

January 24, 2005

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Kathinen C. DeMeler, Director Office of Defects investigation NHTSA Enforcement Room #6326 400 Seventh Street, S.W. Washington, D.C. 20690

GM-648A

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Dear Ms. DeMeter:

This letter is General Motors (GM) response to your information request (IR), dated November 16, 2004, regarding alleged parking brake ineffectiveness on certain Model Year (MY) 1989-2003 Chevrolet Silverado and GMC Sierra pickup trucks built on the GMT800 pictform vehicles equipped with "drum-in-hat" design parking brakes and manual transmissions. The subject vehicles, as described in your IR, were expanded to include MY 1998-2004 utility vehicles and pickup trucks built on the GMT800 and the GMT400 pictforms with automatic and manual transmissions.

, Your questions and our corresponding replies are as follows:

- State, by model and model year, the number of subject vehicles GM has manufactured for unle or lease in the United States. Separately, for each subject vehicle manufactured to date by GM, state the following:
 - Vehicle Identification number (VIN);
 - b. Model;
 - c. Transmission type;
 - d. Two wheel or four wheel drive;
 - Parking brake manufacturer, type, and RPC;
 - f. Date of manufacture;
 - Date warranty coverage commenced; and
 - h. The zip code in the United States where the vehicle was originally sold or lessed (or delivered for sale or lesse).

Provide this information in seven separate flies, each file corresponding to one of the subject model years in Microsoft Access 2003, or a compatible format, entitled "EA04-011 MY 20xx PRODUCTION DATA." See Enclosure 2, EA04-011 Data Collection Disc, for pre-formatted tables that provide further details regarding this submission.

General Motors is providing the number of subject vehicles produced for sale or lesse in the United States by model, model year, and vehicle platform in Table 1 below. The production information requested in 1a-h is provided on the CD labeled Attachment 1; refer to the Microsoft Access 2000 file in the folder labeled "Response to Q1".

The GM database that contains Vehicle Identification Number (VIN) information closs not include information on the zip code where an individual-vehicle was sold. GM is providing the zip code where the vehicle was shipped in response to request 1h. For some of the subject vehicles, which have incomplete warranty files, the GM warranty system does not contain a warranty start date or state where the vehicle was shipped and therefore these fields are blank.



MAKE/									
Made.	PLATFORM	1998MY	1999MY	2000MY	2001MY	2002MV	2003MY	2004MY	TOTAL
GMC									
Sterra	GMT400	168,381	40,075	39,888	2,916	1,297	N/A	N/A	252,537
	GMIT800	N/A	143,484	186,475	180,711	195,771	193,411	225,992	1,125,844
Chevrolet C/K/									
Silverado	GMT400	540,804	116,703	118,810	6,073	4,335	N/A	N/A	788,725
	CMT800	N/A	429,881	626,293	622,607	642,078	709,703	738,505	3,789,087
Chevrolet Suburben	GMT400	52,204	224,469	N/A	N/A_	N/A	N/A	N/A	276,673
	GMT800	NVA	N/A	85,387	162,775	14 <u>8,242</u>	146,691	132,392	675,487
GMC Suburban	GMT400	698	2,961	N/A	N/A	N/A	N/A	N/A	3,659
Chevrolet Tahoe	GMT400	72,063	221,326	28,758	N/A	N/A	N/A	N/A	320,169
	GMT800	N/A	N/A	72,428	184,331	207,228	214,928	205,207	894,208
GMC Yukon	GMT400	21,908	90,551	17,310	N/A	N/A	A/A	NA.	129,789
	GMTB00	N/A	N/A	26,866	70,850	75,029	80,359	66,700	343,463
GMC Yulkon XL	GMT400	23,127	76,820	N/A	N/A	N/A	N/A	N/A	98,747
	GMT600	N/A	N/A	81,577	70,068	68,307	76,681	96,830	343,463
Cadileo Escalado	GMT400	N/A	19,355	33,854	N/A	N/A	N/A	N/A	53,009
	GMT800	N/A	N/A	N/A	N/A	54,008	37,512	37,650	129,177
Chevrolet Avalenche		N/A	N/A	N/A	N/A	128,437	86,181	96,830	311,448
Cadilisc Escalado EXT	GMITAGO	NA	N/A	N/A	N/A	12,513	11,131	9,441	33,085
Cadilac Escalada ESV	006TM9	N/A	N/A	N/A	N/A	N/A	N/A	18,820	15,820
Hummer H2	GMT800	N/A	N/A	N/A	N/A	N/A	47,928	21,530	6 <u>8,456</u>
Total		579,405	1,384,427	1,265,420	1,310,831	1,538,141	1,613,521	1,649,995	9,621,247

TABLE 1 VEHICLE PRODUCTION

- 2. State the number of each of the following, received by GM, or of which GM is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:
 - 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 demage claims, consumer complaints, or field reports;
 - d. Property damage claims; and
 - Third-party arbitration proceedings where GM is or was a party to the arbitration; and isweults, both pending and closed, in which GM is or was a defendant or codefendant.

For subparts "a" through "e", state the total number of each Item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vahiole are to be counted separately. Multiple reports of the same incident are also to be counted separately (Le_ 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 "e", provide a summary description of the alleged problem and causal and contributing factors and GM's assessment of the problem, with a summary of the significant underlying facts and evidence. For items d and e, 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.

GM is providing records for the expanded subject vehicles and an update for the subject vehicles as described in the response to PE03-057/GM648, dated February 16, 2004. Some of these reports may have been submitted in the original response.

Table 2-1 below summerizes records that could relate to the subject condition.

TYPE OF REPORT	COUNT (MCLUDING DUPLICATES) 214	GM Resourts 214	GM REPORTS CORRES- PONOING TO NHTSA REPORTS	LOCATION OF PREPORTS (ATTACH- MENT)	MARKER WITH PROPERTY DAMAGE 12	Numer WITH CRASH/ FRS1	Magnetic With Injuries	NLAMER WITH PATALITIES Q
Reports Field Reports & Technical Assistance System Reports	65	85	0	28	21	90	9	o o
Not-in-Suit Claime	5	4	1	2C	2	2	3	1
Subregation: Claims	2	2	0	20	0	2	0	G.
Third Party Arbitration Proceedings	0	0	0	N/A	0	0	0	0
Product Lishiby Lawrence	2	2	0	2E	2	2	1	0
Total (including Duplicates)	308	307	1	N/A	37	83	. 18	1
Total (Excluding Outstoon	291	290	1	N/A	29	68	14	1

N/A Not Applicable

TABLE 2-1: REPORT BREAKDOWN

"There were no reports with fire.

The sources of the requested information and the last date the searches were conducted are tabulated in Table 2-2 below.

Source System	LAST DATE GATHERED
Corporate Central File	12/98/2004
Customer Assistance Center	12/01/2004
Technical Assistance Center	12/01/2004
Fleid Information Network Database (FIND)	11/24/2004
Company Vehicle Evaluation Program (CVEP)	11/22/2004
Captured Test Fleet (CTF)	11/22/2004
Early Quality Feedback (EQF)	12/03/2004
Fleid Product Report Database (FPRD)	11/24/2004
Legal / Employee Self (neured Serviçes (ESIS)	11/19/2004

TABLE 2-2: DATA SOURCES

- Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:
 - GM'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.);
 - Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
 - d. Vehicle's VIN:
 - e. Vehicle's make, model and model year:
 - f. Vehicle's mileage at time of incident;
 - g. Inoldent date:
 - h. Report or claim date;
 - Whether unintended movement of the vehicle occurred while the parking brake was engaged;
 - Whether a crash is alleged;
 - k. Whether property damage is alleged;
 - Where an Item was struck, identify the Item;
 - m. Number of alleged injuries, if any; and
 - n. Kumber of alleged fatalities, if any,

Provide this information in Microsoft Access 2003, or a compatible format, entitled "EA04-011 REQUEST NUMBER TWO DATA." See Enclosure 2, EA04-011 Data Collection Disc, for a preformatted table that provides further details regarding this submission.

