complaint pattern between the 2002 – 2003 MY and 2004 – 2005 MY KJ subject vehicles.

Claim Description (may relate to alleged condition):	Number of Warranty Claims
Lower Control Arm Replacement (2002 – 2003 KJ Subject Vehicles)	212
Lower Control Arm Replacement (2004 – 2005 KJ Subject Vehicles)	95
Lower Control Arm Replacement (Peer Vehicles)	37

Chrysler notes that the subject component lower control arms can be serviced separately on the left and right sides, thus providing a potential for multiple warranty claims on the same vehicle. Additionally, not all of the warranty claims are necessarily related to the alleged condition as there are other reasons for rear lower control arm replacements. For example, a claim for loose or worn rubber bushings in the rear lower control arms, a condition unrelated to the alleged condition, could be binned as “excessive wear,” which is one of the failure codes that could also potentially include claims that may be related to the alleged condition. Therefore, the number of responsive warranty claims may be artificially high with regard to the alleged condition. Thus, Chrysler has not drawn conclusions regarding trends for the alleged condition in either the subject or peer vehicles based on warranty data alone.

In fact, as noted in response to Question No. 9. Chrysler believes that the data strongly suggests that the vast majority of these claims are not related to the alleged condition. The detailed response that lists the warranty claims is provided in Enclosure 5 – “Warranty Data (PE11-013) Subject Vehicles” and “Warranty Data (PE11-013) Peer Vehicles”.

6. Describe in detail the search criteria used by Chrysler to identify the claims identified in response to Request No. 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject vehicles. State, by make and model year, the terms of the new vehicle warranty coverage offered by Chrysler on the subject vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that Chrysler offered for the subject vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.

- A6. The labor operation codes used by Chrysler to identify warranty claims are noted in the charts below. In conducting its search, Chrysler only included warranty claims where:
- a lower control arm was replaced as part of the warranty claim; and
 - a warranty claim narrative was potentially related to the alleged condition or was not clear enough for it to be ruled out.

Description of Repair	Labor Operation
Control Arm, Rear Suspension Replace, Right	02040602
Control Arm, Rear Suspension Replace, Left	02040603

Failure Code	Code Descriptions
6	Bent
11	Broken or Cracked
37	Excessive Wear
UC	Uncodeable

It should be noted that there are no specific failure codes for "corrosion" and the above list are the only failure codes that could reasonably be related to the alleged condition.

The standard warranty coverage offered for both the subject and peer vehicles was 36 months / 36,000 miles. There was no extended warranty coverage for the subject components, but there were service contract coverage options available for purchase through Chrysler's authorized dealers which extend coverage on the subject components. Beyond standard warranty coverage, LOPS 02040602 (control arm, rear suspension replace, right) and 02040603 (control arm, rear suspension replace, left) are covered by such contracts, for both the subject and peer vehicles. The number of contracts sold by Chrysler for both the subject and peer vehicles that extend coverage on the subject components is listed in response to Question No. 8.

Any service contract claims for the applicable labor operation codes are included in the warranty data being provided in response to Question No. 5. Chrysler notes that owners may also have the opportunity to purchase additional service contract coverage through other third-party providers, but Chrysler does not have access to that data.

7. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that Chrysler has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that Chrysler is planning to issue within the next 120 days.

A7. There are no GPOP tech tips, Technical Service Bulletins or informational documents related to the alleged condition for either the subject or peer vehicles that have been issued to Chrysler dealers, Business Centers, fleet purchasers or other such entities. There are also no such communications or informational documents planned for the next 120 days.

8. State by model and model year, the number of subject vehicles for which Chrysler has sold an extended service plan. Separately for each subject vehicle, state the following:

- a. **Vehicle Identification number (VIN);**
- b. **Make;**
- c. **Model;**
- d. **Model Year;**
- e. **Name of extended service plan;**
- f. **Mileage at which the extended service plan expires; and**
- g. **Number of months from the warranty start date at which the extended service plan expires.**

A8. The total number of subject and peer vehicles that are or have been covered by one of the service contract plans, along with the other information requested in items a. thru g., is listed in Enclosure 8 – Extended Service Contracts CONF BUS INFO which has been submitted under separate cover to the NHTSA Chief Counsel’s Office with a request for confidential treatment.

9. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, “actions”) that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, Chrysler. For each such action, provide the following information:

- a. **Action title or identifier;**
- b. **The actual or planned start date;**
- c. **The actual or expected end date;**
- d. **Brief summary of the subject and objective of the action;**
- e. **Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and**
- f. **A brief summary of the findings and/or conclusions resulting from the action.**

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

A9. Chrysler has conducted or is conducting the following assessments related to the alleged condition:

Assessment 1: Complaint Analysis by Report Open, Build Dates, Mileage, Months in Service & Geographic Location

Start Date	End Date	Engineering Group Responsible
4/22/2011	6/1/2011	Chrysler Product Investigations & Recall Administration

Complaint Analysis Assessment Objective: Determine if there are any identifiable trends in the complaint vehicles, any subject vehicle with a CAIR or VOQ, (there are no responsive field reports or legal claims associated with the

alleged condition) sorted by geographic location of the complaint VIN, complaint open date (date of complaint), vehicle build date, vehicle months in service and mileage when the complaint occurred.

Complaint Analysis Assessment Results: See Enclosure 9A - Complaint Analysis for details on the results.

Complaint Analysis Assessment Summary: This analysis included all the customer complaints (CAIRs) and the VOQs provided by NHTSA, with one exception. Based upon a Chrysler customer complaint (CAIR #16276972) that is related to VOQ #10190744 (██████████), it appears that the reported failure involves a front and not a rear control arm. A copy of this CAIR is provided in Enclosure 9A - Complaint Analysis and clearly makes multiple references to a "ball joint", which implicates a front lower control arm and not a rear lower control arm. A summary of the conclusions of this assessment are:

- Of 24 unique VINs, only 11 alleged both rusted and broken (the others list one or the other, but not both).
- The 2002 / 2003 KJ vehicles have one single complaint out of the (24) unique VINs. This VIN alleges a broken rear lower control arm issue but does not specify rust in any way, thus Chrysler deleted this VIN from the analysis of mileage and months in service.
- No complaints referenced the 2006 and 2007 KJ subject vehicles.
- Geographic analysis for 2004 – 2005 KJ subject vehicles shows that the complaints exist only in NHTSA defined salt belt states (northeast U.S.)
- The complaint analysis by mileage shows that the alleged conditions typically occurred after 50,000 miles and in excess of 66 months in service.
- The complaint analysis by vehicle build date shows that the build dates are mostly clustered around September-November of 2003 and March-May of 2005.

Assessment 2: Warranty & MOPMIS Analysis

Start Date	End Date	Engineering Group Responsible
4/22/2010	5/26/2011	Chrysler Product Investigations & Recall Administration

Warranty & MOPMIS Analysis Objective: An analysis of the warranty claims (supplied in response to Question No. 5) by build date, complaint date and mileage will provide insight into when the complaints are occurring, at what mileages and the build months of the vehicles with warranty claims.

The MOPMIS analysis shows the warranty claims rate, weighted by vehicle volume and shown as claims per 1000 (C/1000), for the subject components by month of production and months in service (MOPMIS). The left and right lower control arm replacement LOPs (02040603 / 02040602 respectively) were

assessed together. Note that only the relevant LOPs and failure codes identified in response to Request No. 6 were included in this analysis.

Warranty & MOPMIS Analysis Results & Summary: See Enclosure 9B – Warranty & MOPMIS Analysis for details on the results. The warranty analysis shows that vast majority of the complaints are occurring during the standard 3/36 warranty coverage period (and not during any extended coverage purchased thru a service contract). Thus, Chrysler believes the subject component warranty claims could not possibly relate to the alleged condition because, based on the results of Assessment 1 above, the alleged condition typically does not manifest itself until 50,000 miles or 66 months in service.

