June 17,2013

Dear Customer:

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		Weight:	1.1 lbs/0.5 kg

Recipient:
Mr. David L. Strickland, Administrator
NHTSA Headquarters
1200 New Jersey Avenue, SE
Washington, DC 20590
202-366-4000

Shipper:
Mr. Paul V. Sheridan
DDM Consultants
22357 Columbia Street
Dearborn, MI 48124-3431
313-277-5095

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June 17,2013

Dear Customer:

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To: Mr. David L. Strickland
NHTSA Headquarters - West Building
1200 New Jersey Avenue, SE
Washington, DC 20590
202-366-4000

Date: 12 June 2013 VIA FEDEX GROUNDBILL 1283181-00004138

From: Mr. Paul V. Sheridan
DDM Consultants
22357 Columbia Street Dearborn,
MI 48124-3431
313-277-5095 / pvs6@Cornell.edu

Subject: **EA12-005 File Update (Chrysler Jeep Fuel Tank System Safety Defect) ***

Reference 1: **3 June 2013 Letter of ODI Director Frank S. Boris to Chrysler Group LLC**
Reference 2: **Chrysler Group LLC 'White Paper on NHTSA's Recall Request' (4 June 2013)**

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* *Available at http://pvsheridan.com/Sheridan2Strickland-13-12June2013.pdf* with active hyperlinks.

** *By email and/or USPS*

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12 June 2013 Via FedEx GroundBill 1283181-00004138

Mr. David L. Strickland, Administrator
NHTSA Headquarters
1200 New Jersey Avenue, SE
Washington, DC 20590
202-366-4000

Subject: EA12-005 File Update (Chrysler Jeep Fuel Tank System Safety Defect)

Reference 1: 3 June 2013 Letter of ODI Director Frank S. Boris to Chrysler Group LLC
Reference 2: Chrysler Group LLC 'White Paper on NHTSA's Recall Request' (4 June 2013)

Dear Mr. Strickland:

The subject and references evoke several issues that I briefly review below.

TAXPAYER ACCESS TO SUBJECT FILE : ONGOING BIAS IN FAVOR OF CHRYSLER GROUP SUBMISSIONS

In my letters of 30 January 2012 and 18 March 2013 I requested that the filing practices with respect to EA12-005 be revised. Documents and submissions forwarded by the petitioner and the undersigned are being filed in the "Closed" files of DP09-005 and PE10-031. This biased approach effectively restricts taxpayer access to a lop-sided review in favor of Chrysler Group LLC. Access to Chrysler submissions is accommodated in the "Open" file of EA12-005.

I have personally tested the ability of laypersons to access (via the vast NHTSA website) the vast quantities of petitioner/undersigned submissions that have been forwarded to your office. We limited that inquiry to documents submitted ***after*** escalation to the engineering analysis on 12 June 2012. This amounts to over one year of submissions. None were able to locate information that supported Reference 1, and refutes/rebuts Reference 2.

On Tuesday, 4 June 2013, the same day that Reference 2 was released for public consumption, wherein Chrysler made the false claim that the EA12-005 vehicles are *"are not defective and their fuel systems do not pose an unreasonable risk to motor vehicle safety in rear-impact collisions,"* a man was parked off of a service road in Houston, Texas. While telephoning for repair assistance, his Jeep was involved in a *"rear-impact collision,"* instantly bursting into flames, and killing him due to fire-related injuries. If he or his family members had attempted to access the documents and submissions forwarded by the petitioner and the undersigned, it is unlikely that they would have anticipated that such is only available in files that your office has classified as "Closed."

NHTSA is not beholden to the regulated, but to the United States taxpayer. For the third time, I renew my request that the submissions that have been forwarded by the petitioner/undersigned, since inception of EA12-005, be moved to that "Open" file for the purpose of accommodating the needs and rights of the taxpayer. Given the process that is expected to ensue under Reference 1, NHTSA has nothing to gain by obscuring these submissions from the taxpayer.

CHRYSLER GROUP LLC WHITE PAPER ON NHTSA'S RECALL REQUEST : INITIAL REVIEW

There are at least five main areas where this 'White Paper' demonstrates that the target audience is the unsuspecting and non-esoteric layperson; both the individual and the media (which naively disseminates such to the public). These areas are detailed below. But we begin by examining the veracity of a declaration on page one:

> *"After an exhaustive engineering analysis, Chrysler Group has found no evidence that the fuel systems in the subject vehicles are defective in either their design or manufacture."*

Let us dispense with the latter misdirection: At no time has the petitioner/undersigned ever alleged that the inherent defect in the subject vehicles was related to the actions of the men/women of the Chrysler or supplier labor force. We have always alleged that the subject vehicles expose the taxpayer to an engineering design defect; one that inherently diminishes the crashworthiness of the Jeep fuel system.

In my letter of 27 August 2012, I suggested that NHTSA request specific engineering information. The plaintiffs have also requested information akin to this alleged *"exhaustive engineering analysis,"* but little has been forthcoming from Chrysler Group LLC. Instead, as I had discussed in my letter of 27 September 2011 , the primary exhaustive effort comprises Chrysler requests that information be hidden from public view. Alternatively, it is clear that the intended audience of their White Paper is the unsuspecting lay and media person.

1. CHRYSLER GROUP WHITE PAPER ON NHTSA'S RECALL REQUEST : THE BAKER MEMO

In their White Paper and numerous media forums, Chrysler executives and public relations staff have claimed that *"the Company has fully cooperated with NHTSA."* The inveracity of that claim involves their failure to forthrightly provide the Agency with the Baker memo (Attachment 3). At no time throughout the DP09-005 and PE10-031 phases of this investigation did the Company demonstrate the minimal cooperation that would have resulted in the public filing of this internal document; a document that contains no Chrysler "trade secrets." Quite the contrary, the Baker memo merely presents evidence that the underlying concern of Reference 1 was discussed, and acted upon in selected portions of the Chrysler product plan, as early as 1978. The key verbiage of the memo:

> *" Chrysler is investigating fuel tank relocation ahead of the rear wheels for vans and multipurpose vehicles, but present plans for pickups through 1983 and for MPV's and vans through 1985 have the fuel tank located behind the rear wheels. In vehicles both with and without bumpers there is a concern with vertical height differences that create a mismatch with passenger car bumpers. Where fuel tank location behind the rear axle is all that is feasible,* ***a protective impact deflection structure*** *may have to be provided whether or not a bumper is provided.* ***An investigation whether to relocate the fuel tank or to provide impact deflecting structures is presently underway****. "* (bolding added)

Contrary to their *"the Company has fully cooperated with NHTSA"* rhetoric, it was the undersigned that retrieved and forwarded this public document as an attachment to my letter of 1 June 2010.

2. CHRYSLER WHITE PAPER ON NHTSA'S RECALL REQUEST: DIVERSION REGARDING NATURE OF DEFECT

In their White Paper Chrysler attempts to erect a strawman, attempting to form public, legal and regulatory opinion by diverting attention from the crux of the design defect. Chrysler attempts to misrepresent a statement made by NHTSA in 2003, essentially claiming that NHTSA made determinations of a fuel system defect solely on the basis of fuel tank location. Nothing could be further from the truth, and Chrysler knows it.

An integrated review of the last sentence of the 2003 NHTSA statement ostensibly confirms its agreement with the Baker memo quoted above: That an *"impact deflection structure"* must be provided regardless of fuel tank location. Specifically, the 1978 Baker memo also confirms the true theme of the petitioner's complaint: Protection from direct collision impact is required regardless of fuel tank location. Indeed, that simple distinction was resolved by the testimony of Chrysler's fire accident reconstruction expert, Mr. Robert Banta.