An electronic summary of the records included in request 2 is provided on the Attachment 1 CD; refer to the Microsoft Access 2000 folder labeled "Response to Q3". For "3L Where an item was struck, identify the Item", GM is unable to respond. This information is available for review in the attached reports. The variety of items that were struck exceeds the capabilities of the GM coding process and could not be incorporated into the summary aprendance.

4. Produce copies of all documents related to each of items "c" through "e" within the scope of Request No. 2. Organize the documents separately by category (i.e., crast/injury/fatality reports, property damage claims, etc.) and describe the method GM used for organizing the documents.

Copies of the records identified in request 2 are provided on the Attachment 1 CD; refer to the Microsoft Access 2000 folder labeled "Response to Q3". The records are viewable by accessing the "Document" and "Attachments" columns.

- 5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by GM to date that relate to, or may relate to, the alleged defect in the subject vehicles: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimburgements; 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. GM's claim number:
 - Vehicle owner or fleet name (and fleet contact person) and telephone number;
 - c VIN:
 - d. Repair date;
 - Vehicle mileage at time of repair;
 - Repairing dealer's or facility's name, telephone number, city and state or ZIP code;

- g. Labor operation number;
- h. Problem code:
- Replacement part number(s) and description(s);
- J. Concern stated by customer; and
- k. Comment, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2003, or a compatible format, entitled "EA04-011 WARRANTY DATA." See Enclosure 2, EA04-811 Data Collection Disc, for a pre-formatted table that provides further details regarding this submission.

For the subject vehicles, the regular warranty claims are summarized by model, model year, and platform in Table 5-1. The MiC extended warranty claims are summarized by model and model year on Table 5-2. A summary of these warranty claims is provided on the Attachment 1 CD; rafer to the folder labeled "Response to Q5." The counts include warranty claims submitted in response to PE03-057/GM848. No additional LWC extended warranty claims were identified. There were no extended warranty claims for the GMT400 platform vehicles.

	_									
Make	Model	Pletform	1998	1960	2000	2001	2002	2003	2004	TOTAL
Cedillec	Escalade	GMT400		103	200					303
		GMT800					2,105	123	4	2,344
Cadilec	Escalado ESV	GMT800						87	25	82
Cedillec	Escalade EXT	GWIT600					303	57	9	369
Chevrolet	Avalenche	GMT800					6,749	534	124	7,407
Chevrolet	C/K/ Silverado	GMT400	1,903	370	415	32	18			2,744
		GMT800		7,501	10,003	12,516	8,977	2,830	928	
CheVrolet	Suburban	GMT400	145	546						603
		GM/T800			5,801	11,905	6,351	966	180	25,204
Chevrolet	Tehou	GMT400	229	671	83					983
		GMT800		ì	3,782	11,448	6,182	1,063	158	22,621
GMC	Sierra	GMT400	687	157	150	5				988
		GMT800		2,525	3,118	3,721	2,787	807	354	13,289
GMC _	Suburban	GMT400	83	274						367
GMC	Yukon	GMT400	22	100	77					205
		GMT800			1,388	4,160	2,227	440	82	8,304
GMC	Yukon XI.	GMT400	83	245				=		328
		GMT800			2,330	5,016	2,492	459	76	10,372
Hummer	H2	GMT800						214	17	231
	TOTAL									139,599

TABLE 5-1 REGULAR WARRANTY CLAIMS (CARD)

				_		-	
Make/Model	Pletform	1999	2080	2001	2002	2003	Total
Chevrolet Avalunche	GMT800				27		27
Cadillao Escalade	GMT800			1	2		2
GMC Bierra	GMT800	7	12	15	7	· —	41
Chevrolet Silvenedo	GMT800	23	48	61	28	1.	151
Chevrolet Suburban	GMT800		74	89	46		200
Chevrolet Tahoe	GN12900		21	81	27	2	131
GMC Yukon	GMTagg		23	76	35	1	135
Total							598

TABLE 5-2 MIC EXPRISED WARRANTY

The sources of the requested information and the last date the searches were conducted are tabulated in Table 5-3 below.

SOURCE SYSTEM	LAST DATE GATHERED
GM North America Claim Adjustment Retrieval Database (CARD-	11/23/2004
regular warranty)	
Motors Insurance Corporation (MIC – extended warranty)	11/22/2004
Universal Warranty Corporation (UWC - extended warranty)	12/15/2004

TABLE 5-3 DATA SOURCES

GM's warranty database dose not contain the vahicle owner's name or telephone number. Only some warranty records include the replacement part numbers, part descriptions, and customer concern code descriptions. GM is providing a field labeled "Verbatim Text" in response to request 6k (desler/technician comment). The verbatim text is an optional field in the GM warranty system for the desier to enter any additional comments that may be applicable to the warranty claim. The verbatim text field is not required to be completed for every warranty claim.

The MIC extended warranty system does not contain the following information: repairing dealer code, vehicle owner information, trouble code, trouble code description, part number, part description or verbetim text. The UWC extended warranty system does not use the GM labor code or labor code description, and it does not contain the repairing dealer code, trouble code or trouble code description.

The warranty data provided has limited ensiytical value in analyzing the field performance of a motor vehicle component. The warranty records do not contain sufficient information to establish the condition of the part at the time of the warranty correction; and service personnel may not consistently use the appropriate labor and trouble codes. Warranty numbers represent claims by our dealers for reimbursement for parts and labor costs incurred in performing warranty service for our customers.

6. Describe in detail the search criteria used by QM 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 in Microsoft Access 2000, or a competible format. State, by make and model year, the terms of the new vehicle warranty coverage offered by GM on the subject vehicles (i.e., the number of months and reliesge for which coverage is provided and the vehicle systems that are covered).

The regular warranty data from the GM CARD database and the extended warranty data from MIC were collected by searching for the labor codes lighted in Table Q6-1 below:

LABOR CODE	DESCRIPTION
_ H2800	Park Brake Adjust
H3052	Park Brake Shoe (Replace)

TABLE Q6-1: LABOR CODES USED IN CARD & MIC SEARCH

UWC extended warranty data was collected by searching for any repair involving a subject vehicle using the UWC repair code 05098 - Brakes - Misc.

The subject vehicles, with the exception of the Cadillac vehicles, are covered by a bumper-to-bumper new vehicle limited warranty for three years or 36,000 miles whichever occurs first. The Cadillac subject vehicles are covered by a bumper-to-bumper new vehicle limited warranty for four years or 50,000 miles, whichever occurs first. This does not include adjustments and normal maintenance items. Many extended warranty options are available through GM dealerships. They are offered at different prices and for varying lengths of time, based on customer's preference, up to 7 years from the date of purchase or up to a total of 100,000 vehicle miles.

The warranty data provided has limited analytical value in analyzing the field performance of a motor vehicle component. The warranty records do not contain sufficient information to establish the condition of the part at the time of the warranty correction; and service personnel may not consistently use the appropriate labor and trouble codes. Warranty numbers represent claims by our dealers for reimbursement for parts and labor costs incurred in performing warranty service for our customers.

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 GM has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, building, 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 GM is planning to issue within the next 120 days.

