

EA02-025

FORD 10/27/03

APPENDIX N

BOOK 40

PART 8 OF 8

EX

S



2195

50-11-4 and 100-11-2
100-11-2-100
100-11-2-100
100-11-2-100
100-11-2-100

EX

S



2195

Schaefer Engineering Corporation
Residence Fire Investigation
Claim No. 267 0047 401

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September 16, 2002
Our File No. 2195

APPENDIX C: CURRICULUM VITAE FOR ALAN C. TOPINKA, P.E.



Alan C. Topinka, PE, CFEL, PI
Principal Engineer

SUMMARY

Senior Mechanical Engineer specializing in product failure analysis, load and stress testing, engineering analysis, origin and cause fire investigations and expert witness testimony for law firms, insurance companies and industry. Experienced in the investigation of load and stress failures on structures from stadium bleachers to residential furniture. Substantial work in failure analysis includes a wide variety of mechanical and structural systems and components from various industries including marine, aerospace and construction. Numerous evaluations of structural failures due to overloading, material failure and environmental causes.

Experience with cases involving vehicle accident reconstruction, vehicle fires and failure analysis. Expertise in premises liability from investigations in slip and fall, trip and fall, human factors, code research and safety evaluations.

Additional casework has involved design, fabrication, setup, testing and analysis of large and small scale multi-sensor and multi-data type test programs to meet military and commercial standards. Additional expertise in the design and implementation of unique test and evaluation programs for the development of new products. Instrumental in the design and development of several military munitions dispensing systems involving the use of high pressure and light weight components.

Special expertise in project management and technical supervision of engineering analysis and testing involved in litigation. Supervised and reviewed hundreds of engineering projects and failure investigations.

EDUCATION AND REGISTRATION

Bachelor of Science in Mechanical Engineering, University of Washington, 1985

Bachelor of Arts in Business Administration, University of Washington, 1985

Registered Professional Engineer, State of Washington, No. 27868

Licensed Unarmed Private Detective, State of Washington, No. 1202

Private Investigator Agency Principal, State of Oregon, No. 2002794

Certified Fire and Explosion Investigator, NAFI, 5803-1676

Certified Aircraft Structures Mechanic, McDonnell Douglas Corporation, 1982

Certified E.P.A. Universal Refrigeration & A/C Technician, ESCO, 5346872911224

Investigation of Gas and Electric Appliance Fires, Fire Findings Laboratories LLC, 2002

Refrigeration/Air Conditioning Seminar, 2000

National Electrical Code Seminar, 1999

NAPARS, Practical Application of Crush Seminar, 1999

OSHA Standards for General Industry, United States Department of Labor, 1999
Electrical Safety, 1999
Brake Design & Safety, SAE Training, Rudolf Limpert, Ph.D., 1998
Electrical Fires Origin and Cause Certification, 1997
NFPA 921 Fire & Explosion Investigation Course, IAAI, 1997
Magnetic Particle Inspection, Pacific Testing Laboratories, 1992
Radiation Safety, Pacific Testing Laboratories, 1992
Soil Compaction and Characteristics, Pacific Testing Laboratories, 1992
Machine Health Monitoring using Vibration Analysis, Bruel & Kjaer, 1991
Dimensional Positioning and Tolerancing, Rocket Research Corporation, 1988
Cause Analysis and Analytical Problem Solving, Rocket Research Corporation, 1986

SEMINARS PRESENTED

Presented Premises Liability and Safety Hazards during Washington State Trial Lawyers Association (WSTLA) conference, March 1999

PROFESSIONAL EXPERIENCE

Schaefer Engineering Corporation, 1997 to Present

Vice President and Principal Mechanical Engineer conducting numerous fire investigations, and mechanical and material failure analysis. Expertise in the investigation of premises liability cases involving trip and fall, and workplace accidents. Casework experience involving vehicle fires, accident reconstruction and failure analysis of various vehicle components. Investigation of damage resulting from the failure of building materials, components and plumbing systems. Have worked with manufacturers on new product development, including the design and construction of testing equipment and the development of test protocols.

Pacific Testing Laboratories, 1989 to 1997

Forensic Engineer 1989 to 1997

General Manager, 1992 to 1997

Manager, Mechanical Engineering, 1989 to 1992

Manager, Metrology and Instrumentation Department, 1990 to 1992

As General Manager, provided technical direction and management oversight of:

- Analytical Chemistry Services
- Environmental Engineering
- Mechanical/Civil Engineering
- Forensic Engineering
- Geotechnical Engineering and Inspection
- Metrology Services
- Construction Inspection
- Soils Testing and Inspection
- Non Destructive Testing and Examination

Provided project management and technical supervision of engineering and inspection projects. Prepared and reviewed formal, technical reports. Provided financial, technical and contractual guidance to all company departments. Accumulated substantial experience in engineering analysis and failure analysis in the following areas:

FAILURE ANALYSIS

Major casework addressed failures of: lifts, cables, structural components, hydraulic systems, sports equipment, ladders, fluid hoses and pipes, water and sewer systems, containers, structural steel, reinforcing bars, structural welds, loading devices, fasteners, flooring and siding. Determined the cause of failures based on the remaining failed components and fracture surfaces. Evaluated and investigated failures of components and systems constructed with metal, concrete, plastic and wood.

ENGINEERING DESIGN AND INVESTIGATION

Design of unique systems for special client needs including removal of solid debris using high pressure techniques and development of load methods to determine the remaining preload on dam reinforcing members. Use of strain, pressure and other sensors to evaluate component and system adequacy. Design and evaluation of tools for safety and performance. Investigation into the cause of leaks through building surfaces, concrete and siding.

PREMISES LIABILITY

Expertise in recreating slip and fall and trip and fall accidents. Coefficient of friction analysis and evaluation of ramps and ramp surfaces. Consulting and evaluation of building code compliance regarding walkway hazards. Evaluations of stairways regarding code compliance.

FIRE INVESTIGATION

Determination of the cause of failures related to, coffee makers, water heaters, furnaces, air compressors, switches and other electrical and gas operated appliances and devices. Designed and performed tests to simulate and recreate fire events and cause of failure.

TESTING AND EVALUATION

- Temperature Testing
- Fastener Testing
- Strain Gauging
- Data Acquisition
- Vibration Testing
- Manufacturing Analyses
- Load Testing
- Physical Property Testing of Materials
- Pressure Testing
- Product Comparison Testing

Rocket Research Corporation, 1985 to 1989

Development Engineer on liquid propellant satellite propulsion systems: Development Engineer

on multiple munitions dispensing programs utilizing solid propellants and high pressure gas systems. Project Engineer on the ADS military dispensing system responsible for testing and development of the C-Variant dispensing system. Accumulated substantial experience in design, analysis and testing in the following areas:

SYSTEM AND COMPONENT DESIGN

Designed development hardware for initial testing and evaluation for components of the munitions dispensing system. Designed components and systems for use in high and low pressure environments. Expertise in the areas of vibration control, fastening systems, high strength to weight components and pressure generation and control. Additional expertise in designing ignition systems and gas generators to achieve pressure generation profiles. Performed additional design and review of post development and delivery hardware. Worked closely with manufacturing to provide cost effective hardware.

SYSTEM AND COMPONENT ANALYSIS

Performed vibration, structural and performance analysis at the component and system level. Used various analysis techniques to optimize system performance and meet stringent weight requirements. Evaluated various materials including steel, aluminum, plastics and composites.

TESTING

Designed and performed munition dispensing tests for the component and full system level. Tests involved the integrated use of multiple sensors including pressure, temperature, strain and acceleration. Directed the use of high speed cameras and video to capture and correlate high speed events and determine component velocities.

MANAGEMENT AND PRESENTATIONS

Coordinated activities of personnel in manufacturing, testing, design, analysis and quality control. Provided detailed progress reports to clients through formal critical design review presentations.

MATERIAL REVIEW

Determined if improperly manufactured or designed components could be utilized through material review disposition. Provided instructions and design changes so that components could be altered for use.

McDonnell Douglas Corporation, 1982 to 1983

Quality assurance inspector for the MD-80 and KC-10 aircraft programs. Performed inspection for the proper manufacture of components and assembly into the aircraft.

SOCIETIES AND MEMBERSHIPS

National Association of Fire Investigators
Society of Automotive Engineers (SAE)
The American Society of Testing and Materials
Subcommittee Member, Golf Club Shaft Testing Requirements

Schaefer Engineering Corporation
Majluman Residence Fire Investigation
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September 16, 2002
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APPENDIX D: PHOTOGRAPHS



FIRE LOSS REPORT

RE:



1993 Lincoln Town Car

Case # R-269

Prepared for:

Tom Dunford

Cozen & O' Conner



Constantine Mejlumian
Fire loss
Summary

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R-269.Lof
080502

Thomas M. Dunford
Cozen & O'Conner
Suite 5200
Washington Mutual Tower
1201 Third Avenue,
Seattle, WA 98101

Voice: (206)-340-1000

Re:

1993 Lincoln Town Car

VIN: 1LNLM81WOPY [REDACTED] Mfg 12/92, Odo N/A miles Trip N/A miles.

Case #: R-269

DECLARATION OF RICHARD A. CLARKE

Introduction

1. My name is Richard A. Clarke, my educational background and training qualifies me to make this Declaration.

2. My curriculum vitae is attached to this Declaration as Exhibit A and accurately outlines my qualifications, education and background.

3. I began work in development engineering working in the area of automotive performance testing, construction, design and development for Lotus Engineering and General Motors in 1985.

4. I was hired into the research and development department of Active Suspension for engineering and preproduction analysis.



5. Specifically, my direct responsibilities at this time period for Lotus and General Motors were the design, review installation, packaging and testing of production and preproduction prototype vehicles adapted with Active Suspension.

6. During that time I was responsible for the installation of active suspension, testing and engineering support for the 1987 World Championship Lotus Formula One Team. The Hendrix Motor Sports Chevrolet GTP Corvette in the United Kingdom and the United States.

7. I was then hired as the National Field Service Engineer for Lotus Cars, USA. From 1987 to 1996.

8. In 1996 I founded Clarke Automotive Consultants, Inc. And began working as a Forensic Automobile Crash and Fire Investigator. I have established an automotive testing facility.

The attached report is a true and correct description of testing and inspections I have personally conducted on the SCDS (Speed Control Deactivation Switch).

Dear Mr. Dunford:

Please find below a summary of my opinions, and the basis thereof, in the subject matter:

A. Assignment

On May 24, 2002. Tom Dunford engaged Clarke Automotive Consultants to investigate a single vehicle fire. The SV (subject vehicle) was a 1993 Lincoln Town Car with a vehicle identification number (VIN) 1LNLM81W0P[REDACTED]. An inspection of the SV and disassembly of the SCDS was scheduled for Thursday, July 30, 2002.

The examination and disassembly of the SCDS was conducted at Schaefer Engineering at 14712 Bothell Way NE, Suite 2A, Seattle, Washington. The SV inspection was conducted at Kenmore Self Storage, Unit L716 18716 68th Avenue NE Kenmore, WA 98028. The disassembly of the SCDS was performed by Richard A. Clarke.



Also present were Mark B. Hoffman, Bill Hamilton, Alan C. Topinka, Tom M. Dunford, Raymond S. Webber and Edgar G. Sargent. The examination and disassembly of the SCDS was conducted at Schaefer Engineering at 14712 Bothell Way NE, Suite 2A, Seattle, Washington. 98155-7608.

B. Scope

In performance of the assigned task the following work has been performed to date:

- A. Photographic documentation, examination and disassembly of the SCDS was conducted at Schaefer Engineering.
- B. Inspection and photographic documentation of SV at Kenmore Self Storage.
- C. Read and review the depositions of [REDACTED] and [REDACTED]
- D. Reviewed documents relating to the failure of the SCDS from Ford and TL.
- E. Review OSI documentation relating to fires in the panther platform.
- F. Perform test on SCDS from the recalled population.
- G. Preparation of this report.

C. Findings

Based on the investigation and information collected to date, our findings are as follows:

- 1. Thermal damage patterns indicate the fire originated in the left hand side rear of the engine compartment.
- 2. The electrical activity in the base of the SCDS indicates a malfunction had occurred.



3. The disassembly of the mechanical side of the switch revealed cracks in the Kapton seals.

D. Vehicle Examination - General

The Lincoln Town car was inspected July 30, 2002. The vehicle identification number (VIN) was 1LNLM81W0PY [REDACTED] it was a 1993 model. Decoding of the vin number revealed that the automobile was manufactured on December 17, 1992 by Lincoln in Wixom, Michigan and was retailed on January 2, 1993, with factory anti lock brakes (ABS) and a 4.6 L EFI V8 engine. As can be seen from (Figure 1 and Figure 2) the SV was stored in a secure inside dry location.

E. Vehicle Examination - Passenger Compartment

The interior of the SV can be seen in (Figure 3) as viewed from the drivers door. (Figure 4) shows the interior of the SV as viewed from the drivers side rear door. (Figure 5) shows a practically undamaged spare tire viewed from the drivers side rear door. (Figure 6) shows the remains of the rear seat cover with foam padding and the head liner.

F. Vehicle Examination - Engine Compartment

The most visible fire and heat damage is to the left front section of the engine compartment. (Figure 7) shows the burn pattern to the radiator. (Figure 8) shows the manufacturers VIN stamp on the SV. The arrow in this photograph highlights the manufacturing stamped letter P indicating that it was in fact a 1993 model year production.

The fire damaged engine compartment can be seen in (Figure 9) as seen from the front of the SV. Also noticeable is the burn pattern to the drivers side bulk head. (Figure 10) is a view of the drivers side bulk head. The arrow in this photograph highlights the distinctive hot spot to the bulk head on the drivers side.



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Summary**

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(Figure 11) is a view looking across the engine compartment from the passenger side front. The remains of the right front head lamp and trim can still be seen. (Figure 12) is a view from left front with the remains of the left front head lamp assembly. (Figure 13) shows the brake booster, the arrow shows the remains of the rubber grommet in the right hand top side.

The right hand coil pack can be seen in (Figure 14) the arrow in this photograph highlights the remains of the spark plug lead. (Figure 15) is a view of the left hand coil pack. (Figure 16) is a view from the front over head, the arrow show's the most severe damage being to the left front alloy wheel. (Figure 17) the arrows in this photograph highlights the close up damage to the alloy rim. (Figure 18) shows the remains of the right front wheel and tire assembly. The positive and negative battery terminals can be seen in (Figure 19). The A/C condenser reveals light heat damage to the left front corner as can be seen in (Figure 20).

G. Examination And Disassembly Of The SCDS

The SCDS had become separated from the SV during the fire, it is mounted to a Prop Valve (Proportioning Valve) which is made out of alloy and located under the brake booster on the drivers side bulk head. The components recovered from the fire scene the Hex Port and the base were preserved in plastic bags as can be seen in (Figure 21 and 22). The base of the SCDS had been X-Rayed prior to my inspection along with an exemplar SCDS these can be seen in (Figure 23 through figure 30). The exemplar SCDS had been partially disassembled as can be seen in (Figure 31).

The base of the SCDS can be seen in (Figure 32 through Figure 34) the arrows in these photos shows the remains of the S Contact and a copper bead which is the remains of the M Contact. The blow hole is clearly visible on the side of the base, as can be seen in (Figure 35 through 37). A close up of the blow hole can be seen in (Figure 38) the arrow in this photo shows the remain of the beaded S Contact. The base clearly showed severe damage to the inside indicating the heating was internal to the switch and not from the exterior fire. The terminals and wiring that are located on the outside of the SCDS were not melted and did not show signs of electrical activity.



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The remains of the crimp ring reveal the production date of the SCDS (Julian date) 2309 Nov 1992 as can be seen from (Figure 39) as depicted by the arrow. The inspection and disassembly of the Hexport (Figure 40 through Figure 50) revealed that all 3 layers of the Kapton seal were cracked and fragmented, the converter, spacer and disc was not disassembled at this time. Microphotographs of the Hexport and Kapton seals were taken by Alan C. Topinka and stored on a CD.

H. Interpretation

The area of fire origin was to the left side rear of the engine compartment. The Speed Control Deactivation Switch (SCDS) is mounted to the Proportioning Valve (Prop Valve) in the area of origin. The Kapton seals had failed as indicated by the cracks through all 3 layers, this is also supported by the arcing and beading in the base of the switch, indicating that an electrical malfunction to the internal portion of the switch occurred.

The malfunction of the SCDS was consistent with the NHTSA recall for SCDS (NHTSA No 99V124) and the internal documents supplied by Ford Motor Company and Texas Instruments. My opinion is that the fire originated from the SCDS, and my opinion is supported by my testing and disassembly of over 40 exemplar SCDS conducted at Clarke Automotive Consultants which is attached to this report.

This report is based on information collected to date. The data, findings and opinions are subject to changes that may be warranted by subsequently acquired information. This report or portions thereof may not be used for advertising or otherwise published without first obtaining written consent.



Fire Loss
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I. Attachments

1. Curriculum Vitae.
2. Rates Schedule.
3. Depositions.
4. Trial testimony.
5. Memberships and affiliations.
6. Binder Ford O.S.I ref S.C.D.S.
7. S.C.D.S Test video volume 1 and 2.

Richard A. Clarke, CFEI

RAC:mac

CLARKE AUTOMOTIVE CONSULTANTS

Richard Clarke

3955 Highway 53, Hoschton, Georgia 30548

Phone - 706-654-4830 - Fax - 706-654-2198

Experience

**November, 1987
to April, 1996**

National Field Service Engineer for Lotus Cars, USA

Automotive hardware failure analysis to determine:
Defects covered by warranties
Manufacturing defects/Owner abuse
Dealership technical training instructor
Vehicle fire analysis

**June, 1985 to
November, 1987**

Development Engineer for Lotus Engineering, Norfolk, England

**Automotive performance testing, construction, design
and development including:**
**1987 World Championship Formula One active
suspension**
Hendrix Motor Sports Corvette GTP
Research in vehicle suspension design and performance
**Design, assembly, fitting and test of active suspension
components developed for General Motors**

**June, 1984 to
June, 1985**

Motor Engineer/Technician for Norfolk Motor Company, Norfolk, England **Lotus and Mercedes Benz**

**January, 1982
to June, 1984**

Vehicle Technician **Phillip Dawson Mercedes Benz, Norfolk, England** **Mercedes Benz, including trucks**

**March, 1978 to
January, 1982**

Apprentice Motor Vehicle Technician **H.E. Averill Ltd. (BMW dealer), Norfolk, England** **BMW automobiles**

Education

1978-1982

Yarmouth Technical College, London, England

Automotive Engineering Degree, Department of Transportation
Tester's Certificate, Road Transport Industry Training Board
Certificate, National Craft Certificates, Motor Vehicle Technology

2002

Eastern Kentucky University, Richmond, Kentucky

Certified Fire & Explosion Investigator Course



DEPOSITIONS AS OF September 23, 2002

RICHARD A. CLARKE

HUGHES1 - RC01 - [REDACTED], Plaintiff v General Motors Corporation and State Farm Fire & Casualty Company, Defendants - Date of Deposition - 11/03/97 - In The United States District Court for the Northern District of Georgia, Atlanta Division, Civil Action No. 1:96-cv-2820

SCHUETTE1 - RC01 - [REDACTED], Plaintiff v Signal Specialty Company, Defendant - Date of Deposition - 04/07/99 - United States District Court Western District of Kentucky at Bowling Green, Case No. 1:98-CV-0001-R

PORTER1 - AG01 - [REDACTED], Plaintiff, v Saturn Corporation, a Delaware Corporation and General Motors Corporation, a Delaware Corporation, Defendants - Date of Deposition - 09/01/99 - In the United States District Court for the District of South Carolina, Charleston Division, C.A. No. 2:97-3695-12

MILLER1 - RC01 - [REDACTED], and [REDACTED], Plaintiffs, vs General Motors Corporation and Bridgestone/Firestone, Inc., Defendants - Date of Deposition - 11/08/99 - In the United States District Court for the Southern District of Texas, Galveston Division, Civil Action No. G-98-514

JAMES1-RC01 - [REDACTED], Plaintiff, v Shariff B. Harris, Leo L. Utley and General Motors Corporation, Defendants - Date of Deposition - 01/25/00 - In the Superior Court of Richmond County, State of Georgia, Civil Action File No. 97-RCCV-1022

MILLER1 - RC01 - [REDACTED], and [REDACTED]
[REDACTED] Plaintiffs, vs General Motors Corporation and Bridgestone/Firestone,
Inc., Defendants - Date of Deposition - 07/03/00 - In the United States District
Court for the Southern District of Texas, Galveston Division, Civil Action No.
File No. 97-RCCV-1022

GERMANY1 - RC01 - [REDACTED], Plaintiff, v General Motors Corporation;
Central Pontiac-Buick Co.; and Billy Brooks Pontiac-Buick Co.,
Defendants - Date of Deposition - 07/13/00 - In the Circuit of the First Judicial
District of Jasper County, Mississippi - No. 96-0054

FEW1 - RC03 [REDACTED], Plaintiff v. General Motor Corporation and Whatley,
Inc., Defendants - Date of Deposition - 07/20/00 - In the Court of Common
Pleas, State of South Carolina, County of Allendale, Case No. 98-CP-03-76

MONTGOMERY1-RC01-[REDACTED] Plaintiff v. Ford Motor Company,
Defendants - Date of Deposition - 01/10/01 - In the Superior Court of Athens-
Clarks County, State of Georgia, Civil Action Number SU-99-CV-0690-G

FEW1-RC01-[REDACTED], Plaintiff v. Volkswagen of America, Inc.,
Volkswagen AG; John Barranco, Defendants- Date of Deposition-
02/07/01- In the Superior Court of California, County of San Diego,
Case No. GIC 733937

FEW1-RC03 [REDACTED] Plaintiff v. General Motors Corporation and Whatley,
Inc., Defendants- Date of Deposition- 02/09/01- In the Court of Common Pleas,
State of South Carolina, County of Allendale, Case No. 98-CP-03-76

FEW1-RC01-[REDACTED] Plaintiff v. Volkswagen of America, Inc.,
Volkswagen AG; John Barranco, Defendants- Date of Deposition-
03/15/01- In the Superior Court of California, County of San Diego,
Case No. GIC 733937

GERMANY1 RC02-[REDACTED] Plaintiff vs.. General Motors Corporation; TRW Inc.;
And Jerry Ard d/b/a Jerry's Used Cars, Defendants- Date of
Deposition-06/20/01-In the Circuit Court of Lawrence County,
State of Mississippi, Case No. 98-0052

- FEW1 - RC01** [REDACTED], Plaintiff v. Volkswagen of America, Inc., Volkswagen AG; John Barranco, Defendants- Date of Deposition- 07/06/01 - In the Superior Court of California, County of San Diego, Case No. GIC 733937
- R-145** - [REDACTED], Plaintiff vs. Daimlerchrysler Corporation, (formerly known as Chrysler Corporation), Defendant - Date of Deposition - 07/10/01 - In The United States District Court For The Eastern District Of Kentucky, Lexington Division, Civil Action File No. 00-168
- FEW1 - RCO1** - [REDACTED], Plaintiff v. Volkswagen of America, Inc., Volkswagen AG; John Barranco, Defendants- Date of Deposition- 07/24/01 - In the Superior Court of California, County of San Diego, Case No. GIC 733937
- R-165** [REDACTED] y and [REDACTED], Plaintiffs vs. General Motors Corporation And Buckalew Chevrolet, Inc., Defendants - Date of Deposition - 08/01/01 - In the District Court of Harris County, Texas 55th Judicial District Cause No. 2000-29994
- R-103** - [REDACTED] Widow and Administratrix of the [REDACTED] Plaintiff vs. Bartow Paving Company, Inc., A Georgia Corporation, Defendant - Date Of Deposition - 09/17/01 - In the Superior Court of Bartow County, State Of Georgia, File No. CV00-1604
- R-185** - [REDACTED], individually; [REDACTED], individually; [REDACTED], individually; [REDACTED] by and through her natural parent and Guardian [REDACTED] [REDACTED] by and through her natural parent And guardian [REDACTED] [REDACTED] by and through her natural Parent and guardian, [REDACTED] by and through his Natural parent and guardian, [REDACTED] Plaintiffs, vs. [REDACTED] General Motors Corporation, a foreign corporation; Pontiac Chevrolet, Inc., a Florida corporation; TRW, Inc., a foreign corporation; TRW Vehicle Safety Systems, Inc., a foreign corporation; and TRW Vehicle Safety Systems, Limited, a foreign entity, Defendants - Date Of Deposition - 10/03/01 - In the Circuit Court of the Eleventh Judicial Circuit In and for Miami-Dade County, Florida, Case No.: 99-15404 CA 30
- R-140** - Johnny Chapman, as Personal Representative of the [REDACTED] Plaintiff, vs. R & W, Inc., d/b/a AAMCO Transmissions, Defendants - Date of Deposition - 11/6/01 - State of South Carolina, County of Florence, In The Court Of Common Pleas, C/A NO.: 01-CP-21-437

R-205 [REDACTED] Plaintiff, v.
Charles Clark Chevrolet Company and General Motors Corporation,
Defendants - Date of Deposition - 1/28/02 - In the 381st District Court of Star
County, Texas - Cause No. DC-0151

R-215 [REDACTED] individually; [REDACTED] individually;
[REDACTED] individually; [REDACTED] Jr., individually; [REDACTED], individually
And [REDACTED] individually, Plaintiffs v. Goodyear Tire and Rubber
Company; America's Tire Company; Kelly Springfield Tire Company; Mazda
Motor Corporation Of Japan; Mazda Motor Of America, Inc.; Eric G. Loo,
Individual; and Does 1 through 100, inclusive. Defendants - Date of
Deposition - 04/16/02 - In the Superior Court Of The State of California For
The County of Los Angeles - Case No. BC229279

FEW1 RC02 [REDACTED] Plaintiff v. Oscar Chisom, Daimler Chrysler
Corporation and Allied Signal, Inc., Defendants - Date of Deposition
- 05/31/02 - In The Court of Common Pleas State of South Carolina
- C/A No.: 00-CP-15-37

R-103 [REDACTED], Widow and Administratrix of the Estate of Seaborn E. Moore,
Plaintiff vs. Bartow Paving Company, Inc., A Georgia Corporation, Defendant -
Date Of Deposition - 06/18/02 - In the Superior Court of Bartow County, State
Of Georgia, File No. CV00-1604

FEW1 RC02 - [REDACTED] Plaintiff v. Oscar Chisom, Daimler Chrysler
Corporation and Allied Signal, Inc., Defendants - Date of Deposition
- 07/05/02 - In The Court of Common Pleas State of South Carolina
- C/A No.: 00-CP-15-37

R-231 [REDACTED], by and through her Guardian ad Litem [REDACTED] -
ESTATE OF [REDACTED] by and through its Special Administrator,
[REDACTED] O; [REDACTED] O, individually, and S [REDACTED]
Plaintiffs vs. MITSUBISHI MOTORS CORPORATION, et al., Defendants -
Date of Deposition - 8/27/02 - In Superior Court of State of California for the
County of San Bernardino - No. RCV 39233 (Consolidated with Case No. RCV
41031)



TRIAL TESTIMONY AS OF

September 23, 2002

RICHARD A. CLARKE

**SCHUETTE1 - RC01 - [REDACTED] Plaintiff v Signal Specialty Company,
Defendant - Date of Testimony - 05/05/99 - United States District Court
Western District of Kentucky at Bowling Green, Case No. 1:98-CV-0001-R**

**MILLER1 - RC01 - [REDACTED] and [REDACTED]
[REDACTED] Plaintiffs, vs. General Motors Corporation and Bridgestone/Firestone,
Inc., Defendants - Date of Testimony - 07/06-07/00 - In the United States
District Court for the Southern District of Texas, Galveston Division, Civil
Action No. G-98-514**