I had presented my photographic evidence in a letter of 27 July 2012. These showed the unprotected status of the typical EA12-005 vehicle fuel tank (Attachment 4). As I described on 24 September 2012, I was present when those photographs were entered into the 7 September 2012 deposition of Mr. Banta, who testified with integrity:

Plaintiff Attorney Angel DeFilippo	So if a vehicle were to strike just that yellow piece of the car, whether it be because it's lower or some kind of vehicle that's not even a car, let's say it was a recreational vehicle of some sort, what would protect that portion of the tank that we see here in yellow?
Mr. Robert Banta	*Just the tank surface itself.*
DeFilippo	So in other words, whatever the material of the tank is at the time?
Banta	***The tank's on its own.***

Contrary to their White Paper diversions regarding the 2003 NHTSA statement, Chrysler is fully aware of the fact that their own defense expert agrees that location is not the issue, that protection which establishes crashworthiness is the issue. Chrysler is fully aware that a lack of protection is the crux of the design defect allegation of the petitioner and the undersigned. At no time have the latter restricted this discussion to location.

3. CHRYSLER WHITE PAPER ON RECALL REQUEST: MISINFORMATION REGARDING MERE "COMPLIANCE"

In my letters to you of 9 February 2011 and 27 August 2012 I reviewed the Chrysler defense machinations regarding mere regulatory compliance with respect to FMVSS-301. Quoting that second letter as review:

> *"The eleven items listed below typify the rigor of the SLT. Having EA12-005 investigatory consequence, these items merely begin to address real world conditions that were/are **not** specified by FMVSS-301:*
>
> 1. *Common everyday traffic conditions where vehicle separation post rear collision is unlikely or not possible (i.e. restitution values at or close to zero),*
> 2. *Doors jammed post rear collision making egress difficult-to-impossible,*
> 3. *High temperature in the collision components of either or both of the bullet and target vehicles,*
> 4. *Electrically charged components/systems in the collision areas of the bullet and target vehicles,*
> 5. *Zero direct flame contact tolerance of plastic fuel system materials even when post collision leakages are in-compliance / minimal,*
> 6. *Lateral rear offset impact,*
> 7. *Angular rear offset impact,*
> 8. *Foreseeable collision speeds higher than 30mph,*
> 9. *Compact spare versus full-size spare, or no spare present in a rear compartment,*
> 10. *No car-to-car test regimen where direct collision impact to the fuel tank, regardless of location or tank material on the target vehicle, can ascertain the need for an "impact deflecting structure",*
> 11. *No car-to-car test regimen where mismatched bumper and structural heights between bullet and target vehicles confirm a high probability of a rear underride collision and the need for an "impact deflecting structure."*
>
> *With the exception of Item 9, this list is not esoteric to the automotive industry or NHTSA. But when I review this list with the layperson they are shocked and dismayed, especially those that own a Jeep vehicle identified by EA12-005. Ironically and predictably, Chrysler/Chrysler dealership defense experts have promoted some of these items, but doing so as part of their defense strategy (?!)."*

As Chrysler and the entire automotive industry is aware, mere compliance with minimal FMVSS requirements does not obviate, and was never intended for the defense bar motivation of obviating, a safety defect status.

4. CHRYSLER GROUP WHITE PAPER ON NHTSA'S RECALL REQUEST: STATISTICS AS MISDIRECTION

When scrutinized, the essence of the Chrysler rebuttal to the recall request amounts to their proposition that luck is a key constituent in safety management. When I review the ludicrous Chrysler promotion that vehicle registration frequency is connected to fuel system safety, the layperson becomes genuinely angry. When I present the reality that Chrysler takes credit for the good fortune of vehicles (that have been driven *"500 billon miles"* but have never been involved in an accident, and therefore their crashworthiness has not been tested) the layperson is disgusted.

Alternatively, as I presented to you in my letters of 9 February 2011 and 15 June 2012, when I present the rigors of Failure Mode Effects Analysis (FMEA) those same laypersons are enamored. They recognize that the only statistic that matters, is not that associated with luck, but whether or not a safety defect exists . . . and its horrific effect.

5. CHRYSLER WHITE PAPER ON NHTSA RECALL REQUEST: MISINFORMATION REGARDING PEER VEHICLES

Chrysler has claimed that the EA12-005 vehicles are *"no worse"* than peer vehicles. That attitude alone should cause alarm; their notion that if a peer design did no better than the subject vehicle, then all is well (!?). The legal record, purposely obscured from the public, speaks to facts that blatantly contradict this Chrysler PR rhetoric.

The peer vehicle in question is the Ford Explorer SUV. This marketplace reality has been admitted-to during numerous depositions of Chrysler employees and experts. But as Chrysler is fully aware, in his sworn deposition, **Chrysler Government Relations representative Mr. David Dillon openly admitted that the Jeep Grand Cherokee (ZJ-Body) is 20 times more likely than the Ford Explorer to provoke a rear collision, fuel tank breach fire-death.** The Chrysler White Paper fails to mention this legal reality, and an updated statistical reality.

My original ZJ-Body to Explorer multiplier was estimated at 22:1. It was based on the very same exhibits that Mr. Dillon presented to NHTSA on 16 April 2011 (Attachment 5). However, the ZJ-Body data has been corrected by Reference 1, and we must now revise the ZJ-Body to Explorer peer vehicle fire-death multiplier:

> *This revised estimate presumes that the Explorer data on Dillon Exhibit 16 is still 1, but utilizes the Reference 1 fire-death total of 29* for the ZJ-Body. ***On this basis the revised ZJ-Body to Ford Explorer multiplier is 54:1.***

From the perspective of Chrysler testimony and corrected ZJ-Body fire-death data, the Chrysler PR, which is targeted at the unsuspecting taxpayer and proclaims that EA12-005 vehicles are *"no worse"* than peer vehicles, is fraudulent. Further, this marketplace rhetoric essentially comprises slander/libel with respect to the manufacturer of those peer vehicles, and an infliction of blatant disinformation upon the owners of those peer vehicles.

CONCLUSION

In their White Paper, Chrysler claims, *"If any one of our vehicles has a safety defect, we fix it."* I would agree in the following context: On page 4 of my letter to you of 9 February 2011 I stated:

> ***"NHTSA data confirms that since introduction of the Daimler-Benz influenced (2005) WK-Body, no fuel system related deaths have occurred."***

Again, especially at the present juncture, NHTSA has nothing to gain by obscuring these types of submissions from the taxpayer. Please do not hesitate to contact me at any time.

Respectfully,

Paul V. Sheridan

Attachments

ATTACHMENT 1

Mr. David L. Strickland
Administrator
NHTSA Headquarters
1200 New Jersey Avenue, SE
Washington, DC 20590
202-366-4000

12 June 2013

Subject: **EA12-005 File Update (Chrysler Jeep Fuel Tank System Safety Defect)**

Reference 1: **3 June 2013 Letter of ODI Director Frank S. Boris to Chrysler Group LLC**
Reference 2: **Chrysler Group LLC 'White Paper on NHTSA's Recall Request' (4 June 2013)**

Thirteen Pages:

3 June 2013 NHTSA Recall Request Letter from ODI Director Frank S. Boris to Chrysler Group LLC.

U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

JUN 0 3 2013

1200 New Jersey Avenue SE.
Washington, DC 20590

VIA FEDERAL EXPRESS AND ELECTRONIC MAIL

Matthew W. Liddane
Head of Vehicle Concepts and Integration
Chrysler Group, LLC
CIMS 483-20-02
800 Chrysler Drive
Auburn Hills, MI 48326-2757

NVS-212pco
EA12-005

Dear Mr. Liddane,

On June 12, 2012, the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) opened Engineering Analysis (EA) 12-005 to investigate an alleged safety-related defect concerning fuel tank system integrity in rear-impacts or crashes in certain Jeep vehicles, model years (MY) 1993 through 2007, manufactured by Chrysler Group LLC and its predecessors (Chrysler). These vehicles include the MY 1993-2004 Grand Cherokee and MY 2002 – 2007 Liberty.

This investigation revealed numerous fire-related deaths and injuries, fires that did not result in deaths and fuel leaks in rear impacts. As discussed more fully below, ODI believes that the MY 1993-2004 Grand Cherokee and MY 2002 – 2007 Liberty contain defects related to motor vehicle safety. Accordingly, ODI requests that Chrysler initiate a safety recall of these vehicles.

