



**General Motors Corporation
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APR 01 1999

The Honorable Philip R. Recht
Deputy Administrator
NATIONAL HIGHWAY TRAFFIC
SAFETY ADMINISTRATION
400 Seventh Street, S.W., Room 5220
Washington, DC 20590

Dear Mr. Recht:

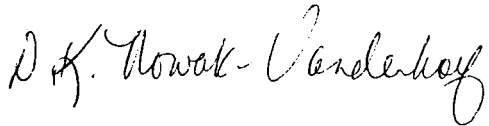
Re: **Settlement Agreement**
Section B. Fire Safety Research

As NHTSA has requested, enclosed is one copy of the 16 mm high-speed film for each of the 13 crash tests General Motors Corporation conducted under Project B. 3 (Fire Initiation and Propagation Tests). The table below lists the enclosed films:

Test No.	Vehicle	Type of Impact
C11408	1997 Chevrolet Camaro	85 km/h offset moving deformable barrier rear impact
C11591	1997 Chevrolet Camaro	55 km/h offset pole frontal impact
C11647	1997 Chevrolet Camaro	105 km/h oblique moving deformable barrier frontal impact
C11108	1996 Dodge Caravan	55 km/h offset pole frontal impact
C11167	1996 Dodge Caravan	105 km/h oblique moving deformable barrier frontal impact
C11226	1996 Dodge Caravan	60 km/h offset rigid barrier frontal impact
C11279	1996 Dodge Caravan	55 km/h offset pole frontal impact
C11317	1997 Ford Explorer	85 km/h offset moving deformable barrier rear impact
C11687	1997 Ford Explorer	105 km/h oblique moving deformable barrier frontal impact
C11793	1997 Ford Explorer	55 km/h offset pole frontal impact
C11990	1998 Honda Accord	85 km/h offset moving deformable barrier rear impact
C12127	1998 Honda Accord	105 km/h oblique moving deformable barrier frontal impact
C12174	1998 Honda Accord	55 km/h offset pole frontal impact

These films supplement GM's submission of September 1, 1998, which provided the raw crash data for some of the crash tests conducted (e.g., C11167; C11226; C11279, and C11408). A CD ROM containing the raw crash data for the remaining crash tests is also enclosed.

Yours truly,

A handwritten signature in cursive script, reading "D.K. Nowak-Vanderhoef". The signature is written in black ink and is positioned above the printed name.

Deborah K. Nowak-Vanderhoef

Enclosures



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September 1, 1998

The Honorable Philip R. Recht
Deputy Administrator
NATIONAL HIGHWAY TRAFFIC
SAFETY ADMINISTRATION
400 Seventh Street, S.W., Room 5220
Washington, DC 20590

Dear Mr. Recht:

Re: **Settlement Agreement**
Section Fire Safety Research

Enclosed are diskettes containing the raw crash data for some of the crash tests being conducted for Project B.3 (Fire Initiation and Propagation Tests) along with the header information (enclosed as a hard copy plus a separate text file). With respect to this test data, please note:

- As requested, only recorded channels are included (i.e., no computed channels such as H.I.C. or V*C are included).
- The data is sampled and provided at 10,000 Hz. (Ten samples per msec.) There is 240 msec of data for each channel resulting in 2400 data points.
- If the full-scale range of the measurement was exceeded (overloaded), the data is set to exactly zero. (Only the time period of overload is set to zero.)
- Each data file contains approximately ten columns of data, each column is one channel. The header information includes the title and units for each channel.
- The header information is provided as a hard copy as well as a text file.