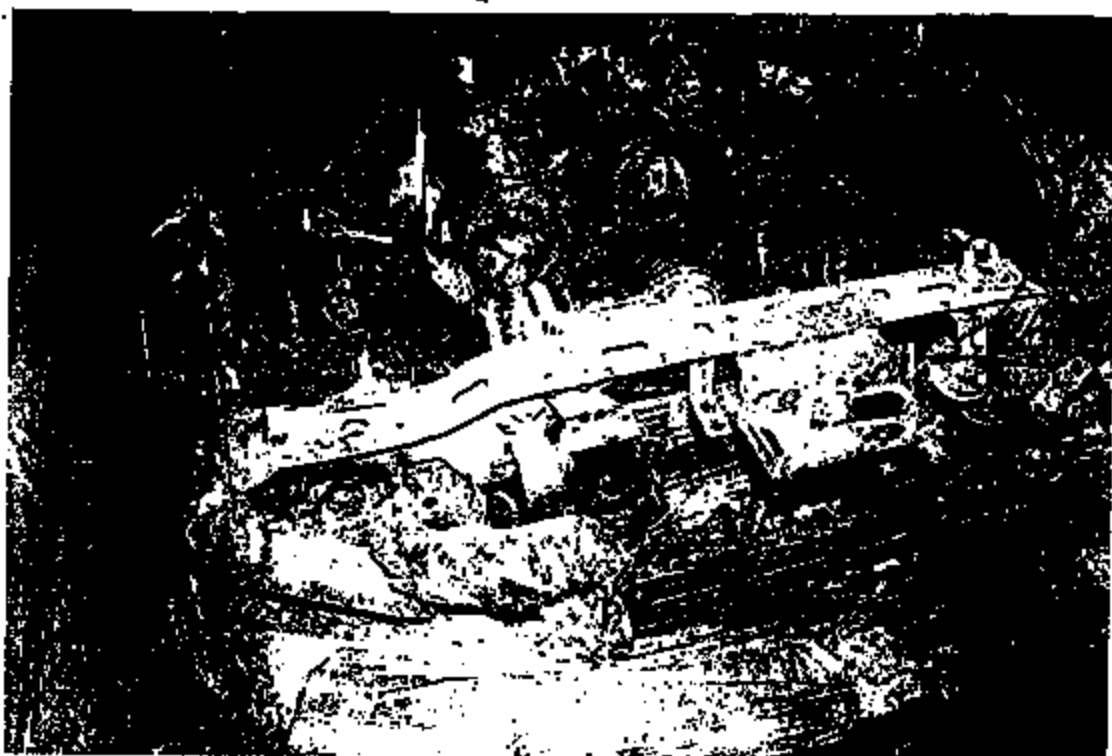


FIGURE 11

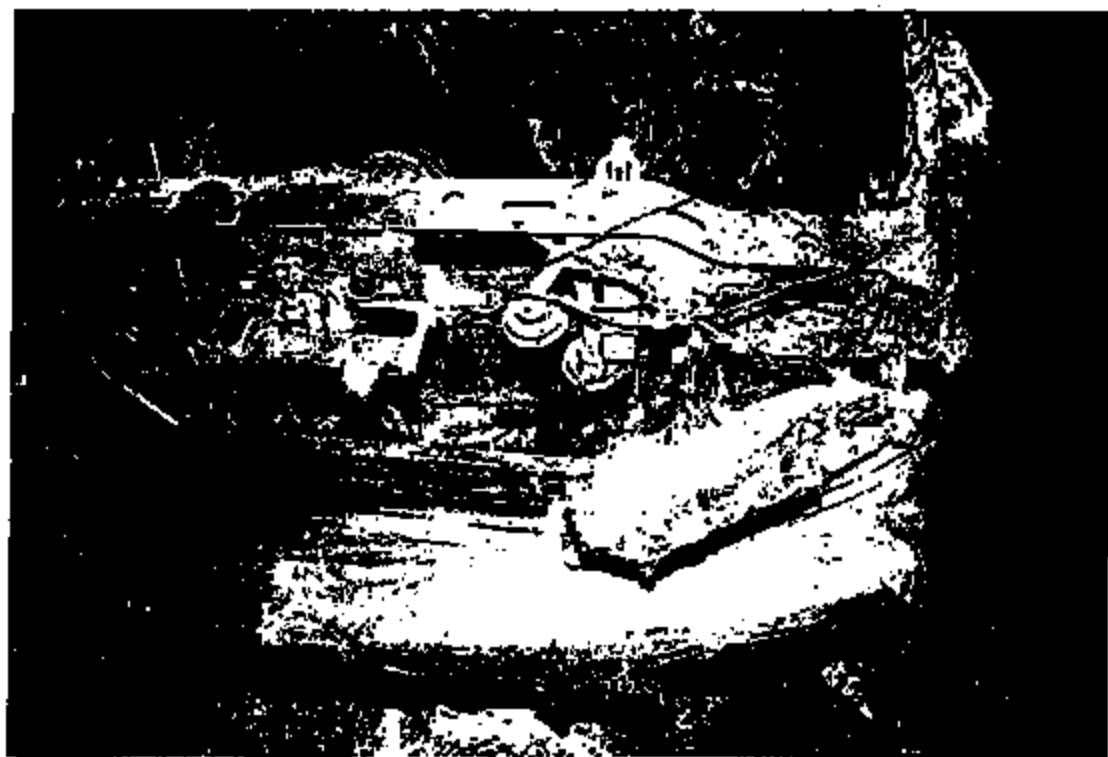


FIGURE 12



FIGURE 13



FIGURE 14

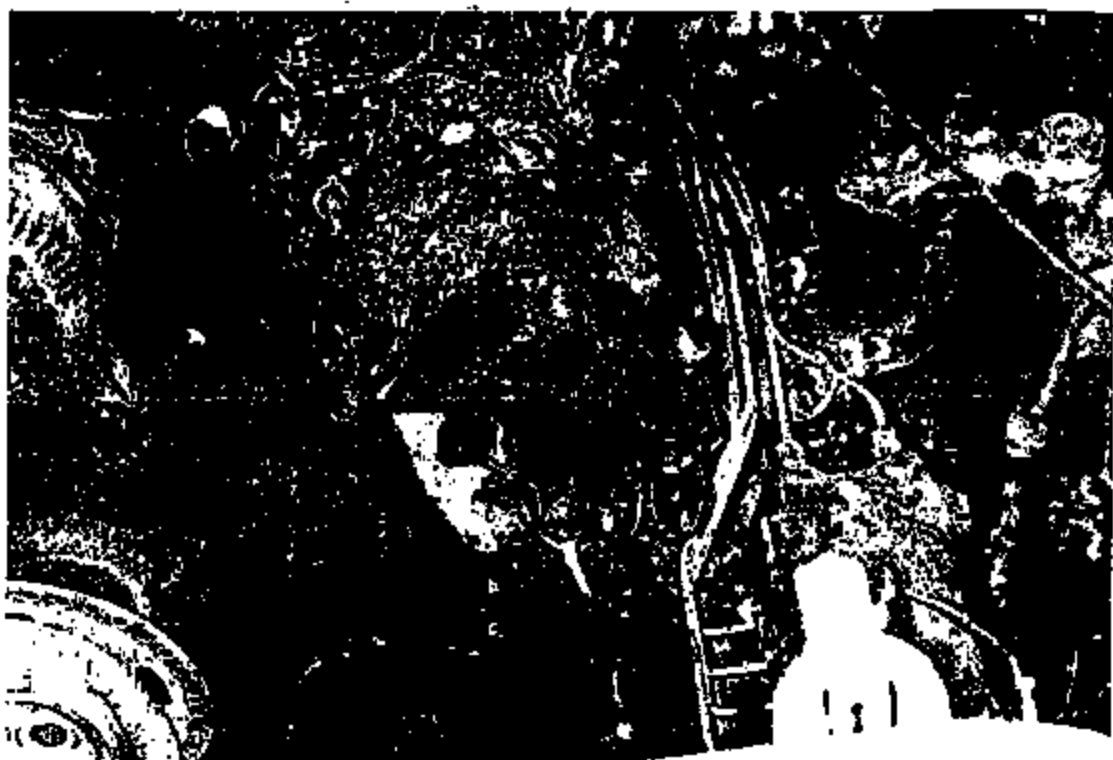


FIGURE 15



FIGURE 16



FIGURE 17



FIGURE 18

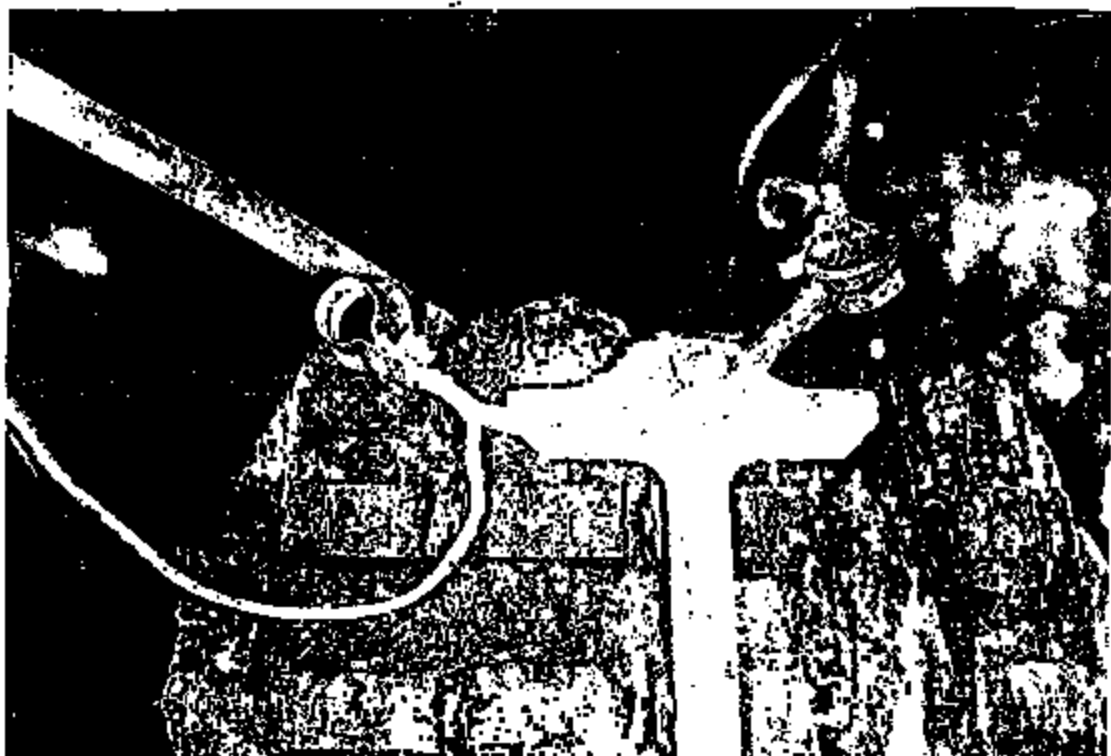


FIGURE 19



FIGURE 20

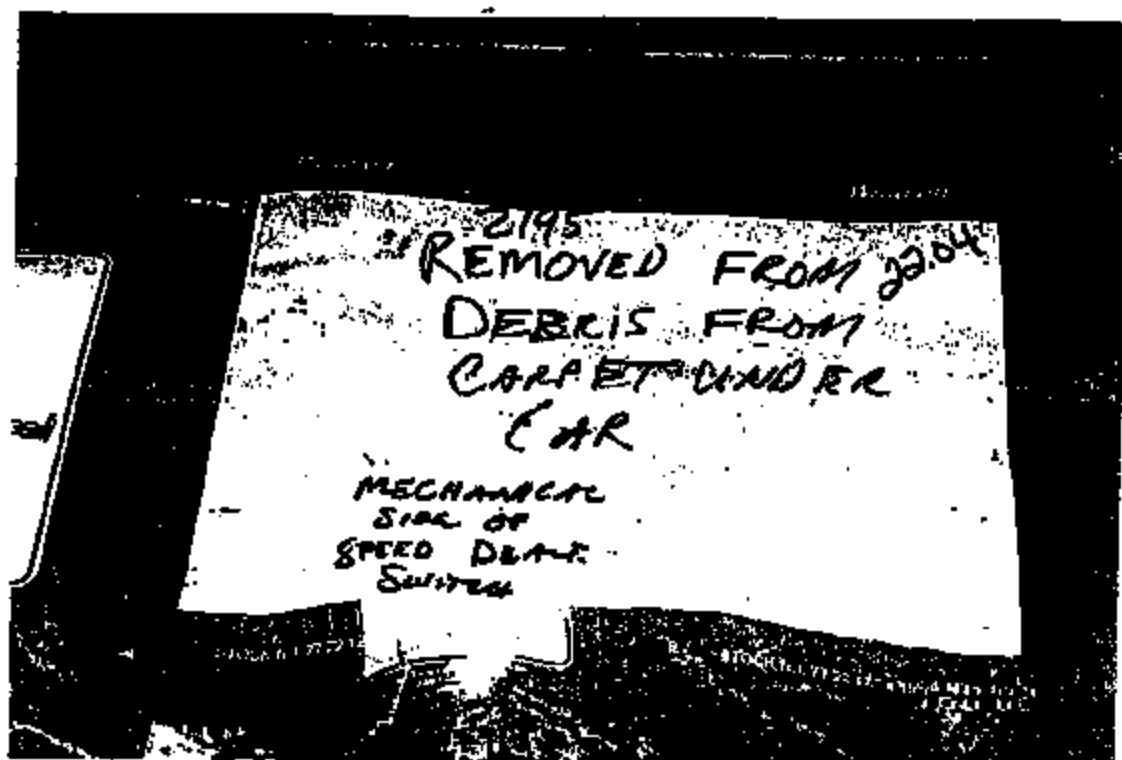


FIGURE 21



FIGURE 22

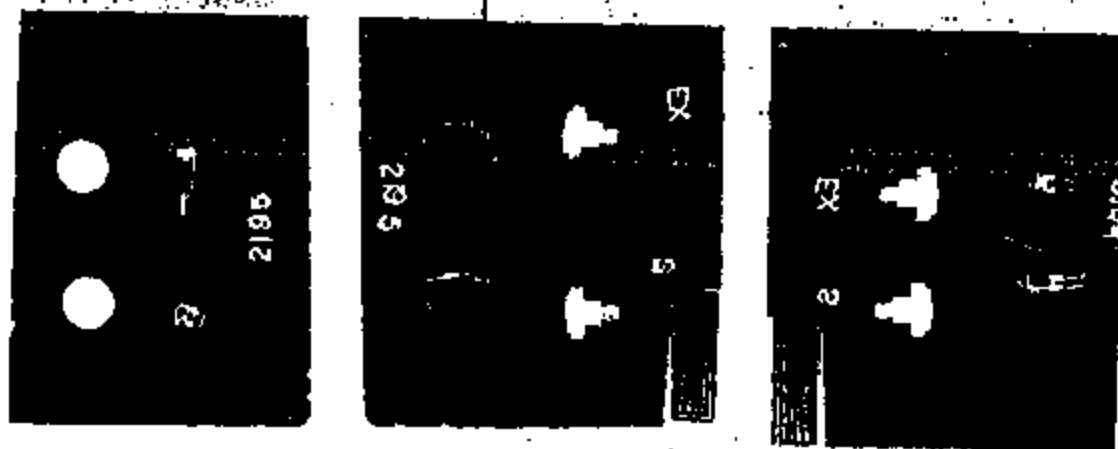


FIGURE 23

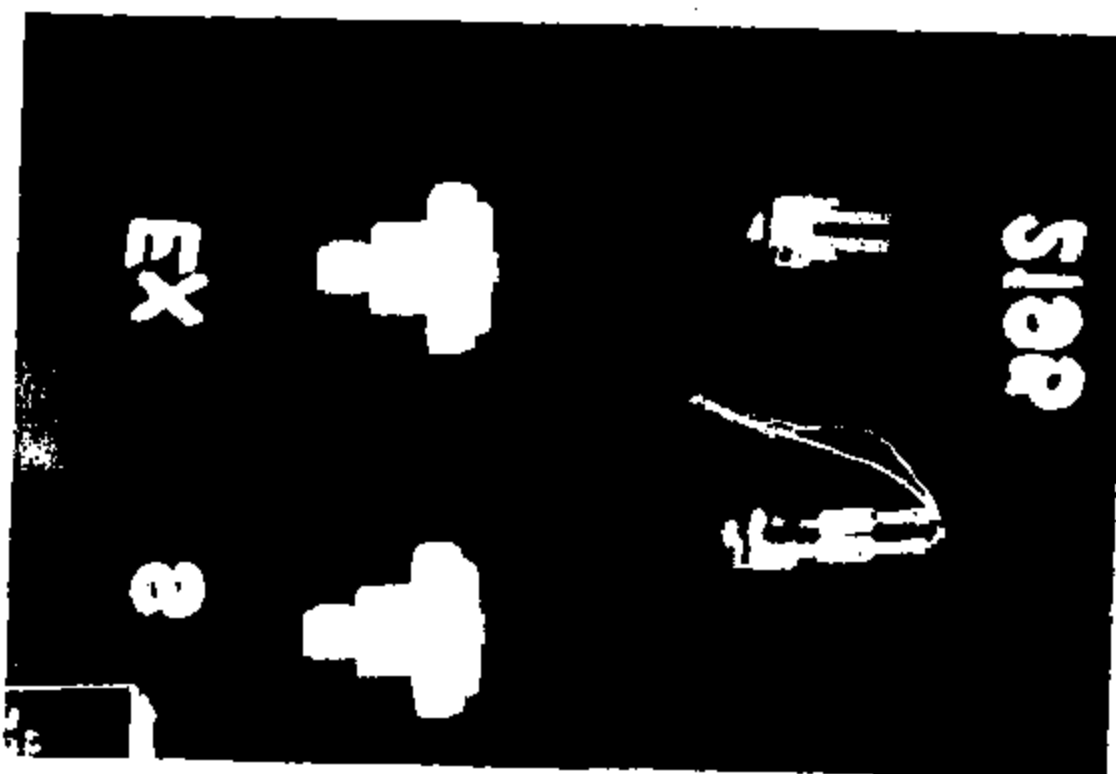


FIGURE 24



FIGURE 25

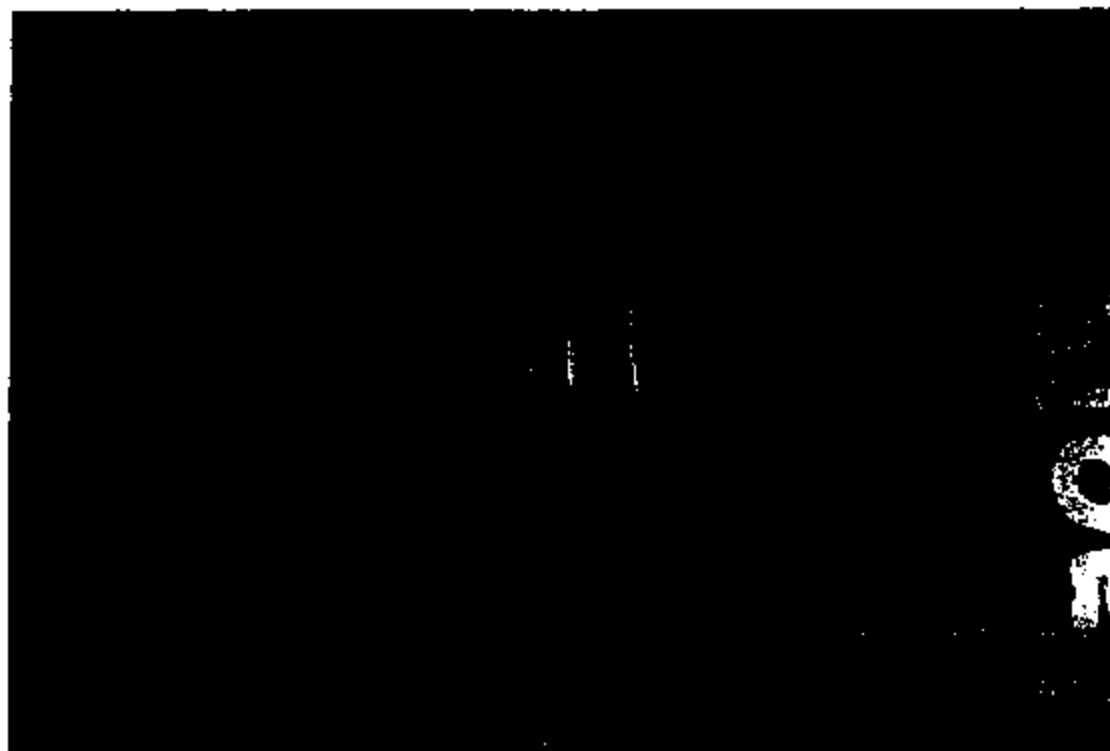


FIGURE 26



FIGURE 27

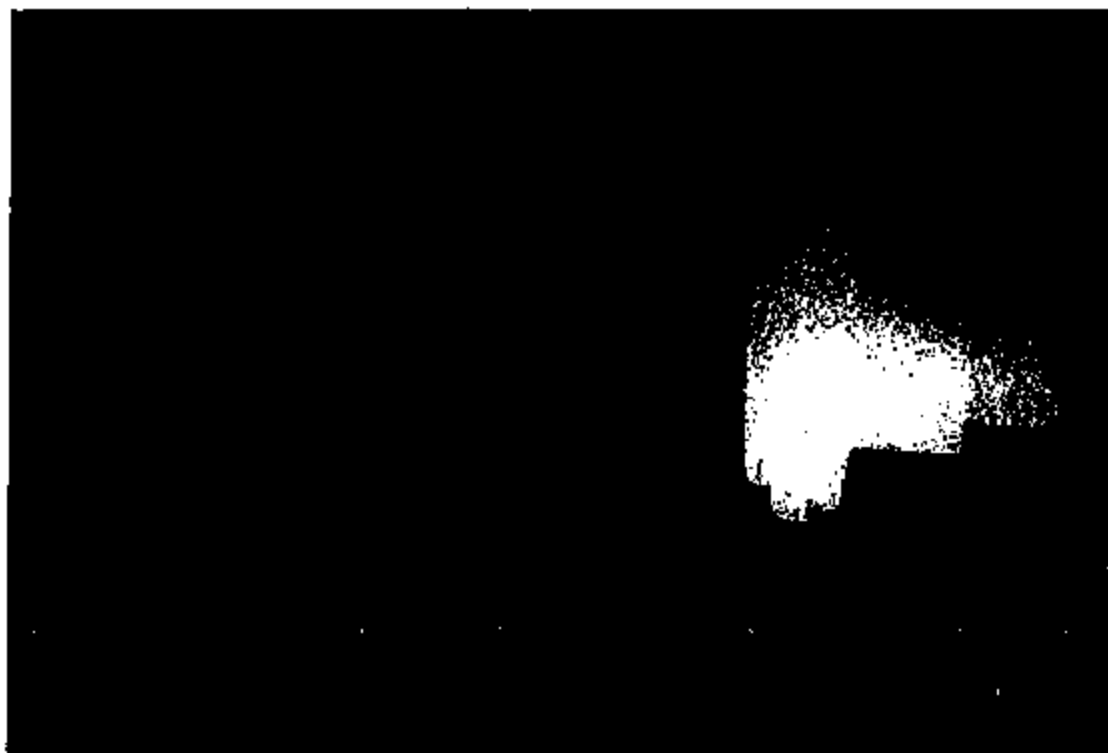


FIGURE 28



FIGURE 29

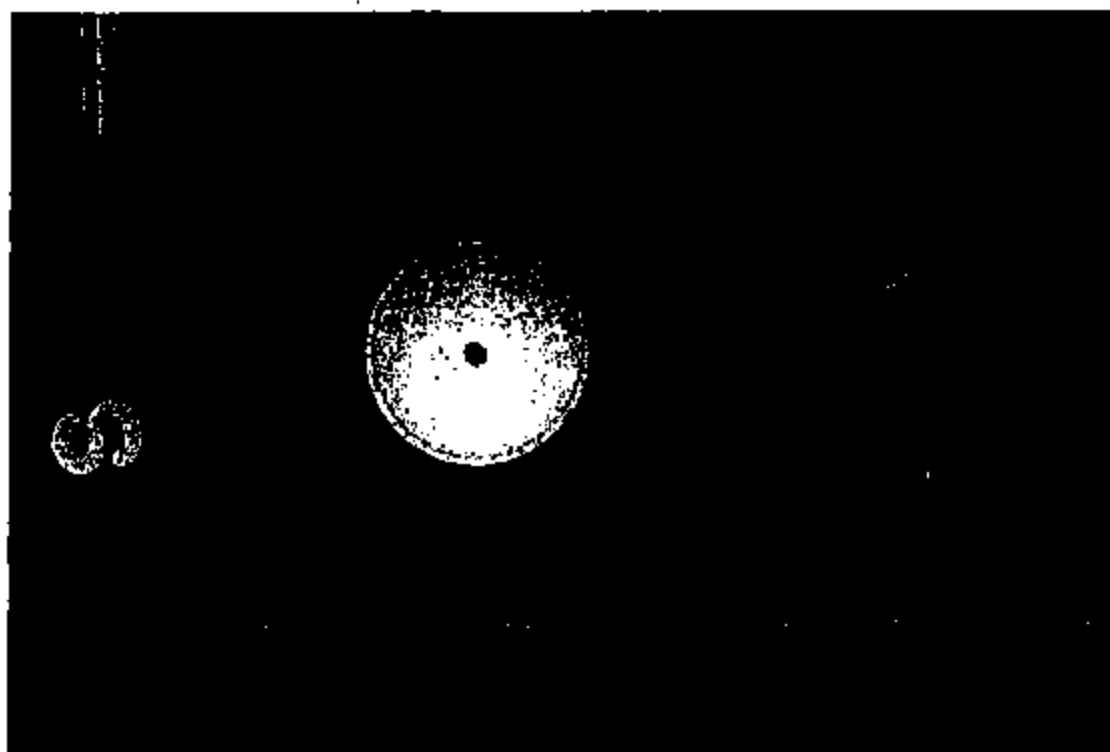


FIGURE 30



FIGURE 31

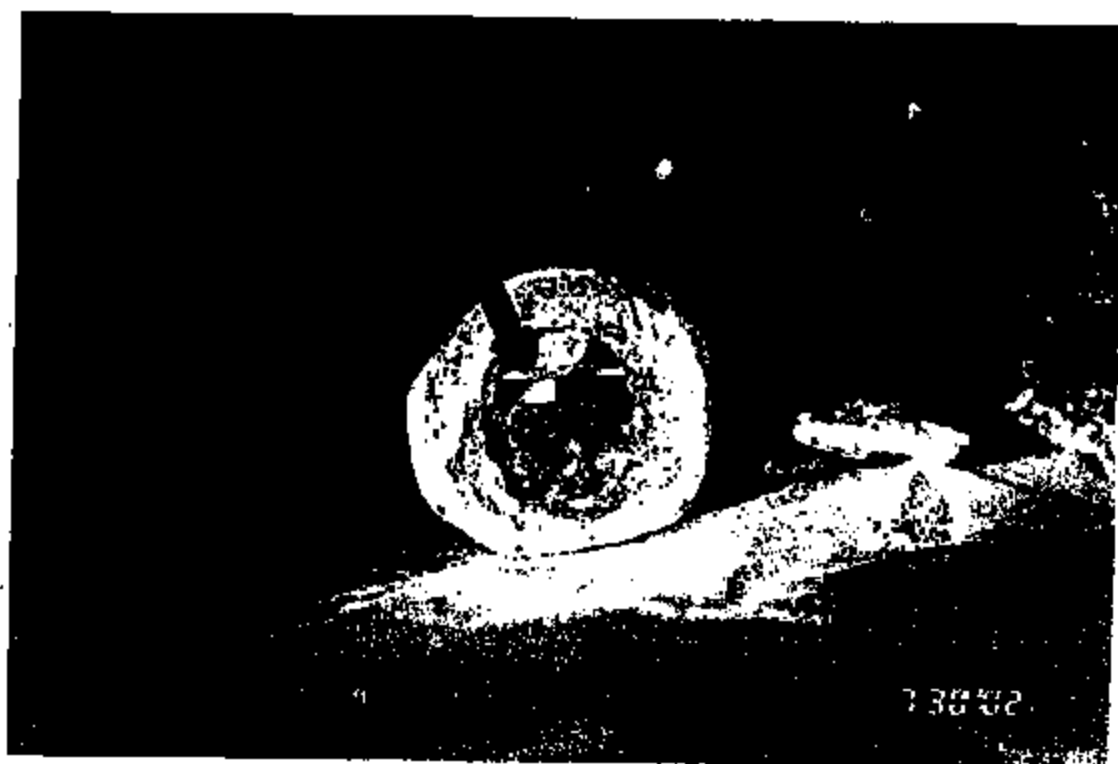


FIGURE 32

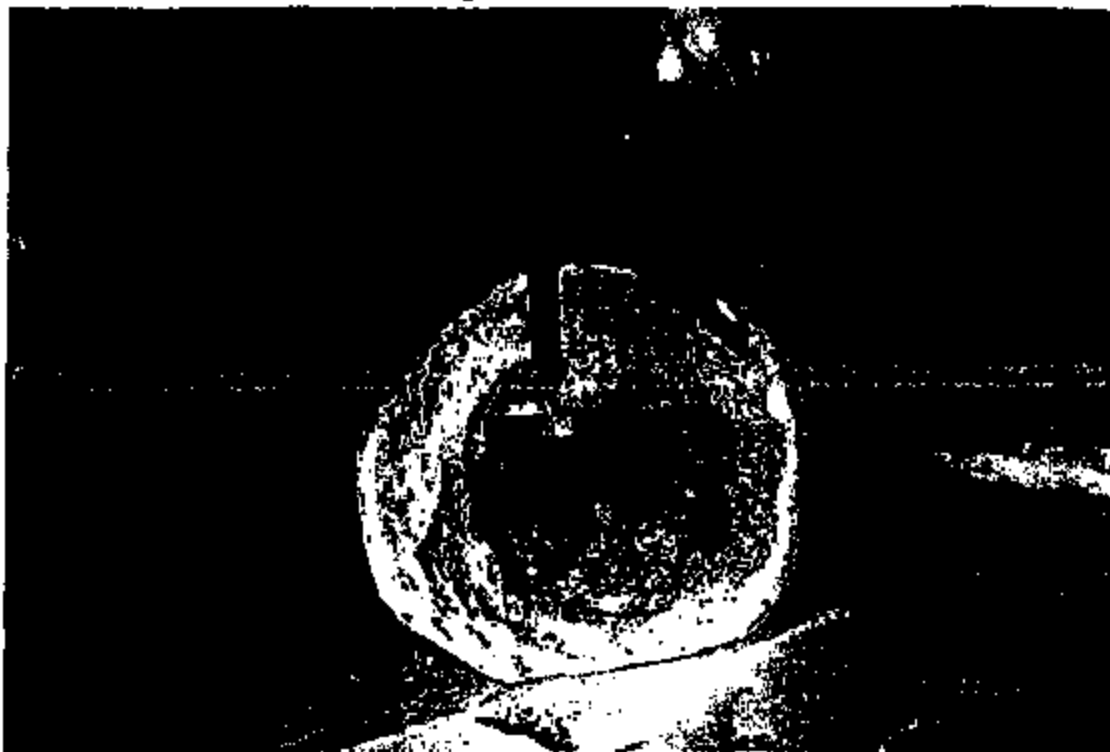


FIGURE 33

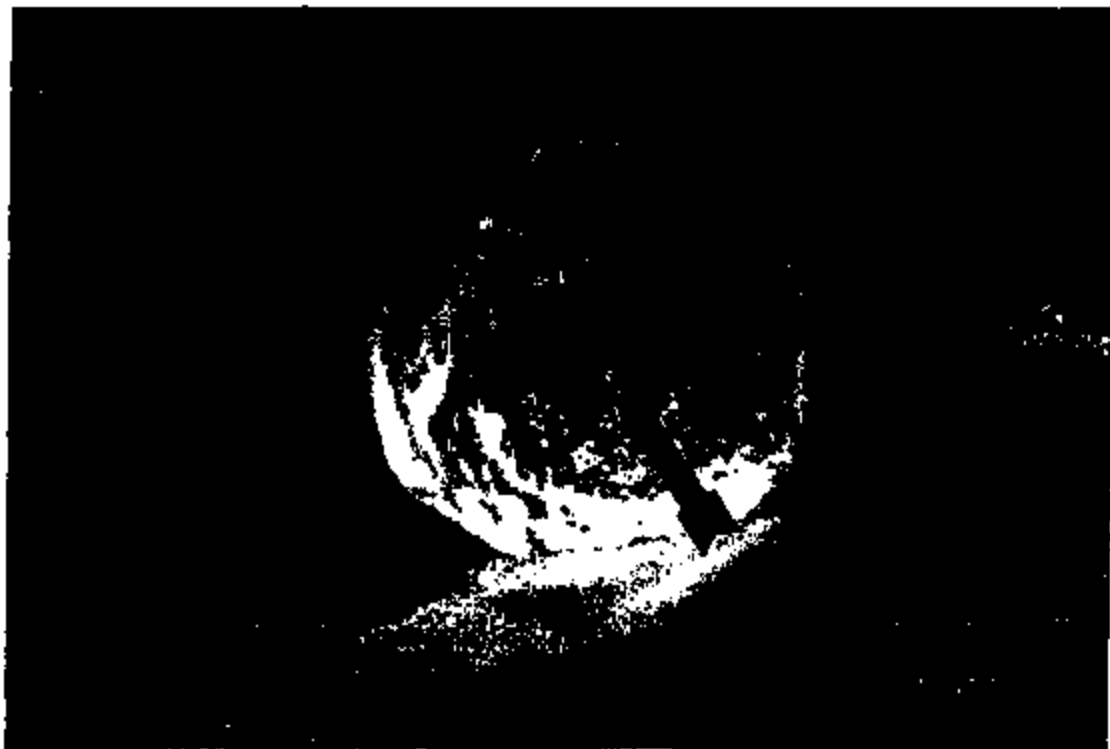


FIGURE 34

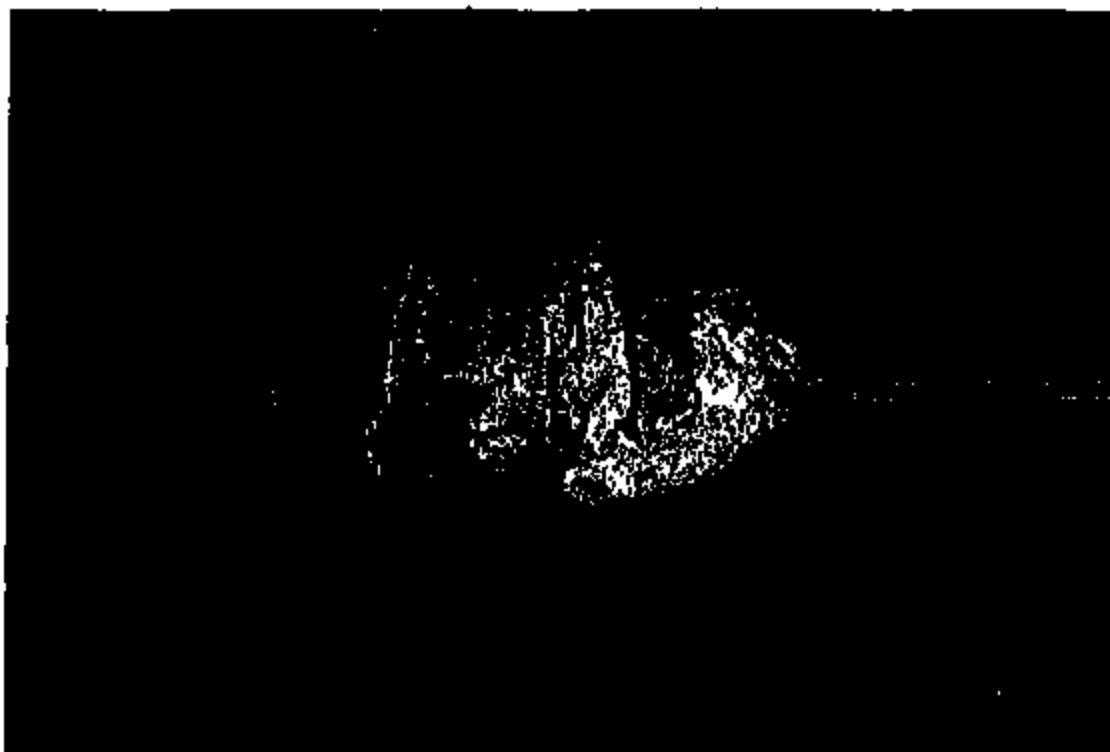


FIGURE 35



FIGURE 36

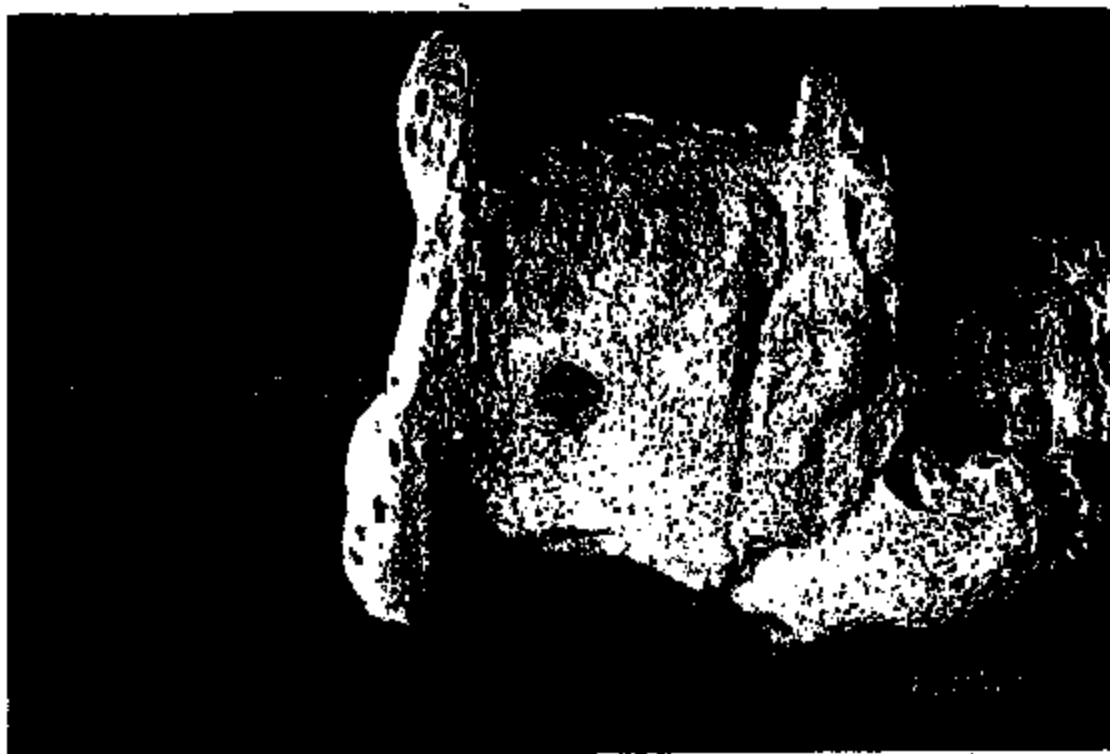


FIGURE 37

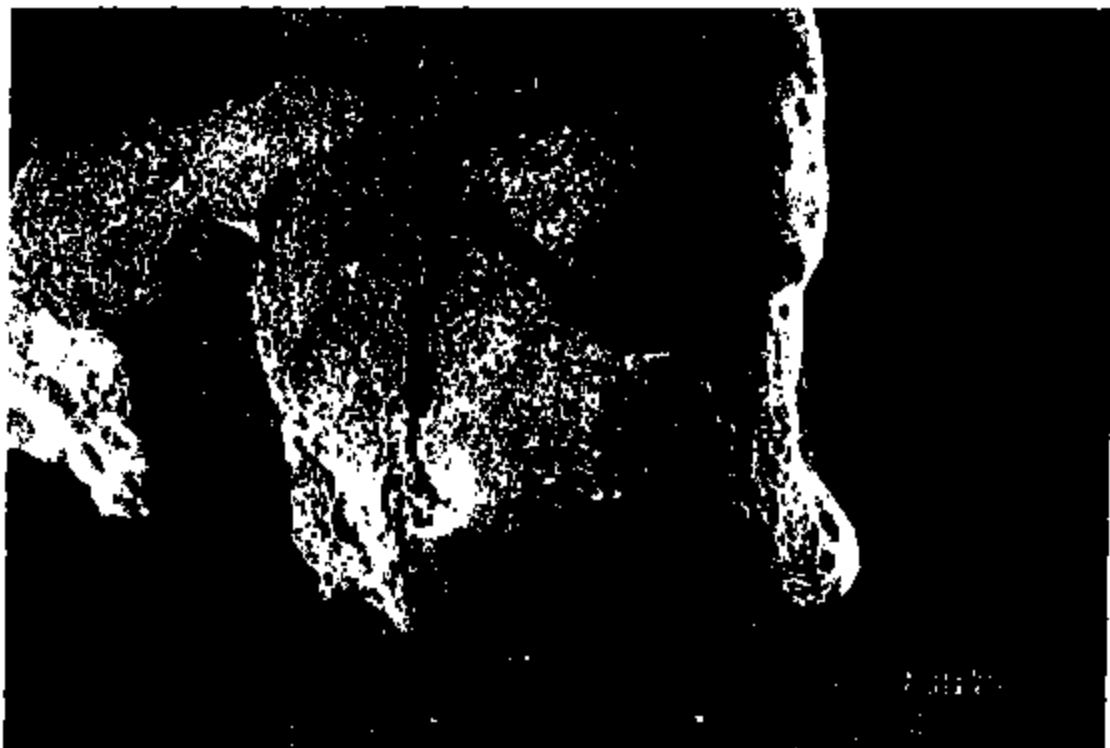


FIGURE 38



FIGURE 39



FIGURE 40

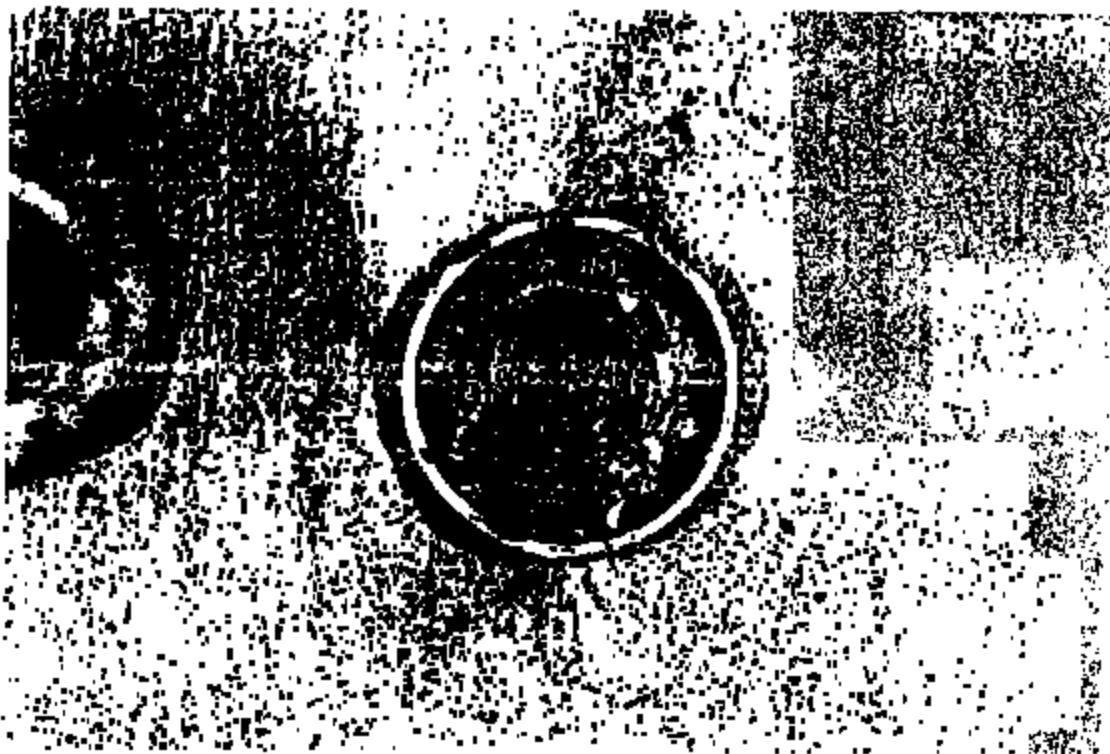


FIGURE 41



FIGURE 42



FIGURE 43

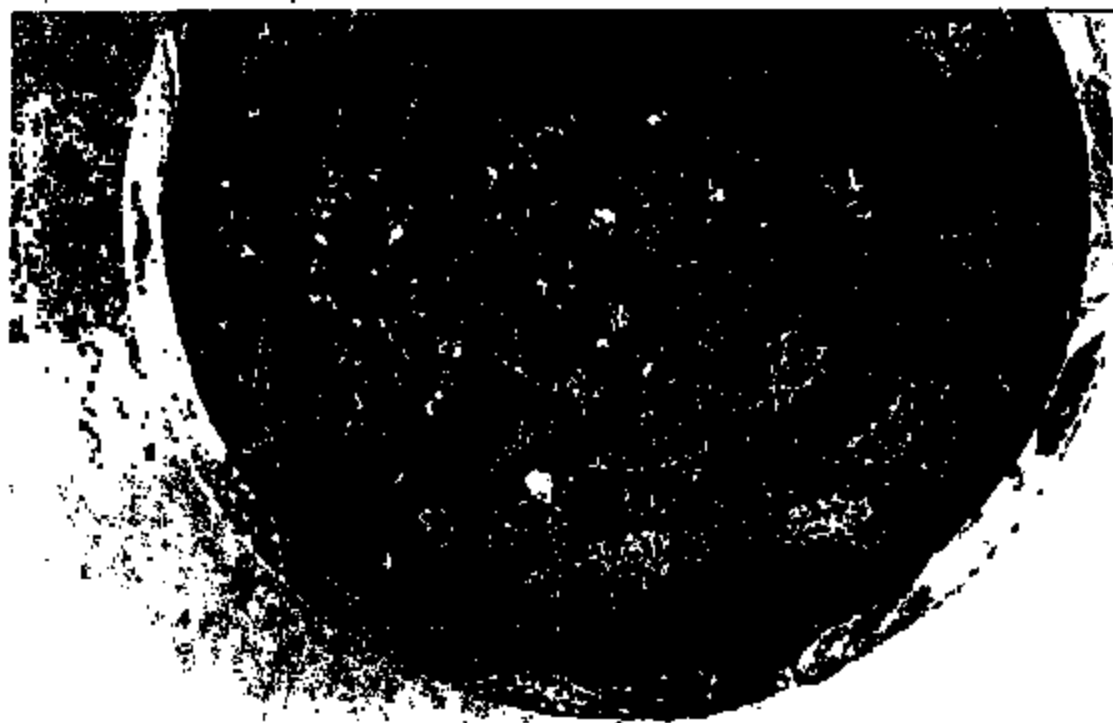


FIGURE 44



FIGURE 45

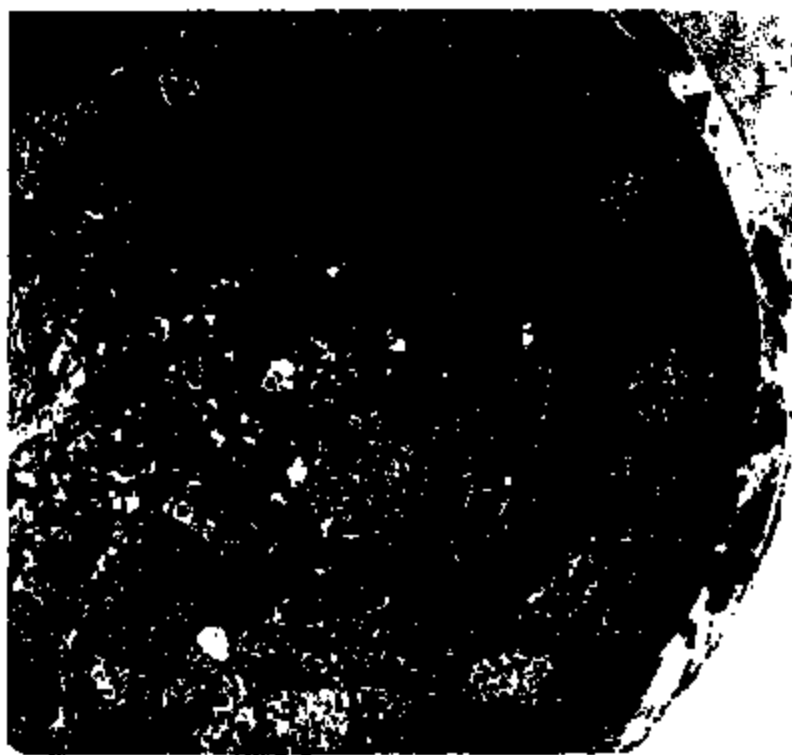


FIGURE 46



FIGURE 47



FIGURE 48

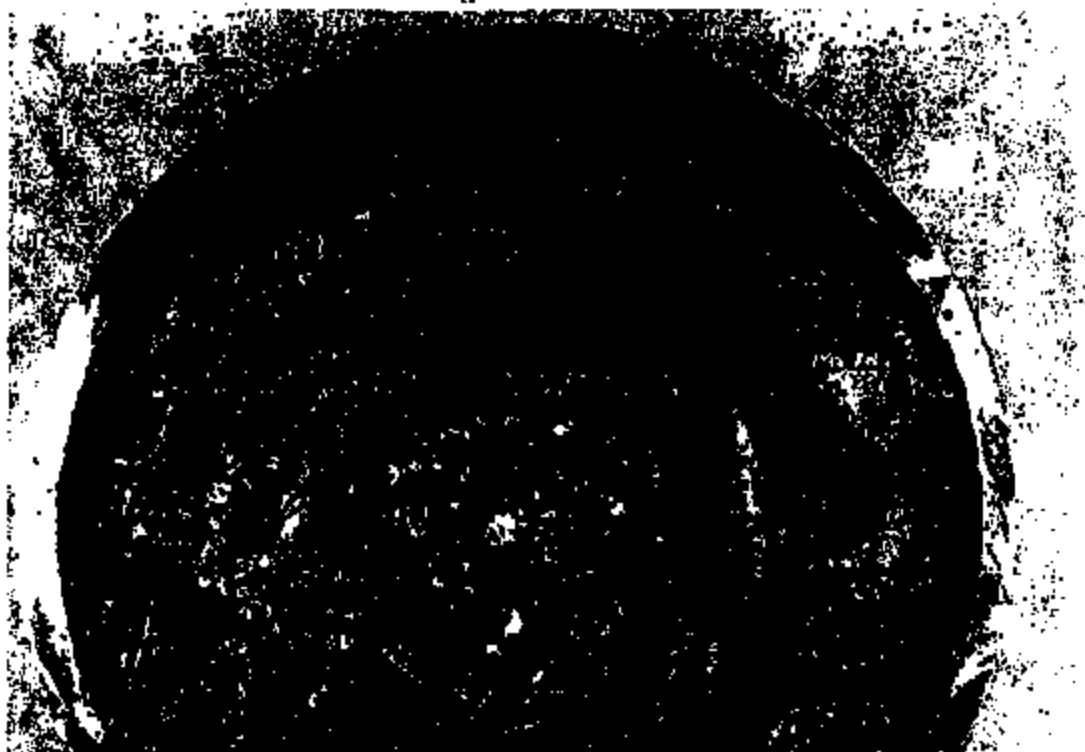


FIGURE 49

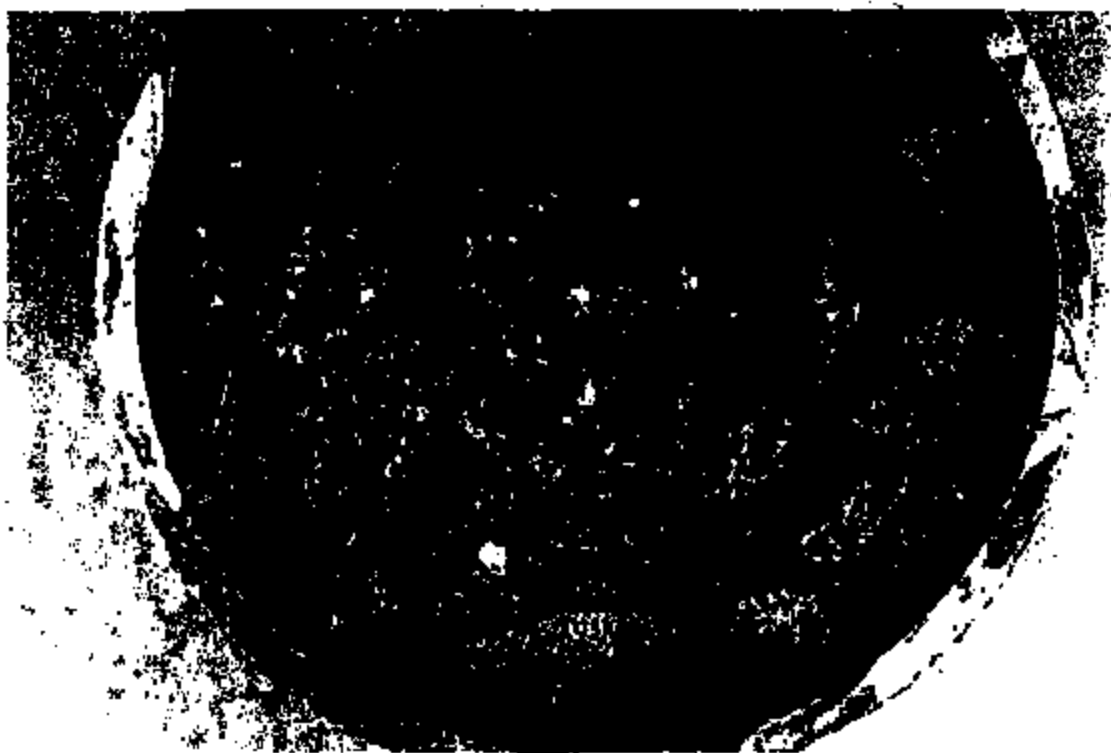


FIGURE 50.



PUBLICATIONS

Gilberg, A., Marcosky, J., Sherman, L. and Clarke, R., 'Door Latch Strength in a Car Body Environment' SAE #980028, Feb. 23-26, 1998