I. Summary of ODI's Investigation

In November, 2009 the Center for Auto Safety submitted a Defect Petition requesting that NHTSA "initiate a defect investigation into and recall all 1993-2004 Jeep Grand Cherokee with a fuel tank located behind the rear axle." (DP09-004). In August, 2010, NHTSA granted the petition and opened an investigation denominated Preliminary Evaluation (PE) 10-031. In June, 2012 the PE was upgraded to an Engineering Analysis EA12-005 and the scope was expanded to include the MY 2002 – 2007 Liberty.

During the EA, NHTSA collected a substantial amount of information. As you know, an information request letter was sent to Chrysler requesting pertinent information, including

vehicle production data[1], information on incidents involving rear impact and subsequent fire or fuel leaks, and data related to Chrysler's self-certification tests for Federal Motor Vehicle Safety Standard (FMVSS) 301, Fuel System Integrity. Information requests were also sent to manufacturers of peer vehicles to the Grand Cherokee and Liberty, including to Ford, General Motors, Toyota, Nissan, Mitsubishi, Isuzu and Suzuki. Like the Grand Cherokee and Liberty, the peer vehicles are sport utility vehicles. The peer vehicles include the Toyota 4Runner, Ford Explorer, Jeep Wrangler, Nissan Pathfinder, Chevrolet Blazer, Mitsubishi Montero, Isuzu Rodeo, Isuzu Trooper, Suzuki Sidekick and Suzuki XL-7.[2]

Chrysler and the other companies responded to the information requests. In addition to this information, ODI obtained incident information from the fatality analysis reporting system (FARS) and NHTSA complaint databases regarding Jeep vehicles and the peer vehicles in rear crashes. For crashes where police accident reports were available, the police reports were collected for both peer vehicles and the Jeep vehicles. ODI analyzed the information.

ODI's analysis revealed that the MY 2002- 2007 Jeep Liberty and the MY 1993-2004 Grand Cherokee performed poorly when compared to all but one of the MY 1993-2007 peer vehicles, particularly in terms of fatalities, fires without fatalities, and fuel leaks in rear end impacts and crashes.

II. Fuel Tank Locations

A. Historical advances in gas tank location

Prior to the 1970's, fuel tanks in motor vehicles were predominately located aft of the rear axle. The vulnerability of tanks located behind solid rear axles in rear impacts became well known following a series of fiery crashes involving the Ford Pinto. NHTSA's investigation of the MY 1971-1976 Ford Pinto and MY 1975-1976 Mercury Bobcat vehicles in August 1977 revealed that the Pinto and Bobcat had been involved in 38 rear end impacts resulting in 27 deaths and 24 injuries. It was a well-publicized, terrible tragedy that people burned to death in these vehicles. In June 1978, Ford agreed to recall the Pinto and Bobcat. The defect was that the fuel tanks installed on these vehicles are subject to failure when the vehicles are struck from the rear. Such failure can result in fuel leakage which in the presence of external ignition sources can result in fire. *See* Ford Motor Company letter to NHTSA's Office of Defects Investigation, June 15, 1978 at 2.

Thereafter, manufacturers began to adopt designs in which fuel tanks were located in less vulnerable locations than behind the rear axle. Chrysler was certainly aware of the safety benefits of placing the tank in front of the rear axle. An August 24, 1978 Chrysler internal memorandum from L.L. Baker to R.M. Sinclair, Director of Product of Development, noted that its new Omni and Horizon models had fuel tanks below the rear seat, that the upcoming K-Car would use the same location as well. The advantages of this location were described as follows: "This location provides the protection of all the structure behind the rear wheels – as well as the rear wheels themselves – to protect the tank from being damaged in a collision."

---

[1] ODI requested information for each subject vehicle Chrysler produced including date of manufacture, date of sale, and whether the vehicle was equipped with optional equipment such as a tow receiver.

[2] These model names also represent other models built on the same platform. For example, the Chevrolet Blazer group included the GMC Jimmy and the Oldsmobile Bravada.

Throughout the 1980's, increasing numbers of new model vehicles appeared with fuel tanks located either above or in front of the rear axle. Chrysler itself incorporated mid-ship tanks in new models. The new 1987 Dodge Dakota featured a mid-ship mounted fuel tank. Similarly, the 1998 Dodge Durango also had its fuel tank mounted in a mid-ship location when it was released. When introduced in 1994, the Dodge Ram full-size pickup truck featured a mid-ship mounted fuel tank. A 1993 study of fire related deaths in rear crashes occurring from 1977 to 1989 concluded that the increasing relocation of tanks ahead of the rear axle had a substantial effect on the reduction of these deaths in rear impacts.[3]

A survey of 74 vehicles produced during the 2002 and 2003 model years, including 41 passenger cars, 15 SUVs, 8 pickup trucks, 7 mini-vans and 3 full size vans found that 65 vehicles had fuel tanks located ahead of the rear axle, 6 vehicles had fuel tanks over the rear axle and 4 vehicles (Ford Mustang, Ford Grand Marquis/Crown Victoria, Jeep Liberty and Jeep Grand Cherokee) had tanks located aft of the rear axle.[4]

B. The Grand Cherokee and Jeep Liberty gas tank location

Chrysler purchased American Motors Corporation (AMC) in 1987. Among other things, Chrysler acquired the Jeep vehicle line, including the Jeep Wrangler and Jeep Cherokee, and rights to the Jeep nameplate. Chrysler also acquired design studies for the nascent Jeep Grand Cherokee ZJ (ZJ refers to the platform), which was released as a MY 1993 vehicle in 1992. Unlike other new Chrysler products of this era, the MY 1993 Grand Cherokee ZJ was designed with a fuel tank located aft of the rear axle and within close proximity to the rear bumper. Consistent with other vehicles in this class, the Grand Cherokee ZJ has more ground clearance and a higher ride height than conventional passenger cars, a characteristic that make rear mounted fuel tanks more vulnerable in rear impacts with passenger cars.

The Grand Cherokee was substantially redesigned later in 1990's. The redesigned Grand Cherokee, known as the WJ, was also configured with a fuel tank located behind the rear axle. Production began with MY 1999 vehicles and continued to MY 2004 vehicles.

A similar fuel tank design was employed in the Jeep Liberty (KJ platform) when it was introduced in 2001. The MY 2002 through 2007 Liberty has a fuel tank located aft of the rear axle and less than a foot forward of the aft face of the rear bumper. This tank is also more exposed to impacts from passenger cars because of the Liberty's comparatively high ground clearance and ride height. In fact, the driver of a car following a Jeep Liberty can readily see the gas tank sticking down. Beginning with MY 2008, Chrysler modified its design and manufactured the Liberty with the fuel tank forward of the rear axle.

Chrysler's decision to place the Grand Cherokee and first-generation Liberty fuel tanks aft of the rear axle contravened industry trends, as well as Chrysler's practices in non-Jeep vehicles, to place fuel tanks in less vulnerable locations. As discussed below, ODI's examination of rear-impact related fire and fuel leak incident frequency, and specifically whether these incidents

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[3] Robertson, L. Fatal Car Fires from Rear-End Crashes: The Effects of Fuel Tank Placement before and After Regulation. American Journal of Public Health, Vol. 83, No. 8. August 1993 pp. 1168-1169.

[4] Fournier, E. Bayne, T. and Kot, J. Review of the State-of-the-art In Fuel Tank Systems – Phase II. Report No. R03-01, Biokinetics and Associates Ltd., Ottawa, Ontario. 2003. (This survey also found that the Mustang, Liberty and Grand Cherokee tanks were all located between 29 and 31 centimeters from the rear bumper.)

became less frequent in later model years, revealed that fire and fuel leak rates for peer vehicles improved while these rates for the Grand Cherokee and Liberty actually increased.

Chrysler maintains, and we do not dispute, that the Grand Cherokee and Liberty vehicles complied with the requirements of Federal motor vehicle safety standard (FMVSS) No. 301, Fuel System Integrity, that was applicable when the vehicles were manufactured. As NHTSA has noted in the past, a federal motor vehicle safety standard is a "minimum standard for a motor vehicle . . . performance." 49 U.S.C. 30102(a)(9). The existence of a minimum standard does not require NHTSA to ignore deadly problems. Viewed another way, a FMVSS does not preclude a finding of a safety related defect in a vehicle when supported by the evidence.