The following file naming convention is used: Group 1.###

Group 1 = First group of approximately ten data channels for a given test

= Last three digits of the crash test number

- The data pertains to the following tests:

C11167: 105 km/h oblique moving deformable barrier frontal impact
1996 Dodge Caravan
C11226: 60 km/h offset rigid barrier frontal impact
1996 Dodge Caravan

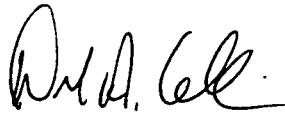
September 1, 1998

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C11279: 55 km/h offset pole frontal impact
1996 Dodge Caravan
C11408: 85 km/h offset moving deformable barrier rear impact
1997 Chevrolet Camaro

Complete test descriptions will be included in the technical reports that GM provides NHTSA on these tests.

Yours truly,

A handwritten signature in black ink, appearing to read "D.A. Collins". The signature is fluid and cursive, with the first name "David" and last name "Collins" clearly distinguishable.

David A. Collins
Attorney

Enclosures

Test #: C11408
Test Date: 01-08-97

Channel Name Description	Source	Filter
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Group1.408

AA001A CTR TUNNEL ACCEL LONGITUDINAL ACCEL, G'S	STL (auto import)	NONE
AA001O TIME ZERO	STL (auto import)	NONE
AA001V IGNITION VOLTAGE VOLTAGE,VOLTS	STL (auto import)	NONE
AA002A CTR TUNNEL ACCEL LATERAL ACCEL, G'S	STL (auto import)	NONE
AA002O PHOTO TIMING	STL (auto import)	NONE
AA002V C.H.M.S.L. VOLTAGE VOLTAGE,VOLTS	STL (auto import)	NONE
AA003A CTR TUNNEL ACCEL VERTICAL ACCEL, G'S	STL (auto import)	NONE
AA003O FUEL LINE PRESSURE PRESS, KPAS	STL (auto import)	NONE
AA003V REAR WINDOW DEFROSTER VOLTAGE VOLTAGE,VOLTS	STL (auto import)	NONE
AA004A L. WHEEL BAG CURRENT CURRENT,AMPS	STL (auto import)	NONE

Test #: C11408
Test Date: 01-08-97

Channel Name Description	Source	Filter
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Group2.408

AA0040 FUEL LINE RETURN PRESSURE	STL (auto import) PRESS, KPAS	NONE
AA004V L.REAR BRAKE LIGHT	STL (auto import) VOLTAGE VOLTAGE,VOLTS	NONE
AA005A C.H.M.S.L. CURRENT	STL (auto import) CURRENT,AMPS	NONE
AA0050 PNEUMATIC WIRE FAULT	STL (auto import) CONTACT CONTACT, INVERTED	NONE
AA005V L.REAR BACKUP LIGHT	STL (auto import) VOLTAGE VOLTAGE,VOLTS	NONE
AA006A REAR WINDOW DEFROSTER	STL (auto import) CURRENT CURRENT,AMPS	NONE
AA0060 PNEUMATIC WIRE	STL (auto import) CONTACT CONTACT	NONE
AA006V L.REAR TAIL LIGHT	STL (auto import) VOLTAGE VOLTAGE,VOLTS	NONE
AA007A L.REAR BRAKE LIGHT	STL (auto import) CURRENT CURRENT,AMPS	NONE
AA0070 THERMAL WIRE-FRT	STL (auto import) CONTACT CONTACT	NONE

Test #: C11408
Test Date: 01-08-97

Channel Name Description	Source	Filter
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Group3.408

AA007V L.REAR TURN SIGNAL LIGHT	STL (auto import) VOLTAGE	NONE VOLTAGE,VOLTS
AA008A L.REAR BACKUP LIGHT	STL (auto import) CURRENT	NONE CURRENT,AMPS
AA0080 THERMAL WIRE-REAR	STL (auto import) CONTACT	NONE CONTACT
AA009A L.REAR TAIL LIGHT	STL (auto import) CURRENT	NONE CURRENT,AMPS
AA0090 CTR CARGO TUB	STL (auto import) CONTACT	NONE CONTACT
AA010A L.REAR TURN SIGNAL LIGHT	STL (auto import) CURRENT	NONE CURRENT,AMPS
AA0100 CTR FUEL TANK-FRT	STL (auto import) CONTACT	NONE CONTACT
AA011A LTV MDB AT C.G. ACCEL	STL (auto import) LONGITUDINAL ACCEL,	NONE G'S
AA0110 CTR FUEL TANK-REAR	STL (auto import) CONTACT	NONE CONTACT
AA012A LTV MDB AT C.G. ACCEL	STL (auto import) LATERAL ACCEL,	NONE G'S