Clarke, R., McSwain, R., Hood, M., and McKinley, D., 'The Consequences of Design Material Selection On Restraint System Failure' 52nd Annual Meeting of the American Academy of Forensic Sciences, Reno, Nevada, Feb. 2000

Clarke, Richard, 'An Analysis of the JDC Buckle's Dynamic Response to Inertial Loading Conditions in a Vehicle Rollover', 53rd Annual Meeting of the American Academy of Forensic Sciences, Seattle, Washington, Feb. 2001

Clarke, Richard, "Documenting the Need for an Expedient Emergency Release Capacity in Safety Belt Buckles: Test Methods to Document Seat Belt Buckle Responses to Webbing Load", 54th Annual Meeting of the American Academy of Forensic Sciences, Atlanta, Georgia, February 11-16, 2002



Memberships

- 1) Society of Automotive Engineers (S.A.E.)
- 2) National Association of Fire Investigators (NAFI)
- 3) International Association of Arson Investigators Inc. (IAAI)
- 4) Ministry of Transport England
- 5) National Fire Protection Association
- 6) American Society For Testing Materials (ASTM)

Affiliations

- 1) American Academy Of Forensic Sciences
- 2) American Society Of Mechanical Engineers



FIGURE 1



FIGURE 2



FIGURE 3



FIGURE 4

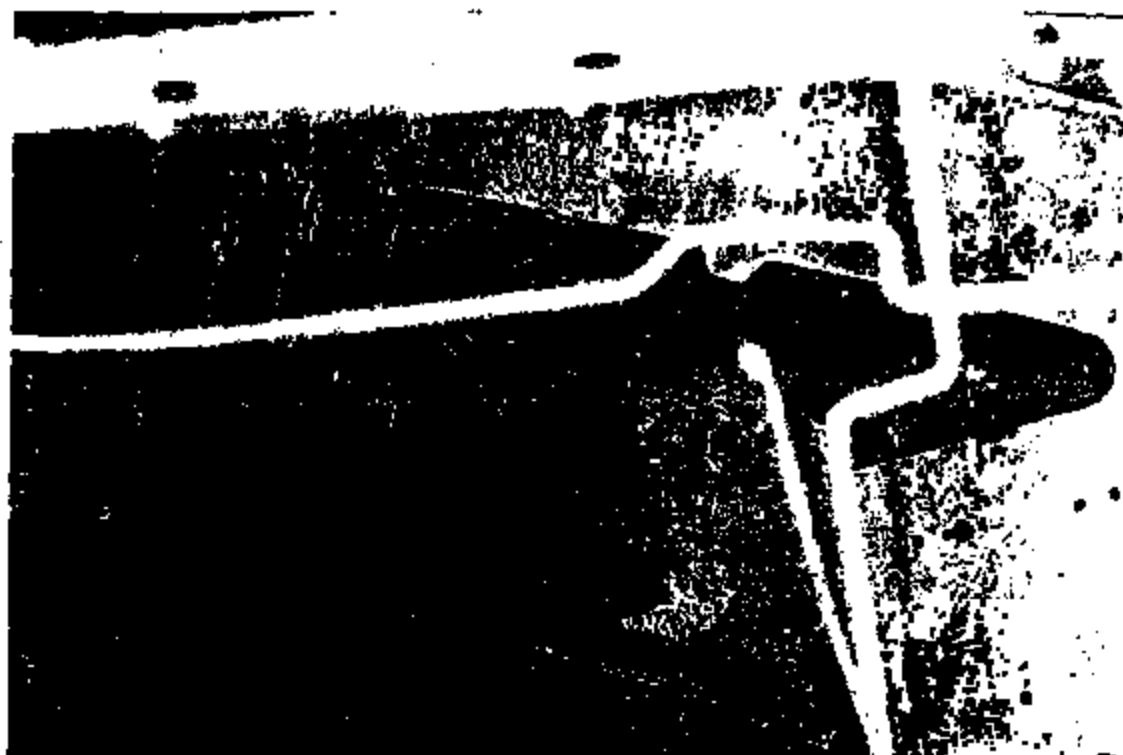


FIGURE 5



FIGURE 6

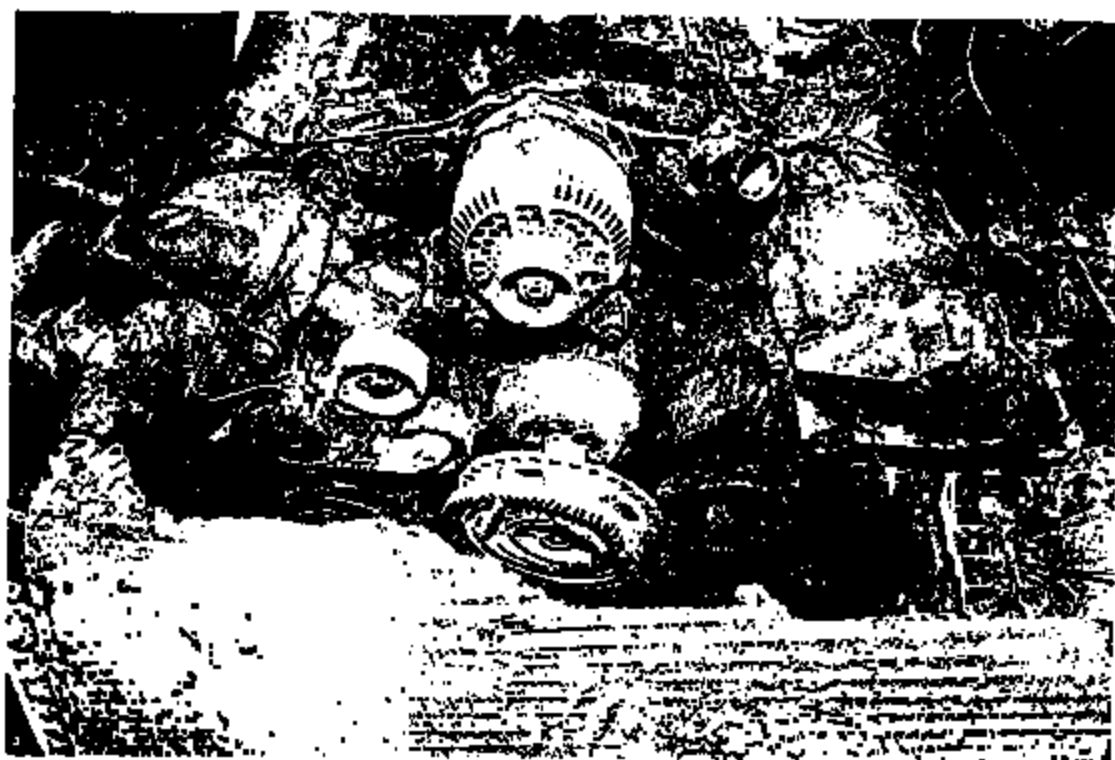


FIGURE 7



FIGURE 8



FIGURE 9



FIGURE 10

**Deposition of
Richard Clark**

ER92-025-A 9871

25

THE UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

ALLSTATE INSURANCE COMPANY, an)
Illinois Corporation and)
NORTHLAND INSURANCE COMPANY,)
a Minnesota Corporation,)

Plaintiffs,)

vs.)