III. Fatal fires, Non-fatal fires and Fuel leaks in Rear Crashes of SUVs.

A. Data Analysis

As noted above, ODI collected post-crash fire information on the Grand Cherokee (both WJ and ZJ) and the Liberty as well as peer vehicles such as the General Motors S10 Blazer, Ford Explorer, Toyota 4Runner, Isuzu Rodeo, Isuzu Trooper, Mitsubishi Montero, Suzuki Sidekick and Suzuki XL-7. ODI also considered the numbers of various models of vehicles on the road.

Because of the large numbers of vehicles that were examined for this investigation, ODI calculated rates using millions of registered vehicle years (MRVY) as a unit of measure. Under this unit of measure, if 10 million vehicles were registered for use in a single year, that population of vehicle would be expressed as 10 MRVY. The same expression, 10 MRVY would also accurately reflect 1 million vehicles that were registered for use for 10 years if none of the vehicles were scrapped, wrecked or withdrawn from use. In this case, MRVY allows calculations reflecting both the large vehicle populations involved and the multiple years that these vehicles were used on public roads.

ODI relied on information provided by Chrysler indicating that about 3 million Grand Cherokee and 1 million Liberty vehicles were produced. The Grand Cherokee was produced on two unique platforms, the "ZJ" platform from MYs 1993 to 1998 (1.5 million vehicles), and the "WJ" platform from MYs 1999 to 2004 (1.5 million vehicles). Polk vehicle registration data obtained by ODI shows that roughly 2.7 of the 4 million Liberty and Grand Cherokee vehicles produced remained on the road in 2011.[5] The MY 1993 through 2004 Grand Cherokees and MY 2002 through 2007 Liberty vehicles accumulated approximately 37.3 million registered vehicle years (RVYs) through the 2011 calendar year.

Similarly, ODI used information obtained from Chrysler and other manufacturers stating that approximately 17 million MY 1993-2007 peer vehicles were produced. Individual peer models (nameplates) that were produced on the same platform, where the fuel tank installation was the same, were grouped together, resulting in 12 peer vehicle groups. Manufacturer data was also used to establish fuel tank location, changes in tank location, timing of changes, and whether or not any form of protective tank covering was used. Polk registration data showed that about 11.1 million peer vehicles remained in use in 2011 and that the peer vehicles accumulated approximately 154 million RVYs through the 2011 calendar year.

[5] Vehicle registration data was purchased from R.L. Polk & Co.

ODI analyzed the available data and information for fatal peer vehicle, Grand Cherokee and Liberty crashes to see if the vehicles suffered a rear impact and experienced a subsequent fire or fuel leak. We included fatalities that occurred in other vehicles when the available evidence indicated that a fire began after a rear impact into a peer vehicle, a Liberty or a Grand Cherokee. For instance, a 1999 fatal crash in New York involved a vehicle striking the rear of a Grand Cherokee and puncturing the fuel tank. Gasoline from the Grand Cherokee's fuel tank spilled into the interior of the striking vehicle and ignited, fatally burning the driver and seriously injuring a passenger.

ODI's tentative assessment is that there have been at least 32 fatal rear impact fire crashes involving Grand Cherokees resulting in 44 deaths. ODI's has identified at least 5 fatal rear impact crashes involving the Liberty that have resulted in 7 deaths.[6] Taking the cumulative total of million registered vehicle years of 31 MRVYs to derive a rate for the Grand Cherokee leads to an overall exposure adjusted fatal incident rate of 1.0 per MRVY. A similar calculation for the Liberty produces 0.90 fatal incidents per MRVY. When compared to the peer group, which, as discussed below, has 80 fatal crashes and an overall rate of 0.5 fatal incidents per MRVY, the Grand Cherokee and Liberty are poor performers.

Other popular SUV's on the market at the time have rear impact fatal fire incident rates lower than the Grand Cherokee and Liberty. The 1993 through 2007 Toyota 4Runner was involved in 3 rear impact fatal fires and had a fatal fire rate of 0.22 per MRVY. For the same period, the General Motors S10 Blazer was involved in 26 fatal rear impact fire crashes with a rate of 0.59 per MRVY. The Ford Explorer had a rear impact fatal fire rate of 0.35 per MRVY with 18 rear impact fatal fire incidents. The Nissan Pathfinder was involved in 4 fatal rear impact fire crashes with a rate of 0.46 crashes per MRVY. The Mitsubishi Montero performed similarly to the Pathfinder, with a rate of 0.48 fatal rear impact fire crashes per MRVY stemming from 2 incidents. The Isuzu Rodeo had a fatal rear impact fire rate of 0.71 per MRVY based on 6 rear impact fatal fire incidents.

In ODI's review, other crash incidents are considered non-fatal crashes; these involve either a fire or a fuel leak (only). Non-fatal crashes meet the same criteria as fatal crashes in that they involve a rear-impact and a subsequent fire or fuel leak.

For non-fatal rear impact fires and rear impact related fuel leaks, ODI's tentative rate calculations also show that the Liberty and Grand Cherokee perform poorly when compared to the peer group. ODI identified at least 17 Grand Cherokee and 11 Liberty non-fatal rear crash fire incidents. Where fire did not result from rear impact but a fuel leak occurred, ODI's initial assessment is that there was 1 Grand Cherokee incident and 5 Liberty incidents. The non-fatal fire rate for the Grand Cherokee and Liberty are, respectively, 0.55 and 1.76 per MRVY. The rate for Grand Cherokee and Liberty rear impact crash leaks without fire are, respectively, 0.03 and 0.80 per MRVY. In contrast, the peer group had a non-fatal fire rate of 0.03 per MRVY and a fuel leak rate of 0.01 per MRVY. Overall, the peer group had 4 non-fatal rear impact fires and 1 rear impact related fuel leak while the Grand Cherokee and Liberty experienced 27 non-fatal fires or leaks.

[6] These counts do not include incidents where official reports indicated death was not due to fire. For the purposes of this letter, fatal crashes with fire where all deaths were not caused by fire are counted toward the total of non-fatal fire incidents.

Because post-crash fires or fuel leaks pose a substantial risk to safety, ODI calculated exposure adjusted rates for rear-impact crash related fires and fuel leaks and then ranked vehicles by rate in descending order. With the exception of the Suzuki Sidekick, which was produced in relatively small numbers and went out of production in 1998, the worst performers were the Liberty at 3.4 incidents per MRVY and the Grand Cherokee at 1.5 incidents per MRVY.

Further, ODI's analysis showed that peer vehicle performance for post-rear impact fires and fuel tank leaks improved over time while Grand Cherokee and Liberty performance actually declined. ODI's initial analysis is that the MY 1993-2004 peer vehicles experienced a combined post-rear impact fires and fuel tank leak rate of 0.6 per MRVY. The same analysis showed that the MY 2002-2007 peers experienced rates of 0.3 fatal and non-fatal incidents per MRVY, showing an improving trend. In contrast, the MY 1993-2004 Grand Cherokee has a combined rate of 1.5 fatal and non-fatal incidents per MRVY and the MY 2002-2007 Liberty has a combined rate of 3.4 incidents per MRVY.

B. Record of Deaths, Injuries, Fires and Leaks

Rear Impacts with Fatal Fires

Based on ODI's initial investigation to date, the Grand Cherokee and Liberty vehicles were involved in the following fatal rear impact fire crashes:

GRAND CHEROKEE (ZJ)

An example of a Grand Cherokee involved in a rear impact fatal fire crash is pictured below.

Figure 1 Post-Crash photograph of Grand Cherokee (ZJ) fatal rear impact vehicle.

There were rear impacts to Grand Cherokees (ZJ) with fatal fires in:

Texas: January 16, 1998, 1 fatality.

Indiana: April 27, 1998, 2 fatalities.

Florida: July 12, 1999, 1 fatality.

New York: September 1, 1999, 1 fatality, 1 seriously burned.

California: October 27, 1999, 1 fatality.

Mississippi: December 27, 1999, 3 fatalities.

Louisiana: August 31, 2000, 1 fatality.

California: July 20, 2001, 1 fatality.

California: August 30, 2002, 1 fatality.

Wyoming: April 4, 2003, 1 fatality.