GM provided documentation in the response to PE03-057/GM648 dated February 16, 2004 that relates to the subject condition. GM is providing the following documents that were tasked since that response.

DOCUMENT I.D.	- DOCUMENT TITLE	ISSUE DATE
1430493	Info-Rear Parking Brake Shoe Retaining Spring Clip Service Kit for Drum-In-Hat (DIH) Equipped Vehicles #02-05-26-001A	1/16/2004
1541653	Info-Rear Parking Brake Shoe Retaining Spring Citp Service Kit for Drum-In-Hat (DIH) Equipped Vehicles #02-05-26-001B	8/2/2004
1636759	PIT#3080 99-04 Light Duty Trucks and Vens with Rear Disc Brakes Information on Resurfacing Park Brake Portion of Rear Brake Rotor	7/22/2004

TABLE 7 BULLETINS

GM is not plenning to issue within the next 120 days any additional service, warranty or other technical document or communication to its dealers, regional offices, zone offices or other entities regarding the subject condition on the subject vehicles.

The preceding information was collected from GM Service Operations. The data collection was completed on December 9, 2004.

- 5. Occoribe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (ocliectively, "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, Gill. For each such action, provide the following information;
 - a. Action title or identifier;

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- b.. The actual or planned start date;
- c. The actual or expected and date;
- d. Brief summary of the subject and objective of the action:
- Engineering group(s)/supplier(s) responsible for designing and for conducting the action;
- 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.

Per a telephone conversation with Greg Magno of NHTSA it was agreed that GM would provide an update on actions relating only to vehicles built on the GMTB00 platform.

The information listed in Table 8 below is a summary of actions performed by or for GM regarding the autiject condition on the GMT800 platform vehicles. The non-confidential documents are provided on the Attachment 1 CD; refer to the folder labeled "Response to Q8". The confidential documents are provided on the CD labeled Attachment 2- Confidential; refer to the folder labeled "Response to Q8-confidential."

Action: Parking brake module would not supply load to the parking brake cable.

Attachment 1 CD, Response to Q8, Action 8A

Start Date: February 2002 End Date: September 2002

Engineering Group: GM Engineering- Brake Group

Description: PRTS N108198 request root cause analysis from pedal supplier (Durs).

Summery of Action: The module was assembled incorrectly from the supplier. Issue was addressed and

received by supplier quality.

Action: PRTS 109973- broken park brake assembly

Attachment 1 CD, Response to Q6, Action 68 Start Date: April 2002

Start Date: April 2002 End Date: October 2003

Engineering Group: GM Engineering-Brake Group and Supplier Description: Determine root cause of broken park brake edjuster out. Summary of Action: Supplier evaluated material for heat treat operation.

Action: PRTS 144446- park brake loss of function Attachment 1 CD, Response to Q8, Action 8C

Start Date: August 2002 End Date: October 2002

Engineering Group: GM Engineering- Brake Group and Supplier Description: Determine root cause of park brake ineffectiveness.

Summary of Action: The root cause was determined to be broken adjuster nut halves found on the inner surfaces of the park brake shoes. The solution was to increase the wall abutment tube and to reduce the tolerance of the ID (EWO#89429).

Action: Park brake lever making contact with the bracket on differential for 1500 series utilities.

Affectment 1 CD, Response to Q8, Action 8D

Attachment 2 CD- Confidential, Response to QB, Antion 8D-Confidential

Start Date: October 2003 End Date: January 2005

Engineering Group: GM Engineering- Broke Group

Description: PRTS N147618 reported park brake inoperative and does not hold vehicle on incline. Summary of Action: Review of vehicle showed LH park brake actuator to be in hard contact with the suspension bracket on the side during apply. This caused the park brake shoes to remain in contact with the drum and they were out completely. It was determined that in extreme instances the stack-up tolerances could cause this interference. A change was made (EWO# BAYGR) from the bent neit lever design to the hook and loop design currently in use on the pick-ups.

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Action: Obtain additional data points for lining wear model.

Attachment 1 CD, Response to CS, Action SE Start Date:(update- previously submitted)

End Date: 10/22/2004

Engineering Group: PBR- Detroit (Supplier)

Description: Developed a vehicle test that will produce park brake lining wear due to vehicle manguvers and

exposure. Collect additional data on park brake linking wear for various clip designs.

Summary of Action: PBR developed a vehicle test achedule. Data was collected and analyzed utilizing this

test schedule on 1500 series, C/K trucke equipped with various clip designs.

Action: Development /testing for a new return apring dealign

Attachment 1 CO, Response to Q8, Action 8F

Attechment 2 CD- Confidential, Response to Q8, Action 8F-Confidential

Start Date: (update- previously submitted)

End Date: 11/04/2004

Engineering Group: GM Engineering- Brake Group

Description: Perform hill hold tests on multiple drum-in-hat brake systems with various return spring

configurations.

Summary of Action: Performance of new return spring on various brake systems satisfactory for GVW on 20/30% grade hill hold. Evaluated results against VTS (Vehicle Technical Specifications) with mixed results.

Action: Warranty analysis

Attachment 1 CD, Response to Q8, Action 8G

Start Date: 2/13/2004 End Date: 4/06/2004

Engineering Group: GM Product Investigations

Description: Compare park broke warminy for verious truck platforms.

Summary of Action: Presentation of warranty charts was made to the vehicle team.

Action: IR report enalysis

Attachment 1 CD, Response to Q8, Action 8H

Start Date: April 2004 End Date: on-going

Engineering Group: GM Product Investigations

Description: Raview and analyze reports submitted to NHTSA with cresh or injury.

Summary of Action: Observed higher number of reports in states that require testing for registration, re-eate or other purposes. Conducted a survey to obtain additional information on thirteen incidents. Six surveys were completed.

Action: Hill hold demonstration

Attachment 1 CD, Response to Q6, Action 8I

Start Date: 6/21/2004 End Date: 7/02/2004

Engineering Group: GM Engineering- Brake Group

Description: Evaluate the parking brake effectiveness on a buy-back, high mileage 2000MY Chevrolet Stiverado pictup truck (automatic transmission) equipped with the PBR parking brake that had never been

serviced and rarely used. Simulate a menual transmission pickup using neutral gear.

Summery of Action: The parking brake was out of adjustment and had worn linings as received. After setting the parking brake, it was immediately obvious that it would not hold the vehicle on test grades of 11.6% and 20% in N (neutral) gear. The vehicle habit all grades in P(park) page.

Action: Hill hold demonstration on leaser grades per NHTSA request

Attachment 1 CD, Response to Q8, Action 8J

Start Date: 12/06/2004 End Date: 12/06/2004

Engineering Group: GM engineering- brake group

Description: The vehicle used in the June 2004 hill hold demo was located, equipped with the original equipment, and in to the "as received" from the field condition (out of adjustment). The vehicle was

evaluated on 2.6% and 4.4% grades in N gear with the park brake applied.

Summary of Action: For the 2.8% grade at Lightly Loaded Vehicle Weight (LLVW), the vehicle did not roll upon exiting the vehicle or stamming doors. The vehicle could be pushed but it did not roll away and only moved so long as and so far as the pushing force was applied. For the 2.8% grade at GVW and 4.4% grade at LLVW, the vehicle immediately rolled.

Action: Present park brake investigation to Field Performance Evaluation (FPE).

Attachment 2 CD- Confidential, Response to QB, Action 6K

Start Date: Dec. 2004 End Date: TBD

Engineering Group: GM Product Investigations

Description: Gether and prepare FPE documentation for presentation.

Summary of Action: Documentation is in draft form and has not been presented.