No. C01-1416L)

FORD MOTOR COMPANY, a Delaware)
Corporation, and TEXAS)
INSTRUMENTS, INC., a Delaware)
Corporation,)

Defendants.)

DEPOSITION UPON ORAL EXAMINATION

OF

RICHARD CLARKE

Taken at 1230 Third Avenue, Suite 5200

Seattle, Washington

DATE TAKEN: October 3, 2002

REPORTED BY: CINDY K. YOUNG YO-UN-GC-K4-54QD

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ALSO PRESENT:

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* * * * *

DEPOSITION OF RICHARD CLARKE

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SEATTLE, WASHINGTON; THURSDAY, OCTOBER 3, 2002

9:00 A.M.

--o--

RICHARD CLARKE, witness herein, having been
first duly sworn on oath,
was examined and testified
as follows:

EXAMINATION

BY MR. FEENEY:

- Q. Good morning.
A. Good morning.
Q. My name is Jim Feeney and I represent Ford. I'm
going to be asking you some questions about this case and
the work you have done. Have you been hired by the
plaintiff in this case?
A. Yes.
Q. Who hired you?
A. Tom Dunford.
Q. And can you tell me what you were asked to do?
A. To form an opinion on the vehicle fire that was in
the Seattle area.
Q. And have you done that?
A. Yes.
Q. And when you say "form an opinion," are you

- meaning to suggest that you have arrived at an opinion as to
the cause and origin of the fire?
A. Correct.
Q. And is your work complete?
A. Yes.
Q. Have you brought your entire file with you?
A. Yes, I have.
Q. I'm going to get into your file in a minute and
ask you some questions about it.
You've prepared a report in the case?
A. Correct.
Q. Your report is complete; is that right?
A. Correct.
Q. And the report sets forth your opinions?
A. Correct.
Q. In preparing for this deposition and looking at
your report, and kind of getting everything straight in your
head, is there anything that occurred to you that you left
out of the report that given an opportunity you'd like to
supplement or add?
A. If there was an opportunity to disassemble the oil
pressure transducer, that's the only thing I would have
done.
Q. But nothing else?
A. That's correct.

- Q. Mr. Clarke, I've never taken your deposition
before so I don't know very much about your background. I
know you've given depositions but I haven't read any
transcripts, so I don't really know anything about you other
than what appears in the CV. So if you would just bear with
me I'd like to ask you some questions about your background
if that's okay with you?
A. That's fine.
Q. Now you were born and grew up and spent some
professional time in England?
A. Correct.
Q. And I think your educational background in your CV
indicates that you've got listed Yarmouth Technical College,
London, England?
A. Correct.
Q. What is that?
A. It's a college that's based in Yarmouth that has a
main operating area of London, so they have wings like arms
around the UK that you can attend instead of trying to get
to England, that kind of thing.
Q. So we would think of this as perhaps a branch.
But you went to the branch of Yarmouth College in London?
A. No. It's the branch of the technical college in
Yarmouth that's in England.
Q. And that's where you went to school?

- A. That's where I done my college, yes.
Q. Now you list 1978 to 1982?
A. Yes.
Q. Was that a four-year program?
A. Yes, it was.
Q. And what was the degree that you got?
A. It would be the equivalent I would think of a B.S.
or a B.A. over here. The educational system in England is a
different situation than what you have here in the U.S.
Q. But it's a four-year degree?
A. Correct.
Q. And you list it as automotive engineering degree?
A. Correct.
Q. Is that what it was called officially?
A. I believe it was, yes.
Q. Is there a particular area of automotive
engineering that would be the subject of that degree?
A. We studied many, many aspects of the automotive
field from the technical standpoint and training. So I
specialized really in -- for my area where I wanted to go
was to work for General Motors. That was my goal was to
work for that company. So I specialized my way of working
to being in high performance vehicles. So the stuff I
really wanted to be involved in and what interested me was
the area of suspension handling.

1 Q. And you were able to basically pick courses in the
2 areas of interest?
3 A. There is different courses that you could take,
4 yes, from dynamometer testing and set-ups.
5 Q. Was there a major?
6 A. Yeah, there is a major. But I mean it's not the
7 same as you have like the people major here I guess.
8 Q. Well, what was your major?
9 A. My major was automobile engineering is what it was
10 majored under or mechanical. So automobile mechanical
11 engineering that kind of thing.
12 Q. Can the engineers sit for professional
13 examinations in England as they do in the United States?
14 A. I believe so, yes.
15 Q. Have you ever done that?
16 A. No, I didn't.
17 Q. Now your resume also indicates something about
18 Department of Transportation Testers Certificate?
19 A. Correct.
20 Q. What's that?
21 A. The United Kingdom has a strict Ministry of
22 Transport ruling where all vehicles have to pass a certain
23 test to be allowed on the road. And that's a yearly test
24 after I think now two years. So they have different
25 facilities around the country where you sit for an exam and

1 a test, and it's required to inspect vehicles for safety
2 defects or problems that could relate in a safety problem
3 that could cause an accident.
4 Q. And you took the exam and the test and you became
5 certified to conduct this mandated test on vehicles?
6 A. Yes.
7 Q. Now what is the Road & Transport Industry Training
8 Board Certificate?
9 A. It's the RTTB. It's a standard test that's done
10 in the UK where you periodically go and get tested and
11 maintain a certain level of qualifications and work.
12 Q. Is your particular field is that how it works?
13 A. It was. I done that as a part of the work I was
14 doing in general repair actually.
15 Q. Is that a test that you repeat or you do it once
16 and then you've got your certificate?
17 A. If I remember correctly it's done as what you
18 would call in every semester or every six or seven weeks or
19 nine weeks, every time you get to the end of that course.
20 You go in, they usually are on a mobile system where they
21 come in and they test you.
22 Q. And these would be in particular systems or
23 applications in a given automobile; is that correct?
24 A. That's correct.
25 Q. Like the electrical system or suspension or the

1 hydraulic system or something like that?
2 A. That's correct.
3 Q. And that was for a specific automobile?
4 A. It was for - it was general, could be any
5 automobile.
6 Q. Right. And National Craft Certificates, what's
7 that?
8 A. It's a training certificate where you can - when
9 you pass that you are qualified to be able to - National
10 Craft Certificate allows you to become an instructor. And
11 that's a part really of the RTTB where you are allowed to be
12 tested on a given time against the clock on certain aspects
13 of diagnostic and repairs and that helps you further the
14 line of work in becoming a teacher.
15 Q. And then finally it says Motor Vehicle Technology?
16 A. Right.
17 Q. Was that a course or a certificate?
18 A. It's another certificate based on the general
19 practices of automobiles, and, you know, whatever the courses
20 we are relying on.
21 Q. Did you attain all of these certificates between
22 1978 and 1982?
23 A. Yes, I did.
24 Q. Did you attain any certificates after 1982 of the
25 type that we are describing?

1 A. I have to rephrase that. The government test was
2 done after 1982, I believe.
3 Q. That's the only one?
4 A. Yeah, I think that was the only one I did when I
5 was in England.
6 Q. Now the next thing listed in terms of education on
7 your resume is 20 years later you indicated that you went to
8 Eastern Kentucky University in Richmond, Kentucky, and it
9 says certified fire and explosion investigator course. Is
10 that a course taught by [REDACTED]
11 A. It is. I believe yes, he was there.
12 Q. And how long did that course last?
13 A. Nearly a week, I think four or five days.
14 Q. Did you attend for the entire week?
15 A. Yes.
16 Q. Now was there a test given at the end of that
17 course?
18 A. Yes.
19 Q. Did you take the test?
20 A. Yes.
21 Q. Did you pass the test?
22 A. Yes.
23 Q. And what does the test - what does that mean?
24 A. There is two tests that you take. The first part
25 is an instructor's test that gives you, allows, I guess -

Page 10

1 well, it tells you that you can instruct and teach at fire
2 seminars and be invited back to teach at those specific
3 courses. And at the end of the week, four or five days,
4 whatever it was, you sit down for a table of questions that
5 if you pass qualifies you to hold the title of CFEL.
6 Q. And you took both of those tests?
7 A. Yes.
8 Q. And passed both of those tests?
9 A. Yes.
10 Q. And when was it? It says 2002. When was that
11 that you did that?
12 A. I don't remember which month it was. It may have
13 been May, maybe earlier than that.
14 Q. Sometime in -
15 A. The early part of 2002, I think.
16 Q. After your work in this case?
17 A. No, I don't think so.
18 Q. When were you hired?
19 A. It looks like the first telephone contact was
20 5-22, the fifth month, 22nd day.
21 Q. Or 2002?
22 A. Correct.
23 Q. So you may have completed the course or you may
24 not have completed the course when you were retained in this
25 case; is that right?

Page 11

1 A. I believe it may be very close because I didn't
2 actually - between all the phone tag and getting everything
3 set up, I didn't get to see the vehicle until 7-30-2002.
4 Q. So what's the answer to my question?
5 A. I'm not sure exactly when it was.
6 Q. And is it true that you had not received any
7 instruction, formal instruction in fire investigation prior
8 to taking this course?
9 A. As in formal fire instruction I don't understand.
10 What do you mean?
11 Q. Well, I mean like this course?
12 A. That was the first course I had taken.
13 Q. I mean I assume when you created this resume you
14 put down all the relevant pertinent education and experience
15 that you had that bears on your credentials and
16 qualifications; is that right?
17 A. That's correct.
18 Q. And the only thing you listed was this. So I'm
19 simply confirming that there isn't anything else?
20 A. No college or anything like that in the U.S.
21 Q. Well, this isn't college. This is just a 40-hour
22 class that's taught at a campus. It's not college level.
23 You don't even need a high school degree to take the course,
24 do you?
25 A. I don't know.

Page 12

1 Q. I mean anybody can sign up to take the course?
2 A. I don't know.
3 Q. Well, did you have to submit any credentials in
4 order to take the course?
5 A. I think I did have to submit -
6 Q. Besides a check?
7 A. - education, and I think they may have asked for
8 deposition time and trial testimony. My office handles that
9 kind of stuff. I didn't actually handle the application.
10 Q. Did you attend a seminar in Cody, Wyoming last
11 week?
12 A. Yes.
13 Q. Who taught the seminar?
14 A. Ralph Newell and Mark Hoffman, people from Ford
15 Motor Company.
16 Q. Who is Ralph Newell?
17 A. He's a friend and foe from Gainesville, Georgia.
18 He's a CNO guy who I believe is continuing to work for the
19 Ford Motor Company.
20 Q. And you attended the seminar that he put on and
21 taught at?
22 A. He opened up the seminar for about two hours. And
23 then I think Ford guys came in and ran the rest of it from
24 what I can remember. And the medical examiner came in.
25 Q. Okay. But you attended the seminar?

Page 13

1 A. Yes.
2 Q. Did you pay to attend the seminar or was it free?
3 A. I don't know.
4 Q. Why did you go?
5 A. It's from - in the last sort of four years I've
6 been working with Ralph and Mark Hoffman and Larry, and
7 people like that. They said you need to go to one of these.
8 They are real fun. They are interesting. They are
9 educational. And it's a good group of guys. Usually my
10 time restraints don't allow me to pursue that. It's kind of
11 a fun thing more than anything else. But at this particular
12 time we had kind of a lull or break and I made a point of
13 going out there.
14 Q. Were there any tests given during the course of
15 the seminar?
16 A. I think there was a test one afternoon. It was
17 meant to be done on a Saturday. I think they gave it on a
18 Friday.
19 Q. Did you take the test?
20 A. No, I did not. I stepped out. I kind of messed
21 up I guess.
22 Q. Is that the only other fire, I'll call it fire
23 seminar, fire investigation seminar that you have ever
24 attended in person?
25 A. We had performed different things when I was with

3 (Pages 10 to 13)

Page 14

1 General Motors in Dearborn, where they had vehicle fires
2 where they were doing testing where we were asked to
3 participate in the sitting and that kind of stuff when I was
4 up there. It was part of my work when I was at General
5 Motors for Lotus.

6 But as an independent and consultant that's
7 it.

8 Q. Well, let me ask you about that. When you were
9 employed by Lotus and General Motors, I want to ask you
10 about that relationship. When you were employed by them,
11 are you saying that you on their time attended a formal
12 course or seminar in fire investigation?

13 A. I don't know if it was a full fire investigation
14 course because we were up there doing some evaluation and
15 testing on some brakes. And we were asked to sit in and see
16 what was going on. And we spent about maybe a half a day to
17 three quarters of a day.

18 Q. In a formal course?

19 A. It was a proofing grounds. I don't know exactly
20 what they were, the basis of it. There was a lot of people
21 in there wearing suits and ties and they were talking about
22 fires and fire patents and electricals and 12 volts, 24
23 volts, references to -

24 Q. This sounds like some sort of a corporate meeting
25 that might have been useful to you in connection with the

Page 15

1 work you were then doing?

2 A. It was very informational because we were dealing
3 with a lot of future electrical components. We were testing
4 like I say some components for a brake system up there I
5 think at Black Lake is what it's called.

6 Q. You are talking about Milford?

7 A. Yes.

8 Q. You mentioned Dearborn. I just wondered are you
9 talking about Milford proofing grounds?

10 A. It's where the Black Lake is, huge place where we
11 were testing. I don't know if it was in Milford. It was
12 somewhere up there where it was cold.

13 Q. So you've attended informational seminars in
14 connection with your past employment. But, again, getting
15 back to the question of seminars, courses, formal education
16 is the specific subject of fire investigation cause and
17 origin of fires, have we covered the two that you have
18 attended?

19 A. Yes.

20 Q. Do you have any formal experience, educational
21 experience as a fire fighter?

22 A. No.

23 Q. Did you ever serve in the military?

24 A. Yes.

25 Q. Did you do any work in connection with putting out

Page 16

1 fires in the military?

2 A. Not putting them out, no.

3 Q. Did you have any responsibilities in the military
4 for investigating the cause of fires?

5 A. No.

6 Q. Do I gather from the shade that you put on your
7 answer that you may have intentionally set fires in the
8 military?

9 A. I think most people's goal was to have fun when
10 you were in the military when it's not in a combat
11 situation. So doing explosives and that kind of thing,
12 blowing things up was something that we had to do, yeah.

13 Q. And you did that?

14 A. Yeah.

15 Q. Now is this the first time you have ever been
16 hired by anybody to determine the cause and origin of a fire
17 involving a 1992 or '93 or '94 for that matter Lincoln Town
18 Car?

19 A. No.

20 Q. I was given a book before this deposition. This
21 white notebook that I've got in front of me. It's called
22 Ford OSI's, re: SCDS. It's a lot of initials. What is
23 that?

24 A. It's reference to speed control deactivation
25 switch.

Page 17

1 Q. What does OSI apostrophe S mean?

2 A. Other similar instances seen or investigated.

3 MR. MAYER: I didn't get that.

4 A. Other similar instances, other cases involving the
5 speed control deactivation switch.

6 Q. Is that supposed to be plural or is that supposed
7 to be possessive?

8 A. It's meant to be plural.

9 Q. Did your staff put that together?

10 A. They put the outside together. I put together all
11 the stuff on the inside.

12 Q. You have got 48 tabs in this book. Do you know
13 what the contents of this book are?

14 A. Yes.

15 Q. What is in here?

16 A. It's cases that we have investigated, cases that
17 Ford Motor Company settled that we have been involved in
18 where we have investigated the claim of the speed control
19 deactivation switch and documented it. If the cases have
20 settled prior to a disassembly of the switch then we would
21 have taken the switch after the case had settled and cut it
22 open and documented it. Some of those were documented with
23 Ford Motor Company and TI present at a meeting that was had
24 between myself and Mark Hoffman. And some have been
25 documented with a member of NHTSA.

4 (Pages 14 to 17)

1 Q. And when you say "we," who is the we that you are
2 talking about?

3 A. Myself, Mark Hoffman, Bill Hamilton, Frank Borris
4 I think his name is from NHTSA, and a Mr. Miller has been
5 around whom we have been doing some of the work, too.

6 Q. Well, you are identifying people that may have
7 been present and participated but don't work for you or
8 work with you, they represent the interests of other
9 parties. Are you the only person that makes up Clarke
10 Automotive Consultants?

11 A. No.

12 Q. Of the people you just identified is there anybody
13 that is also an employee or representative of Clarke
14 Automotive Consultants?

15 A. No.

16 Q. So is it fair to say that all the work that's been
17 done by Clarke has been done by you, Mr. Clarke?

18 A. Yes.

19 Q. And so if I backtrack then are these 48 cases that
20 you personally were retained in that you were involved in
21 and that you investigated?

22 A. The majority of the cases in there, yes. But some
23 of them are actually exemplars. Like some F-Series pickup
24 trucks, 1997's, that we are documenting and removing
25 components and investigating as a continued investigation

1 process.

2 Q. What I'm trying to understand is whether I need to
3 spend 20 minutes or 20 hours with this book. So I see that
4 there is a lot of material in here that aren't individual
5 instances of cases. You've got stuff in here like item No.
6 47 it says Chemical Analysis Report. I have no idea what
7 that is. Do you?

8 A. Yes.

9 Q. Does that have something to do with this case?

10 A. That's work product is how we formed this opinion
11 in this case or I have understood the failure of mechanisms
12 with the switches. And I was asked to bring my entire file
13 and that's a part of my file.

14 Q. Okay. So this really wasn't anything that was
15 created for this specific case. This just represents sort
16 of a collection of your ongoing work that you've been doing?

17 A. We compiled that for this case.

18 Q. Are there some instances that you have
19 investigated that you didn't include in this book?

20 A. Cases that are still ongoing and have not -- we
21 have not been identified as an expert in it, at this point
22 are not in there.

23 Q. Are there any other omissions?

24 A. Only the ones, current cases where I wouldn't want
25 to compromise the investigation at this point.

1 Q. Where is the [redacted] case?

2 A. The [redacted] case?

3 Q. Yeah. Why isn't that in here?

4 A. I think it is in there. There are some pictures
5 of the [redacted] switches in there.

6 Q. I don't see the name [redacted]. That's why I'm --

7 A. It may not be in there maybe. Is that the one out
8 of Mississippi?

9 Q. Right.

10 A. We were just retained to do the disassembly on
11 that by the plaintiff's counsel. Mr. Miller was the expert.

12 Q. Wasn't there a test done at your shop?

13 A. A test on the [redacted] switch?

14 Q. Not on the [redacted] switch, on an exemplar switch.

15 Wasn't there a test done at your shop?

16 A. Yes, there was.

17 Q. Wasn't that done by Charlie Miller and you?

18 A. It was done by Charlie Miller and myself, yes.

19 Q. Wasn't that done for the [redacted] case?

20 A. No.

21 Q. Who paid you to do it?

22 A. I think it would have been billed to any
23 referenced cases that we were involved in and prorated to
24 the Lincoln Town Car cases at that time.

25 Q. You mean to the lawyers that were involved in the

1 Campbell case that were involved in other cases?

2 A. Any cases that we were involved in at that time
3 received a copy of the test video and a prorated bill of our
4 time.

5 Q. You are not disputing the fact that you did work
6 on the Campbell case?

7 A. No.

8 Q. But it's not in here. So what others aren't in
9 here and how did you go about deciding what was not going to
10 be in the book?

11 A. Can I see that?

12 Q. Sure. It may be in there under a different name.
13 All I know is looking at the index, Mr. Clarke, I don't see
14 Campbell in the index.

15 A. It's No. 45. It's called Closeup of Speed
16 Control Deactivation Test.

17 Q. Okay. Is that the same video that is this thing
18 or is this a different test (indicating)?

19 A. It's the same video as here.

20 Q. Well, I assume this is a copy of what you -- I got
21 a copy of what you brought?

22 A. I assume. I don't know what there is in there,
23 is it labeled?

24 Q. Well, I don't know. It is what it is.

25 A. If that's the one that Mr. Dunford made a copy for

1 you then it's the same one.
 2 Q. Okay. So the date is -- it says Ford Test No. 1,
 3 1-12-00. And then it says Ford Test No. 2, 1-12-00?
 4 A. That's correct.
 5 Q. Is this the test that you did at your shop with
 6 Charles Miller for the [REDACTED] case?
 7 A. I didn't do it for the [REDACTED] case. I did the
 8 test because I had a number of these vehicles that were in
 9 fires, and the claim or the potential claim was the speed
 10 control deactivation switch, so it is a part of our ongoing
 11 investigation. And we may have run that in with the
 12 [REDACTED] inspection or a day after the [REDACTED] inspection.
 13 Or Charles may have come up and billed his time to that
 14 [REDACTED] inspection, I don't know. But I only billed my
 15 time I believe for doing the disassembly of the switch.
 16 Q. Okay. Well, that's fine. But if it's the test
 17 that was done that I think of that was done for the [REDACTED]
 18 case then I know what the test is, and we don't have to
 19 spend a lot of time on it.
 20 A. That's the only test.
 21 Q. This is the only test?
 22 A. Right.
 23 MR. FEENEY: All right. We may as well mark
 24 those as one and two. Okay. And those are the two tests
 25 that we have just been talking about.

1 where the issue was whether or not the speed control
 2 deactivation switch caused the fire and you determined that
 3 it didn't?
 4 A. Yeah, I have.
 5 Q. Okay. Is that in here?
 6 A. No.
 7 Q. How many of those are we talking about?
 8 A. I didn't research that material to bring it with
 9 me. I mean it's mostly in the last couple of years there
 10 has been at least four or five where we have investigated it
 11 and we found what could have been a suspicious circumstance
 12 or it being after-market telephones inside the vehicle, and
 13 that kind of stuff, where you couldn't rule out the origin
 14 of the fire being inside the vehicle and not in the engine
 15 compartment.
 16 Q. Did you tear down the [REDACTED] switch?
 17 A. The Mississippi case?
 18 Q. Yes.
 19 A. Yeah.
 20 Q. Did you come to a conclusion in that case?
 21 A. I was asked to tear it down, cut it open, and they
 22 wanted to use my facility to document the switch.
 23 Q. So you were not asked to determine whether or not
 24 it caused the fire?
 25 A. I wasn't asked to render an opinion in that case.

1 (Exhibit Nos. 1-2 marked
 2 for identification.)
 3 Q. Now so getting back to this list. Is this every
 4 incident that you have looked at that isn't currently active
 5 where you've actually done an inspection?
 6 A. I've either done the inspection of the vehicle or
 7 inspected the switch and documentation is in there.
 8 Q. Have you ever investigated an incident where you
 9 believed that the switch did not cause the fire?
 10 A. Yes.
 11 Q. Are those in here?
 12 A. No.
 13 Q. So it's not every incident where you have done an
 14 inspection and you've been retained to do that; is that
 15 right?
 16 A. Am I not being clear? But I thought you were
 17 referring to any incident that revolved around the 1992,
 18 1993, '94 Lincoln Town Car fire where the cruise control
 19 switch was the allegation.
 20 But to answer your question, my other 300
 21 cases that I have settled in the past three years are not in
 22 here because they are not to do with Lincolns and they are
 23 not on switches.
 24 Q. Let me see if I can understand it, though. Have
 25 you ever investigated a 1992 to 1993 Lincoln Town Car fire

1 Q. Did you have an opinion?
 2 A. Yes.
 3 Q. What was your opinion?
 4 A. My opinion is that the seals had failed, had
 5 cracked and let hydraulic fluid into the base of the switch
 6 causing a corrosion necessitating the fire.
 7 Q. So that was an example of a case where you believe
 8 that the switch had caused the fire?
 9 A. It was a case that we were asked to do some
 10 evaluation and cutting open for somebody where my thoughts
 11 were in that mind, yes.
 12 Q. Okay. In other words, you believe the switch
 13 caused the fire in the [REDACTED] case?
 14 A. Yes.
 15 Q. Did you include your photographs of the [REDACTED]
 16 switch and the [REDACTED] vehicle in this notebook?
 17 A. I don't remember. I can go through it but I don't
 18 think so. I mean it wasn't really my case. We were asked
 19 to do an analysis of a switch. The only one that I laid in
 20 there where I hadn't seen the vehicle per se was the one
 21 that the gentleman from NHTSA brought to us to inspect.
 22 Q. Well, let's get back to this list then. Because I
 23 have to say I'm still a little bit confused about exactly if
 24 -- you know, 1 through 15 all appear to be cases with names
 25 on them, so those would have been I guess filed lawsuits at

1 some point in time. Some of these names I recognize. Some
2 of them I don't. That's neither here nor there.

3 But tell me again why you selected those
4 first 15, let's just say?

5 MR. DUNFORD: Asked and answered. You can go
6 ahead.

7 A. We have a closed file room that we basically have
8 dedicated to Ford, so we can keep all manufacturers in one
9 room in our building.

10 And when I was asked to form an opinion in
11 this case it shows my work and methodology and my experience
12 at looking at these particular vehicles and the switch. So
13 I went through every one of the closed file cases. And they
14 may not be in dated order, but they are in the order that I
15 picked them out and gave them to my staff to copy the
16 relevant photographs.

17 Q. That explains to me the method you used. But it
18 really doesn't tell me the criteria that you used to select
19 the cases.

20 You went through your closed files. You
21 selected certain cases. You didn't select others. Let's
22 take the [redacted] versus Ford case.

23 A. Okay.

24 Q. That happens to be one that I know something
25 about. That's why I'm choosing that one. Is this the

1 Florida incident?

2 A. It's No. 16? [redacted] no, I thought [redacted] was — it
3 may have been Florida, I don't remember the state it was in.
4 The name rings a bell to me. It's No. 7.

5 Q. You are looking at those photographs now. I
6 wonder if you could just tell me why you chose that
7 particular incident to include it in this book?

8 A. It's a panther platform. It's a Lincoln Town Car.
9 It's one where we disassembled the switch, found the cracked
10 seals. And it's a case that's closed and most probably
11 settled.

12 Q. Is there anything more specific than what you have
13 just described?

14 A. It shows the switch in disassembly. It shows the
15 — one of the main reasons I wanted to try to — if I had a
16 case that had settled and the switch had been disassembled
17 and documented, and the seals were similar to the failing
18 mechanisms as the ones in this case, shows seals that are
19 burned.

20 Q. Okay. Now we are getting somewhere. Did you
21 include the photograph — are you saying that you included
22 this incident because the photographs of the disassembled
23 switch shows the seals, the Capton seals reveal something
24 that is substantially similar to what you see in this
25 incident?

1 A. Yes. I mean that's one part of it, yeah.

2 Q. Is there anything else?

3 A. The fact that it's one that I have worked on, one
4 that is closed. One that I can put in this book and show
5 the jury that this is another similar case, the same style
6 switch and a failing mechanism that resulted around the
7 switch.

8 Q. If permitted, then, you would want to show
9 photographs from the [redacted] incident, for example, and compare
10 them to the incident involved here?

11 A. Yes.

12 Q. Okay. The [redacted]

13 A. Yes.

14 Q. Well, you've got a photograph here. Well, let me
15 strike that. Let me move on. Would this be the same sort
16 of reasoning that would apply to every one of these
17 incidents, the first 15, for example?

18 A. The first 15 is just the way that they were in the
19 room when I pulled them out of the file.

20 Q. But what you have done is you have kind of zeroed
21 in on the disassembled switch showing the Capton, in your
22 words, the failure of the Capton seal?

23 A. Correct.

24 Q. Is that what is significant to you about the
25 photographic record in the other 14 cases?

1 A. I think the majority of the pictures in here
2 either show the failure, show the seals, show the
3 similarities. In some respect they are more severe or not
4 as bad as the [redacted] case. They show the electrical
5 connectors. They are all references in areas that we have
6 looked at to compare. It gives us a guideline of what we
7 are looking at.