The MOPMIS analysis shows very low warranty throughout the 3/36 timeframe for all 2002 thru 2007 MY KJ subject and peer vehicles, with the exception of a 7 month time period at the end of the 2002 model year where a 2 to 4 C/1000 subject component replacement rate is evident. Chrysler is investigating the potential cause(s) of this slightly higher rate; however, based on the results of Assessment 1 above, the alleged condition typically does not manifest until at least 50,000 miles or 66 months in service. Thus, Chrysler believes the subject component warranty claims are completely unrelated to the alleged condition.

Assessment 3: Survey of Subject Components

Start Date	End Date	Engineering Group Responsible
4/22/2011	TBD	Chrysler Product Investigations & Recall Administration, Quality Engineering

Survey & Analysis of Subject Components Objective: Survey subject and peer vehicles in the field and replace subject components for exemplar samples, testing and analysis. The objective is to:

- Assess scope within the subject and peer vehicle populations to determine which model year / build months are potentially affected;
- Assess scope for potential for the alleged condition in the salt belt states as compared to the non-salt belt state vehicles; and
- If possible, interview drivers of the subject vehicles to identify typical driving conditions for each survey vehicle to determine if there is any association with the occurrence of the alleged condition.

Survey & Analysis of Subject Components Results & Summary: Three subject vehicles were reviewed, including 2 VOQ complainant vehicles, and the rear lower control arms either removed and replaced or returned to Chrysler after having been replaced. This assessment is ongoing and many more sets of subject components exposed to the field, for various lengths of time and in different regions of the country, are scheduled to be removed for follow up assessment.

Assessment 4: Materials Assessment of Subject Components

Start Date	End Date	Engineering Group Responsible
4/22/2011	TBD	Chrysler Product Investigations & Recall Administration Chrysler Material Engineering

Survey & Analysis of Subject Components Objective: Conduct a materials assessment of new and field returned subject components to evaluate the subject component material, thicknesses and corrosion protection system performance. Additionally, the objective is to:

- Assess scope within the subject and peer vehicle populations to determine which model year / build months are potentially affected;
- Assess scope for potential for the alleged condition in the salt belt states as compared to the non-salt belt state vehicles.

Survey & Analysis of Subject Components Results & Summary: Analysis of several subject components are provided in Enclosure 9D – Survey & Material Analysis CONF BUS INFO which has been submitted under separate cover to the NHTSA Chief Counsel’s Office with a request for confidential treatment. This assessment is ongoing and many more sets of subject components exposed to the field, for various lengths of time and in different regions of the country, are scheduled to be removed for follow up assessment.

- 10. Describe all modifications or changes made by, or on behalf of, Chrysler in the design, material composition, manufacture, quality control, supply, or installation of the subject component, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject vehicles. For each such modification or change, provide the following information:**
- a. The date or approximate date on which the modification or change was incorporated into vehicle production;**
 - b. A detailed description of the modification or change;**
 - c. The reason(s) for the modification or change;**
 - d. The part number(s) (service and engineering) of the original component;**
 - e. The part number(s) (service and engineering) of the modified component;**
 - f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;**
 - g. When the modified component was made available as a service component; and**
 - h. Whether the modified component can be interchanged with earlier production components.**

Also, provide the above information for any modification or change that Chrysler is aware of which may be incorporated into vehicle production within the next 120 days.

A10. The requested information is provided in Enclosure 10 – Subject Component Changes – CONF BUS INFO which has been submitted under separate cover to the NHTSA Chief Counsel’s Office with a request for confidential treatment.

11. Provide the following information for the Peer vehicles:

- a. The part numbers by model year for the subject components in tabular format including a description of the design changes associated with each differing part number; and**
- b. A description of all differences in the design, material composition, manufacture, quality control, supply, or installation of the subject component, as compared to the Subject vehicles;**

A11. There are two significantly different subject component rear lower control arms that were used for both production and service for the KJ subject vehicle population. Rear lower control arm part number 52088682AB was used for the 2002 thru 2003 model year KJ subject vehicles and part number 52128866AA was used for 2004 thru 2005 model year KJ subject vehicles as well as for the 2006 thru 2007 KJ peer vehicles. The detail regarding the requested differences is provided in response to Question No. 12d. There are no differences in design, material composition, or installation of the subject components in the 2004 thru 2007 model year KJ vehicles. The manufacture, supply chain and quality control for the 2004 thru 2007 model year subject components are the responsibility of the supplier and there are no changes in these items that Chrysler is currently aware of. However, Assessments 3 and 4, discussed in response to Question No. 9, are an effort by Chrysler to better understand if manufacturing variance has contributed to the potential for the alleged condition to occur in these vehicles.