TABLE 8 SUMMARY OF ACTIONS

- State the number of each of the following that GN has cold that may be used in the subject vehicles by component name, part number (trath service and engineering/production), model and model year of the vehicle in which it is used and monthlycer of sale (including the cut-off date for sales, if applicable):
 - a. Subject component; and
 - Any kits that have been released, or developed, by GM 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 GM is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

The requested information is provided on the CD in Attachment 1; refer to the Microsoft Excel file titled "GMSPO – Parking Brake" in the folder labeled, "Response to Q8." These sales numbers represent sales to dealers worldwide. This data has limited analytical value in analyzing the field performance of a motor vehicle component because the records do not contain sufficient information to establish the reason for the part sale. It is not possible from this data to determine the number of these parts that have been installed in the subject vehicles or the number remaining in dealer or replacement part supplier inventory.

Monthly part sales information available for the most recent 24 months have been included.

The source of the requested information, current se of December 2, 2004, is GM Service Parts Operations.

Table Q9 below identifies other GM vehicles that use either the PBR 210x30 mm or the TRW 206x42 mm park brake systems.

MAKE / MODEL	2002 MY	2003 MY	2004 MY	2005 MY
Chevrolet Traiblazer	PBR	PBR	PBR	PBR
Chevrolet Traiblazer EXT	PBR	PBR	PBR	PBR
Chevrolet Express 1500	N/A	PBR	PBR	PBR
Chev Express 2500 & 3500	N/A	TRW	TRW	TRW
Chevrolet Astro	N/A	PBR	PBR	PBR
Chevrolet SSR	N/A	PBR	PBR	PBR
GMC Envoy	PBR	PBR	PBR	PBR
GMC Envoy XL	PBR	PBR	PBR	PBR
GMC Savana 1500	N/A	PBR	PBR	PBR
GMC Savana 2500 & 3500	N/A	TRW	TRW	TRW
GMC Safari	N/A	PBR	PBR	PBR
Oldsmobile Bravada	PBR	PBR	PBR	N/A
lauzu Ascender	PBR	PBR	PBR	PBR

TABLE 9: OTHER GM VEHICLE USES OF PBR OR TRW DRUM-IN-HAT PARK BRAKE SYSTEM

- N/A Not Applicable (either vehicle not produced or vehicle did not use the subject parts)
- 10. Identify the five largest fleets in the United States that utilize the subject vehicles. Separately identify the five largest fleets within the region encompassed by Washington DC, Delaware, Maryland, New Jersey, Pennsylvania, Virginia, Ohio, and West Virginia that utilize the subject vehicles. For each of the fleets identified, state the following:
 - a. Fleet name and address;
 - b. Point of contact name and telephone number; and
 - Number of subject vehicles sold to that fleet by model name.

GM has identified five dealerships with the largest number of fleet vehicles ordered for the states listed above. GM is providing the number of subject vehicles delivered to those dealers by model in the folder labeled "Response to Q10" on the CD labeled Attachment 1. Due to the size of the database and the limitations of computer hardware/ software currently available, GM is unable to determine the five largest fleets in the U.S. or the five largest dealership fleet orders in the U.S. The GM database dose not have fleet name or address information.

DEALER NAME, STATE, PHONE NUMBER	1998	1999	2000	2001	2002	2003	2004
DAVID PENSKE CHEVROLET, INC PA (810) 337-3100	1433	886	1580	2525	1805	2049	2530
FAIRWAY MOTORS, INC PA (570) 455-7701	50	- 292	1075	255	783	616	292
CAPITAL GMC TRUCKS, INCVA (804) 222-4600	519	513	321	603	264	276	341
ASPLUNDH BUICK/GMC TRUCKS, INCN.) (809) 597-4700	446	248	638	394	301	314	380
BERGLUND CHEVROLET, INCVA (540) 344-1461	407	405	457	150	330	400	345

TABLE 10: Five Dealerships in D.C Area with largest maker of fleet vehicles ordered

11. Identify any contributory factors that can permit a parked subject vehicle equipped with parking brakes that do not adequately hold to display a "delayed rollaway" condition (e.g., an apparently stationary vehicle begins to roll after the exit of its driver), rather than an immediate rollaway that would be readily detectible.

GM understands a "delayed rolleway" condition to be one in which the driver sets the perk brake per the owner's menual, exits the vehicle, and at some later time the vehicle rolls without any further interaction with the vehicle (ie. loeding cargo, changing gears, release of park brake, or the vehicle pushed or rocked). GM is not aware of any "delayed rollaway" conditions or any mechanical (non-environmental) contributory factors that could permit a parked subject vehicle with a perk brake property applied to roll after the exit of the driver. GM has evaluated a high mileage subject vehicle with the parking brake out of adjustment and worm linings on various grades and has been unable to produce a "delayed rollaway". See hill hold documentation in response to question 8 of this letter.

12. Update the brake system description document enclosed with GM's response to ODI's PE03-057 to include the MY 1998 GMT400 vehicles added to this information Request.

Listed below are the brake system identifiers commonly used within the GM Truck Brake Group to define the various brake systems used on the various GMT400 models for the 1998 model year.

- RPO JB5 This brake system is used on C/K 10 series pickup truck and SUV models with GVWR's < 6,400 lbs not equipped with a diesel engine or for sale in Venezuela. This brake system utilizes a 240 mm die, tendem vacuum booster, 1x75 mm single piston front calipers with 284 mm dia, front rotor, and a 254 x 57 mm drum brake with a 30.2 mm wheel cylinder. The drum brake contains both park brake and service brake functions.
- RPO JD5 This brake system is used on C/K 10 series pickup truck and SUV models with GVWR's < 8,450 lbs either equipped with a dissellengine or for sale in Venezuela. It is similar to the JB6 brake system with the difference being in the apply system. This brake system utilizes a Hydroboost brake booster, 1x75 mm eingle piston front calipers with 294 mm die, front rotor, and 254 x 57 mm drum brake with a 30.2 mm wheel cylinder. The drum brake contains both park brake and service brake functions.
- RPO JB6 This brake system is used on C/K 10 and 20 series pickup truck and SUV models with GVWR's 8,800 7,300 lbs not equipped with a disset engine. This brake system utilizes a 240 mm dia, tandem vacuum booster, 1x76 mm single piston front calipers with 294 mm dia, front rotor, and 283 x 70 mm drum brake with a 25.4 mm wheel cylinder. The drum brake contains both park brake and service brake functions.
- RPO JD8 This brake system is used on CAK 10 and 20 series pickup truck and SUV models with GVWR's 6,800 7,200 lbs equipped with a diesel engine. It is similar to the JB6 brake system with the difference being in the apply system. This brake system utilizes a Hydroboost brake booster, 1x76 mm single piston front calibers with 294 mm dia, front rotor, and 283 x 70 mm drum brake with a 25.4 mm wheel cylinder. The drum brake contains both park brake and service brake functions.
- RPO JB7 This brake system is used on C/K 20 series pickup truck models with GVWR's of 6,600 fbs not equipped with a diesal engine. This brake system utilizes a 240 mm die, tandem vacuum booster, 1x80 mm single piston front calipers with 316 mm die, front rotor, and

 330 x 64 mm drum brake with a 27 mm wheel cylinder. The drum brake contains both park brake and service brake functions.