8 Q. But it's the torn-down switch that is what is of
9 significance to you?

10 A. Well, like on No. 1 you have got the base of the
11 switch is visible with the two wires hanging out is
12 virtually identical to the one in this case. I mean there
13 is lots of similar incidences in there. And that's why it's
14 an OSI where we document and we show our work and
15 methodology.

16 Q. Well, certainly, I'm sure there are photographs
17 of a lot of heat damage and burns to the switches that are
18 in there. I'll grant you that.

19 I guess there is just not going to be any
20 real easy way to do this other than just go through the
21 photographs and have you compare them to your photographs in
22 this case, and make you tell me exactly what you think the
23 relationship is. Can you think of any other way to do this?

24 A. If that's the way you want to handle it.

25 MR. DUNFORD: Object to the form of the

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1 question. He can't read your mind of what your objective
 2 is, Jim.
 3 MR. FEENEY: I would hope he couldn't. I'd
 4 be in deep trouble if he could.
 5 Q. Okay. Where are your photographs for your
 6 investigation in this case?
 7 A. (Witness handing documents to counsel).
 8 Q. Now do you have your own photographs, Mr. Clarke,
 9 or did you -- do you also have someone else's like
 10 Topinka's?
 11 A. The ones in the folders are my own. And [redacted]
 12 are in the back from his CD Rom that he gave us of the
 13 inspection.
 14 Q. Okay. So these are all yours and this is
 15 Topinka's?
 16 A. That's the CD Rom of Mr. Topinka.
 17 Q. And you printed them out?
 18 A. Yes.
 19 Q. So the ones in the sleeves or the folders I
 20 should say, these are your photographs?
 21 A. Correct.
 22 Q. And, you know, again I'm kind of new to the case.
 23 Did you look at the vehicle in storage here in Seattle?
 24 A. Yes.
 25 Q. And when did you do that? You said July 30th or

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1 something like that; is that right? Is that when you did
 2 it?
 3 A. July 30th, yeah.
 4 Q. And it was one day; is that right?
 5 A. Yes, it was.
 6 Q. It goes without saying you never saw the vehicle
 7 obviously at the premises?
 8 A. Correct.
 9 Q. So what you know about what everything looked like
 10 you gleaned from the photographs that were taken at the
 11 premises?
 12 A. I was just asked to inspect the vehicle, look at
 13 the components that were removed from the premises as in the
 14 vehicle components and form an opinion on those.
 15 Q. What about the structure itself, for example, the
 16 condition of the concrete floor? Did you consider the
 17 implications of the condition of the concrete floor in the
 18 photographs and what bearing that might have on what the
 19 cause and origin of the fire was?
 20 A. I've seen the surface break up like that many,
 21 many times on concrete floors.
 22 Q. Let's get back to my question. Did you consider
 23 it?
 24 A. Consider it as what?
 25 Q. Did you consider it as part of your assessment of

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1 what the cause and origin of the fire was?
 2 A. I looked at the pictures and concluded that it's
 3 common to what I have seen in other vehicle fires.
 4 Q. As long as we are talking about that, what is the
 5 condition that's revealed in the pictures that we see of the
 6 concrete floor?
 7 A. Well, the concrete is bubbled up due to heat. And
 8 that's a common situation to have when fluids soak into the
 9 concrete or where vehicles are resting and stuff burns.
 10 Q. Is that called spalling?
 11 A. Yes.
 12 Q. What's the definition of spalling?
 13 A. It's where fluids in the concrete are heated up
 14 and they start to evaporate and they start to come up to the
 15 surface and push chunks of the concrete up.
 16 Q. And in order for spalling to occur, is it
 17 necessary for some sort of external heat source to be
 18 applied to the concrete?
 19 A. It's normally seen where there has been a fire in
 20 a building or a structure.
 21 Q. And what can cause spalling in concrete?
 22 MR. DUNFORD: Asked and answered.
 23 A. I just answered that question.
 24 Q. What causes the liquids in the concrete to heat
 25 up, bubble up?

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1 A. The fire, the heat from the fire.
 2 Q. Just the heat?
 3 A. The intensity of the fire.
 4 Q. But just the heat?
 5 A. Yeah.
 6 Q. That's it?
 7 A. (Witness nods head.)
 8 Q. Nothing else?
 9 A. Not to my knowledge, no.
 10 Q. No liquids penetrating the surface of the
 11 concrete? You don't need that?
 12 A. I just answered that question and said that.
 13 Q. Penetrating the surface, you said that the liquids
 14 in the concrete were bubbling up. I'm asking a different
 15 question. I'm asking whether it's necessary for something
 16 to attack the surface of the concrete? Concrete is porous,
 17 is it not?
 18 MR. DUNFORD: I'm going to object to the form
 19 of the question. It's been asked and answered.
 20 Q. Is concrete porous?
 21 A. Yes.
 22 Q. Can liquid enter concrete?
 23 A. Oil, engine oil can leak into concrete. And as I
 24 just said it heats up, boils and comes out.
 25 Q. So is it necessary for liquid in a heated form to

8 (Pages 30 to 33)

1 enter concrete and attack it through its porous structure in
2 order for spalling to occur?
3 A. I would say it's the normal way I have interpreted
4 it is the fluid is already in the concrete and moisture is
5 already in there. It beads on the outside. It's boiling
6 whatever is in the porous part of the concrete and it has
7 to come out.
8 Q. So it's not necessary for liquid to enter concrete
9 externally. It's simply spalling can occur strictly as a
10 result of an application of an external heat source?
11 A. If you've got fluid that's already entered the
12 concrete or the concrete is still green, it's still fresh
13 concrete where it has waterheat to it.
14 Q. Let's talk about that. Was this green concrete in
15 the house?
16 A. I never saw it.
17 Q. Do you know?
18 A. I don't know.
19 Q. Would you expect it to be green, say, after ten
20 years?
21 A. It's usually green up until about two, three
22 years.
23 Q. Let's assume it wasn't green. So does that mean
24 - what does that mean in terms of how then spalling occurs?
25 A. Well, you get spalling where the vehicle wheels

1 are. And you usually get it where the fuel tank could be.
2 Or you could get it where the engine is. And that's
3 normally from fluids that either come off the wheels or drop
4 from the engine or the underside of the vehicle and soak
5 into the concrete. And if there is a fire within the
6 building that stuff then boils and then your spalling takes
7 place.
8 Q. What fluids are dropping off the tires?
9 A. Off the road, you've got oil, soaks off the tires,
10 moisture off the tires, if the road was wet when you've
11 driven in.
12 Q. Does that explain all the spalling that you see in
13 all the pictures that you have looked at?
14 A. I don't know if it explains everything, but it's
15 an observation that I would make.
16 Q. Well, is it or is it not an explanation for the
17 spalling that is observable in the photographs of the
18 concrete floor of the garage? You've looked at them.
19 Please tell me whether it is.
20 A. I viewed them this morning for the first time. So
21 I would defer that to Mr. Topinka because he done the
22 vehicle or structure inspection.
23 Q. You formed an opinion as to the cause and origin
24 of this fire when?
25 A. 7-30 is when I first saw the vehicle.

1 Q. Is that when you formed your opinion?
2 A. It would have been about - after reviewing the
3 photographs and going through some of our data, it would
4 have been within the beginning of the next month maybe.
5 Q. So it's fair to say that you formed an opinion
6 concerning the cause and origin of the fire without looking
7 at the photographs of the structure at least the concrete
8 floor?
9 A. I had done, had a meeting with Alan that morning
10 of the inspection and he'd gone through what he had seen in
11 the building and that kind of stuff. And I was leaving the
12 structure fire and any components that are outside the
13 vehicle to him.
14 Q. I don't think that really answered my question,
15 Mr. Clarke. Did you or did you not see the photographs of
16 the concrete floor showing the spalling before you formed
17 your opinion as to the cause and origin of the fire?
18 MR. DUNFORD: I object. It's been asked and
19 answered.
20 A. I already answered it.
21 Q. No, you didn't. Now just answer the question.
22 Please just give me a simple yes or no or I don't remember.
23 A. Did I form an opinion prior to seeing the spalling
24 on the concrete; is that what you are asking me?
25 Q. Yes?

1 A. Yes.
2 Q. Is it also true that you formed an opinion
3 concerning the cause and origin of the fire before you saw
4 any photographs of the structure of the house?
5 MR. DUNFORD: Asked and answered.
6 A. I saw pictures of the house at Schaefer Engineering
7 or the structure of the garage, but I never saw them
8 actually in there until this morning.
9 Q. So you saw a couple exterior shots like the one
10 I'm holding up right now (indicating)?
11 MR. DUNFORD: Object to the form of the
12 question.
13 A. I saw more than just a couple.
14 Q. In a fire investigation is it true that the three
15 basic principals of fire investigation are, and I'm
16 paraphrasing, that either something is a cause, it is not a
17 cause or it's undeterminable?
18 A. Correct.
19 Q. Is it true that as part of any prudent fire
20 investigator's approach to a fire, one has to rule out or
21 rule in or call it undetermined anything that can reasonably
22 be possibly a cause of the fire?
23 A. That's true.
24 Q. And is it true that in arriving at the conclusion
25 that you reached that the cause of the fire was in the

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1 engine compartment of the Lincoln Town Car, you had not
2 before you did that ruled out the possibility that an
3 accelerant had been placed in the concrete or somewhere in
4 the garage which had precipitated the fire?

5 A. From my conversations with Alan Topinka that had
6 done the same investigation who was doing the actual cause
7 and origin, where we had been retained to look at the
8 vehicle as it's been placed in the vehicle, he had indicated
9 to me that there was no suspicious circumstances.

10 Q. Did you even know that there was spalling of the
11 concrete?

12 MR. DUNFORD: At what point in time?

13 MR. FEENEY: Before he looked at the pictures
14 this morning.

15 A. I think - I think Alan had mentioned it to me
16 that there was some spalling of the concrete. But it wasn't
17 anything to be, as he put it, it wasn't a suspicious
18 situation to be involved in.

19 MR. DUNFORD: I believe it's also in Mark
20 Hoffman's report that Richard has read.

21 MR. FEENEY: When I want to take your
22 deposition I'll swear you in. But I would appreciate it if
23 you would just stick to the rules.

24 MR. DUNFORD: I am, sir.

25 Q. Mr. Clarke, when did you consider the sworn

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1 testimony and statements of [REDACTED]

2 A. When I reviewed the depositions, I don't know when
3 they were actually sent to me.

4 Q. Now if given an opportunity you would say that the
5 fire originated in the engine compartment of the Lincoln
6 Town Car on the driver's side in the area near or adjacent
7 to the bulkhead, correct?

8 A. Correct.

9 Q. Now [REDACTED] described seeing a flame which I
10 think you would agree sounds like some sort of a natural gas
11 or propane gas flame, would you not?

12 MR. DUNFORD: I object to the form.

13 A. I don't know what combustible materials there was
14 adjacent to the vehicle.

15 Q. Wait a minute. Let's just talk about what [REDACTED]
16 says and then we'll get into the rest of it.

17 Do you understand what he says he saw?

18 A. Yes.

19 Q. Would you agree with me that what he saw is not a
20 flame in the engine compartment near the bulkhead on the
21 driver's side? In other words, that is not what he's
22 describing, would you agree with that?

23 A. He's describing a flame at the front of the
24 vehicle. He's not knowing exactly what time frame that
25 flame came out of the vehicle either.

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1 Q. Would you agree with me that he is not describing
2 a flame in the area of the engine compartment on the
3 driver's side in the area of the speed control deactivation
4 switch?

5 A. He cannot see that area of the vehicle from where
6 he was standing.

7 Q. Right you are. But, nevertheless, he saw a flame in
8 the front of the vehicle, correct?

9 A. Exactly the same as the owners of the vehicle did.

10 Q. So can we reasonably assume since he cannot see
11 where you say the fire started, what he saw was a flame in
12 an area different from where you say the fire started? Can
13 we agree with that?

14 A. He's seeing a flame in the front of the vehicle.

15 Q. In front of the vehicle?

16 A. In the front of the vehicle.

17 Q. Could be in front of the vehicle, could be in the
18 front part of the vehicle up by the front wheel well, but
19 it's not where you say the fire started. Can we agree on
20 that?

21 A. I mean, I can agree with the fact that he's saying
22 he cannot see the flame on the bulkhead near the speed
23 control deactivation switch.

24 Q. Well, he doesn't acknowledge that he saw such a
25 flame. What I'm asking you is whatever he saw, do you and I

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1 understand each other that what he's describing is a flame
2 somewhere different from where you say the fire started?

3 A. It's a flame somewhere else in the garage.

4 Q. So it is someplace different from where you say
5 the fire started?

6 A. Well, once the fire has progressed it comes out of
7 the wheel arches.

8 Q. Not my question. Is it someplace different from
9 where you say the fire started?

10 A. The flame that he is saying he saw is at the front
11 of the vehicle.

12 Q. So it's not where the fire started according to
13 you?

14 A. I think the fire started by the bulkhead.

15 Q. Now do you have an explanation for the flame that
16 he saw?

17 A. Could be anything that's combustible within the
18 vehicle or around the vehicle.

19 Q. Well, did you see the description that he gave of
20 the flame?

21 A. Yes.

22 Q. And did you see how he described it?

23 A. Yes.

24 Q. Did you see that he described it as if it was a
25 natural gas type flame?

10 (Pages 38 to 41)

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- 1 A. Yes.
 2 Q. That's why I said earlier would you agree with me
 3 that what he is describing in his mind's eye was a natural
 4 gas or propane type gas flame, a constant sort of blue,
 5 orange flame, quite distinct. Would you agree that's what
 6 he saw?
 7 A. That's what he said.
 8 MR. DUNFORD: Object to the form of the
 9 question.
 10 Q. All right. Now do you think he saw that?
 11 A. He said he saw it. He saw it.
 12 Q. As a fire investigator do you have to accept that
 13 that's what he saw?
 14 A. Yes, you do. You get statements from anybody
 15 that's around and you look at them and you interpret them.
 16 Q. By the way, of all the various Town Car incidents
 17 that you have been involved in, is this the first and only
 18 one that you had a steel hood on the vehicle?
 19 A. Yes.
 20 Q. All the other ones have aluminum hoods, don't
 21 they?
 22 A. That's correct.
 23 Q. And I suppose some of them the fire was put out
 24 right away or shortly after it started, others not before
 25 the hood was consumed?

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- 1 A. I don't know what could explain it with 100
 2 percent certainty.
 3 Q. I didn't ask you about 100 percent certainty. I
 4 asked you - I guess, I don't know, maybe, do you need it to
 5 be 100 percent certainty?
 6 A. No. You can speculate as to what the flame was.
 7 Q. Are those the two choices? I'm using your words:
 8 100 percent certainty and speculation?
 9 A. I mean I'm not sure what he saw. I can guess of
 10 what he was seeing.
 11 Q. Well, do you have an opinion as to what he saw?
 12 A. It could be something coming out of the wheel arch
 13 or the vehicle under pressure. Air conditioning pipes that
 14 ruptured blowing out. And with the fire and material that's
 15 burning around it and the extra heat could have looked like
 16 and appeared to be like a blow torch.
 17 Q. The wheel arch of the vehicle?
 18 A. The left front corner.
 19 Q. What is the wheel arch? Is that the wheel well?
 20 A. The fender wheel arch is where the wheel is
 21 situated.
 22 Q. What do you think is there that would produce a
 23 constant blue orangeish flame in appearance like a blow
 24 torch?
 25 A. I mean there is plastic, consumable liquids.

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- 1 A. Correct.
 2 Q. This is the first one where you had extensive fire
 3 damage where the hood survived the fire, isn't it?
 4 A. That's correct.
 5 Q. And are you assuming that the hood was in place
 6 throughout the fire?
 7 A. Yes.
 8 Q. Now what investigation did you do into the
 9 question of what was up near the front of the vehicle or the
 10 front part of the garage in the area where [REDACTED] says he
 11 observed an orangeish bluish flames that he described as
 12 similar to a blow torch or a natural gas or propane gas type
 13 flame?
 14 A. I've left, as I said, the furnace and any items
 15 within the building structure to Alan because he had removed
 16 them prior to me even seeing the fire scene. So all I could
 17 do is see the stuff in the lock up when I inspected the
 18 vehicle.
 19 Q. What does that mean? What does that mean in
 20 response to my question?
 21 A. Well, I mean, it appears from what I saw that
 22 there was outside burning or there is a burn pattern to the
 23 outside of the furnace from the observations and things that
 24 I have read was to the left front of the vehicle.
 25 Q. What explains the flame that [REDACTED] saw?

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- 1 There is all sorts of stuff that can burn. And then when
 2 you add the air coming out of the tire, the oxygen coming
 3 out of the tire, it could increase it to look like a blow
 4 torch. There is certain things around there that can cause
 5 that.
 6 Q. So you are saying that when a tire burns you think
 7 that it burns in a way that the flame coming off the burning
 8 tire looks like a blow torch?
 9 A. It could be depending on the venting through the
 10 garage and whatever else is in the way burning.
 11 Q. You said the tire and the wheel arch. Have you
 12 done any testing, have you burned tires to see how they
 13 burn?
 14 A. I've been present for and burned vehicles. And
 15 like we were last week in Wyoming. There's virtually a
 16 number of things that can cause things to look like a flame
 17 being pushed out under pressure and give you the roaring
 18 noise.
 19 Q. Let's get back to what you have done. Have you
 20 actually burned a vehicle yourself?
 21 A. Yes.
 22 Q. How many?
 23 A. Three, I think.
 24 Q. Town Cars?
 25 A. One was a panther platform or a portion of it.

11 (Pages 42 to 45)

- 1 Q. A speed control deactivation switch case?
- 2 A. No.
- 3 Q. Have you ever burned one inside a structure?
- 4 A. No.
- 5 Q. Anyway, what you are saying is it could be a tire;
- 6 is that right?
- 7 A. Could be.
- 8 Q. Would the tire be burning from the inside out if
- 9 the fire started in the engine compartment?
- 10 A. From the inside out? Yes.
- 11 Q. And would the tires be burning from the inside out
- 12 if the fire started from the engine compartment?
- 13 A. The inside portions of the rim should show more
- 14 melting if the hottest point was in the engine compartment,
- 15 yes.
- 16 Q. And if the fire started in the speed control
- 17 deactivation switch, would you expect that the consumable
- 18 materials around the switch to be consumed since that was
- 19 the hottest part of the fire?
- 20 A. In the majority of the ones that we have seen it
- 21 is. But as you said earlier that this vehicle is kind of
- 22 unusual that it has a steel hood and it's closed. So
- 23 instead of burning a hole in the hood and the heat rising
- 24 and getting out within a few minutes of the fire starting
- 25 it's going to want to deflect out of other areas like the

- 1 wheel arches, out the front of the vehicle and through where
- 2 the headlights go.
- 3 Q. You are saying that with an aluminum hood the fire
- 4 is trapped in the engine compartment and doesn't deflect out
- 5 around the hood and into the wheel wells before the aluminum
- 6 hood melts?
- 7 A. No, I didn't say that.
- 8 Q. Okay. In both cases the fire is trapped inside
- 9 the engine compartment, is it not?
- 10 A. Initially it's going to be wherever the origin is.
- 11 And as the heat rises it's going to burn a hole in the
- 12 alloy hood and that's going to be your oxygen source and
- 13 it's going to propagate out.
- 14 Q. Wouldn't you expect there would even be more
- 15 thermal damage in the area of the speed control deactivation
- 16 switch with a steel hood on there?
- 17 A. Like I said earlier it's a whole different
- 18 scenario when the hood is closed and it's made out of steel.
- 19 This is the first one I have ever seen with a steel hood.
- 20 If I was to compare it to other vehicles, then the
- 21 differences — there is slightly different areas in there
- 22 that are not the same as say the other 20 or 30 ones I have
- 23 reviewed in the past.
- 24 Q. Have you investigated any automotive fire where
- 25 you had a steel hood?

- 1 A. Yes.
- 2 Q. Where the fire started in the engine compartment?
- 3 A. Yes.
- 4 Q. In a switch?
- 5 A. What type of switch are you talking about?
- 6 Q. Any electrical switch.
- 7 A. In the electric connector, yes.
- 8 Q. Okay. So you have some familiarity with what
- 9 happens at least in those cases?
- 10 A. Yes.
- 11 Q. And basically what is happening in this fire with
- 12 the steel hood if it started in the engine compartment?
- 13 A. I think the heat is rising and is trying to get
- 14 out and it will come back down and find any part it can.
- 15 Q. What is the flame doing?
- 16 A. It's going back to the ground, it's burning down.
- 17 Q. And what's happening to the combustibles around
- 18 the speed control deactivation switch where you say the fire
- 19 started?
- 20 A. They are combusting.
- 21 Q. Are there any belts left in the area of the speed
- 22 control deactivation switch?
- 23 A. I didn't see any.
- 24 Q. Are there any rubber materials left in the area of
- 25 the speed control deactivation switch?

- 1 A. There may have been some charred remains of some
- 2 of the insulation at some point.
- 3 Q. Anything else?
- 4 A. It looks like a part of the rubber grommet on the
- 5 booster side and the electric connector.
- 6 Q. How far is that from the speed control
- 7 deactivation switch?
- 8 A. Twelve inches, maybe 14 inches.
- 9 Q. Did that survive the fire?
- 10 A. Well, I wouldn't say survived. It's burned
- 11 crispy. I mean the remains of it are there.
- 12 Q. Anything else?
- 13 A. That survived? Portions of the left cam cover is
- 14 still there but showing heat damage. The coil peek on that
- 15 side is gone or severely damaged compared to the other side.
- 16 Q. Let me ask you this, Mr. Clarke, before we get
- 17 into the photographs. Is it true that your examination of
- 18 the wreck in this case, you focus on the electrical, the
- 19 evidence of electrical arcing in the switch?
- 20 A. In this particular instance where somebody has
- 21 placed the origin in the vehicle and the switch is switched
- 22 off, and is appearing to be on the left front side of the
- 23 vehicle there is only a certain number of areas to focus on.
- 24 Q. When you say someone has placed the origin in the
- 25 vehicle, who is the someone?

1 A. I think Alon Topinka has got it in the vehicle in
2 the left front corner. And there is testimony of the owners
3 of the vehicle when they looked out of their door they see
4 the flames in the front of the vehicle, not on the walls but
5 they say in the front of the vehicle. So you have got to
6 look at what you have in the front of the vehicle.

7 Q. Do you think that - you are interpreting the
8 comments of the owners as meaning that the fire originated
9 in the vehicle?

10 A. They are saying they saw flames and smoke at the
11 front of the vehicle.

12 Q. And that's, you are construing that to mean that
13 they saw something burning inside the vehicle?

14 A. They saw it around the front of the vehicle.

15 Q. Well, I guess I don't mean to - you know, I don't
16 want to fence with you. But when I say the word "inside" you
17 don't use that word in your answer. And I'm just trying to
18 understand what you are assuming here in your investigation.
19 It's okay for you to assume anything that you want to
20 assume.

21 Are you assuming that the owners, [REDACTED] and
22 [REDACTED] said that they saw fire inside the vehicle?

23 A. No.

24 Q. Meaning the engine, let's say the front engine
25 compartment?

1 A. You said inside the vehicle.

2 Q. Yes.

3 A. Inside the vehicle means inside the vehicle where
4 you said. So I am not going to say inside when you ask me
5 the question because you are going to say it started in the
6 vehicle and not in the engine compartment.

7 Q. Let's use the words engine compartment. Do you
8 think that they say that they saw fire in the engine
9 compartment when they first observed the fire?

10 A. I think they saw it at the front of the vehicle.
11 That could be coming out of the wheel arches because it
12 can't get out of the hood. Because a number of other eye
13 witnesses said that they -

14 Q. See you add all of that stuff. And what I'm
15 trying to get is an understanding of what you are assuming
16 they are saying. Are you assuming that they are saying that
17 they saw fire you said in the front of the vehicle, do you
18 think that means they saw it inside the engine compartment?

19 A. Possibly.

20 Q. Okay. Is that what you've assumed?

21 A. I've assumed that they have seen it at the front
22 of the vehicle.

23 Q. Could be outside the vehicle?

24 A. Could be outside the vehicle, I guess.

25 Q. Could be either one?

1 A. I don't think it would be outside the vehicle.

2 Q. Well, wait a minute. You just said that.

3 A. You are saying assuming.

4 Q. Yes. I'm asking you what you have assumed?

5 A. It could be either one.

6 Q. All right. So we have now established that for
7 purposes of your analysis what they said they saw could be
8 describing flames outside the vehicle or it could be
9 describing flames somewhere within the vehicle, the engine
10 compartment, the wheel wells, something?

11 A. Assuming, yes.

12 Q. Now is there any other eye witness testimony that
13 you have considered with regard to this?

14 A. I mean the guy that saw it when he looked out of
15 his bedroom window saw the flames.

16 Q. Have you considered the fact that [REDACTED]
17 has written to the insurance commissioner of the State of
18 Washington saying she doesn't think the fire started in the
19 vehicle?

20 MR. DUNFORD: Object to the form.

21 A. I wasn't aware of that.

22 Q. Would that be something that would be of interest
23 to you to know?

24 A. I didn't know that had been done so it would be
25 interesting, yes.

1 Q. Let's assume that she said that. Let's assume
2 that she has said recently within the last six months since
3 you were hired that she doesn't think the fire started in
4 the Town Car.

5 MR. DUNFORD: Object to the form.

6 Q. Now as a fire investigator do you have to take
7 that into account?

8 A. Well, I think you have to take that into account
9 but you have got physical evidence that remains in the
10 vehicle.

11 Q. Oh, sure. But does that mean that what she has to
12 say you would just disregard in the face of the physical
13 evidence?

14 A. I would look at the physical evidence and that's
15 what I have got to go on as well as eye witness' statements
16 and the physical evidence is highly supportive of the fire
17 being in the engine bay rather than being outside the engine
18 bay.

19 Q. Okay. So really when you get right down to it, if
20 she has recently said that she didn't think the fire started
21 in the Town Car, I would assume her observations are not
22 much of a significance to you?

23 A. From what I can see in the vehicle that's wrong.
24 It did start in the vehicle.

25 Q. Now as far as [REDACTED] is concerned is there

1 some specific observation that you are counting on or
2 relying on, or again is that kind of secondary to your own
3 work on physical evidence?
4 A. I think it was either him or her who opened the
5 door first and they saw the smoke or maybe both of them saw
6 smoke and flames.
7 Q. Now let's get to [REDACTED] You have read his
8 deposition testimony. Have you picked up the phone and
9 called him?
10 A. No.
11 Q. Why not?
12 A. I don't know his phone number.
13 Q. Okay. Any other reason?
14 A. I've never been in communication with eye
15 witnesses like that when I have been working.
16 Q. Must be completely satisfied of what he is saying
17 under oath?
18 A. I think he's got his own opinions. If he feels
19 he's qualified to identify a blue flame a hundred feet away
20 and smell gas and say it's propane or petrol, let him make
21 that assumption. I mean it's a free world. He can make any
22 guess he wants.
23 Q. Do you think he said that, that he smelled gas?
24 A. No.
25 Q. Well, you just said that he is free to say that he

1 smells gas from a hundred feet away. Do you think that's
2 what he said?
3 A. I don't think that's what he said, no.
4 Q. Why did you say that, Mr. Clarke?
5 A. I'm just using it as a reference, from a hundred
6 feet away I don't think you can determine what the flame --
7 Q. Do you think he was a hundred feet away when he
8 was closest to the fire?
9 A. Or 50 feet away.
10 Q. Or less?
11 A. I don't know.
12 Q. Well, you have no idea how far away he was?
13 A. No, I don't.
14 Q. So why did you say a hundred feet away?
15 A. I'm using it as a reference.
16 Q. You don't need to throw out any references for me.
17 A. Okay.
18 Q. Do you know where [REDACTED] was at any point in
19 time when he made these observations?
20 A. No.
21 Q. And did he ever once say that he saw a fire on
22 fire in the front of that vehicle and that's the flame that
23 he saw? He saw a fire on fire?
24 A. I don't believe so.
25 Q. Do you have any reason to believe that [REDACTED]

1 was incapable of distinguishing between a burning fire and a
2 blow torch like blue and orange flame on the right of this
3 incident?
4 A. He saw what he saw.
5 Q. And do I understand that you have not investigated
6 that part of the case, you are leaving that to Topinka?
7 A. Correct.
8 Q. So you are assuming basically that Topinka has got
9 an answer for that, and as long as his answer holds up then
10 you have got an explanation for where the fire started?
11 A. I have looked at the vehicle and I've put my
12 observations as the fire being in the right -- left driver's
13 side front engine compartment.
14 Q. Well, but in order to get there -- I mean, you
15 have taken these courses. Don't you have to when you have
16 got all this stuff burning like this, a garage fire, and
17 you've cars in there, and you've got all these other
18 possibilities, if you are actually going to come to a
19 conclusion as to what caused this fire, you just can't
20 ignore the other possibilities?
21 A. Fortunately in this particular case you have the
22 vehicle that was documented in the structure. A lot of
23 cases, myself and people from Ford Motor Company they just
24 see them in the salvage yard, so you are relying on other
25 people's --

1 Q. Can you ignore the structure and what could have
2 caused this fire or not?
3 A. Can I ignore it as in?
4 Q. Arriving at an opinion as to the cause of the
5 fire?
6 A. I think from the physical aspects of what I have
7 seen in the vehicle you can rule out the structure.
8 Q. So you really don't need Topinka at all?
9 A. If everybody agrees that the fire didn't get
10 caused in the house, then you look at the house, you look at
11 the car as being the source of the fire, and then you can
12 look at the --
13 Q. You don't need Mr. Topinka's assessment of these
14 other possibilities in order to arrive at your own opinion?
15 A. I think I did because I never saw them and he did.
16 Q. All right. Fine. So if Topinka's opinion doesn't
17 hold up with regard to this, then you are really not in a
18 position to give an opinion, are you?
19 MR. DUNFORD: Object to the form.
20 A. Yes, I am.
21 Q. Well, you are assuming that he's going to rule out
22 these other sources and causes.
23 MR. DUNFORD: Object to the form.
24 Q. Or are you not?
25 A. I've looked at some of the components that were

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1 removed from the garage.