Test #: C11408
Test Date: 01-08-97

Channel Name Description	Source	Filter

Group4.408		
AA0120 STL EVAL SNUBBER WEST BRAKE PRESSURE	STL (auto import)	NONE PRESS, KPAS
AA013A LTV MDB AT C.G. ACCEL VERTICAL ACCEL,	STL (auto import)	NONE G'S
AA0130 STL EVAL SNUBBER EAST BRAKE PRESSURE	STL (auto import)	NONE PRESS, KPAS
AA014A LTV MDB AT REAR C/MBR ACCEL LONGITUDINAL ACCEL,	STL (auto import)	NONE G'S
AA015A LTV MDB AT REAR C/MBR ACCEL LATERAL ACCEL,	STL (auto import)	NONE G'S
AA016A LTV MDB AT REAR C/MBR ACCEL VERTICAL ACCEL,	STL (auto import)	NONE G'S
DA0010 L. FRT NECK LOADING ON HEAD MOMENT MZ-TWIST MOMENT,	STL (auto import)	NONE N-M
DCXA L. FRT CHEST ACCEL. GM50H LONGITUDINAL ACCEL,G'S	STL (auto import)	NONE
DCYA L. FRT CHEST ACCEL. GM50H LATERAL ACCEL,G'S	STL (auto import)	NONE
DCZA L. FRT CHEST ACCEL. GM50H VERTICAL ACCEL,G'S	STL (auto import)	NONE
DHXA L. FRT HEAD ACCEL. GM50H LONGITUDINAL ACCEL,G'S	STL (auto import)	NONE

Test #: C11408
Test Date: 01-08-97

Channel Name Description	Source	Filter

Group5.408		
DHYA L. FRT HEAD ACCEL. GM50H LATERAL ACCEL,G'S	STL (auto import)	NONE
DHZA L. FRT HEAD ACCEL. GM50H VERTICAL ACCEL,G'S	STL (auto import)	NONE
DNUMYB L. FRT NECK LOADING ON HEAD, UPPER MY-LAT. AXIS MOMENT, N-M	STL (auto import)	NONE
DNUXAL L. FRT NECK LOADING ON HEAD, UPPER LOAD FX-FORE/AFT LOAD, N	STL (auto import)	NONE
DNUXB L. FRT NECK LOADING ON HEAD, UPPER MX-LONG. AXIS MOMENT, N-M	STL (auto import)	NONE
DNUYSL L. FRT NECK LOADING ON HEAD, UPPER LOAD FY-LAT. SHEAR LOAD, N	STL (auto import)	NONE
DNUZAL L. FRT NECK LOADING ON HEAD, UPPER LOAD FZ-AXIAL LOAD, N	STL (auto import)	NONE
PA0010 R. FRT NECK LOADING ON HEAD MOMENT MZ-TWIST MOMENT, N-M	STL (auto import)	NONE
PCXA R. FRT CHEST ACCEL. GM50H LONGITUDINAL ACCEL,G'S	STL (auto import)	NONE