12. Provide the following information regarding the subject components:

- a. Top, side and front view diagrams of the subject components;**
- b. All design FMEAs (Failure Mode Effects Analysis) or like documents related to the subject components highlighting the portion of the FMEAs related to corrosion;**
- c. Describe all potential paths for water and other foreign material to enter the rear lower control arm and state where the water or other foreign material might collect or settle within the subject component;**
- d. Describe the corrosion protection system for the subject components (internal and external), including all minimum thickness specifications for anti-corrosion protection systems and designed drainage features;**
- e. Describe the stress distribution in the subject components in the following conditions, including all finite element analyses conducted by or for Chrysler in both curb weight and GVWR conditions: (1) static condition; (2) steady-state driving; (3) while cornering; and (4) full jounce;**

- f. Describe the conditions of vehicle loading and driving dynamics that produce the greatest loads/stresses in the subject components and state the approximate locations and magnitudes of the loads/stresses;**
- g. Using a diagram or photograph of the subject components, show the typical progression of corrosion;**
- h. State the capacity, or yield strength, of the subject component for the load condition identified in 12.f for a new components with no corrosion damage;**
- i. Provide Chrysler's assessment of the amount of corrosion damage required to reduce the strength of the subject component enough that it may lose the capacity to carry the full range of in-service loads/stresses and the approximate time in service required for that damage to occur in the most severe corrosion areas of the United States;**
- j. Give Chrysler's assessment of the geographic distribution of failure risk based on failure rates and trend, field surveys or other data used by Chrysler to measure corrosion patterns in the United States in suspension components;**
- k. Describe all requirements for salt-spray and other durability tests related to corrosion resistance in the subject components; and**
- l. Provide copies of all documents related to 12.a – 12.k.**

A12. The requested information is summarized below and refers to Enclosures as appropriate.

- a. The requested diagrams for the two different subject components are shown in Enclosure 12A – Subject Component Diagrams.
- b. Chrysler has searched for and found two supplier documents in its possession that is responsive to this request: a process FMEA and a Control Plan. These documents are being provided in Enclosure 12B – Supplier Quality Documents – CONF BUS INFO which has been submitted under separate cover to the NHTSA Chief Counsel's Office with a request for confidential treatment.
- c. The requested descriptions with regard to water path for the two different subject components are shown in Enclosure 12A – Subject Component Diagrams. It is also possible for foreign material such as mud or dirt to enter thru the shown openings and settle in the bottom or along the sides of the inside of either subject component. However, due to the large openings at either end, it is much less likely to do so for the 2002 thru 2003 model year subject component (p/n 52088682AB).
- d. The corrosion protection description for both versions of subject components are being provided in Enclosure 12D-1 – Corrosion Protection Subject Component 1 – CONF BUS INFO and Enclosure 12D-2 – Corrosion Protection Subject Component 2 – CONF BUS INFO. Both enclosures have