2 Q. Well, tell me what your explanation is for
3 testimony about a blow torch like flame, and don't
4 tell me about a hundred feet away, and don't tell me about
5 smelling gas, and don't give me any references, just tell me
6 what your explanation is for how you have ruled out his
7 observations on the night of the incident?

8 MR. DUNFORD: I object to the form and it's
9 also been asked and answered several times.

10 A. I think it's just something that is burning from
11 inside the engine compartment and it's escaping out of the
12 wheel arches because it can't get out of the hood.

13 Q. In the front of the vehicle?

14 A. Yes.

15 Q. What would that be, sir?

16 A. Could be anything from the engine compartment. It
17 could be plastics around the wheel arch. It could be the
18 master cylinder. It could be the power steering fluid. It
19 could be anything leaking out.

20 Q. Name one test that you have done that would
21 support the conclusion that when a fire starts in the engine
22 compartment of a Lincoln Town Car in the speed control
23 deactivation switch it progresses to the front of the
24 vehicle and spits flame out the wheel well that has the
25 appearance of a blow torch?

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1 A. I haven't tested that.

2 Q. You are just speculating about that, aren't you?

3 MR. DUNFORD: Object to the form.

4 A. About?

5 Q. About what I just said. It's total speculation on
6 your part?

7 A. No. I think I'm pretty confident that a number of
8 things can cause that in the vehicle. And if you have got a
9 fire in the vehicle that escapes out of the front fender
10 headlights and there are shelves around it and there is a
11 can of paint, an aerosol can, anything can let go and cause
12 a blue flame.

13 Q. Okay. So now we are not talking about what was
14 inside the vehicle. Now we are talking about some kind of
15 aerosol can or something else that was outside the vehicle?

16 A. Well, there is lots of things that could have been
17 outside the vehicle that could have been burning that this
18 gentleman saw.

19 Q. But, Mr. Clarke, do you agree, you understand you
20 have now moved from offering some kind of an explanation of
21 some combustible in the vehicle. Now you are telling me
22 that it could be some kind of combustible outside the
23 vehicle?

24 A. It could be either or.

25 Q. Total speculation, you don't know which one?

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1 A. I wasn't there so I can't tell you.

2 Q. And you haven't done anything to investigate it
3 and it's pure speculation on your part of what it was?

4 A. I was asked to look at the speed control
5 deactivation switch and offer an opinion on that.

6 MR. MAYER: I Object as nonresponsive.

7 Q. Would you agree with me that you are totally
8 speculating with respect to the potential sources of this
9 flame that [redacted] saw?

10 A. I don't know where the flame came from.

11 Q. So any explanation you would give would be
12 speculation?

13 A. Yes.

14 MR. FEENEY: Okay. This would be a good time
15 to take a break. Thank you, Mr. Clarke. We'll resume in a
16 few minutes.

17 (A short break was taken.)

18 MR. FEENEY: Go back on the record.

19 (Exhibit No. 3 was marked
20 for identification.)

21 Q. Mr. Clarke, we have marked as Exhibit 3 during the
22 break a white notebook. What is that notebook?

23 A. That's all my file material on this particular
24 investigation.

25 Q. And since we had talked earlier about another

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1 notebook, we may as well go ahead and mark this, but this is
2 your Ford Fire OSI notebook, is that right?

3 A. Correct.

4 MR. FEENEY: And I understand that last night
5 at the hotel I was provided with, I guess, I assume what is
6 probably a copy of this thing; is that right, Tom?

7 MR. DUNFORD: That's correct.

8 (Exhibit No. 4 was marked
9 for identification.)

10 MR. FEENEY: So I'm not going to ask the
11 court reporter to make a copy of this Exhibit 4, that will
12 be Exhibit 4 and that's your OSI notebook. We each have
13 that and I'm just going to mark my own copy as Exhibit 4.
14 Okay. So she doesn't need to do anything with that.

15 And I guess I've marked my copies of Exhibits
16 1 and 2, and I'll just retain those because I think Texas
17 Instruments and Tom you have got a copy of this as well.

18 MR. DUNFORD: They were reproduced for you.

19 MR. FEENEY: So you're not going to need
20 Exhibits 1, 2 and 4. Having said that, Exhibit 3 is
21 something we are going to ask you do something with.

22 Q. Would you open that notebook to the first item. I
23 think it says Report; is that right?

24 A. It is.

25 Q. All right. And that's the report that you had

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- 1 filed in this case, correct?
- 2 A. Correct.
- 3 Q. I want to ask you some questions about the report
- 4 itself. But let me just find out what the rest of the
- 5 material is and then we'll come back to the report. And
- 6 we'll call the report Exhibit 3A and we'll come back to it.
- 7 Now what's the next tab, Mr. Clarke?
- 8 A. Correspondence.
- 9 Q. And is this all the correspondence that you had on
- 10 the case?
- 11 A. Yes. This is between Mr. Dunford and his office.
- 12 Q. Anything been removed?
- 13 A. No.
- 14 Q. All right. We'll call that Exhibit 3B. What's
- 15 the next tab?
- 16 A. Notes.
- 17 Q. All right. And these are notes that you have made
- 18 specifically for this case?
- 19 A. Yeah, these are some notes and some handwriting
- 20 notes, some schematics of the speed control deactivation
- 21 switch and some wiring schematics.
- 22 Q. Do you mind if I come around and take a look at
- 23 what you've got there?
- 24 A. No.
- 25 Q. Okay. That would be, we'll call that 3C. And the

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- 1 first page is one page of handwritten notes which appear to
- 2 be your inspection notes from July 30th?
- 3 A. Correct.
- 4 Q. Okay. And then --
- 5 A. This is a receipt.
- 6 Q. For the x-ray that you did?
- 7 A. Yes.
- 8 Q. And then what's this next page?
- 9 A. This was the notes that we had done on the 1-12-00
- 10 reference to the tapes.
- 11 Q. These are notes that pertain then to the test that
- 12 we talked about?
- 13 A. Correct.
- 14 Q. These were done on January 12th, 2000 in your
- 15 shop, correct?
- 16 A. Correct.
- 17 Q. And then you've got a Ford schematic of the speed
- 18 control deactivation switch is the next page?
- 19 A. Yes, it is.
- 20 Q. And another one a cut-away view, right?
- 21 A. That's correct.
- 22 Q. And another one, right?
- 23 A. Right.
- 24 Q. Are these all the same?
- 25 A. Yes, it is. That's why I put them in the file I

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- 1 was going to hand them out if somebody needed them.
- 2 Q. And then we've got a wiring diagram again that you
- 3 have obtained from Ford. Now this is for a '97 Ford
- 4 Econoline V-150; is that right?
- 5 A. That's correct.
- 6 Q. And this one is for the Lincoln Town Car?
- 7 A. That's right.
- 8 Q. So you've got both in here, right?
- 9 A. There is an Econoline, yes.
- 10 Q. And you've got one in here for a Ford Explorer
- 11 '96?
- 12 A. Yes.
- 13 Q. And you've got one for the '97 Ford Explorer,
- 14 right?
- 15 A. Yes.
- 16 Q. And the '95?
- 17 A. Yes.
- 18 Q. And then what's this next page?
- 19 A. This is a document that was supplied by Ford to us
- 20 that shows the different serial numbers of the switches that
- 21 pertained to the codes.
- 22 Q. This just helps you with your reference
- 23 information?
- 24 A. It is, yes.
- 25 Q. And then next you've got document produced 3713,

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- 1 4218, what's that?
- 2 A. It was another one that we were using just a part
- 3 of the information that you can read on there that they have
- 4 x-ray meetings with representatives of TI, what they are
- 5 saying about the standard control of the Town Car, '92, '93
- 6 and what vehicles it was on when it was used.
- 7 Q. Where is this from?
- 8 A. From you guys.
- 9 Q. Well, I know. But do you have an understanding as
- 10 to, is this one page of a larger document?
- 11 A. I think it was -- we had about ten bankers boxes
- 12 full of them. And for the case I was working on in Texas I
- 13 copied a number of them that I thought were relevant to what
- 14 we needed and just left them in the file.
- 15 Q. So as you sit here today you really can't say
- 16 other than the fact that it was a Ford document produced by
- 17 Ford at some point in time, you don't really know where that
- 18 thing came from, whether it was part of a larger document,
- 19 and if so, what was the larger document?
- 20 A. I don't know what document it came from, no.
- 21 Q. And what is it about this particular document that
- 22 you find of interest?
- 23 A. It's for my reference. It just shows you the
- 24 family years of where this switch is used.
- 25 Q. Okay. That's it?

16 (Pages 62 to 65)

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- 1 A. Yes.
 2 Q. What's the next -- the next page is document
 3 number 37135898, what's this?
 4 A. It's an internal document again that we found
 5 during our review of the documents that was supplied to us.
 6 And there's a comment in there from a guy called [REDACTED]
 7 [REDACTED] (phonetic) where he says he wouldn't cry if the
 8 9F924 went away.
 9 Q. Well, what do you take from that?
 10 A. It says it wasn't very good and he wishes it would
 11 be deleted from the system.
 12 Q. Have you ever talked to [REDACTED]
 13 A. No.
 14 Q. Do you know what he's referring to?
 15 A. He's referring to the switch.
 16 Q. Do you know what the reason was that he said that?
 17 A. Possibly due to the problems that they were having
 18 with it and he wanted it to disappear.
 19 Q. Now you see, when I say do you know and you say
 20 possibly, it would be helpful if you just said I don't know
 21 because you really don't know, do you?
 22 A. Well, I can read it.
 23 Q. Okay. Well read it.
 24 A. I just did.
 25 Q. And from that --

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- 1 A. I interpret from that that he would not cry if the
 2 9F924 went away, thanks.
 3 Q. This was done when?
 4 A. It looks like it was done around about 5-3-99.
 5 Q. Do you know when the switch was recalled or
 6 actually the vehicles were recalled?
 7 A. '92 and a half to '93 and a half model year?
 8 Q. Yes, when was that recalled?
 9 A. I probably have a document here somewhere.
 10 Q. Was it before or after that?
 11 A. I think it was -- I don't remember if it was after
 12 that. I don't remember the dates.
 13 Q. This was in the midst of the investigation, wasn't
 14 it?
 15 A. It was.
 16 Q. And then ultimately there was a recall?
 17 A. Yes, there was.
 18 Q. Okay. Anything else about this particular
 19 document that you find of interest?
 20 A. No, that's it.
 21 Q. Now next it says Fire Report, the tab, and we'll
 22 mark this as Exhibit 3D. What is this, Mr. Clarke?
 23 A. It's a Federal Way Fire Department Police Reports
 24 that were forwarded to me from Mr. Dunford's office.
 25 Q. When were they forwarded?

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- 1 A. It looks like on a hard copy was about August
 2 20th.
 3 Q. Okay. When did you get them? Did you get them
 4 before August 20th?
 5 A. It looks like about the 26th is when we received
 6 them.
 7 Q. August 26th. So you received them August 26th?
 8 A. Correct.
 9 Q. So that would have been almost a month after you
 10 inspected the vehicle?
 11 A. Yes.
 12 Q. Did you tell me that you had arrived at an opinion
 13 concerning the cause of the fire around July 30th when you
 14 inspected the vehicle?
 15 A. Yes.
 16 Q. So you arrived at an opinion as to the cause of
 17 the fire some 27 days before you got the official fire
 18 department's investigative report on the fire?
 19 A. Before we received the report in my office.
 20 Q. Okay. Well, did you get it from some other means
 21 before then?
 22 A. I read a copy of it at Schaefer Engineering.
 23 Q. When?
 24 A. The day of the inspection.
 25 Q. Okay. So you read the report and formed your

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- 1 opinion on July 30th and then 27 days later you actually got
 2 a copy of the report?
 3 A. Yeah. I went through the file and I realized we
 4 hadn't received -- usually got what we call a care package
 5 from our clients. That's a fire report, vehicle history,
 6 service documentation, this kind of stuff. And it may have
 7 not been sent or in the confusion it was just missed out in
 8 the initial contact.
 9 Q. And what did the Federal Way Fire Department
 10 conclude with regard to the cause of the fire?
 11 A. I don't remember exactly what they came up with.
 12 I know they were looking at the suspicious circumstances at
 13 one point.
 14 Q. But you don't remember what their determination
 15 was?
 16 A. I think they put it down -- in the end they closed
 17 the file, so obviously they ruled out the suspicious
 18 circumstances.
 19 Q. What they said was that the cause of this fire is
 20 undetermined?
 21 A. That's right.
 22 Q. So they didn't rule out anything?
 23 A. Well, it's undetermined.
 24 Q. Doesn't that mean they didn't rule out anything?
 25 A. Well, if they -- in my observations if they was

17 (Pages 66 to 69)

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1 going to pursue the arson or suspicious circumstances by
2 somebody else they would have pursued it instead of calling
3 it undetermined.

4 Q. Well, is it your understanding that that's what
5 happens in all arson situations, that the fire and the
6 police department actually figure out and get a case
7 together and a conviction actually occurs?

8 A. No.

9 Q. Do you think that there are some arsons that are
10 committed out there that never do get investigated to the
11 point where somebody can make that determination?

12 A. In some of the reports that we have reviewed where
13 they have concluded that it was arson and they found
14 extraneous circumstances and this kind of thing that was done
15 in the fire report and the supplemental reports to that.

16 Q. But can't we agree that the government officials
17 that investigated this came to the conclusion that the cause
18 of this fire was undetermined?

19 A. That's what it says there, yes.

20 Q. Which means that they did not rule out, unless you
21 can point to something in here, tells me they didn't rule
22 out anything?

23 A. It says it's undetermined, it's undetermined.

24 Q. What do you make of this hose that was on fire
25 adjacent to the north side of the wall of the garage?

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1 A. From reading in the depositions I believe it was
2 like a garden hose. That should have been up on the wall
3 and it may have fallen down.

4 Q. Do you have any theory as to how that caught on
5 fire?

6 A. The hose?

7 Q. Yes.

8 A. It was on the wall and it fell down, fell in front
9 of the vehicle where the fire started and it would have got
10 caught up in the fire.

11 Q. Do you think that all the hose was on the ground?

12 A. I don't know how much was on the ground.

13 Q. Did anybody say that they saw the hose burning
14 back to some collection material on the wall?

15 A. I don't remember reading that.

16 Q. Is there anything in the Federal Way Fire
17 Department report that you are relying upon for your
18 conclusion that the fire originated in the driver's side of
19 the engine compartment near the bulkhead?

20 A. One of the areas that I highlighted was that they
21 put in there that it started appears to be the left front
22 corner of the vehicle of the Town Car.

23 Q. That's not where the speed control deactivation
24 switch is, is it?

25 A. No, it's not.

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1 Q. So that's different from the area that you placed
2 the origin of the fire?

3 A. Well, you are dealing with observations from eye
4 witnesses that are looking at the fire after it started,
5 after it progressed, and after the people had got out of the
6 house from the smoke being in the house. So we know that
7 the fire was already going when they exited the house and
8 then the garage door was open. So you could have 10, 15
9 minutes or whatever the time frame between that particular
10 point and when the eye witness observes it, so you don't
11 know.

12 MR. MAYER: Object, nonresponsive.

13 Q. I don't remember what I asked you but I know I
14 didn't ask you for that.

15 MR. MAYER: You asked him that's not the spot
16 where the speed control deactivation switch is yes or no.

17 A. That's not the spot where the switch is.

18 MR. MAYER: Thank you.

19 Q. So the only official government report on the
20 cause of this fire which they said was undetermined, at
21 least the area of the origin of the fire they placed at the
22 front of the vehicle, right?

23 A. Yes.

24 Q. Now there are kind of two parts to the analysis,
25 right? We have got the cause of the fire and the origin of

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1 the fire, right?

2 A. Right.

3 Q. And one of those relates to the area where the
4 fire starts. And the other one says, okay, given that it
5 started within this area what was the actual cause of the
6 fire within that area, right?

7 A. Right.

8 Q. So what these official fire investigators are
9 concluding is that the origin of the fire, the area where
10 the fire started, was up in the right front corner of the
11 car, the garage, up in there, different from the area that
12 you place the origin of the fire to be?

13 A. Yeah, I place it on the left side. They say the
14 right. That's wrong.

15 Q. And they are saying that -- well, and they place
16 it in the front. And you place it back on the bulkhead of
17 the engine compartment?

18 A. Yes.

19 MR. DUNFORD: Can we stop for just a second.
20 I'm sorry to interrupt your line of questioning. I saw a
21 motion for you to be admitted pro hoc vice and it has not
22 been signed. I got it yesterday. And it's our position
23 it's inappropriate for you to be making comments on the
24 record or making objections because you are not admitted to
25 practice law in this jurisdiction.

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1 MR. MAYER: Okay. I hear your position.
 2 MR. DUNFORD: Your reaction?
 3 MR. MAYER: I'll discuss it with my
 4 Washington attorney on a break.
 5 MR. DUNFORD: In anticipation that the motion
 6 would be granted, you are obviously with the court's
 7 permission free to participate. But it's our position until
 8 that motion has been granted that it's inappropriate for you
 9 to make comments on the record. You have a Washington
 10 attorney here present to do that, if you need. Otherwise
 11 it's an unauthorized practice of law. That's my statement.
 12 Sorry to interrupt you.
 13 MR. FEENEY: That's okay. Can that be waived
 14 by you?
 15 MR. DUNFORD: I don't know.
 16 MR. FEENEY: Well, as a courtesy to Mr. Mayer
 17 would you waive it?
 18 MR. DUNFORD: Jim, as you know, we have had a
 19 lawsuit pending for a year and a half, I believe, and this
 20 deposition has been scheduled for a long period of time.
 21 And I don't know if the court would allow me to waive it,
 22 and I would be reluctant to do so while that motion is
 23 pending.
 24 MR. FEENEY: Okay. I mean, you may not be
 25 able to waive it.

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1 A. That's correct.
 2 Q. Is there anything in the Federal Way Fire
 3 Investigative report that you are relying upon to support
 4 your opinion as to the cause of the fire?
 5 A. From what I have interpreted they have got it in
 6 the left front side of the vehicle. They may not be
 7 automatically qualified to look at the car as a whole. They
 8 are just looking at the fire scene and putting it in the
 9 area. And that happens 90 percent of the time with fire
 10 people. They put it close to it. And then we are called in
 11 to do an analysis to see if we can put it closer to the
 12 point. Sometimes it's in the vehicle and sometimes it's
 13 out.
 14 MR. FEENEY: Well, I'll object and move to
 15 strike that as nonresponsive.
 16 Q. Can you point to something specific in the report
 17 that you think supports your opinion as to the cause of the
 18 fire?
 19 A. No.
 20 Q. All right. Can you point to anything specific in
 21 the report that supports your opinion as to the origin of
 22 the fire?
 23 A. They have got it in there left front corner of the
 24 vehicle.
 25 Q. Would you describe the location of the speed

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1 MR. DUNFORD: And I'm reluctant to do that.
 2 Given the time frames there has been ample opportunity for
 3 Mr. Mayer to be admitted pro hoc vice, if that was his
 4 intent to participate in the deposition or other
 5 proceedings.
 6 MR. FEENEY: Okay. Well, I kind of lost my
 7 train of thought there.
 8 MR. DUNFORD: That was not my intent. I
 9 apologize.
 10 MR. FEENEY: No, I know. It's just, you
 11 know, being a senior citizen it's kind of hard to remember
 12 where I was.
 13 Q. Just so that the record is clear the fire
 14 investigators for Federal Way called the cause of the fire
 15 undetermined. You say it started in the speed control
 16 deactivation switch, right?
 17 A. Correct.
 18 Q. But they didn't call the origin of the fire
 19 undetermined. They determined the origin of the fire and
 20 that's not within the area where the speed control
 21 deactivation switch is, right?
 22 A. They are saying it's the left front.
 23 Q. Okay. So your opinion is in disagreement with the
 24 official Federal Way Fire Investigative Report on that
 25 point?

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1 control deactivation switch as being in the left front
 2 corner of the vehicle?
 3 A. I would say that the speed control deactivation
 4 switch is under the brake booster by the bulkhead.
 5 Q. Would you say it's in the left front corner of the
 6 vehicle?
 7 A. No.
 8 Q. And you are suggesting that either the fire
 9 investigators for Federal Way are incompetent and not
 10 capable of describing properly the origin of the fire or
 11 maybe they got it right and they really don't think that it
 12 happened back at the bulkhead?
 13 MR. DUNFORD: Object to the form.
 14 A. I don't know if they are qualified to investigate
 15 a vehicle and come to a determination with the vehicle
 16 components in their operations of how a fire can progress
 17 and then come out of the vehicle where you have got a lot
 18 more flammable components on the front of the vehicle.
 19 Q. So you are questioning the qualifications and
 20 credentials of the Federal Way fire investigators whose job
 21 it is to investigate the cause and origin of fires within
 22 their jurisdiction?
 23 A. I'm saying that they may not have experience
 24 investigating automobile fires.
 25 Q. So you are saying that Federal Way sent out an

19 (Pages 74 to 77)

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1 inexperienced investigator to call the cause and origin of
2 this fire?

3 A. No, I'm not.

4 Q. But they might have?

5 A. I don't think -- I think they got the origin right
6 where it should be in the front of the vehicle. You just
7 have to pinpoint it a little bit closer if you want to know
8 the exact cause.

9 Q. When you say they got it right at the same time
10 you also say you would never describe the origin of this
11 fire as being the left front corner of the vehicle, right?

12 A. I would -- with the burn pattern that's under the
13 hood would indicate to me that it's in the left front corner
14 just in front of the bulkhead.

15 Q. Now wait a minute. Wait a minute. How far is it
16 from the bulkhead to the left front corner of the engine
17 compartment?

18 A. A couple of feet.

19 Q. And the speed control deactivation switch is right
20 underneath the brake booster basically, right?

21 A. Correct.

22 Q. And right by the bulkhead?

23 A. Yes.

24 Q. How far is it from the bulkhead?

25 A. About six inches maybe.

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1 Q. In your report that you filed in the reference
2 line you said ODO, NA, not applicable, miles trip, not
3 applicable. What does that mean?

4 A. It means that the speedometer was burned so you
5 could not determine how many miles are on it at the time of
6 the inspection.

7 Q. Were you given information that showed you what
8 the miles were on the speedometer or the odometer?

9 A. I was given a vehicle history report that shows
10 there was 280,000 miles on it, 1-12-01.

11 Q. 280,000 miles. Now when you do your reports don't
12 you normally identify the mileage on a vehicle?

13 A. If it's readable on the vehicle, yes.

14 Q. Well, this vehicle history, doesn't that say -- it
15 says January 12th, 2001. Isn't that the date of the fire?

16 A. I don't think so. Pretty close, January 20th.

17 Q. Eight days before?

18 A. Right, yes.

19 Q. So regardless of what it said on the vehicle I
20 mean you were given information that specifically said there
21 were over 280,000 miles on the vehicle eight days before the
22 incident?

23 A. Yes.

24 Q. But you didn't note that in your report?

25 A. When I do my basic reports the front cover is

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1 Q. And how far is it from the left front corner of
2 the vehicle, two feet?

3 A. Maybe.

4 Q. And you think that describing a part that is six
5 inches from the bulkhead as being in the left front corner
6 of the vehicle is an accurate and appropriate description?

7 A. I think they are looking at the heat transfer and
8 combustible components in that immediate area and they are
9 coming to that assumption and that's quite a normal thing
10 for them to do.

11 Q. Have you talked to the Federal Way fire
12 investigators?

13 A. No.

14 Q. Have you asked them if that's what they meant when
15 they said left front corner if they were actually talking
16 about the left rear adjacent to the bulkhead?

17 A. No, I haven't.

18 Q. Okay. Now let's see. In here is the vehicle
19 history?

20 A. Correct.

21 Q. Now was that part of the official fire department
22 report?

23 A. It was sent to me at the same time.

24 Q. As the fire department report?

25 A. That's correct.

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1 usually the information that we get off the vehicle.

2 Q. Have you ever investigated a Lincoln Town Car
3 incident involving an allegation that the speed control
4 deactivation switch caused a fire where the mileage on the
5 vehicle was 280,000 miles?

6 A. We have investigated some that had high mileage.
7 I don't recall the mileages on them.

8 Q. Do you remember a single incident where you have
9 ever investigated one where there was more than 100,000 on
10 the vehicle?

11 A. I don't remember.

12 Q. 200,000 miles? You have got all these incidents
13 in Exhibit 4. Wouldn't you agree with me that not one of
14 these incidents involves mileage at the level that we are
15 talking about here?

16 A. I don't remember. Honestly I don't.

17 Q. Did you investigate what the usage pattern was for
18 the speed control deactivation switch in this case?

19 A. The usage pattern?

20 Q. Yes.

21 A. I'm not familiar.

22 Q. Was it used?

23 A. In the vehicle?

24 Q. Yes.

25 A. From the driver he said he used it for a lot of

20 (Pages 78 to 81)

1 around town and he didn't very often use cruise control.
2 Q. Actually he said he never used it?
3 A. He may have.
4 Q. He didn't say not very often. He said he never
5 used the speed control deactivation switch. So, in other
6 words, we have got a situation, and let me just see if I've
7 got this right. He bought the vehicle, did he say there
8 were 30,000 miles on the vehicle when he bought it?
9 A. Something like that, yes.
10 Q. How long had he owned it?
11 A. I don't remember the actual date.
12 Q. A couple years?
13 A. Possibly.
14 Q. Maybe three years, three, four years. He put
15 230,000 miles on the vehicle?
16 A. 50,000 miles a year.
17 Q. Never used the speed control deactivation switch.
18 Never had a problem with the vehicle in terms of any of the
19 things that occur or can occur that have been associated
20 with a malfunctioning speed control deactivation switch.
21 You agree with that, don't you?
22 A. I don't remember him ever saying that he had the
23 fuses blown or anything like that.
24 Q. He had nothing. He didn't have a burn backing.
25 He never used the switch so he had no idea whether it worked

1 least brake fluids leaking for years because they leak fluid
2 out with seals in that condition so you have brake fluid
3 leaking out, too.
4 Q. Well, you are assuming the seals were cracked and
5 we'll get into that. But what's the basis for that
6 statement?
7 A. What's that?
8 Q. What's the basis for the statement that if he had
9 had a cracked Capton seals for years that he would have had
10 brake fluid leaking that he would have been aware of?
11 A. Well, you said he hadn't had any problems for
12 years.
13 Q. He said he didn't?
14 A. So if he didn't have any problems then the cracks
15 in the switch weren't there for years or he would have had
16 fluid loss because cracks in the seal are associated with
17 fluid loss.
18 Q. How long does it take Capton to crack in a bad
19 switch?
20 MR. DUNFORD: I object. It's an incomplete
21 hypothetical.
22 A. Some of the vehicles we have seen have been in the
23 range of around 80,000 miles.
24 Q. And do all switches start a fire when the Capton
25 leaks?