Test #: C11408
Test Date: 01-08-97

Channel Name Description	Source	Filter

Group6.408		
PCYA R. FRT CHEST ACCEL. GM50H LATERAL ACCEL,G'S	STL (auto import)	NONE
PCZA R. FRT CHEST ACCEL. GM50H VERTICAL ACCEL,G'S	STL (auto import)	NONE
PHXA R. FRT HEAD ACCEL. GM50H LONGITUDINAL ACCEL,G'S	STL (auto import)	NONE
PHYA R. FRT HEAD ACCEL. GM50H LATERAL ACCEL,G'S	STL (auto import)	NONE
PHZA R. FRT HEAD ACCEL. GM50H VERTICAL ACCEL,G'S	STL (auto import)	NONE
PNUMYB R. FRT NECK LOADING ON HEAD, UPPER MY-LAT. AXIS MOMENT, N-M	STL (auto import)	NONE
PNUXAL R. FRT NECK LOADING ON HEAD, UPPER LOAD FX-FORE/AFT LOAD, N	STL (auto import)	NONE
PNUXB R. FRT NECK LOADING ON HEAD, UPPER MX-LONG. AXIS MOMENT, N-M	STL (auto import)	NONE
PNUYSL R. FRT NECK LOADING ON HEAD, UPPER LOAD FY-LAT. SHEAR LOAD, N	STL (auto import)	NONE
PNUZAL R. FRT NECK LOADING ON HEAD, UPPER LOAD FZ-AXIAL LOAD, N	STL (auto import)	NONE

Test #: C11408
Test Date: 01-08-97

Channel Name Description	Source	Filter
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Group7.408

TIME TIME	STL (auto import)	NONE
VFXA L.REAR FRAME ACCEL LONGITUDINAL ACCEL, G'S	STL (auto import)	NONE
VFXA1 R.REAR FRAME ACCEL LONGITUDINAL ACCEL, G'S	STL (auto import)	NONE
VFYA L.REAR FRAME ACCEL LATERAL ACCEL, G'S	STL (auto import)	NONE
VFYA1 R.REAR FRAME ACCEL LATERAL ACCEL, G'S	STL (auto import)	NONE
VFZA L.REAR FRAME ACCEL VERTICAL ACCEL, G'S	STL (auto import)	NONE
VFZA1 R.REAR FRAME ACCEL VERTICAL ACCEL, G'S	STL (auto import)	NONE
VRLFYA L. FRT ROCKER ACCEL LONGITUDINAL ACCEL, G'S	STL (auto import)	NONE
VRLFYA L. FRT ROCKER ACCEL LATERAL ACCEL, G'S	STL (auto import)	NONE
VRLFZA L. FRT ROCKER ACCEL VERTICAL ACCEL, G'S	STL (auto import)	NONE

Test #: C11408
Test Date: 01-08-97

Channel Name Description	Source	Filter

Group8.408		
VRRFXA R. FRT ROCKER ACCEL LONGITUDINAL ACCEL, G'S	STL (auto import)	NONE
VRRFYA R. FRT ROCKER ACCEL LATERAL ACCEL, G'S	STL (auto import)	NONE
VRRFZA R. FRT ROCKER ACCEL VERTICAL ACCEL, G'S	STL (auto import)	NONE
VRXA L.REAR ROCKER ACCEL LONGITUDINAL ACCEL, G'S	STL (auto import)	NONE
VRXA1 R.REAR ROCKER ACCEL LONGITUDINAL ACCEL, G'S	STL (auto import)	NONE
VRYA L.REAR ROCKER ACCEL LATERAL ACCEL, G'S	STL (auto import)	NONE
VRYA1 R.REAR ROCKER ACCEL LATERAL ACCEL, G'S	STL (auto import)	NONE
VRZA L.REAR ROCKER ACCEL VERTICAL ACCEL, G'S	STL (auto import)	NONE
VRZA1 R.REAR ROCKER ACCEL VERTICAL ACCEL, G'S	STL (auto import)	NONE
V19_0 L.REAR BUMPER BEAM TO CARGO TUB CONTACT	STL (auto import)	NONE CONTACT
V19_01 R.REAR BUMPER BEAM TO CARGO TUB CONTACT	STL (auto import)	NONE CONTACT