- been submitted under separate cover to the NHTSA Chief Counsel's Office with a request for confidential treatment.
- e. Any finite element analysis or other stress distribution analysis with regard to the subject components that may have been conducted by Chrysler or by the supplier on behalf of Chrysler is no longer in Chrysler's possession due to Chrysler's document retention policies.
 - f. During development of the KJ body vehicle, the driving conditions that produce the greatest loads in the subject components were measured on test roads at Chrysler and are being provided in Enclosure 12F – Dynamic Loading – CONF BUS INFO which has been submitted under separate cover to the NHTSA Chief Counsel's Office with a request for confidential treatment. The data provided is maximum tension and compression loads.
 - g. Chrysler has not drawn any conclusions with regard to the progression of corrosion. As of the date of this submission, Chrysler has reviewed two of subject components from the field as described in Enclosure 9C – Surveys and Enclosure 9D – Materials Assessment CONF BUS INFO (file name “PE11-013 Materials Analysis Field Part - 52128866AA.pdf”). Chrysler will provide a more complete analysis when a larger sample size has been assessed and more complete conclusions can be drawn.
 - h. Any testing or analysis results that measured or estimated the yield strength of the subject components, with or without corrosion, that may have been conducted by Chrysler or by the supplier on behalf of Chrysler is no longer in Chrysler's possession due to Chrysler's document retention policies.
 - i. Because any subject component finite element modeling or other stress analysis is no longer in Chrysler's possession, and the fact that providing a response to this question requires conclusive knowledge on the progression of corrosion in the subject components, Chrysler currently cannot speculate as to a response to this request.
 - j. Chrysler does not have generalized failure rate data expected for suspension components based on geography. However, Chrysler is aware that any component susceptible to corrosion and exposed to geographic areas where road salt is used typically experience higher corrosion. In the United States, these areas are approximately defined by the 20 states plus D.C. that comprise the NHTSA defined “salt belt”.
 - k. The salt spray requirements and summarized durability testing with regard to corrosion for the subject vehicles is being provided in Enclosure 12K – Corrosion & Durability Testing – CONF BUS INFO which has been submitted under separate cover to the NHTSA Chief Counsel's Office with a request for confidential treatment. A public version of this information is in Enclosure 12K – Corrosion & Durability Testing. Chrysler uses the ASTM B 117-2 standard

for salt spray testing and Chrysler paint specification MS-PB-45-2 specifies the number of hours of salt spray testing required for the subject components. Copies of these standards are provided in the referenced Enclosures.

- I. The documents that support responses to the items in this question are in Enclosures referenced in the response to each item.

13. Produce one of each of the following:

- a. Exemplar sample of each design version of the subject component;
- b. Field return sample of the subject component exhibiting the subject failure mode; and
- c. Any kits that have been released, or developed, by Chrysler for use in service repairs to the subject component/assembly which relate, or may relate, to the alleged defect in the subject vehicles.

A13. Chrysler is providing a new part of the 2002 / 2003 subject component and of the 2004 thru 2007 subject component. Chrysler does not currently have a field returned sample that has not already been used or is being used for the material analysis assessment (provided in response to Question No. 9). These parts have been or are being sectioned and analyzed and thus not available. As Chrysler acquires more field returned samples as a result of the surveys identified in this response, it will provide a field returned sample.

14. State the number of each of the following that Chrysler has sold that may be used in the subject vehicles by component name, part number (both service and engineering/production), model and model year of the vehicle in which it is used and month/year of sale (including the cut-off date for sales, if applicable):

- a. Subject component; and
- b. Any kits that have been released, or developed, by Chrysler for use in service repairs to the subject component/assembly.

For each component part number, provide the supplier's name, address, and appropriate point of contact (name, title, and telephone number). Also identify by make, model and model year, any other vehicles of which Chrysler is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

A14. Part sales information is included in Enclosure 14 – Part Sales. The subject component replacement parts are not used on any other Chrysler vehicles. The table in Enclosure 14 includes all subject component service part sales, whether or not they are related to the alleged condition. It is difficult to determine whether the alleged condition prompted these part sales as there are unrelated circumstances that generate sales. In particular, the subject vehicles are off-road vehicles and susceptible to damage from severe off-road driving. Subject

component replacements due to customer induced damage, accidents or miscellaneous warranty claims will increase subject component part sales and are all unrelated to the alleged condition. Thus, Chrysler has concluded that the use of part sales data will not be conclusive to assess any trend related to the alleged condition.