Virginia: August 8, 2003, 1 fatality.

California: February 5, 2004, 1 fatality.

Texas: December 12, 2004, 1 fatality.

South Carolina: April 25, 2005, 1 fatality.

Texas: February 12, 2006, 1 fatality, 1 seriously burned.

New Jersey: February 24, 2007, 1 fatality.

New York: August 15, 2007, 1 fatality.

Florida: September 5, 2007, 2 fatalities.

Illinois: October 16, 2007, 2 fatalities.

Arizona: December 22, 2009, 2 fatalities.

Florida: November 16, 2011, 1 fatality.

Virginia: October 5, 2012, 2 fatalities.

GRAND CHEROKEE (WJ)

The photograph provided below shows a Grand Cherokee in flames after being struck in the rear by a Dodge Dakota pickup truck. A child seated in a rear seat died in this crash.

Figure 2- 1999 Grand Cherokee (WJ) Fatal Fire.

There were rear impacts to Grand Cherokees (WJ) with fatal fires in:

California: July 20, 2003, 2 fatalities.

California: October 4, 2003, 2 fatalities.

South Carolina, December 17, 2003, 2 fatalities.

Pennsylvania: February 27, 2004, 2 fatalities.

Michigan: April 30, 2005, 1 fatality.

Texas: April 28, 2006, 2 fatalities.

Puerto Rico: March 17, 2007, 1 fatality.

Wisconsin: July 3, 2007, 1 fatality.

Texas: July 10, 2009, 1 fatality.

Georgia: March 6, 2012, 1 fatality.

LIBERTY

There were rear impacts to MY 2002 – 2007 Liberty vehicles (KJ) with fatal fires in:

Louisiana: October 31, 2006, 1 fatality.

Pennsylvania, November 3, 2006, 2 fatalities.

California: May 6, 2007, 2 fatalities.

California: April 20, 2008, 1 fatality.

Pennsylvania: July 25, 2010, 1 fatality.

Non-Fatal Post-Rear Impact Fires

A Jeep Liberty that burst into flame after being struck in the rear by a Plymouth Neon is pictured below. The occupants were able to exit the vehicle without being burned.

Figure 3 - Post-Crash photograph of 2004 Jeep Liberty Struck from behind by a Plymouth Neon.

The Grand Cherokee and Liberty have been involved in the following rear impact fire crashes where fire-related fatalities did not occur:

GRAND CHEROKEE (ZJ)

North Carolina, July 9, 1996.

Pennsylvania, October 14, 1996.

New Jersey, March 3, 1998.

Florida, October, 9, 1999.

Maryland, August 3, 2000.

Georgia, November 29, 2000.

Florida, December 27, 2000.

Georgia: August 13, 2001.

Florida, October 6, 2001.

Pennsylvania, June 30, 2002.

Washington, March 15, 2006.

California, August 9, 2006.

Alabama, March 1, 2007.

GRAND CHEROKEE (WJ)

Georgia, October 17, 2000.

Kentucky, November 3, 2002.

Georgia, October 30, 2004.

Texas, October 1, 2009.

LIBERTY

Arizona, January 15, 2004.

Texas, September 17, 2004.

Illinois, November 3, 2004.

Florida, July 11, 2005.

New York, September 30, 2005.

Georgia, November 11, 2006.

Tennessee, November 25, 2006.

Colorado, April 4, 2009.

Virginia, March 30, 2010.

Massachusetts, September 21, 2010.

West Virginia, August 16, 2011.

Post-Rear Impact Fuel Leaks

The photograph below depicts a Jeep Liberty fuel tank that ruptured and leaked after the Liberty was struck from behind by a van in stop-and-go traffic.

Figure 4 Rear Impact Damaged 2002 Liberty Fuel Tank.

The Grand Cherokee and Liberty have been involved in the following rear impacts where post-impact fuel leaks occurred but no fire resulted:

GRAND CHEROKEE (ZJ)

Michigan, July 5, 2012.

LIBERTY

New Jersey, June 14, 2002.

Kentucky, July 19, 2002.

Virginia, November 3, 2003.

Michigan, January 19, 2006.

Georgia, November 22, 2007.

C. Conclusion

ODI's tentative assessment is that MY 1993 – 2004 Jeep Grand Cherokee (ZJ and WJ) and the MY 2002 – 2007 Jeep Liberty contain defects related to motor vehicle safety. In our tentative view, there is a performance defect and a design defect. The performance defect is that the fuel tanks installed on these vehicles are subject to failure when the vehicles are struck from the rear. Such failure can result in fuel leakage, which in the presence of external ignition sources, can result in fire. The design defect is the placement of the fuel tanks in the position behind the axle and how they were positioned, including their height above the roadway. The defects present an unreasonable risk to motor vehicle because people in the MY 1993 – 2004 Jeep Grand Cherokee (ZJ and WJ), the MY 2002 – 2007 Jeep Liberty and in striking vehicles have burned to death in rear impact crashes, there have been fires (without fatalities) in these vehicles from rear impact crashes that have, or could have, led to deaths and injuries, and there have been leaks from Grand Cherokee and Liberty gas tanks from rear impact crashes that could have led to fire and death or injury.

ODI requests that Chrysler initiate a safety recall on MY 1993-2004 Jeep Grand Cherokee and MY 2002-2007 Jeep Liberty vehicles and implement a remedy action that improves their performance in rear-impacts and crashes. ODI requests that Chrysler notify all owners of the defect and that it provide a free remedy to the owners of each of the above vehicles in accordance with 49 U.S.C. § 30118-30120.

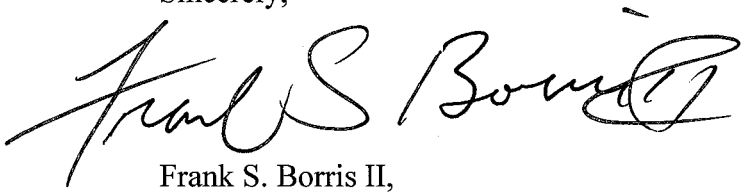
If Chrysler decides not to conduct the requested recall, it must provide ODI with a full explanation of its decision, including any additional analysis of the problem beyond Chrysler's past presentations. If Chrysler fails to initiate a recall, NHTSA may proceed to an Initial Decision that these vehicles contain a safety-related defect. *See* 49 U.S.C. § 30118. An Initial Decision will be accompanied by the publication of a Federal Register notice describing the alleged defects, the safety consequences of these defects, the ODI investigation, the scheduling of a public meeting, and the issuance of a press release to inform the public of this matter.

ODI's recommendation that Chrysler conduct a safety recall does not constitute a formal finding or conclusion by NHTSA with respect to the evidence in our investigative file. Also, this recommendation does not constitute an initial or final agency decision that the MY 1993-2004 Jeep Grand Cherokee and the 2002-2007 Jeep Liberty vehicles contain a safety-related defect pursuant to 49 U.S.C. § 30118, an order to recall those vehicles, or a final agency action.

Chrysler's written response to this letter, in duplicate, referencing the identification codes in the upper right hand corner on page 1 of this letter, must be submitted to this office no later than June 18, 2013. It is important that Chrysler respond to this letter on time. This letter is being sent pursuant to 49 U.S.C. § 30166, which authorizes this agency to conduct investigations and require the submission of reports that may be necessary to enforce Chapter 301 of Title 49. Failure to respond promptly and fully to this letter may be construed as a violation of 49 U.S.C. § 30166, which could subject Chrysler to civil penalties pursuant to 49 U.S.C. § 30165.

If you have any questions about this letter, please contact Mr. Scott Yon of my staff at (202) 366-0139. If you have any questions regarding the recall procedures, please contact Ms. Jennifer Timian of my staff at (202) 366-0209.

Sincerely,



Frank S. Borris II,
Director
Office of Defects Investigation
Office of Enforcement

ATTACHMENT 2

Mr. David L. Strickland
Administrator
NHTSA Headquarters
1200 New Jersey Avenue, SE
Washington, DC 20590
202-366-4000

12 June 2013

Subject: **EA12-005 File Update (Chrysler Jeep Fuel Tank System Safety Defect)**

Reference 1: **3 June 2013 Letter of ODI Director Frank S. Boris to Chrysler Group LLC**
Reference 2: **Chrysler Group LLC 'White Paper on NHTSA's Recall Request' (4 June 2013)**

Three Pages:

Chrysler Group LLC 'White Paper on NHTSA's Recall Request' (4 June 2013).