- RPO JD7 This brake system is used on C/K 10 and 20 series SUV and C/K 20 series pickup truck models with GVWR's 7,700 8,606 libe equipped with a diesel engine. It is similar to the JB7 brake system with the difference being in the apply system. This brake system utilizes a Hydrobocat brake booster, 1x80 mm single piston front calipers with 318 mm dis. front rotor, and 330 x 64 mm drum brake with a 27 mm wheel cylinder. The drum brake contains both park brake and service brake functions.
- RPO JB8 This brake system is used on C/K 30 series pickup truck and C/K 31 series chassis cab models with dual rear wheels with GVWR's 9,000 12,000 lbs GVWR. This brake system utilizes a Hydroboost brake booster, 1x80 or 1x86 mm single piston front calipers with 318 mm dis. front rotor, and 330 x 64 mm drum brake with a 27 or 30.2 mm wheel cylinder. The smaller calipers and wheel cylinders are used for GVWR's between 9,000 and 9,800 lbs, whereas the larger components are used for GVWR's between 10,000 and 12,000 lbs. The drum brake contains both park brake and service brake functions.
- This brake system is used on C/K 31 series chassis cab models with dual reer wheels with GVWR's of 15,000 lbs. This brake system utilizes a Hydroboost brake booster, 1x86 mm single piston front calipers with 353 mm die, front rotor, 1x86 mm single piston or 2x66 mm twin piston rear calipers with 355 mm die, reer rotors, and a transmission mounted park brake. The 1x86 mm single piston rear caliper is used on vehicles without the wracker provisions, RPO 5x9, whereas the 2x86 mm twin piston rear caliper is used on vehicles with the wracker provisions.
- 13. Describe in detail the conditions under which a subject vehicle equipped with an automatic transmission may be shifted either intentionally or unintentionally out of Park. Conditions should include the state of charge of the vehicle's battery, ignition lock position, and service brake status.

GM is unaware of any condition where the vehicle can be unintentionally shifted out of Park.

ignition switch positions for the GMT400 and GMT 800;

The GMT400 ignition is a 5-position switch with positions: ACC; OFF-LOCK; OFF; RUN; START, The GMT800 ignition is a 4-position switch with positions: OFF LOCK; ACC; RUN; START.

Any of the following scenerios describe the conditions that must occur to intentionally shift an suternatic vehicle from Park for the GMT 400 and GMT 800.

- 1. Key in the ignition in the OFF position for GMT400 or in the ACC position for GMT800.
- Battery voltage in the approximate range of 9.0V to 18.0V, key in the ignition in the RUN or -START position, and the brake pedal depressed at least 8.5 mm.
- Battery voltage less than approximately 9.6V, and key in the ignition in the OFF/RUN/START
 position for GMT400 or ACC/RUN/START for GMT500.
- 14. For each vehicle identified in items "c" through "e" of Request No. 2, and in Enclosure 1 of this letter, provide the following:
 - A vehicle service history;

- b. Date and description of any repairs or service performed on the parking brake system after the roll event;
- c. GM's assessment of the event's causal factors including:
 - Whether premature wear of the parting brake finings as described in Service Ediletin 02-05-26-002A contributed to vehicle's movement; or
 - ii) Ressons why the event may be unrelated to this wear.

GM is providing the vehicle claim summary in response to part a and b of this question for the VINs listed in Enclosure 1 and the vehicles identified in Request No. 2 items c-e. This information can be found in the folder labeled "Response to Q14" on the Attachment 1 CD.

It cannot be determined from the owner description "whether premature wear of the parking brake finings as described in Service Bulletin 02-06-26-002A contributed to vehicle's movement" (Request No. 14. c.l). For many of the reports, there is not enough information to determine if the alleged failure to hold is due to inadequate pedal apply force, wear due to driving with the park brake on, need for a park brake adjustment, whether the operator is following the Owner's Manual recommendations for proper usage of the park brake, or normal wear-out. In reference to parking brake lining wear, GM's response to Request No.13a of PE03-057/GM646 for the expected service interval in terms of months in service and mileage was:

"The vehicle Owner's Manual recommends that the parking brake be checked at least once per year, or more often if driving habits result in frequent use.

No requirements are specifically stated in the GM Vehicle Technical Specification (VTS) or Sub-System Technical Specification (SSTS) for the parking brake linings in terms of either mileage or months in service.

The perking brake lining wear is affected by contact between the rotor/drum and the park brake shoe/lining. Several examples of typical customer usage, which can result in incremental wear of the parking brake lining, that will eventually require readjustment of the parking brake shoe to drum clearance to maintain the design intent function of the park brake, are listed below.

- Use of the parking brake as a dynamic / service brake. Note: This type of parking brake usage is expressly identified in the vehicle Owner's Manual as causing everheating and leading to brake replacement.
- Insufficient application of the parking brake that allows the vehicle to roll before reapplying the parking brake.
- 3. Use of the parking brake as a manual transmission hill hold feature to prevent vehicle rollback when engaging the clutch. When the vehicle is stopped on a grade, the parking brake is applied. As the clutch is engaged, the parking brake release lever is actuated by the operator, which gradually releases the parking brake as the vehicle begins moving.
- Overloading of the vehicle beyond the Rear Gross Axie Weight Rating (RGAWR) can result in increased deflection/bending of the rear axis shaft and incidental contact with the parking brake lining.

Paragraph VTS 3.2.1.1.3.7.1 <u>Vehicle Parking Gradesbillty</u> specifies that the park brake shall hold the vehicle stationary at GVW, with the transmission in nautral. Vehicles shall comply with the requirements specified in Table 3.2.1.1.3.7.1 - I Vehicle Parking Gradesbillty, after having completed 10,000 miles of the Phoenix City Traffic Brake Wear schedule.

Paragraph SSTS 3.2.3.3. <u>Reliability</u> is intended to address the structural durability requirements of the parking brake system and not parking brake hill hold performance based requirements. The parking brake lining is considered a weer-out item.

The paragraphs releting to the expected usage and service interval for the parking brake system were obtained from the 1999-2001 GMT800 Vehicle Technical Specification (VTS) GMT800 VTS, Rev. 74, and can be found in Attachment 1 CD (disc 5) in the folder lebeled "Response to Q13 a" in the Microsoft Word file titled "VTS"."

GM brake engineers reviewed the reports for the VINs listed in Enclosure 1 and the reports included in Request No. 2 with crash, injury, fatality, or property damage. Without examining the actuel parts and vehicles in the incident environments, it is difficult to make a determination of the causal factors. Based on the verbatims and observations in the reports, the engineers identified possible factors that may have contributed to vehicle movement or reasons why the event may be unrelated to wear. Table 14-1 lists the VINs/reports from Enclosure 1 with GM's assessment. Table 14-2 lists the VINs/reports from Request No. 2 items c-e of this response.