15. Furnish Chrysler's assessment of the alleged defect in the subject vehicle, including:

- a. The causal or contributory factor(s);**
- b. The failure mechanism(s);**
- c. The failure mode(s);**
- d. The risk to motor vehicle safety that it poses;**
- e. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged defect was occurring or subject component was malfunctioning;**
- f. The effect on vehicle control while driving at residential speeds (e.g. speeds between 25mph and 35mph), highway speeds (e.g. speeds \geq 55mph) and while cornering at residential and highway speeds;**
- g. The reports ODI included with this inquiry; and**
- h. The reports included with this inquiry.**

A15. Chrysler's analysis and investigation is continuing. As noted in the response to Question No. 9, there is a comprehensive field survey underway that is intended to analyze the potential for unusual corrosion progression in rear lower control arms across several model year vehicles in both salt belt and non-salt belt states. It is believed the results of this survey may help identify, by geographical location and build date/model year, the population of lower control arms that may be at risk of an unusual corrosion pattern that has been seen in a very small number of older, higher mileage vehicles.

There are, however, several preliminary conclusions and observations that Chrysler has made that should reduce the proper scope of this investigation, narrow the possible root causes of unusual lower control arm corrosion and define the possible consequences to motor vehicle safety.

Scope and Cause:

Based upon a review of the design information and field data, Chrysler believes there is good reason to eliminate the first two of the four subject vehicle model years from this investigation.

As noted in response to Question Nos. 10-12, the 2002 and 2003 model year KJ vehicles were equipped with rear lower control arms that were distinctly different from the 2004 and 2005 model year KJ vehicles. There are no complaints of the alleged condition of a broken rear lower control these first two KJ model years (a population of 386,811 vehicles). This contrasts with 11 complaints in the 2004 to 2005 model year KJ vehicles, which had a different lower control arm design.

This has caused Chrysler to shift its focus on the lower control arm design and the field data related to the 2004-2005 model year KJ vehicles (approximately 347,393 subject vehicles). Also, because the lower control arm design in the 2004-2005 model year subject vehicles is the same as the 2006-2007 model year peer vehicles, Chrysler is continuing to analyze the field data for unusual corrosion progression for these later model KJ vehicles as well. However, to date, there are no complaints of corrosion and/or broken rear lower control arms in the 2006-2007 model year KJ peer vehicles.

Moreover, all Chrysler and NHTSA complaints related to the alleged defect have been in areas of the United States where road salt is used to help clear the roads in the winter season. Thus, Chrysler believes that all subject and peer vehicles in "non-salt belt" states should be excluded from this investigation.