1 or doesn't work. He never used the switch, right?
2 A. Right.
3 Q. He didn't have taillights out, right?
4 A. Right.
5 Q. He didn't have any problems that he was aware of
6 with circuitry or fuses blowing, right?
7 A. That's correct.
8 Q. You realize that Ford in its assessment of this
9 going back to the recall days, associated a whole bunch of
10 malfunction or reported problems that oftentimes were
11 associated with a nonfunctioning switch?
12 A. Correct.
13 Q. And he didn't have any of those?
14 A. I don't believe so.
15 Q. Notwithstanding the fact that he's driving the
16 vehicle 50,000 miles a year?
17 A. Right.
18 Q. So you'd sort of think if he had a problem this is
19 one guy that probably would have encountered some indication
20 before this event of a problem?
21 A. He didn't, though.
22 Q. But he didn't, okay. And for all we know the
23 switch had been inoperative for years?
24 A. I haven't -- you know, if the switch was in that
25 kind of condition and inoperative, he would have had at

1 A. No.
2 Q. Which ones do and which ones don't?
3 A. Depends on the circumstances pertaining to the
4 switch whether the resistance stays in there. The heat and
5 resistance builds up enough to where the hole blows in the
6 side of the base of the switch and it catches on to
7 something under the engine compartment, as in this case, and
8 anything combustible around it is going to be ignited.
9 Q. How many times do you think he stopped and started
10 that vehicle in those four years where he put 230,000 miles
11 on it?
12 A. A lot.
13 Q. Thousands?
14 A. I don't know.
15 Q. All those miles, all those starts, all those
16 stops, all that parking in the garage, and you say that on
17 January 20th magically mysteriously out of the blue for some
18 set of unknown reasons the speed control deactivation switch
19 on that occasion starts a fire?
20 MR. DUNFORD: Object to the form of the
21 question.
22 Q. Have I got this right?
23 A. My interpretation of what I have seen is the
24 switch is the cause of the fire, yes.
25 Q. Okay. The Federal Way Fire Department does not

1 agree with you, do they?
 2 MR. DUNFORD: Objection as asked and
 3 answered.
 4 Q. Do they agree with you?
 5 MR. DUNFORD: Asked and answered.
 6 A. They have got it in the front of the vehicle but
 7 not at the location where I have it.
 8 Q. They don't have it in the origin and the cause is
 9 undetermined?
 10 A. Right.
 11 MR. DUNFORD: Objection as asked and
 12 answered.
 13 Q. So they don't agree with you?
 14 MR. DUNFORD: You know, Jim —
 15 MR. FEENEY: Why doesn't he just say yes.
 16 MR. DUNFORD: He has answered the question
 17 several times already. He went through the fire department
 18 several times.
 19 MR. FEENEY: Listen, I don't want to argue
 20 with you but I want to tell you something. Mr. Clarke is
 21 not answering questions. And all I can say is that he has
 22 choices that he can make, yes, no, I don't know, yes, but
 23 I'd like to explain. That would be a good answer. But this
 24 business of just mulling on without answering a question
 25 is what's happening and that's what is leading to the

1 and some go late.
 2 Q. Any that you know of that went 280,000 miles?
 3 A. I don't recollect the miles on the high mileage
 4 ones.
 5 Q. Any of them that you know that went 200,000 miles?
 6 MR. DUNFORD: Asked and answered.
 7 MR. FEENEY: What was his answer to that?
 8 That he doesn't know.
 9 MR. DUNFORD: He said I honestly don't
 10 recall and I specifically recall the answer that he gave.
 11 Q. The next thing you've got in here is your billing;
 12 is that right?
 13 A. Right.
 14 Q. And is this like through the end of September or
 15 something?
 16 A. Yeah, last month.
 17 Q. What are your total bills to date?
 18 A. I don't know.
 19 Q. Okay. Have you been paid?
 20 A. Yes.
 21 Q. Well, that's good. Now the next one is 3G. This
 22 is clearly a database run that you went and got off the
 23 NHTSA website, correct?
 24 A. Right.
 25 Q. What did you do?

1 confusion.
 2 MR. DUNFORD: No, it's not confusion. It's
 3 you going back and reasking questions that you already
 4 asked.
 5 MR. FEENEY: I have to until I get a straight
 6 answer.
 7 MR. DUNFORD: Well, why did you leave the
 8 fire department report of origin if you felt like you had a
 9 straight answer? Because he answered the questions and then
 10 you moved on. And now you're going back.
 11 MR. FEENEY: With all due respect, I don't
 12 think I have to share my questioning strategy with you. If
 13 you ask me why I left the report and came back to it that
 14 would be understanding what's in my mind, and I thought we
 15 already went over that. He can't read my mind and I don't
 16 want you to either.
 17 MR. DUNFORD: The point is, Jim, you've gone
 18 through that already and he's answered the question about
 19 the Federal Way Fire Department conclusions.
 20 Q. Okay. Let's move on. In any event I gather there
 21 is just no significance that you attach to the fact that the
 22 Town Car had 280,000 plus miles on it at the time of this
 23 incident?
 24 A. I don't know if you can always say that they are
 25 going to go at a certain mileage. Some go at early miles

1 A. We do that with every new case that we get.
 2 Q. You just pulled all the recalls on this particular
 3 vehicle?
 4 A. For that model year, I think 1992 model year but
 5 it's the Lincoln Town Car.
 6 Q. I see. And is there anything in there that you
 7 are basing your opinion on?
 8 A. No.
 9 MR. DUNFORD: That was easy.
 10 MR. FEENEY: Yep.
 11 Q. Then we come to your photographs. And I guess we
 12 don't know whether or not we have these so we are probably
 13 going to have to get a set of these photographs.
 14 MR. DUNFORD: Would you like prints?
 15 MR. FEENEY: You know, I'll tell you that at
 16 the end based upon what happens with the photographs and how
 17 he's using them, okay? But we will want a copy.
 18 Q. And then the other ones are back here, we have
 19 already talked about these. These are Topinka's
 20 photographs; is that right?
 21 A. That's correct.
 22 Q. Now those look kind of interesting. I'm not sure
 23 I've seen — I've seen Topinka's photographs but those look
 24 different to me. Are those unusual photographs? I don't
 25 mean that. That's a stupid question. How about x-rays.

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- 1 Did you take x-rays?
 2 A. Mr. Topinka took those prior to the inspection.
 3 Q. Did you take photographs through any kind of a
 4 fancy microscope or anything like that?
 5 A. Mr. Topinka was running the microscope at the
 6 inspection and that's what this CD Rom is.
 7 Q. I'm not sure we have got those. We might.
 8 MR. DUNFORD: Can we go off the record for a
 9 second.
 10 (Discussion off the record.)
 11 Q. Why don't you go back to the front of your
 12 notebook now, Mr. Clarke, and go to your report.
 13 A. (Witness complies).
 14 Q. And if you will go to page 3 of your report. In
 15 item one you say the thermal damage pattern indicates the
 16 fire originated in the left front side rear of the engine
 17 compartment. Is that true?
 18 A. Yes. Yes.
 19 Q. And then if I go into the report to page 6 you say
 20 in the second paragraph, the first paragraph under
 21 Interpretation, you say the area of fire origin was to the
 22 left side rear of the engine compartment. Did I read that
 23 correctly?
 24 A. Yes.
 25 Q. Now if I - and I don't want to put words in your

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- 1 mouth, but if I am reading your report correctly your
 2 findings identify three, I'll say, separate subjects that
 3 taken together form the basis of your opinion. One is the
 4 thermal damage patterns. And one is the electrical
 5 activity in the base of the switch?
 6 A. Correct.
 7 Q. And the other is the presence of the cracks in the
 8 Capton once you took the switch apart?
 9 A. Correct.
 10 Q. Am I following this right?
 11 A. That's right.
 12 Q. What I want to talk about is for starters, I want
 13 to talk about the evidence that you say supports the
 14 statement regarding the thermal damage patterns.
 15 In other words, for now I don't want you to
 16 tell me about the electrical activity in the switch. I
 17 don't want you to tell me about the cracks in the Capton.
 18 I want to talk about what you say the
 19 evidence is in the thermal damage patterns, the burn
 20 patterns, that supports your conclusion that the area of the
 21 fire is on the left rear - the origin of the fire is in the
 22 left rear of the engine compartment. Okay?
 23 A. Okay.
 24 Q. Now I assume you have photographs of some of these
 25 things?

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- 1 A. They should be attached to the report.
 2 Q. Yes. So if we could go into whatever part of the
 3 report you want to go to. If it's vehicle examination, you
 4 know, Paragraph F, if that's where you would like to start
 5 on page 4 that would be fine with me. I mean, that was my
 6 interpretation of your report. In other words, that seemed
 7 like that's where you talked about what I want to discuss
 8 with you, but if that's not where you started doing it then
 9 get me to the right spot.
 10 A. I think Figure 9 and Figure 10 show that.
 11 Q. Well, if that's right then why don't we go to
 12 Figure 7 and 8 and page 4 of the report because that seems
 13 like I assume you must have had a reason why you put it in
 14 the sequence you did?
 15 A. It was, I think it might have been the way that I
 16 took them.
 17 Q. I mean under Subparagraph F you start by saying
 18 the most visible fire and heat damage is to the left front
 19 section of the engine compartment. Okay?
 20 A. Yes.
 21 Q. Then you say Figure 7 shows the burn pattern to
 22 the radiator?
 23 A. Correct.
 24 Q. And then you go to the radiator, correct?
 25 A. Right.

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- 1 Q. Now unfortunately here is where this is going to
 2 get a little bit confusing. Because, first of all, I've got
 3 this black and white picture. And if I have got your
 4 photographs then I just want to mark one of those. But I
 5 know you've got them in there. Can you pull out Figure 7
 6 from your photographs?
 7 A. It's right here.
 8 Q. Can you take that particular photograph out is
 9 what I'm asking you to do?
 10 A. Okay. (Handing picture to counsel).
 11 Q. Okay. Now the most visible fire and heat damage
 12 is to the left front section of the engine compartment.
 13 Now would you mind telling me what the left front section of
 14 the engine compartment is?
 15 A. It's the portion directly in front of the driver
 16 is the left front.
 17 Q. Okay. So is that shown in Figure 7?
 18 A. Figure 7 shows the radiator and the burn pattern.
 19 Q. That would be what?
 20 A. Left front.
 21 Q. I'm not following you. I mean everything is in
 22 front of the driver. The whole engine compartment is in
 23 front of the driver. So when you say left front section of
 24 the engine compartment, and then you just said it's
 25 immediately in front of the driver that strikes me as you

23 (Pages 90 to 93)

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1 are saying the bulkhead?
 2 A. But you asked me what was the left front.
 3 Q. You use it here, you say left front section of the
 4 engine compartment?
 5 A. Correct.
 6 Q. You say the most visible fire and heat damage is
 7 to the front left section of the engine compartment?
 8 A. Right.
 9 Q. And that is the area by the bulkhead?
 10 A. Yes.
 11 Q. Well, but then the next sentence is Figure 7 shows
 12 the burn pattern to the radiator?
 13 A. That's correct.
 14 Q. Okay. Are you indicating that the burn pattern to
 15 the radiator somehow explains the preceding sentence?
 16 A. It shows that there is more damage to the left
 17 side of the radiator than there is to the right. So it's
 18 giving you more heat on the left side of the engine
 19 compartment.
 20 Q. But that's not the area directly in front of the
 21 driver?
 22 A. No, it's not.
 23 Q. Okay. I apologize. I'm just - I'm just an Irish
 24 Catholic product of public schools so it takes me a while to
 25 follow this stuff.

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1 A. Well, from the bulkhead forward. You are looking
 2 at any consumable components that are in that V is the way
 3 I interpret that.
 4 Q. Well, wait a minute. Just a minute. I'm confused
 5 and I apologize. But I'm confused by your use of the word
 6 front. We have had a couple different references using
 7 front, and I'm not trying to go over anything here, but I'm
 8 confused. Are we talking about the front of the car?
 9 A. No.
 10 Q. All right. And we are not talking about the area
 11 of the engine compartment adjacent to the radiator?
 12 A. You are talking about the left front section of
 13 the engine compartment.
 14 Q. Well, what is that? That's what I'm trying to
 15 understand.
 16 A. Draw a line down the center of the vehicle and
 17 anything to the left on the driver's side is the left front
 18 section.
 19 Q. Well, that's the whole left side of the engine
 20 compartment?
 21 A. The left front, yes.
 22 Q. Here, would you take my red pen and draw a line
 23 down the center line of the engine compartment in Exhibit 5?
 24 A. Well, I don't want to draw on my photographs.
 25 That's my original copies right here.

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1 MR. DUNFORD: Move to strike.
 2 MR. FEENEY: Well, I don't agree to that. I
 3 am an Irish Catholic product of public schools. That's
 4 absolutely correct. That's accurate.
 5 I'm going to call this Exhibit 5. Okay.
 6 (Exhibit No. 5 was marked
 7 for identification.)
 8 Q. And this is Figure 7 in your report, right?
 9 A. Yes.
 10 Q. And you referenced this photograph to show the
 11 burn pattern to the radiator indicating that more of the
 12 radiator is consumed on the driver's side of the radiator
 13 than on the passenger side?
 14 A. Correct.
 15 Q. But you would not describe the radiator as being
 16 in the area of the engine compartment adjacent to the
 17 bulkhead?
 18 A. No.
 19 Q. In fact, it's as far away from the bulkhead as you
 20 can be?
 21 A. It's at the front of the car.
 22 Q. And I know I asked you this, but when you said
 23 right here in this report, when you say left front section
 24 of the engine compartment, there you are using front to mean
 25 the area right next to the bulkhead?

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1 Q. Well, I'll buy them from you. I mean what
 2 difference does it make? You have got the negative. You
 3 can make another one. What's the big deal? It's not the
 4 Mona Lisa, is it?
 5 MR. DUNFORD: Not until he draws on it.
 6 Q. Okay. So I am not following this. Is there a
 7 back of the engine compartment?
 8 A. The bulkhead is the back of the engine
 9 compartment.
 10 Q. Okay. That's the back of the engine compartment?
 11 A. Yes.
 12 Q. If I said show me something in the left back
 13 section of the engine compartment where would you point me
 14 to?
 15 A. To this picture (indicating).
 16 Q. Right by the speed control deactivation switch?
 17 A. Yes.
 18 Q. Okay. Now we are getting somewhere.
 19 (Exhibit No. 6 was marked
 20 for identification.)
 21 Q. So Exhibit 6 is a picture of the left back section
 22 of the engine compartment?
 23 A. Correct.
 24 Q. Right. And Exhibit 5 is a picture of the left
 25 front section of the engine compartment, correct?

24 (Pages 94 to 97)

1 A. Correct.
2 Q. And just tell me if I am reading this correctly
3 from your report, the most visible fire and heat damage is
4 to the left front section of the engine compartment. Did I
5 read that correctly?
6 A. Correct.
7 Q. Now Figure 8 you say shows the manufacturer's VIN
8 stamp on the SV. Is there any significance to Figure 8
9 other than the fact that you are just showing the VIN?
10 A. That's correct.
11 Q. I mean that's not burn patterns or anything. If
12 we don't have to mark it I don't want to mark it.
13 A. It's just identifying that it's a 1993 vehicle.
14 Q. So let's go on to the next paragraph. You say the
15 fire damaged engine compartment can be seen in Figure 9 as
16 seen from the front of the SV. Also noticeable is the burn
17 pattern to the driver's side bulkhead. Figure 10 is a view
18 of the driver's side bulkhead. So could you get out your
19 prints of Figures 9 and 10. In fact, is Exhibit 6 -
20 A. Should be No. 10.
21 Q. Is that Figure 10?
22 A. Yes.
23 Q. Okay. So why don't you get out Figure 9 for me.
24 A. (Witness complies).
25 Q. So we'll mark that Exhibit 7.

1 There are two arrows in this photograph. One
2 is basically in the middle top of the photograph, Exhibit 6.
3 And, Mr. Clarke, you are indicating that that arrow is
4 pointing to the area which is the distinctive hot spot?
5 A. Give me - the V is what I'm looking for. The V
6 line is what you are seeing with the arrow coming down, and
7 then obviously from the fenders because it is escaping out
8 of the wheel here. But it's giving you a line that's coming
9 down to about here (indicating).
10 Q. Oh, you are looking for the distinctive V pattern?
11 A. Yes.
12 Q. That sort of surrounds the brake booster?
13 A. Yes.
14 Q. And you are saying that that V pattern starts
15 right at the - is shown with that arrow?
16 A. Showing the most heat I think and the most
17 corrosion. So there was more heat right here than there was
18 anywhere else.
19 Q. Corrosion is oxidation?
20 A. Correct.
21 Q. And what is oxidation evidence of?
22 A. Oxidation is rust.
23 Q. And what's that got to do with your analysis?
24 A. Well, it shows that there was more heat here and
25 bare metal is exposed, and you've got two different

1 (Exhibit No. 7 was marked
2 for identification.)
3 Q. And Exhibit 7 shows the fire damaged engine
4 compartment. So this just shows it's kind of a nice
5 overhead shot looking down at the top of the engine
6 compartment; is that right?
7 A. It shows the shadiness of the bulkhead to the left
8 being darker than it is to the right.
9 Q. Yes.
10 A. Yes.
11 Q. Yep. And that's significant to you?
12 A. Yes.
13 Q. Good. Very good.
14 Now we go to Figure 10 which is the burn
15 pattern to the driver's side bulkhead. Okay. And the arrow
16 in this photograph highlights the distinctive hot spot to
17 the bulkhead on the driver's side. Now there are two arrows
18 here?
19 A. Right.
20 Q. Would this be the distinctive hot spot
21 (indicating)?
22 A. Number one is showing the main definition
23 (indicating).
24 Q. Okay. This one right over here is - by this one
25 I want to think about this.

1 temperatures and you've got oxidation forming. There is
2 obviously more here than there is on the right side because
3 it's black.
4 Q. Why do we have this arrow over here?
5 A. It was just - well, I'm showing the edge of the
6 engine compartment with the fender well where the top of the
7 fender would be.
8 Q. So you are just indicating a boundary so to speak?
9 A. Well, it's the edge of the vehicle. As soon as it
10 breaches the wheel arch it's going to keep going out. It's
11 going to want to escape out this way is the way I foresee it
12 moving.
13 Q. What is this darkened area in here (indicating)?
14 A. That's the material underneath where the - above
15 where the weather seal goes, I think.
16 Q. What kind of material is that?
17 A. Steel.
18 Q. And is it as dark, is it darker than the other?
19 A. It's not as dark as the center section. It could
20 be interpreted as sooting or darker discoloration.
21 Q. Do you have any pictures of the underside of the
22 hood?
23 A. (Handing picture to counsel).
24 MR. SARGENT: Apparently there was some sort
25 of administrative mistake with the pro hoc vice for Eric.

1 It's been corrected. He's now been admitted.

2 MR. DUNFORD: Then I don't have to be judge
3 today. And did you bring that with you? Thanks.
4 (Exhibit Nos. 8-9 were marked
5 for identification.)

6 Q. I'm going to show you Exhibit 8. That's the
7 underside of the hood?

8 A. Correct.

9 Q. First of all, in your report did you single out a
10 picture of the underside of the hood as evidencing the
11 thermal burn patterns?

12 A. No, I didn't.

13 Q. Have you considered what the condition of the
14 underside of that hood suggests with respect to the source
15 of the heat in this fire in this photograph?

16 A. It would suggest that it was towards the bulkhead
17 on the driver's side.

18 Q. And would you please tell me what in that
19 photograph supports that conclusion?

20 A. The corrosion or the rusting that's on the left
21 rear corner of the hood.

22 Q. And would you mind using my red pen there to
23 circle the area that you are talking about there on Exhibit
24 8?

25 A. (Witness complies).

1 Q. And what is it about that area which has lots of
2 different colors in it from dark to red to tan, what is it
3 about that area that tells you that the fire originated in
4 the left rear corner of the engine compartment?

5 A. There is certainly a lot more heat that's been
6 transmitted to the hood in that area. And there is
7 obviously some heavier corrosion on that part of the hood
8 there that's not further forward of that.

9 Q. What's the black stuff, is that soot?

10 A. It could be soot. I don't know. I haven't
11 analyzed it.

12 Q. Is it paint?

13 A. I don't think it's paint.

14 Q. Do you know?

15 A. It may be a part of some coating. I don't know if
16 there has been sort of, some sort of like an anti-corrosion
17 that was done on the hoods before they were put on the
18 vehicle.

19 Q. Do you know what part of the hood would be
20 directly above the speed control deactivation switch when
21 the hood was in place?

22 A. Not exactly, no.

23 Q. It wouldn't be the corner of the hood that you
24 marked, would it?

25 A. It mostly is going to be right on the edge of that

1 where the hull is.

2 Q. Of the red line?

3 A. No where that - somewhere close to where that
4 hull maybe to the left, somewhere close right there.

5 Q. And this triangular area here you see all that
6 oxidation there?

7 A. Yes.

8 Q. And do you see that oxidation below it in this
9 sort of trapezoidal area?

10 A. Yes.

11 Q. And also in this trapezoidal area?

12 A. Yes.

13 Q. What does that indicate to you?

14 A. That could be quite possibly due to heat from the
15 outside because it's protected due to the reinforcement of
16 the hood. And there is thicker metal there obviously.

17 Q. All of this oxidation I just pointed to may well
18 be an indication of heat from externally being applied to
19 that hood, right?

20 A. Well, it's gone through a heat source, yes.

21 Q. But meaning that the source of the heat is from
22 the outside not the inside?

23 A. Of those three areas, yes.

24 Q. Yet you say the fire started in the engine
25 compartment directly below those areas?

1 A. Yes. No, I didn't say below those three areas.
2 That's not what I said.

3 Q. Well, this trapezoid here is pretty darn close to
4 the area where you said the fire started. It's a matter of
5 a few inches?

6 A. A few inches away but it's not directly there, no.

7 Q. But yet you are saying that this oxidation comes
8 from an external heat source?

9 A. Possibly, I said.

10 Q. Maybe I agree with you. So maybe it's not
11 possibly, maybe it's probably, maybe it's definitely.
12 Doesn't that pattern show you that that oxidation is the
13 result of heat moving from the outside of the vehicle in?

14 A. No.

15 Q. But that was your first instinct when I talked to
16 you about that?

17 A. What's that?

18 Q. That the oxidation that we see here in those
19 three little triangular areas, the triangles and the two
20 trapezoids, appears to be oxidation as a result of heat from
21 an external source traveling basically externally through
22 the steel hood and creating that condition, right?

23 A. I said it's possible.

24 Q. Okay. You can't rule it out?

25 A. Well, you have got stuff falling down after the

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1 car caught the building on fire and it's going to fall down
2 on the hood and burn. So you are going to have more heat to
3 the skin, but you are not going to get it to the
4 reinforcements underneath because they are separate.

5 Q. You don't know what, if anything, fell on this
6 vehicle, do you?

7 A. I've seen a lot of fires in houses with vehicles
8 and there is always stuff falling on them. I don't know
9 what fell on this one.

10 Q. You've seen vehicles that - was the hood caved at
11 all in this vehicle?

12 A. I only saw it with the hood up. I never saw it -

13 Q. I'm sorry, the roof. Was the roof of the vehicle
14 caved?

15 A. Yes. It had some damage to it. To the right side
16 here (indicating).

17 Q. I'm sorry. How does that damage that you see
18 there - well, strike that.

19 Let me ask you this question: Have you
20 investigated speed control deactivation switch fires maybe
21 even where no one has really disputed it, where the Town
22 Car's hood, literally, the roof of the vehicle had sort of
23 caved in the middle of the vehicle from the heat?

24 A. I've seen it.

25 Q. I don't mean from structures dropping on it, I

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1 mean just having caved?

2 A. I think normally that effect - I forget what you
3 want to call it now - is usually associated with something
4 falling on the vehicle when it's hot.

5 Q. You've never seen that happen just from heat?

6 A. I don't - the ones I've seen that are in houses
7 have had stuff on them. When I have seen them out of the
8 houses in the salvage yard and doing our inspections the
9 evidence that fell on it would have been removed.

10 Q. Okay. If this is a coating, that black stuff, if
11 that's a coating, you think that was a coating that was on
12 that hood?

13 A. I don't know what it is. I'm just saying it's an
14 explanation as to why it's darker than the rest of it.

15 Q. You saw the vehicle. I mean wouldn't it be
16 important for you to know whether that's soot or a coating?

17 A. It was - I don't know if it was soot or a
18 coating. All I can tell you is that it's a different color,
19 it's darker, and it doesn't have the corrosion in some of
20 the areas where there is -

21 Q. Which means it doesn't have heat?

22 A. It doesn't have the heat going towards the center
23 of the vehicle, yeah.

24 Q. Would it be significant to you to take accurate
25 measurements, put the hood exactly where in place and

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1 determine exactly where the underside of that hood is in
2 relation to the speed control deactivation switch?

3 A. I think with that area of burning right in that
4 corner there is where the most heat is in the corner of that
5 hood.

6 Q. Well, we know that it's not within that area
7 precisely. I mean have you done this? Can you place it
8 exactly?

9 A. No, I haven't done that.

10 Q. If you did that and the area directly above the
11 speed control deactivation switch was dark, black, if you
12 drew a plumb bob down from that precise point would that be
13 of significance to you?

14 A. I think that you are looking at the burn pattern
15 on the bulkhead matches up to the burn pattern on the hood
16 when it was closed. I don't know how the heat was being
17 transmitted directly from the speed control deactivation
18 switch to the hood. There is a lot more flammable material
19 there that's going to allow the heat to build up from the
20 bulkhead and go out that corner of the hood. It's a natural
21 progression.

22 Q. Where is the V pattern on the hood?

23 A. There isn't.

24 Q. Where is the hot spot on the hood?

25 A. My indication of the hot spot is right on this

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1 corner here (indicating).

2 Q. Which corner?

3 A. The left rear.

4 Q. Okay. I mean down here and here (indicating), or
5 just down here or where?

6 A. It's across that radius right there where I have
7 just drawn on the picture.

8 Q. Through the black?

9 A. Well, this is around the outside of the black but
10 where that rust is.

11 Q. Okay. I want you to specifically circle exactly,
12 be more precise, and you tell me exactly where you say the
13 hot spot on the hood is? And don't circle any black stuff
14 because I assume you would say that that's not part of the
15 hot spot.

16 A. (Witness complies).

17 Q. Okay. Now Figure 11 is a view looking across the
18 engine compartment from the passenger side front? Do you
19 have Figure 11?

20 A. Yes.

21 Q. Can you get that out for me.

22 (Exhibit No. 10 was marked
23 for identification.)

24 Q. This is Exhibit 10. And what are you showing
25 here?

1 A. A view looking across from the left side passenger
2 side of the engine compartment.
3 Q. And is there any significance to that view?
4 A. It's just documentation showing the front of the
5 vehicle.
6 Q. Is there any particular burn pattern in this
7 photograph that is of significance to you?
8 A. Again, I'll mark it with the pen. Is that all
9 right with you?
10 Q. Sure.
11 A. On the side of those red lines is the most
12 oxidation.
13 Q. Mr. Clarke has put two red marks on the photograph
14 that I assume would establish the boundaries of what you are
15 saying is the most oxidation shown in the photograph; is
16 that right?
17 A. To the bulkhead, yes.
18 Q. Then let's go to Figure 12. You may as well get
19 Figure 13 out, too, if it's easy to do that. Okay.
20 (Exhibit Nos. 11-12 were marked
21 for identification.)
22 Q. That's Figure 12 which is Exhibit 11.
23 A. (Handing photograph to counsel).
24 Q. And this is Exhibit 12 which is Figure 13. Now
25 you say Figure 12 is a view from the left front with the

1 remains of the left front head assembly, the front headlamp
2 assembly. What's the significance of this?
3 A. Just documenting the front of the vehicle with
4 some of the combustible materials on that left front corner
5 still visible.
6 Q. Has the vehicle's condition changed in any way
7 since it was removed from the garage? I mean has stuff
8 dropped off?
9 A. I don't know.
10 Q. Has it been stored inside or outside since the
11 accident?
12 A. All I know is when I inspected it it was inside.
13 Q. I assume there is way more rust on the vehicle
14 than there was immediately after the accident?
15 A. They rust a couple of days after the fire; it
16 changes completely.
17 Q. Okay. Anybody take any pictures before it rusted?
18 A. I don't know if anybody did or not. I'm not sure
19 if some of the investigators did.
20 Q. Any burn patterns in Exhibit 11 that you want to
21 point out?
22 A. I think the only thing you can see in Exhibit 11
23 is the severe damage to the inner portion of the left front
24 alloy wheel. It's just visible in there. You can see the
25 brake rotor.

1 Q. There are better pictures of the wheels, though?
2 A. Yes.
3 Q. Okay. Now Exhibit 12 which is Figure 13 shows the
4 brake booster with the remains of the - I'm sorry. The
5 arrow shows the remains of the rubber grommet in the
6 right-hand top side. Okay?
7 A. Right.
8 Q. Why are you pointing that out?
9 A. Just showing the remains of it. In some of the
10 vehicles that we have inspected before it's gone. Sometimes
11 it's there. It's just sometimes you can go inside with a
12 scope and find the pieces in there.
13 Q. What is the function of this rubber grommet?
14 A. It's a seal that holds the tube that supplies
15 vacuum to the canister.
16 Q. How far is that rubber grommet from the speed
17 control deactivation switch?
18 A. I would say about 12, 14 inches maybe.
19 Q. Do you think it's that far?
20 A. Maybe.
21 Q. Maybe less?
22 A. I haven't measured it.
23 Q. Is it above or below the switch?
24 A. It's above the switch.
25 Q. Are there other components or seals made of rubber

1 that are farther away from the switch that are completely
2 consumed in the fire?
3 A. I didn't - I think there are things further away
4 that are more visible that are not as consumed.
5 Q. Now you know that doesn't answer my question.
6 A. Well, I don't know.
7 Q. You are just looking at me knowing it does not
8 answer my question. And what do you want me to do with
9 that? Are you just going to make me ask the question again?
10 MR. DUNFORD: Move to strike.
11 A. I don't know whether there are more components
12 farther away that are made out of rubber.
13 Q. Okay. What is your explanation as to why this
14 rubber grommet was not consumed in the fire if it started in
15 the speed control deactivation switch?
16 A. From my review of this in many of them sometimes
17 they are and sometimes they are not.
18 Q. And you brought your OSI book with you. You made
19 a point of, you know, directing this arrow right to this
20 rubber grommet in this particular photograph. So this
21 would probably be a good time for you to hand out the OSI
22 that's in that book where the rubber grommet remains and
23 everybody agreed the speed control deactivation switch case
24 had caused the fire?
25 A. I may not have one in there of that grommet.