TABLE 14-1 VIN (LAST 5 DIGITS)	001	GM'S ASSESSMENT 14CJ RICIDENTS WITH REPORTED WEAR:
16360	<u> </u>	Dealer inspection: Pada slightly worn
07844		Park brake out of adjustment. Reptaced complete park brake system.
73289		Pads were slightly worn.
20800		Park brake linings on back order.
31227		Park brake linings required adjustment.
43706		LH park brake worn.
15003		PB required adjustment.
45392		Park brake required edjustment.
29164		Park brake shoes worn. Driver should have applied service brakes.
70143		Park brake needed adjustment.
26937		Park brake linings word.
37526		Wear on driver's aide park brake.
55351		Wear on park brake shoes.
WN		GM's assessment
(LAST 5 DIGITS)	ᅃ	14C.S REASONS WHY EVENT MAY BE UNRELATED TO WEAR
(LAST 5 DIGITS) 03461	001	14C.S REASONS WHY EVENT MAY BE UNRELATED TO WEAR LOSDINg tractor onto trailer without chocking wheels.
(LAST 5 DIGITS)	ODI	14C.S REASONS WHY EVENT MAY BE UNRELATED TO WEAR Loading tractor onto trailer without chocking wheels. Park braice partially applied on 40% grade.
(LAST 5 DIGITS) 03461	ODI	14C.S REASONS WHY EVENT MAY BE UNRELATED TO WEAR LOSDINg tractor onto trailer without chocking wheels.
(LAST 5 DIGITS) (3461 30802	ODI	14c.s REASONS WHY EVENT MAY BE UNRELATED TO WEAR Loading tractor onto trailer without chocking wheels. Park brake partially applied on 40% grade. Vehicle tested on steep incline with driveline load and vehicle did not
(LAST 5 DESTE) 03461 30502 17154	ODI	14c.s REASONS WHY EVENT MAY BE UNRELATED TO WEAR Loading tractor onto trailer without chocking wheels. Park brake partially applied on 40% grade. Vehicle tested on steep incline with driveline load and vehicle did not move. New driver to vehicle. Customer complete stated to stuck pedal. Unable to duplicate.
(LAST 5 DESTE) 03461 30802 17154 23086	ODI	14c.s REASONS WHY EVENT MAY BE UNRELATED TO WEAR Loading tractor onto trailer without chocking wheels. Park brake partially applied on 40% grade. Vehicle tested on steep incline with driveline load and vehicle did not move. New driver to vehicle.
(LAST 5 DEGITS) 03461 30802 17154 23086 12724	ODI	14c.s REASONS WHY EVENT MAY SE UNRELATED TO WEAR Loading tractor onto trailer without chocking wheels. Park brake partially applied on 40% grade. Vehicle tested on steep incline with driveline load and vehicle did not move. New driver to vehicle. Customer complaint related to stuck pedal. Unable to duplicate. Vehicle in drive with park brake applied. Additional load of driveline on
(LAST 5 DESTE) 03461 30502 17154 23066 12724	ODI	14c.s REASONS WHY EVENT MAY BE UNRELATED TO WEAR Loading tractor onto trailer without chocking wheels. Park brake partially applied on 40% grade. Vehicle tested on steep incline with driveline load and vehicle did not move. New driver to vehicle. Customer complaint retailed to stuck pedal. Unable to duplicate. Vehicle in drive with park brake applied. Additional load of driveline on park brake.
(LAST 5 DIGITS) 03461 30802 17154 23086 12724 19144 12317	ODI	14c.s REASONS WHY EVENT MAY BE UNRELATED TO WEAR Loading tractor onto trailer without chocking wheels. Park brake partially applied on 40% grade. Vehicle tested on steep incline with driveline load and vehicle did not move. New driver to vehicle. Customer complaint related to stuck pedal. Unable to duplicate. Vehicle in drive with park brake applied. Additional load of driveline on park brake. Loading tractor onto trailer without chocking wheels.
(LAST 5 DESTE) 03461 30802 17154 23086 12724 19144 12317 70864	ODI	Loading tractor onto trailer without chocking wheels. Park brake partially applied on 40% grade. Vehicle tested on steep incline with driveline load and vehicle did not move. New driver to vehicle. Customer complaint retailed to stuck padel. Unable to duplicate. Vehicle in drive with park brake applied. Additional load of driveline on park brake. Loading tractor onto trailer without chocking wheels. Park brake not used. Unloading automatic trans, vehicle with geer in neutral. Shifting large
(LAST 5 DESTE) 03461 30802 17154 23086 12724 19144 12317 70664	ODI	Loading tractor onto trailer without checking wheels. Park brake partially applied on 40% grade. Vehicle tested on steep incline with driveline load and vehicle did not move. New driver to vehicle. Customer complaint related to stuck pedal. Unable to duplicate. Vehicle in drive with park brake applied. Additional load of driveline on park brake. Loading tractor onto trailer without checking wheels. Park brake not used. Unloading automatic trans, vehicle with gear in neutral. Shifting large load in bad.

VIN		GM's assessment
(LAST 5 DIGITS)	ODI	INCLUENTS WITHOUT ENDUGH INFORMATION:
66093		Not enough information on park brake lining condition.
15829		Not snough information.
48843		Not enough information.
47769		Not enough Information. Vehicle repaired by husband.
03299		Not enough information.
39750		Not enough Information.
47780		Not enough information.
109794		Not enough information.
31285	10095641	No information about what type of repair needed.
67938	10092245	No information about what type of recair needed.
	10076095/	
68247	10098835	No information about lining condition. No inspection report attached,
17162		No information about linings. Only comment that pedal goes to floor.
		From police report, park brake pedal applied 7/8 of the way down to the
08119	10087034	floorboard.
VIN		
(LAST 5 DIGITS)	ODI	VOQS NOT SUPPLIED NETH IR:
221235	872756	Not enough information.
(blank)		Not enough information.
(blank)		Not enough information.
(blank)		Not enough information.
27302		Not enough information.

. TABLE 14-1: ENCLOSURE 1 VINS

TABLE 14-2 VIN (LAST 5 COOKS)	GM's ASSESSMENT 14CJ INCOUNTS WITH REPORTED WEAR:
23085	Vehicle rolled overnight per customer. Dealer replaced worm shose.
15223	Inspection replaced rear brakes and adjustment of cable. No information in
15223	second report.
15003	Inspection indicates out of alignment.
43452	Inspection showed wear on both primary shoes.
18360	Park Brake out of adjustment, slightly worn. New linings as Goodwill Gesture.
15360	
31227	Park Brake needed adjustment.
31945	Park Brake needed edjustment.
20800	Park brake linings on back order.
22009	Perk Brake needed adjustment.
22009	
73289	Park Brake needed adjustment. Vehicle running in neutral.
45392	Adjusted parking brake.
45392	
07844	Park brake out of adjustment. Replaced complete park brake system.
30098	Park brake out of adjustment.
65049	Park brake Inings replaced.

Table 14-2 VIN (last 6 digits)	GM's assessment 14c.ii reasons why event may be unrelated to wear
70855	
70855	Jacking right rear tire. Only one "park breked" wheel with vehicle on Incline.
70855	
83611	Vehicle on 25% grade with trailer, no mention of using chocks.
94476	Unable to duplicate. Same incident reported on same date on customer's other vehicle.
94478	
94478	
64430	Inspection showed park brake operation good. Park brake concern not
6443D	duplicated. Unloading trailer on grade without chocks.
12724	Customer complaint related to stuck pedal. Unable to duplicate.
59904	GMT400 vehicle with drawn brakes. Park brake operating properly.
98019	GMT400 with trans mounted park brake. Tow-truck picking up vehicle
98019	without checking tires. Oil on park brake linings.
60926	Loading tractor on trailer without checks. Inspection showed park brake operational.
17383	GMT400 without drum in het. No mention of using park brake.
47780	Inspection demonstrates gark brake functional and holding.
16165	Loading tractor with park brake set but vehicle not in park. Dealer reptaced pads for unknown resears.
GC C1 W	Dealer found nothing wrong. GMT400 without drum in hat.
49736	GNT400. No mention of park brake.
49736	
84108	
84108	GMT400 without drum in het. No repairs made to park brake. Transmission shift cable repaired.
84108	
16322	GMT400 without drum in hat. Vehicle parked on 35 deg slope. Vehicle inspection: park brake work well.
22222	GMT400 with drum in hat. Park Brake cable broken.
02700	GMT400 with trans mounted park brake. Park brake fining was glazed and required adjustment.
61675	When dealer replaced carpet, did not reconnect park brake cable.
55785	No Information.
55785	
55785	GMT400 with out drum-in-hat. Broken park brake cable.
21220	GMT400 without drum-in-hat. Trans shift cable replaced.
03461	Loading tractor onto trailer without chocks. No information about park brake.