Media Contact Information:

Eric Mayne
Office: 248-512-6660
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White Paper on NHTSA's Recall Request

Chrysler Group is committed to vehicle and public safety. The Company fully cooperated with NHTSA's review of the 1993-2004 model-year Jeep Grand Cherokee and 2002-2007 Jeep Liberty vehicles, providing technical information and detailed analyses showing these models are safe, and meet or exceed all applicable federal motor vehicle safety standards.

The Subject Vehicles Are Safe: Chrysler Group disagrees with NHTSA's recall request. The subject vehicles are not defective and their fuel systems do not pose an unreasonable risk to motor vehicle safety in rear-impact collisions. These Jeep vehicles have proven to be safe in operation and the Company's analysis shows the incidents at the focus of this request *occur less than one time for every million years of vehicle operation.* Additionally, these vehicles met or exceeded all applicable federal motor vehicle safety standards in place at the time they were built.

The incidents cited by NHTSA are extremely rare and represent only a small fraction of the total number of fatal crashes. The overwhelming majority of traffic fatalities occur in frontal, side, and rollover incidents. Considering all types of events, the 1993-2004 Jeep Grand Cherokee and 2002-2007 Jeep Liberty are among the safest vehicles of their era.

Chrysler Disagrees with NHTSA'S Conclusions: There are a number of problems with NHTSA's analysis, leading, in the Company's view, to a mistaken conclusion to request a recall.

- Vehicle Safety Performance – After an exhaustive engineering analysis, Chrysler Group has found *no evidence* that the fuel systems in the subject vehicles are defective in either their design or manufacture.

  – All of these vehicles exceeded the requirements of NHTSA's FMVSS 301, the standard by which fuel system design is evaluated in the United States.

  – A review of almost 30 years of field data revealed an extremely low number of rear impact crashes with fire or fuel leak that occurred in a fleet of more than five million subject vehicles that have travelled more than 500 billion miles over 50 million registered vehicle years.

- For the vast majority of the incidents cited by NHTSA, the crash force was far in excess of the rear crash fuel leak requirements in place at that time, and even more than the requirements in place today.

- All but one fatal crash involving the subject Grand Cherokees, and all but four Jeep Liberty incidents, involved high-energy crashes. One highly publicized crash cited by NHTSA involved a tractor-trailer traveling 65 mph and a stationary Grand Cherokee. Crash energy was estimated at more than 23 times the required performance threshold. *Seventy-eight percent of Grand Cherokee incidents involved impacts with crash energy that exceeded today's rear impact fuel system integrity standard requirement which was doubled in the fall of 2008.*

- Unrepresentative comparisons – Chrysler Group believes NHTSA used an incomplete and unrepresentative group of comparison vehicles, to determine its "peer group." NHTSA's analysis excludes many models with aft-mounted fuel tanks which had a higher rate of the incidents than the targeted Jeep vehicles.

  Data from NHTSA's Fatality Analysis Reporting System show 24 models – none of which has been subjected to recall – are more likely to be involved in a fire-related, rear-impact fatality than the 2002-2007 Jeep Liberty; 54 models are more likely than the 1993-2004 Jeep Grand Cherokee. *(See Figure 1.)*

- Incomplete data set – NHTSA's analysis does not consider all available data, omitting two of its own data sources in NASS (National Automotive Sampling System) when examining the performance of its peer group vehicles. For example, NHTSA found four incidents of non-fatal fires among its peer sets. However, Chrysler Group found 15 incidents utilizing NASS.

  Data from some peer vehicle incidents were inappropriately excluded from NHTSA's investigation. Our detailed analysis of relevant incidents, after studying FARS and NASS, includes a more complete and accurate peer set, and data set, based on vehicle type (light-duty vehicles), fuel tank location (aft-axle) and model year.

Subject Vehicles Have No Design Defects: NHTSA's recall request contradicts its earlier findings. In 2003, NHTSA concluded it is not necessary to require that fuel tanks be relocated forward of the rear axle. It ruled:

> "We are not proposing to require manufacturers to place each vehicle's fuel tank forward of the rear axle as suggested by Advocates. We believe such a requirement is unnecessary and would be design restrictive. We note that the fuel tank of the 1996 Ford Mustang, which passed the proposed rear impact test requirement, is located behind the rear axle. We believe that this test demonstrates that structural and component design is a more critical factor than fuel tank location in maintaining fuel system integrity."

The decision to locate the fuel tank behind the rear axle has long been recognized by NHTSA and the industry to be a reasonable design choice based on a number of factors, including vehicle use, function and packaging. The FARS and state data analysis submitted to NHTSA supports this.

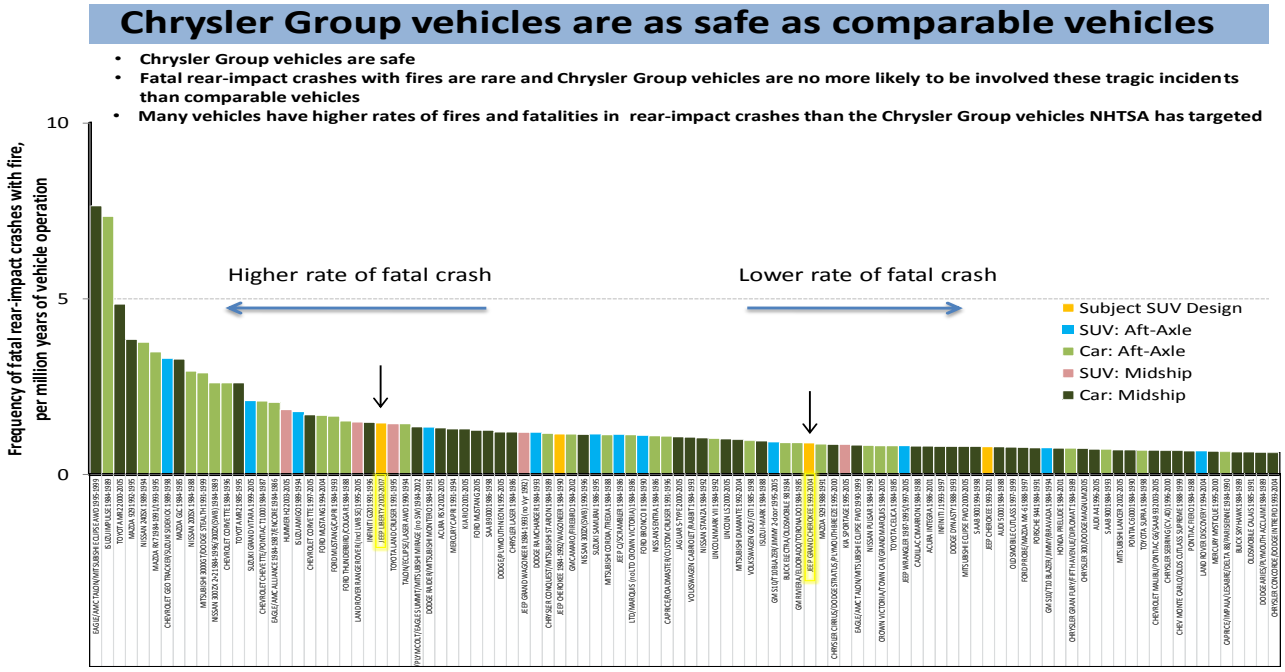
NHTSA also refers to fuel tank height as a design defect. Chrysler Group has provided NHTSA with extensive data regarding fuel tank position. This data reveals fuel tank height and location in our vehicles, relative to bumper position,

is comparable to most of the peer SUVs. Additionally, the analysis shows many cars with fuel tanks behind their rear axles perform worse in rear-impact collisions than the Jeep vehicles. These cars have fuel tanks that are closer to ground level.

NHTSA seems to be holding Chrysler Group to a new standard for fuel tank integrity that does not exist now and did not exist when the Jeep vehicles were manufactured.