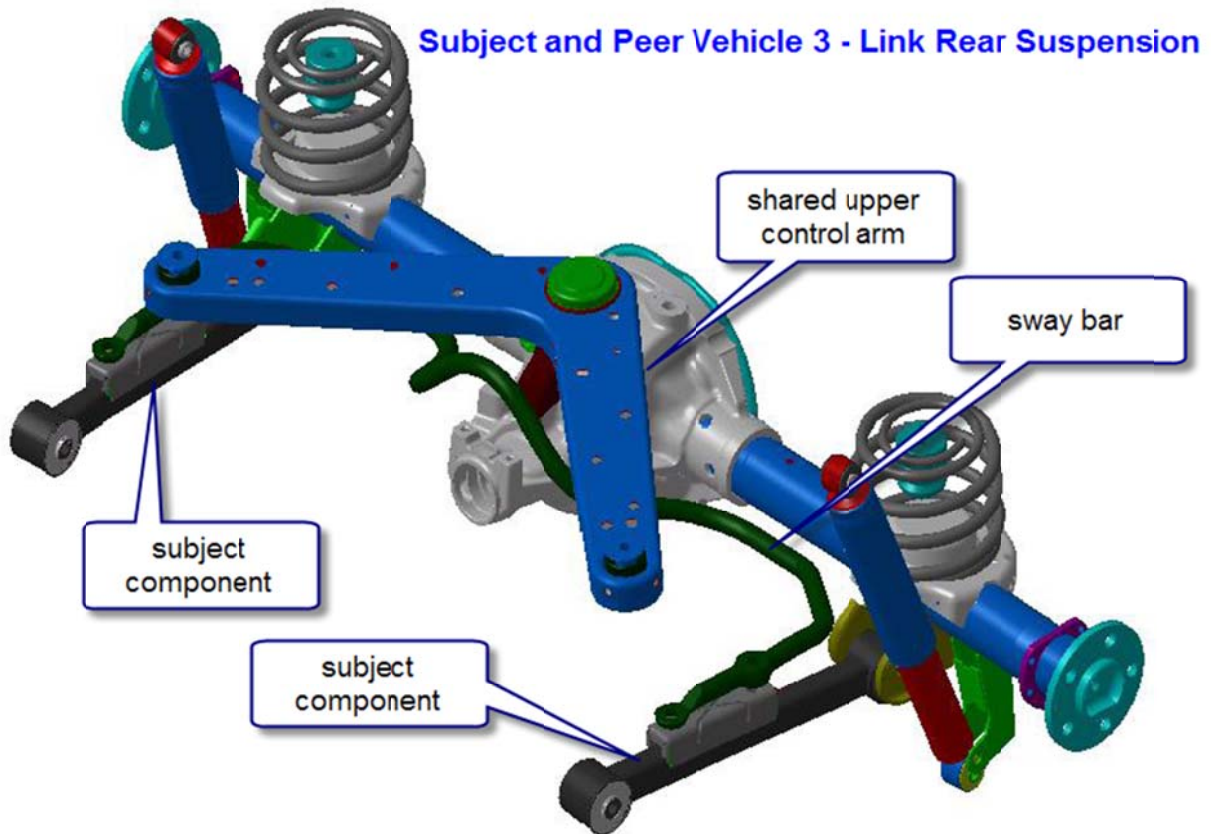
The analysis provided in the response to Question No. 9 also provides some noteworthy conclusions. First, complaint analysis by mileage and months in service shows the alleged condition typically occurring with mileages typically greater than 50,000 and months in service typically greater than 66 months. Additionally, the warranty claims in this submission, though not large in number, are nonetheless unrelated to the alleged condition because the analysis provided in response to Question No. 9 shows that vast majority of claims have occurred within standard 3/36 warranty coverage.

Although the number of corrosion related lower control arm issues are very few, there is little doubt that corrosion was a contributing factor in at least two control arms, both from salt belt states that have been returned to Chrysler. The cause of the conditions are unknown, but the field survey currently underway may help identify a manufacturing variation, driving cycle or extreme environmental condition that causes an otherwise robust and properly functioning rear lower control arm to unusually corrode.

In short, there is a reasonable basis to shift the focus of this investigation to the last two model years of the KJ subject vehicles (2004-2005) for conditions arising in the salt belt states. Because of the similar subject component design, Chrysler will continue to analyze whether the peer vehicle lower control arms have the potential for unusual corrosion as their years in service in the salt belt states increase.

Consequence:

As illustrated below, the subject components are part of a three link rear suspension on the subject and peer vehicles that consists of two lower control arms, one on each side of the vehicle and a shared upper control arm. A sway bar attaches to the top of each lower control arm.



The subject components are a necessary part of the three-link suspension because one of their primary functions is to constrain the rear axle in the fore/aft direction. Chrysler does not, in the ordinary course of development, test to evaluate the consequence of the loss of a control arm. While the loss of a control arm in a three-link rear suspension system will likely not allow a driver to have the full range of control and directional stability, the driver will likely notice that rear of the vehicle has lost some stability and will still have the opportunity to slow their vehicle and pull it safely off the roadway.

Additionally, Chrysler believes that another factor that mitigates the consequence is that lower control arm corrosion is an observable condition from the outside of the vehicle or during vehicle servicing. Indeed, most of the customer complaints received by Chrysler were complaints about observations of control arm corrosion and not that the control arm broke while driving.

There are very few field inputs and there are no crashes, fires, injuries, legal claims or property damage allegations, despite the volume of subject vehicles in the field. Because there is some anecdotal evidence of excessively corroded rear lower control arms in the field, Chrysler is continuing to investigate and has yet to determine whether an unreasonable risk to motor vehicle safety exists in the subject vehicles.