(LAST 5 DIGITS)	INCIDENTS WITHOUT ENOUGH INFORMATION
00004	
80334	Vehicle inspected on 8 deg incline with no Issues
80334	Assume a refraction out a deal kindling statem
09663	Not enough information. No inspection performed.
5 53 51	Vehicle parked in neutral. Not enough information.
72109	Not enough information.
48346	Not enough information.
1GC W	Not enough Information.
65691	Not enough Information.
83336	No inspection allowed. Not enough information.
15629	Not enough Information.
56093	Not enough Information.
47157	No mention of park brake,
47157	
17162	Dealer inspection found park brake held vehicle at 1/2 pedal travel.
17162	<u> </u>
80939	Not enough information.
03299	Not enough information.
03299	· · · · · · · · · · · · · · · · · · ·
95093	Not enough information.
08119	Not enough information.
19144	Not enough information. Left vehicle in drive with park brake applied.
25284	- Not enough information.
25284	· -
78247	—GMT400 without drum in het. Not enough information about park brake.
76247 47769	Not an early information. Mathiala annalysis to broken d
19104	Not enough information. Vehicle repaired by husband. Not enough information, not even customer's name.
66332	GMT400 without drum in test. Not enough information about park brake.
92361	Dealer inspection found no problems in park brake or transmission.
07281	GMT400 without drum in that. Not encucin information about park brake,
V1201	Not enough information about park brake. Parked on a fill in neutral with
97824	autometic trans.
37452	GMT400 without drum in het. Not enough information about park brake.
42282	GMT400 without drum in hat. Not enough information about park brake.
30802	Not enough information.
85673	Not enough information.
59948	No mention of park brake.
39750	Not enough information.
28124	Not enough information.
99004	Not enough information.
47493	Not enough information. Trailer attached without chocks.
03570	Not enough information.
90038	Not enough information.
Q0889	Not enough information.

TABLE 14-2: RESPONSE NO. 2 ITEMS C-E

* * *

GM claims that certain information, in documents that are part of lawsuit and claims files maintained by the GM Legal Staff, is attorney work product and/or privileged. That information includes notes, memos, reports, photographs, and evaluations by attorneys (and by consultants, claims analysts, investigators, and engineers working at the request of attorneys). GM is producing responsive documents from claims files that are neither attorney work product nor privileged, and withholding those that are attorney work product and/or privileged.

This response is based on searches of General Motors Corporation (GM) locations where documents determined to be responsive to your request would ordinarily be found. As a result, the scope of this search did not include, nor could it reasonably include, "alt of its divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of their headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of GM (including all business units and persons previously referred to), who are or, in or after January 1, 1996, were involved in any way with any of the following related to the alleged defect in the subject vehicles:

- Design, engineering, analysis, modification or production (e.g. quality control);
- Testing, assessment or evaluation;
- "Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), enelysis, claims, or lawsuits; or
- d. "Communication to, from or Intended for zone representatives, fleets, dealers, or other field locations, including but not limited to people who have the capacity to obtain information from dealers."

This response was compiled and prepared by this office upon review of the documents produced by various GM locations, and does not include documents generated or received at those GM locations subsequent to their searches.

Please contact me if you require further information about this response or the nature or scope of our searches.

Sincerely.

Gary P. Kent Director

Product Investigations

Attachments

BM-6481

Kim Kristell



NOV 1 8 2004

U.S. Department of Transportation National Highway Traffic Safety Administration CERTIFIED MAIL RETURN RECEIPT REQUESTED

Ms. Gay Kent, Director Product Investigations General Motors Corporation Mail Code 480-106-304 30500 Mound Road Waxren, MI 48090-9055

400 Bavendo St. S.W., Washington, D.C. 20580 Many Kandall

NVS-213gem EA04-011

Dear Ms. Kent.

This letter is to collect additional data in support of the Office of Defects Investigation's (ODI) continued examination of alleged parking brake ineffectiveness in certain MY 1999-2003 GMC Sierra and Chevrolet Silverado pickup trucks built on the GMT800 platform by General Motors Corporation, equipped with manual transmissions and "drum-in-hat" parking brakes. ODI commenced investigation of this issue with a Preliminary Evaluation (PB03-057), which was subsequently upgraded to an Engineering Analysis (EA04-011).

Over the time period since the opening of EA04-011, this office has received one additional report of parking brake ineffectiveness in these Vehicles, in addition to eighty-one similar reports in other vehicles based on the same platform. These reports indicate that highly accelerated wear-out of the parking brake friction linings during visities usage renders the parking brake incapable of properly immobilizing a parked vahicle. This body of reports includes 2 alleged crashes that led to an injury and a death. A copy of each of the reports is anclosed for your information.

Unless otherwise stated in the text, the following definitions apply to these information requests:

- Subject vehicles; all MY 1998-2004 pickup trucks and utilities (including but not limited to the Sierra/Silverado/Avalanche/Escalade EXT pickups and the Suburban/Tahoe/Yukon/Escalade utility vehicles built on the GMT400 and GMT800 platforms) manufactured for sale or lease in the United States.
- Subject component: the complete parking brake assembly mounted on either end of the rear axis including, but not limited to, the brake disc/drum, brake shoes, and any associated mountings or actuation components, manufactured for use on the subject vehicles.



- GM: General Motors Corporation, all of its past and present officers and employees, whether essigned to its principal offices or any of its field or other locations, including all of its divisions, substituties (whether or not incorporated) and affiliated enterprises and all of their headquarters, regional, zone and other offices and their amployees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of GM (including all business units and persons previously referred to), who are or, in or after January 1, 1996, were involved in any way with any of the following related to the alleged defect in the subject vehicles:
 - a. Design, engineering, analysis, modification or production (e.g. quality control);
 - b. Testing, assessment or evaluation;
 - Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits; or
 - d. Communication to, from or intended for zone representatives, fleets, dealers, or other field locations, including but not limited to people who have the capacity to obtain information from dealers.
- Alleged defect: inability of the parking brake to adequately hold a vehicle in a stationary position.
- Document: "Document(s)" is used in the broadest sense of the word and shall mean all original written, printed, typed, recorded, or graphic matter whateoever, however produced or reproduced, of every kind, nature, and description, and all non-identical copies of both sides thereof, including, but not limited to, papers, letters, memorands. correspondence, communications, electronic mail (e-mail) messages (existing in bard copy and/or in electronic storage), faxes, mailgrams, telegrams, cables, telex massages; notes, aumotations, working papers, drafts, migutes, records, audio and video recordings, data, databases, other information bases, summaries, charts, tables, graphics, other visual displays, photographs, statements, interviews, upinions, reports, newspaper articles, studies, analyzes, evaluations, interpretations, contracts, agreements, jottings, agendas, bulletins, notices, announcements, instructions, blueprints, drawings, as-builts, changes, maguals, publications, work schedules, journals, statistical data, desk, portable and computer calendars, appointment books, disries, travel reports, lists, tabulations, computer printouts, data processing program libraries, data processing inputs and outputs, microfilms, microfiches, statements for services, resolutions, financial statements, governmental records, business records, personnel records, work orders, plendings. discovery in any form, affidevits, motions, responses to discovery, all transcripts. administrative filings and all recchanical, magnetic, photographic and electronic records or recordings of any kind, including any storage media associated with computers, including, but not limited to, information on hard drives, floopy disks, becleap tapes, and air drives, electronic communications, including but not limited to, the Internet and shall include any drafts or revisions pertaining to any of the foregoing, all other things similar to any of the foregoing, however denominated by GM, any other data compilations from which information can be obtained, translated if necessary, into a usable form and any other documents. For purposes of this request, any document, which contains any note,

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comment, addition, deletion, insertion, amountation, or otherwise comprises a non-identical copy of another document shall be trusted as a separate document subject to production. In all cases where original and any non-identical copies are not available, "document(s)" also means any identical copies of the original and all non-identical copies thereof. Any document, record, graph, chart, film or photograph originally produced in color must be provided in color. Furnish all documents whether verified by GM or not. If a document is not in the English language, provide both the original document and an English translation of the document.