The Safety of Drivers and Passengers is Chrysler's First Priority: The safety of drivers and passengers has long been the first priority of Chrysler Group and that commitment remains steadfast. If any one of our vehicles has a safety defect, we fix it.

Figure 1



Notes: Each bar represents a different model of vehicle. Subject SUVs are: Grand Cherokee 1993-2004 and Liberty 2002-2007. Other vehicles are model years 1984-2005. FARS data 1984-2010. Registration data from RL Polk. Rear collision includes either initial or principal impact to clock points 5, 6, or 7. Includes 100 vehicles having the highest rate of rear-impact fatal collisions where the vehicle experienced a post-collision fire.

Chrysler Group has provided NHTSA with information supporting its position and will file additional detail as part of its formal public response

ATTACHMENT 3

Mr. David L. Strickland
Administrator
NHTSA Headquarters
1200 New Jersey Avenue, SE
Washington, DC 20590
202-366-4000

12 June 2013

Subject: **EA12-005 File Update (Chrysler Jeep Fuel Tank System Safety Defect)**

Reference 1: **3 June 2013 Letter of ODI Director Frank S. Boris to Chrysler Group LLC**
Reference 2: **Chrysler Group LLC 'White Paper on NHTSA's Recall Request' (4 June 2013)**

Two Pages:

Chrysler Corporation "Baker Memo" of 24 August 1978.

"C O N F I D E N T I A L

Inter Company Correspondence

File Code: | Date: August 24, 1978

From—Name & Department	Division	Plant/Office	CIMS Number
R. M. Sinclair, Director International Product Development	Product Plan. & Design Office	Chrysler Center	416-20-15

To—Name & Department	Division	Plant/Office	CIMS Number
L. L. Baker, Manager Automotive Safety	Engineering Office	Chrysler Center	418-12-34

Subject: Fuel System Design - Chrysler Passenger Cars And Trucks.

Pursuant to the discussions between Messrs. Vining, Jeffe, Sperlich and yourself with Mr. Mochida on August 22, the fuel system design for domestic passenger cars and trucks is summarized for Mr. Mochida's information.

Not only are the impact performance requirements of MVSS-301 pertinent to the design approach but the significant increase in the last few years in the numbers of product liability cases involving fuel system fires and the increase in the size of the awards by sympathetic juries has to be recognized. In the Ford Pinto case the NHTSA Office of Defects Investigation selected arbitrary performance criteria of minimal or no fuel leakage when the test car is impacted in the rear by a full size car at 35 mph as a basis for questioning the safety of a recall modification of the Pinto.

- Passenger Car

  Fuel Tank Location

  The front wheel drive configuration in Chrysler's Omni and Horizon allowed the fuel tank to be located beneath the rear seat. This location provides the protection of all of the structure behind the rear wheels—as well as the rear wheels themselves—to protect the tank from being damaged in a collision. This same location will be used in the new 1981 K-Body cars which will also have a front wheel drive.

  The rear wheel drive H-Body scheduled for introduction in 1983 will have the fuel tank located over the rear axle and beneath the floor pan.

  The question of whether M, R or J-Body cars should be converted to tank over axle prior to their phase-out is a matter under intensive study at this time.

  Filler Neck And Cap

  As the fuel tank is moved to a more forward location, the fuel fill is moved to the side of the car. The fuel cap will be recessed below the body surface and a fuel fill door provided. The fuel filler neck is designed to break away from the car body with the fuel filler cap still in place.

  In this design the filler cap and fill neck or fill tube remain with the tank to avoid separation and possible fuel leakage. This side fill is scheduled for J and M-Bodies in 1980 and the Y-car in 1981.

The fuel fill is less likely to be damaged in a sideswipe when located on the right side of the car. As new models are introduced, the fuel fill will be moved to the right side of the vehicle. This may also offer greater protection to drivers who run out of gasoline on the highway, since they will fill the tank on the side away from the traffic.

Structure

In 1979 through 1983, the M, R, and J model cars which have the fuel tank under the floor pan behind the rear wheels, structural reinforcement of the longitudinals on each side of the tank, shielding of any unfriendly surfaces adjacent to the tank, and the design of straps and hangers to limit undesired tank movement will be employed.

. Truck

Fuel Tank Location

The same principles regarding fuel tank location apply to truck design. It is important that these larger fuel tanks are not only shielded from damage in a collision but do not break away from the truck and thereby spread fuel onto the roadway. The approach used by Mitsubishi on the SP-27 of locating the fuel tank ahead of the rear wheels appears to provide good protection for the tank.

The front wheel drive T-115 to be introduced in 1982 will have the fuel tank ahead of the rear wheels and under the rear seat. However, in rear wheel drive trucks there is no clearance over the axle for fuel tank installation and in many cases there is insufficient space ahead of the axle for fuel tanks of the desired capacity.

Chrysler is investigating fuel tank relocation ahead of the rear wheels for vans and multi-purpose vehicles, but present plans for pickups through 1983 and for MPV's and vans through 1985 have the fuel tank located behind the rear wheels. In vehicles both with and without bumpers there is a concern with vertical height differences that create a mismatch with passenger car bumpers. Where fuel tank location behind the rear axle is all that is feasible, a protective impact deflection structure may have to be provided whether or not a bumper is provided. An investigation whether to relocate the fuel tank or to provide impact deflecting structures is presently underway.

Fill Neck And Cap

All trucks and vans have side fill. The sweptline pickup truck (DW 1-3) and multi-purpose vehicles (AD-1 & AW-1) will have a recessed fill cap and fuel filler door beginning in 1981.

L. L. Baker

ATTACHMENT 4

Mr. David L. Strickland
Administrator
NHTSA Headquarters
1200 New Jersey Avenue, SE
Washington, DC 20590
202-366-4000

12 June 2013

Subject: **EA12-005 File Update (Chrysler Jeep Fuel Tank System Safety Defect)**

Reference 1: **3 June 2013 Letter of ODI Director Frank S. Boris to Chrysler Group LLC**
Reference 2: **Chrysler Group LLC 'White Paper on NHTSA's Recall Request' (4 June 2013)**

Five Pages:

Photographs of Chrysler Jeep Grand Cherokee.

ZJ-Body Jeep Grand Cherokee:
Typical Customer View (of Fuel Tank)

ZJ-Body Jeep Grand Cherokee:

What Showroom Customer Would See if Fuel Tank was <u>not</u> colored to match rear underbody / rear suspension components.


NEW YORK
THE EMPIRE STATE
STAHLS'
DERBY, CONN.
Jeep
Approximate Lower Edge of "bumper," leaving over seven inches of fuel tank unprotected from direct or underride impact.
Open-ended frame rail where bumper bracket is inserted for mounting.
Unprotected Polyethylene fuel tank
THE HOME DEPOT
HOME OF THE FINEST PAINTS


Upper edge of "structure" at approximately 21.25 inches, which leaves over 7 inches of unprotected fuel tank; unprotected from/during up to 270 degrees of impact angles.
Approximate Lower edge of bumper
Tire Size: LT235/75R15
Distorted slightly by camera angle, lower portion of polyethylene fuel tank (for this vehicle) at approximately 14 inches above ground (when vehicle suspension is not burdened).
THE HOME DEPOT
HOME OF THE FINEST PAINTS
SKU# 611-269
EXTRA GRIP RADIAL
GOODYEAR

ZJ-Body Jeep Grand Cherokee Unprotected Fuel Tank System

Real World Performance of Rear "Structure" and Bumper :
Post 40mph impact test.

ATTACHMENT 5

Mr. David L. Strickland
Administrator
NHTSA Headquarters
1200 New Jersey Avenue, SE
Washington, DC 20590
202-366-4000

12 June 2013

Subject: **EA12-005 File Update (Chrysler Jeep Fuel Tank System Safety Defect)**

Reference 1: **3 June 2013 Letter of ODI Director Frank S. Boris to Chrysler Group LLC**
Reference 2: **Chrysler Group LLC 'White Paper on NHTSA's Recall Request' (4 June 2013)**

Four Pages:

Extract of the Mr. David Dillon presentation of 16 April 2011 to NHTSA PE10-031.

4/16/2011 Chrysler Group Presentation to the Office of Defect Investigations

Initial Assessment - NHTSA's EWR Data

- **Initial Rock Filter to assess if the subject vehicles are over-represented in fire events**

Vehicles (1993-2004 MYs)	Total # Fire Events	Production Volumes	# Deaths	# Injuries
Jeep Grand Cherokee	26	2,968,914	8	21
GM Blazer*	45	2,771,241	22	45
Ford Explorer*	44	4,014,540	32	57
Toyota 4Runner*	3	1,128,360	0	3

NOTE:

- Includes ALL reports of fire
- Data is time limited in that data includes inputs since the 2nd quarter of 2003 and does not include vehicles more than ten years old

Chrysler Group examined the TREAD EWR data and confirmed that the 1993-2004 Jeep Grand Cherokee vehicles are not over-represented in the available EWR data.

Sample Incident Rate Calculation

This table contains Jeep Grand Cherokee US registration data by Model Year and Year of Registration*

	Model Year												
Reg. Year	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	Total
1993	15,557												15,557
1994	152,590												152,590
1995	201,380	185,063											386,443
1996	198,787	215,859	205,594										620,240
1997	192,146	206,275	247,874	213,115	417								859,827
1998	186,201	204,833	241,654	265,931	181,782								1,080,401
1999	180,411	199,728	239,394	254,131	234,468	187,003							1,295,135
2000	171,394	193,034	234,262	252,569	233,814	224,977	189,599						1,499,649
2001	163,764	185,538	225,554	245,998	229,968	224,297	258,487	200,214	1				1,733,821
2002	158,197	179,375	217,590	237,817	222,867	216,903	253,066	267,864	153,083	2			1,906,764
2003	151,247	172,498	209,726	230,680	215,784	214,271	245,484	265,797	196,984	149,021	4		2,051,496
2004	145,330	167,653	202,689	222,840	211,072	207,616	239,147	260,062	192,255	189,037	103,251	48,167	2,189,119
2005	139,625	162,542	196,462	218,004	204,903	203,983	233,767	254,016	190,969	186,545	103,478	238,700	2,332,994
2006	135,294	159,052	193,717	215,808	203,297	202,798	232,005	252,982	188,645	185,680	102,738	287,340	2,359,356
2007	126,766	151,248	186,154	208,635	198,872	198,465	225,851	246,550	184,349	180,885	100,191	281,213	2,289,179
2008	119,757	139,793	174,724	195,281	189,619	191,481	219,554	241,270	180,073	177,706	97,274	275,882	2,202,414
2009	107,796	127,157	161,633	179,930	175,855	181,922	211,157	234,336	174,475	171,644	94,248	266,164	2,086,317
2010	97,807	118,323	153,545	172,924	170,370	175,256	206,227	231,499	174,341	172,470	94,347	265,437	2,032,546
Total	2,644,049	2,767,971	3,090,572	3,113,663	2,673,088	2,428,972	2,514,344	2,454,590	1,635,175	1,412,990	695,531	1,662,903	**27,093,848**

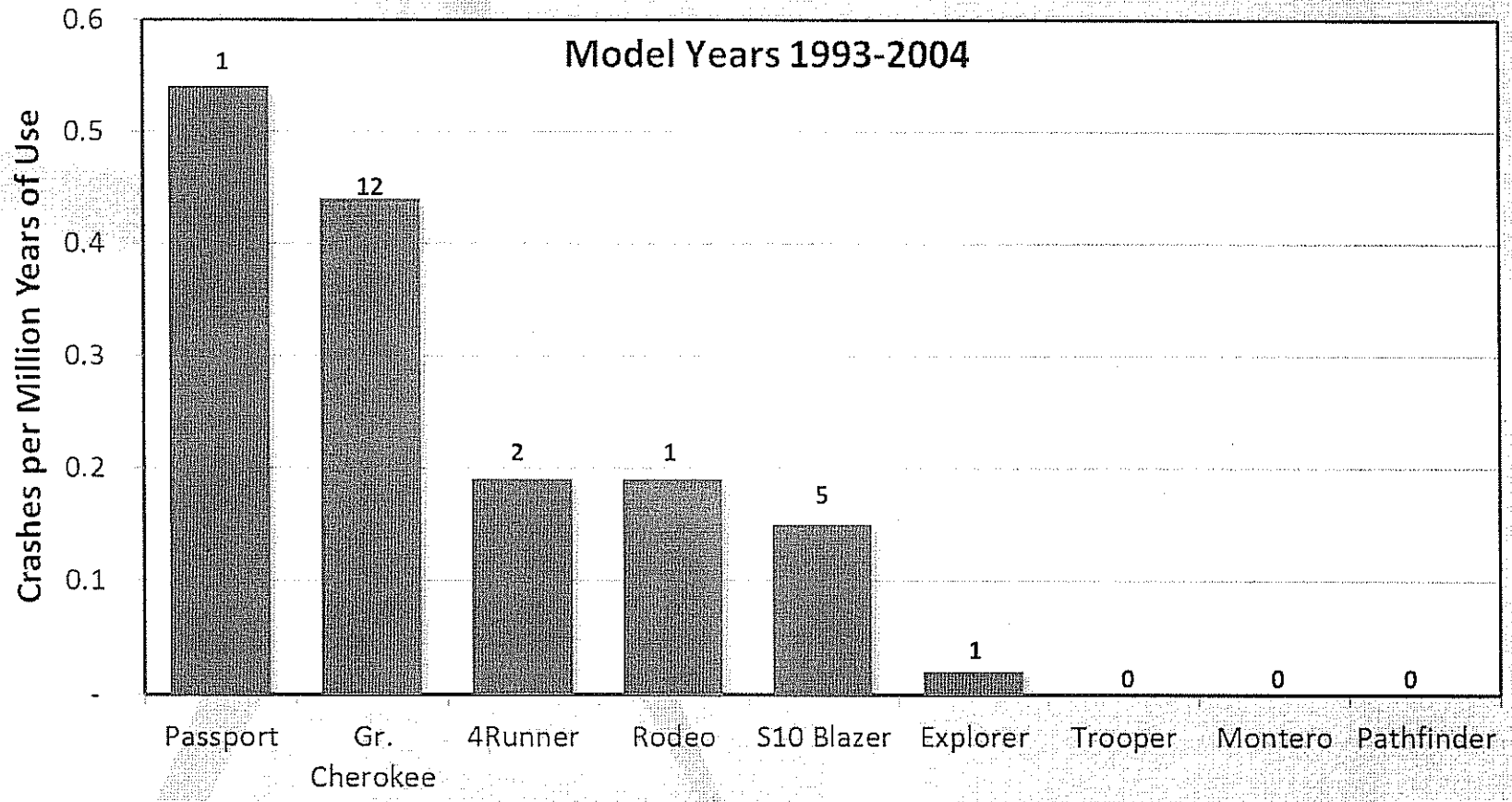
Years of Use, or Registered Vehicle Years (RVY), found by summing registration data by model year and calendar year

Assume that for MY 1993-2004 Jeep Grand Cherokees, there are 12 incidents.
Incident Rate = 12 / 27,093,848 * 1,000,000 = 0.44 incidents per million years of use

* Registration data from RL Polk and Company

Initial FARS Assessment – Rear Impacts with Fire

Assessment of rear impacts with fatalities and fire = MHE



The 1993-2004 Jeep Grand Cherokee vehicles have rates of fatal rear impacts, where fire was the most harmful event, that are comparable to peer SUVs

FARS data from 1992-2009. Registration data from RL Polk. Rates are not staggered. Includes crashes to the rear of the SUV where either initial or principal impact was coded as 5,6 or 7, with a fatality in the SUV, and with Most Harmful Event coded as fire. Explorer includes Mountaineer and Navajo. Montero includes Montero Sport. S10 Blazer includes T10 Blazer, Trailblazer, Jimmy, Envoy and Bravada.

END OF DOCUMENT

Mr. David L. Strickland
Administrator
NHTSA Headquarters
1200 New Jersey Avenue, SE
Washington, DC 20590
202-366-4000

12 June 2013

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