Other Turms: To the extent that they are used in these information requests, the terms
"claim," "consumer complaint," "dealer field report," "field report," "fire," "fleet," "good
will," "make," "model," "model year," "notice," "property damage," "property damage
claim," "rollover," "type," "warranty," "warranty adjustment," and "warranty claim,"
whether used in singular or in plural form, have the same meaning as found in 49 CFR
579.4.

In order for my staff to evaluate the alleged deflect, certain information is required. Pursuant to 49 U.S.C. § 30166, please provide numbered responses to the following information requests. Insofar as GM has previously provided a document to ODI, GM may produce it again or identify the document, the document submission to ODI in which it was included end the precise location in that submission where the document is located. When documents are produced, the documents shall be produced in an identified, organized manner that corresponds with the organization of this information request letter (including all individual requests and subparts). When documents are produced and the documents would not, standing alone, be self-explanatory, the production of documents shall be supplemented and accompanied by explanation.

Please repeat the applicable request verbation above each response. After GM's response to each request, identify the source of the information and indicate the last date the information was authored.

- State, by model and model year, the number of subject vehicles GM has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by GM, state the following:
 - Vehicle identification number (VIN);
 - b. Model:
 - Transmission type;
 - d. Two wheel or four wheel drive;
 - e. Parking brake manufacturer, type, and RPO;
 - Date of manufacture;
 - g. Date warranty coverage commenced; and
 - The zip code in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).

Provide this information in seven separate files, each file corresponding to one of the subject model years in Microsoft Access 2003, or a compatible format, endued "EA04-011 MY 20xx

- State the number of each of the following, received by GM, or of which GM is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:
 - a. Consumer complaints, including those from fleet operators;
 - b. Field reports, including dealer field reports;

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- 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 GM is or was a party to the arbitration; and lawsuits, both pending and closed, in which GM is or was a defendant or codefendant.

For subparts "a" through "e", state the total number of each item (e.g., consumer complaints, field reports, etc.) acparately. 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 "e" through "e", provide a summary description of the alleged problem and causal and contributing factors and GM's assessment of the problem, with a summary of the significant underlying facts and evidence. For items d and e, 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.

- 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. GM's file number or other identifier used;
 - The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
 - Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
 - d. Vehicle's VIN;
 - vehicle's make, model and model year;
 - Vehicle's mileage at time of incident;
 - g. Incident date:
 - Report or claim data;
 - Whether unintended movement of the vehicle occurred while the parking brake was entaged;
 - i. Whether a crash is alleged:
 - k. Whether property damage is alleged;
 - Where an item was struck, identify the item;
 - m. Number of alleged injuries, if any; and
 - n. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2003, or a compatible format, entitled "BA04-011 REQUEST NUMBER TWO DATA." See Enclosure 2, EA04-011 Data Collection Disc, for a pre-formatted table that provides further details regarding this submission.

- 4. Produce copies of all documents related to each of items "c" through "c" within the scope of Request No. 2. Organize the documents separately by category (i.e., crash/injury/fatality reports, property damage claims, etc.) and describe the method GM used for organizing the documents.
- 5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by GM to date that relate to, or may relate to, the alleged defect in the subject vehicles: watranty 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:
 - GM's cleim number;
 - b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
 - c. VIN
 - d. Repair date;
 - Vehicle mileage at time of repair;
 - f. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
 - g. Labor operation number;
 - h. Problem code:
 - Replacement part number(s) and description(s);
 - Concern stated by oustomer; and
 - k. Comment, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2003, or a compatible format, entitled "EA04-011 WARRANTY DATA." See Enclosure 2, EA04-011 Data Collection Disc, for a proformatted table that provides further details regarding this submission.

- 6. Describe in detail the search criteria used by GM to identify the claims identified in response to Request No. 5, including the labor operations, problem codes, part numbers and any other partitions 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 in Minrosoft Access 2000, or a compatible format. State, by make and model year, the terms of the new vehicle warranty coverage offered by GM on the subject vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered).
- 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 GM 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 GM is planning to issue within the next 120 days.

- 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 valueles that have been conducted, are being conducted, are planned, or are being planned by, or for, GM. For each such action, provide the following information:
 - Action title or identifier;
 - b. The actual or planned start date:
 - The actual or expected end date;
 - d. Brief summary of the subject and objective of the action;

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- Engineering group(s)/supplies(s) responsible for designing and for conducting the action;
- 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.

- State the number of each of the following that GM 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 cutoff date for sales, if applicable):
 - Subject component; and
 - Any kits that have been released, or developed, by GM 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 GM is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service menge.

- 10. Identify the five largest fleets in the United States that utilize the subject vehicles. Separately identify the five largest fleets within the region encompassed by Washington DC, Delaware. Maryland, New Jersey, Pennsylvania, Virginia, Ohio, and Wort Virginia that utilize the subject vehicles. For each of the flacts identified, state the following:
 - Fleet name and address;
 - b. Point of contact name and telephone number; and
 - Number of subject vehicles sold to that fleet by model name.
- Identify any contributory factors that can permit a parked subject vehicle equipped with parking brakes that do not adequately hold to display a "delayed rollaway" condition (e.g., an apparently stationary vehicle begins to roll after the exit of its driver), rather than an immediate rollaway that would be readily detectible.

NOV 18 2004 16:02 202 366 1767 POTE 87 the information requested by the original deadline, it must submit a partial response by the original deadline with whatever information GM then has available, even if an extension has been granted.

If GM claims that any of the information or documents provided in response to this information request constitute confidential commercial material within the meaning of 5 U.S.C. § 552(b)(4), or are protected from disclosure pursuant to 18 U.S.C. § 1905, GM must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512, as amended (68 Fed. Reg. 44209 et seq. July 28, 2003), to the Office of Chief Counsel (NCC-113), National Highway Traffic Safety Administration, Room 5219, 400 Seventh Street, S.W., Washington, D.C. 20590. GM is required to submit two copies of the documents containing allegedly confidential information (except only one copy of bhasprints) and one copy of the documents from which information claimed to be confidential has been deleted. We request, but do not require, that GM provide a Bates stamp number or other means of identification for each document in its confidential submission.

If you have any technical questions concerning this matter, please call Mr. Greg Magno of my staff at (202) 366-0139.

Sincerely,

Kathleen C. DeMeter, Office Director Office of Defects Investigation

Refereement

Enclosure 1, VOQ Summary file, 82 VOQ intages, and one file entitled <u>Alleged Rollaways</u>
Enclosure 2, one CD ROM titled Data Collection Disc containing nine files

GM648A EA04-011

ATTACHMENT "1"

ATTACHMENT "2"

CONFIDENTIAL GM MATERIAL
HAS BEEN REMOVED FROM THIS
ATTACHMENT AND SUPPLIED TO
THE OFFICE OF THE CHIEF COUNSEL