1 Q. Excuse me?

2 A. There may not be one in there of that grommet.

3 Q. You went through all the trouble of putting that

4 arrow in there. You have got this seven-inch book there.

5 Surely you must have known I was going to ask you this

6 question.

7 A. I'll look through it. That's fine.

8 Q. I don't want you to take an hour to do this. But

9 surely you must have a photograph in there that you want to

10 share with me.

11 A. (Witness complies).

12 Q. What is this one, where they put the fire out

13 within a matter of 30 seconds?

14 A. You asked me if there are any pictures in this

15 book that show the grommet, did you not?

16 Q. I did. I absolutely did.

17 A. I'm going to show you those pictures.

18 Q. Let me amend my question. I have a right to do

19 that, and I'm going to. Show me one where there is as much

20 fire damage on a rubber grommet as in this picture that

21 would be of more interest to me than one where the paint is

22 still on the vehicle.

23 (Off the record.)

24 MR. FEENEY: Back on the record.

25 Q. What tab do you want to point me to?

1 A. Tab 9.

2 Q. Okay.

3 A. It's going to be negative number two.

4 Q. Got it. Negative number two.

5 A. Rubber grommet remains in the brake booster. If

6 you go to negative 14, the next page over, there is a

7 slightly better view of it.

8 Q. Oh, okay. You are talking about that little item

9 right there (indicating)?

10 A. That's the same thing that I arrowed on the other

11 picture.

12 Q. Okay. Why don't you just, since I've got —

13 A. Do you want me to put an arrow on yours?

14 Q. Yes, that would be good.

15 A. (Witness complies).

16 Q. Okay. What class?

17 A. You just said you wanted one or do you want them

18 all?

19 Q. You've got them listed. Let's go through them.

20 A. Okay.

21 Q. Tab?

22 A. Tab 14. That's negative 37, third page I think.

23 Q. Got it.

24 A. Do you see the hole there in the booster right

25 there (indicating).

1 Q. Well, I see the booster. Why don't you just point

2 to me where you think the rubber is?

3 A. (Witness complies).

4 Q. Okay.

5 MR. FEENEY: Do you want to confirm yours,

6 Eric? Do you see where he's —

7 MR. MAYER: Okay. Got it.

8 Q. What's next?

9 A. We are going to go to Tab 21, negative one.

10 Q. You see a rubber grommet in that circle?

11 A. Yeah. I can get you that picture if you want.

12 I've got the main file back at the office where we take

13 pictures.

14 Q. I'm just asking you if you in that picture see a

15 rubber grommet?

16 A. Yes.

17 Q. You are not thinking of some other picture you

18 have seen of this vehicle. You actually see a rubber

19 grommet in that picture?

20 A. I see a dark silhouette right around where that

21 hole is on the brake booster.

22 Q. I see a lot of darkness in that picture.

23 Okay. What's next?

24 A. Figure 31, or should I say Tab 31, Figure 10.

25 (Indicating).

1 Q. That's fine.

2 A. And that vehicle there in that particular picture

3 has had the whole wheel melted off and the grommet still

4 remains.

5 Q. Um-hmm.

6 A. If you go to the next page is Figure 18, gives you

7 sort of a front view, still shows the grommet is still in

8 there.

9 Q. I'm sorry. What's the —

10 A. Next page over is Figure 18.

11 Q. Oh, okay. Got it. Excellent. And that —

12 A. And then Figure 19 is again another view of it.

13 Q. Are we done?

14 A. I'm done.

15 Q. Okay. So now which of those, just out of

16 curiosity since you've worked with these guys, which of

17 these did — in which of the ones you have just identified

18 did Texas Instruments and/or Ford Motor Company agree that

19 the speed control deactivation switch caused the fire?

20 A. I would think out of the ones that we pointed to I

21 think you guys settled them all from my recollection. I

22 don't know the actual outcomes of everything.

23 Q. Okay. But that really doesn't answer my question.

24 A. I would say all of them.

25 Q. Well, is that because you have got a report from

1 somebody or -
 2 A. No. They were happy with our findings and the
 3 case has settled and please dispose of the vehicle. That
 4 means the case is over. So if it's settled that means
 5 somebody has paid in my observation.
 6 Q. Okay. Forgetting about all of that, in any of
 7 these do you know what the opinion was of either the Ford or
 8 the Texas Instruments' representatives concerning the cause
 9 of the fire?
 10 A. I don't know.
 11 Q. If you just don't know, tell me you don't know.
 12 A. I don't know as I am sitting there.
 13 MR. DUNFORD: Can we take a break?
 14 MR. FEENEY: Do you want to take a break for
 15 lunch?
 16 MR. DUNFORD: Sure.
 17 (A luncheon recess was
 18 taken from 12:15 p.m. to
 19 1:00 p.m.)
 20 (Exhibit No. 13 was marked
 21 for identification.)
 22 AFTERNOON SESSION
 23 BY MR. FEENEY:
 24 Q. I'd like to show you Exhibit 13. I took it out of
 25 your notebook. I think you have a duplicate right in front

1 of you?
 2 A. Yes, I do.
 3 Q. So I'll just keep this in front of me and you can
 4 refer to the one in front of you. What is this?
 5 A. It's a pressure switch.
 6 Q. Would it be your view that this is a diagram of
 7 the pressure switch of the type that was in the Lincoln Town
 8 Car involved in this incident?
 9 A. Yes.
 10 Q. And you are familiar with all these parts?
 11 A. Fairly familiar with them, yes.
 12 Q. That are identified on the diagram?
 13 A. Yes.
 14 Q. You know what they are made out of?
 15 A. Yes.
 16 Q. Is this the way the switch sits in the automobile?
 17 A. No.
 18 Q. Okay. Would you show me how the switch sits in
 19 the automobile?
 20 A. It would be like kind of at an angle, this being
 21 the bulkhead. And then this is screwed into the propulsion
 22 valve (indicating).
 23 Q. So if I drew a line here and put an arrow and say
 24 "up", that's the way - I'm not saying it sits vertically
 25 straight up but it's like this (indicating)?

1 A. Yes.
 2 Q. I mean the thing that is labeled terminals on the
 3 diagram, that is, if you will, at the top of the way that it
 4 sits in the vehicle?
 5 A. Correct.
 6 Q. And the bottom is, well, the last thing on there
 7 is called hexport but that's not the very bottom. It
 8 wouldn't be the very bottom of this switch as it sits in
 9 the vehicle?
 10 A. The threaded portion of the hexport.
 11 Q. Okay. Now you've examined the switch. You have
 12 removed it from the vehicle, right?
 13 A. No.
 14 Q. Is it still in the vehicle?
 15 A. No.
 16 Q. You didn't remove it but you've looked at it?
 17 A. Yes.
 18 Q. And as the switch sits in the vehicle if we look
 19 at - you see where the Capton is?
 20 A. Yes.
 21 Q. The Capton is, is that above or below the
 22 contacts?
 23 A. It's below the electrical portion of the switch.
 24 Q. And the contacts would be, or the electrical
 25 portion of the switch would be where?

1 A. It's labeled as the M&S contact on that diagram.
 2 Q. The M&S contact are the electrical portion. So
 3 you have the Capton. I know it's upside down but it's the
 4 best I can do. The Capton is where I'm pointing to on
 5 Exhibit 13. And then above that is the M&S contacts right
 6 here, is that right?
 7 A. Correct.
 8 Q. Is any part of the switch made of plastic?
 9 A. The base I believe is of some kind of a plastic
 10 configuration.
 11 Q. Is that above or below the Capton?
 12 A. It's above the Capton.
 13 Q. Can you show me where on the switch that is?
 14 A. This is what they call the base, this hatched area
 15 right here (indicating).
 16 Q. So the hatched area that looks like sort of a top
 17 hat would be the top of the switch that's made of plastic?
 18 A. That's correct.
 19 Q. And then is there any portion of the switch made
 20 of steel?
 21 A. Of the switch itself?
 22 Q. Well, of the housing?
 23 A. The hexport is made of steel. That whole section
 24 there that the Capton is encapsulated in.
 25 Q. And so as it sits in the housing, I mean, as it

1 sits in the vehicle, the housing, this housing is all made
2 of steel. The Capton is inside a part of the switch made
3 of -- the housing is made of steel?
4 A. Right.
5 Q. And then moving up the switch you get to the
6 contacts. And the area where the contacts are that's made
7 of plastic?
8 A. Yes.
9 Q. That would be the top half of the switch?
10 A. Yeah, well they label it as the base.
11 Q. All right. Now did the plastic portion of the
12 switch survive the fire?
13 A. A portion of it did, yes.
14 Q. What does plastic melt at?
15 A. Offhand I don't remember.
16 Q. What does this plastic melt at?
17 A. I don't know.
18 Q. How far is the plastic housing from the -- well, I
19 didn't ask you this. Where exactly do you say the fire
20 started within the switch?
21 A. Where does it start?
22 Q. Yes.
23 A. What you have is you have a moveable contact, the
24 arm corrodes, it drops down and shorts out against the base
25 of the switch that causes a resistance heating and

1 eventually it will overheat the plastic, put a blow hole in
2 the side that we have in this particular case. And we have
3 two blow holes in the base of the switch that allows oxygen
4 in and it carries on down.
5 Q. Would you say that there is more damage to the --
6 well, strike that.
7 So the fire, you say the fire started within
8 mid underneath the plastic housing?
9 A. Yes.
10 Q. But a lot of the plastic housing survived the
11 fire?
12 A. It does in some of the cases we have looked at, it
13 does, that's correct.
14 Q. Did most of the housing survive in this case?
15 A. I would say maybe 70 percent.
16 Q. 70 percent of the plastic housing survives. Do
17 you know what the temperature is that plastic melts at?
18 MR. DUNFORD: Asked and answered.
19 A. I have already answered that.
20 Q. You don't know?
21 A. I don't recollect as I sit here today.
22 Q. Did you ever know?
23 A. I've seen it in some of the documentation that
24 I've read over the last couple of years.
25 Q. Let me ask you something: Do you consider

1 yourself to be an expert in the area of cause and origin of
2 fire?
3 A. Yes.
4 Q. And you don't know what the melting temperature is
5 of plastic?
6 MR. DUNFORD: Asked and answered.
7 A. Like I said, I do know but I don't remember as I
8 sit here today.
9 Q. Are you able to estimate it?
10 A. I don't estimate things like that.
11 Q. Do you know what brass melts at?
12 A. As I sit here I can't remember.
13 Q. Do you know what copper melts at?
14 A. I think it's -- I want to say somewhere around
15 about 1700.
16 Q. I don't mean to be impertinent. But most fire
17 investigators that I have encountered that call themselves
18 fire investigators do know the temperatures at which these
19 various materials melt at.
20 MR. DUNFORD: Move to strike.
21 Q. I'm just a little bit surprised about that, Mr.
22 Clarke. Now are you at all embarrassed by the fact that you
23 don't know the temperature at which plastic melts?
24 A. That I don't remember?
25 Q. Yeah, that you don't remember.

1 A. I don't know what plastic you are talking about.
2 Q. Are you embarrassed by the fact that you don't
3 remember what temperature plastic melts at?
4 A. No.
5 Q. Would you say that there is more or less damage to
6 the switch below the contacts?
7 A. I would say there is more damage in the area of
8 where the contacts are situated but everything is moved.
9 Q. But is there more damage below the area of the
10 contacts than there is above?
11 A. There would have been more burning around that
12 edge where it mounts onto the base or the base mounts to the
13 housing.
14 Q. Would you say there is more damage within the
15 switch below the area of contacts or the area where the
16 contacts are than there is directly above the area of the
17 contacts of the plastics or the metal?
18 A. Well, the plastic is gone directly below the
19 contacts.
20 Q. But it's not above them?
21 A. It's remaining above them, that's correct.
22 Q. In fact most of it is remaining above them?
23 A. Yes, it is.
24 Q. Now which way does heat or flame normally travel,
25 up or down?

1 A. Up.

2 Q. In your analysis of the fire in this case did you
3 consider the fact that there was more damage below the
4 contacts than there was above the contacts? More of the
5 switch remains above the area where you say the fire started
6 than below?

7 A. It's consistent with other bases that we have
8 reviewed where the switch has been the cause of the
9 situation.

10 Q. Well, laying aside this, you know, other instances
11 that you have seen, I'm just asking you whether you
12 considered as a matter of scientific and fire science
13 principals the fact that this switch is more damaged below
14 the area where you say the fire occurred than it is above
15 where you say the fire occurred?

16 A. When I saw it it was consistent with what I have
17 seen before. Because that is where a lot of the residue
18 builds up, and what I would call, it's like a green vaseline
19 gel, when we're testing a switch, it lays right in there,
20 and that's going to add to the burning around that area so
21 it's going to depart from the hexport.

22 Q. Is this damage pattern also consistent with a fire
23 emanating from somewhere below the switch and moving up?

24 A. No, I don't think so.

25 Q. You don't think that more damage below the

1 contacts than above is consistent with a fire emanating from
2 some source below the switch?

3 MR. DUNFORD: Asked and answered.

4 A. No, I don't. I think it's consistent with it
5 being in the switch.

6 Q. In analyzing burn patterns do you try to look at
7 where on a particular component or an automobile there is
8 more heat damage and then move away from there to see which
9 way the fire is progressing from top to bottom or side to
10 side?

11 A. Yes.

12 Q. Did you do that in this case with respect to the
13 damage specifically to the switch?

14 A. To the area where the switch is located, yes.

15 Q. Is the Capton seal basically gone?

16 A. It still remains. It's in pieces.

17 Q. Was it substantially consumed in the fire?

18 A. It's damaged. Whether it was consumed in the fire
19 I don't think so. It's just cracked up and discolored.

20 Q. Does the Capton sit in a brass housing?

21 A. No.

22 Q. How close is the nearest component made of brass
23 to the Capton?

24 A. Maybe a quarter of an inch, maybe the thickness of
25 the transfer pin.

1 Q. Okay. Is the brass component that you have just
2 described still there?

3 A. No. It's corroded away with electrical activity
4 as well as it.

5 Q. Is there any portion of the brass component that
6 remains?

7 A. Yes.

8 Q. Do you know what temperature brass melts at?

9 MR. DUNFORD: Asked and answered.

10 A. I think I said somewhere around 1700 to 2,000. I
11 don't know the exact figure.

12 Q. You think it melts at a temperature higher or less
13 than plastic?

14 A. Higher.

15 Q. In the testimony list that you provided to us of
16 the - there are two trials that you identified. In the one
17 case which I think is the Lindsey case; is that correct?

18 A. Correct.

19 Q. There you gave testimony about the design of a bag
20 guard?

21 A. Stone guard or bag guard, yes.

22 Q. And you testified that the guard was too sharp or
23 the edges were too sharp?

24 A. That's correct.

25 Q. So there you gave expert testimony on a design

1 defect in a component that was added onto a truck or
2 something?

3 A. I think it was a manufacturing design defect.

4 Q. Which was it? Was it manufacturing or was it
5 design?

6 A. I don't remember.

7 Q. And in the other case, that was a rollover case,
8 the other case you testified at trial?

9 A. Yes, that's correct.

10 Q. And did you give expert testimony there concerning
11 seat belts?

12 A. Yeah, it was a seat belt release case.

13 Q. What, an inertial unlatch case?

14 A. I think it was either a partial engagement or
15 false latch.

16 Q. Okay. And of the cases that you have identified
17 that you have attached to your CV, the depositions, would
18 you just quickly look at those and just tell me - if you
19 have got one in front of you, you can look at those, just
20 tell me which of those involved fire?

21 A. Have you seen my report? There is a gray one
22 that's bound up.

23 Q. Oh, I don't know. I can't help you. You were
24 looking at that one.

25 A. I'm sorry. It's in this book.

1 MR. FEENEY: My fingerprints will not be on
2 that. I haven't touched it.
3 MR. DUNFORD: I thought I saw it go over to
4 that side.
5 A. What was your question again?
6 Q. My question is of the cases where you have
7 identified that you gave depositions are there any of them
8 that involve fires and if so which ones?
9 A. R 103 is a fire case.
10 MR. MAYER: What's the name?
11 A. [REDACTED] against Boto Plating (phonetic).
12 Q. What is this? Is there some meaning to this
13 alphanumeric filing system that you have? R 103, EFW 1,
14 you have got all of these monikers. What's up with that?
15 A. In the early days I ran them by client being --
16 depending on which one you want to look at, if you want to
17 look at say Miller 1, that's my first case with Mr. Miller.
18 And the RC 01 is my initials and 01. If we had a second
19 case with him it would be Miller 1 RC 02. As in [REDACTED], if
20 you look at [REDACTED] that would be quite self explanatory. [REDACTED]
21 1. [REDACTED] 3.
22 Q. That would be [REDACTED]
23 A. Yes.
24 Q. What's the [REDACTED] stand for [REDACTED]
25 A. [REDACTED]

1 A. A particular component caused a fire that led to a
2 fatality.
3 Q. Okay. And then are there any others?
4 A. That's the only one I've been asked to testify and
5 give a deposition.
6 Q. That case has not been tried?
7 A. Not yet, no.
8 Q. Now where there is an automotive company that's
9 named as a defendant in these cases, in your depositions,
10 would they pretty much -- would I be correct in assuming
11 that these are all restraint or air bag cases?
12 A. No.
13 Q. Let me get a feel for this. Let's just go down
14 the list. The [REDACTED] case?
15 A. Seat belt.
16 Q. And did you give opinion testimony in that case
17 that a particular seat belt was defective?
18 A. Yes.
19 Q. The [REDACTED] case? I'm sorry. The [REDACTED] case?
20 A. It was an installation. The part I played in the
21 case was electrical control components within an automobile.
22 Q. You were rendering an opinion they were defective?
23 A. No. We designed and installed an alternative
24 system.
25 Q. Okay. The [REDACTED] case?

1 Q. So you quit doing it at some point?
2 A. Once we got way too many cases. There is too many
3 [REDACTED] and there are too many [REDACTED] in this world, and
4 it's very hard for people to keep names separately. So we
5 decided to go by an R number and 100, 200, 300, 400 and so
6 on.
7 Q. And the [REDACTED] is because there is other people
8 working for you that work on these cases?
9 A. No. It could be C 101. I just decided to call
10 them R.
11 Q. Okay. Now this [REDACTED] case, that involved a
12 fire?
13 A. Yes.
14 Q. And your role was to testify as to the cause and
15 origin of the fire, among other things?
16 A. The cause and origin and the failure mode of the
17 component.
18 Q. And was that component on some kind of piece of
19 machinery?
20 A. Yes, it is.
21 Q. What was the component?
22 A. It's a Caterpillar scraper.
23 Q. And were you rendering an opinion as to a design
24 defect there or were you simply saying that this particular
25 component caused a fire that led to an injury?

1 A. That's the one I have in Galveston.
2 Q. Oh, right. And your role there was to testify
3 about a seat belt defect?
4 A. It was testing and -- evaluation and testing of
5 the restraint system.
6 Q. Were you qualified as an expert in seat belts in
7 that case?
8 A. Yes, I was.
9 Q. The [REDACTED] case?
10 A. It was a retractor restraint case again but due to
11 retractors.
12 Q. The [REDACTED] case?
13 A. That was a suspension failure. That is a seat
14 belt buckle problem.
15 Q. The [REDACTED] case. [REDACTED] (phonetic) case?
16 A. Lap belt.
17 Q. [REDACTED] case?
18 A. Seat belt buckle.
19 Q. The [REDACTED] case?
20 A. That is an entrapment case.
21 Q. The occupant couldn't get out of the belt system?
22 A. Correct and drowned.
23 Q. [REDACTED] (phonetic)?
24 A. I think it was a seat belt buckle case.
25 Q. [REDACTED]

1 A. Seat belt buckle.
 2 Q. Are these type three buckles or --
 3 A. No.
 4 Q. They are all different kinds? What are they? All
 5 the same type of buckle?
 6 A. No.
 7 Q. [REDACTED]
 8 A. Seat belt buckle.
 9 Q. [REDACTED]
 10 A. Did you miss 140? That's the next one on my list.
 11 Q. I didn't see an automotive company here.
 12 A. No. I'm sorry.
 13 Q. I mean I was -- what's that one as long as you
 14 brought it up?
 15 A. That's a transcription.
 16 Q. Okay. [REDACTED]
 17 A. Seat belt buckle.
 18 Q. [REDACTED] (phonetic)?
 19 A. Seat belt buckle.
 20 Q. [REDACTED]
 21 A. Seat belt buckle.
 22 Q. [REDACTED]
 23 A. Seat belt buckle.
 24 Q. You said in your resume that -- by the way on this
 25 Yarmouth Technical College is that the name that the school

1 goes by?
 2 A. I believe it did. I don't know if it's still
 3 there today. It used to be. When I was there it was going
 4 by that name.
 5 Q. What was the address of that joint?
 6 A. I don't remember.
 7 Q. Do you remember the street?
 8 A. No.
 9 Q. Do you remember what part of London it was in?
 10 A. It's not in London.
 11 Q. It was in Yarmouth?
 12 A. It's in Yarmouth.
 13 Q. Does the name Great Yarmouth Technical College or
 14 Greater Yarmouth Technical College or School have any
 15 meaning to you?
 16 A. Great Yarmouth Technical Institute or whatever, I
 17 forget what it used to go by.
 18 Q. Well, does that have any connection with where you
 19 went to school?
 20 A. Yes.
 21 Q. I mean, well, what's the connection?
 22 A. I think it's the same building, same campus of
 23 what we used to call it today.
 24 Q. If you look at your degree from that joint it says
 25 Yarmouth Technical College?

1 A. Right.
 2 Q. So maybe it has had a name change?
 3 A. It possibly has. Things are growing very fast.
 4 Q. Great Yarmouth College of Further Education?
 5 A. That could be what it's going under now, I don't
 6 know.
 7 Q. You don't belong to the alumni association?
 8 A. No.
 9 Q. You don't get any mailings from this place?
 10 A. Sorry, no.
 11 Q. Don't they do that in England?
 12 A. They have never done it to me.
 13 Q. Don't they ever ask you for money?
 14 A. I don't know why they would.
 15 Q. Well, you didn't go to school in the United States
 16 of America, I guess.
 17 You advertise in the American Trial Lawyers
 18 Association Magazine, right, or you exhibit?
 19 A. I don't know if I do, no.
 20 Q. You have been an exhibitor?
 21 A. Have I?
 22 Q. Yes.
 23 A. Maybe the storage facility.
 24 Q. Yeah, okay.
 25 A. My wife runs a side business.

1 Q. And those lawyers are among other things in the
 2 business of suing car companies?
 3 A. I would presume they are, yeah.
 4 Q. Now it says here that while you were going to
 5 school, I guess, you were an apprentice motor vehicle
 6 technician at HB Averal Ltd BMW dealer in Norfolk, England?
 7 A. That's correct.
 8 Q. So that was what a part-time job while you were
 9 going to school or a full-time job while you were going to
 10 school?
 11 A. I had to have money to pay for the education so I
 12 had to work.
 13 Q. Yeah, me too. I'm asking you a question, though.
 14 Did you have a part-time job or a full-time job while you
 15 were going to school?
 16 A. I guess it would be considered part time because
 17 of the amount of time that I spent afternoons and evenings
 18 at the college.
 19 Q. And an apprentice motor vehicle technician, is
 20 that like a mechanic?
 21 A. Yeah. You would be considered that, yes.
 22 Q. And so then from there you were a mechanic at a
 23 Mercedes Benz dealership?
 24 A. I was actually, what I suppose you would call it
 25 here, is like a foreman, in charge over the repair facility.

- 1 Q. Like a service manager?
- 2 A. Yes, with a group of technicians under me.
- 3 Q. And you were helping in diagnosing when someone
- 4 comes in and says: I've got this and this and this, and you
- 5 would help in writing that up?
- 6 A. Normally I used to get involved in the area if
- 7 it's a diagnostic problem where the line technician doesn't
- 8 have the time because he's only paid by the hour, say come
- 9 over here, you need to look at this, and we'd let them get
- 10 on so they could carry on with the day-to-day stuff.
- 11 Q. And then you worked for that dealership for about
- 12 a year and a half in this type of capacity; is that right?
- 13 A. Correct.
- 14 Q. Then you went to work for a year as it says motor
- 15 engineer technician for Norfolk Motor Company. First of all
- 16 what is Norfolk Motor Company?
- 17 A. It's just a large dealership.
- 18 Q. So were you performing a similar kind of function,
- 19 service manager type thing or what?
- 20 A. It was service manager and liaison between Lotus
- 21 and the dealership.
- 22 Q. Were you working for Lotus at the time?
- 23 A. No, I wasn't.
- 24 Q. Well, when you say "liaison," does that mean that
- 25 you answered the phone when the Lotus guy called? What does

- 1 that mean?
- 2 A. Lotus was a small sports car manufacturer.
- 3 Q. Right, right.
- 4 A. So they didn't have what about 600 people I would
- 5 think on the production line. And this was one of the
- 6 biggest dealerships for Lotus. So we used to handle the
- 7 PDI's and any particular problems that started to get back
- 8 to the factory. So I was liaison between that dealership
- 9 and sort of after sales of Lotus.
- 10 Q. In '84, '85 was Lotus independently owned? They
- 11 have gone through so many different iterations, I was just
- 12 wondering.
- 13 A. I would think that they had a -- Toyota had about
- 14 a 45, 50 percent stake in them, I think. I'm not sure.
- 15 Q. So you were working at a Lotus and Mercedes Benz
- 16 dealership and you've described basically what you were
- 17 doing, right?
- 18 A. Correct.
- 19 Q. Okay. Then you got a job with Lotus?
- 20 A. Yes.
- 21 Q. And that was in as you say development
- 22 engineering. You were a development engineer, right?
- 23 A. Correct.
- 24 Q. Now it says that you were automotive performance
- 25 testing construction design and development. Now that's

- 1 quite a lot of different areas. Were you involved in all
- 2 those areas?
- 3 A. In the actual area of the product that we were
- 4 working on, yes.
- 5 Q. You mean you were only there in that capacity for,
- 6 what, two-plus years?
- 7 A. Correct.
- 8 Q. You know, in the American automobile industry it
- 9 wouldn't be uncommon for an engineer to have one specific
- 10 job for an 18 month to 24-month period, not covering testing
- 11 construction, design and development, there is a lot of
- 12 stuff going. What exactly were you doing during that
- 13 two-year period?
- 14 A. We were adapting a suspension system to production
- 15 or preproduction vehicles for manufacturers outside Lotus
- 16 and GM.
- 17 Q. Okay. What was the GM connection?
- 18 A. GM owned us at the time. So we worked on the GM
- 19 products and we also worked for Ford, Chrysler.
- 20 Q. What was your job specifically with regard to that
- 21 effort?
- 22 A. I was -- we were in the actual active suspension
- 23 department, and that was the area where we would design
- 24 fixtures and brackery and components, check the drawings,
- 25 assemble the components, measure the components, assemble

- 1 them, test them, and then eventually put them onto a
- 2 vehicle. And once it passed that kind of a test, we would
- 3 then what we'd call give it a bench test in the vehicle
- 4 connected to an umbilical cord, as we called it. Once the
- 5 system was proved to be stable then we took it out on a test
- 6 drive.
- 7 Q. And this was all in connection with active
- 8 suspension type concepts of systems?
- 9 A. Yes.
- 10 Q. And what was the idea here to come up with some
- 11 sort of an active suspension system that then could be
- 12 incorporated in production vehicles?
- 13 A. Yeah. We did the preliminary stuff. It wasn't
- 14 agricultural, so to speak. But it was a lot bigger in its
- 15 construction or the AP, active production, as we called it.
- 16 Its goal was to get it into production.
- 17 Q. Did that happen?
- 18 A. I believe that Toyota came up with a system on
- 19 their Lexus, and I think Citroen did, too. But it may have
- 20 been on reactive rather than active. Because active
- 21 suspension was a trademark for Lotus and General Motors at
- 22 the time.
- 23 Q. So did you incorporate what you were working on
- 24 into a General Motors production vehicle?
- 25 A. Oh, yes.

1 Q. Like what?
 2 A. Corvettes had it, Buick.
 3 Q. Okay. Then you came to the United States?
 4 A. Yes.
 5 Q. Or actually I guess you came to the United States
 6 at some point before then. So I'm not clear on this. It
 7 says November 1987 to April '96, were you in the United
 8 States during that period of time, Mr. Clarke?
 9 A. From '87 to '96, yes.
 10 Q. And so you came to the United States working for
 11 Lotus cars, and it says automotive hardware failure analysis
 12 to determine defects covered by warranties and
 13 manufacturer's defects. Tell me about that job.
 14 A. It was an after-sales position where we would be
 15 -- well, I would be directly in contact with the
 16 dealerships, the supervisors at the dealerships, and
 17 determine failure mechanism or a problem resulted around one
 18 of our vehicles. Failing to resolve it by phone then we
 19 used to have to go out and personally look at the vehicle
 20 and walk the technician through fixing the problem.
 21 Q. Now these were Lotus vehicles?
 22 A. Lotus and Bugetes (phonetic). I don't think
 23 Bugetes made it into the dealership but we had two of them
 24 in the country at one time.
 25 Q. How many units were there let's say during that

1 time period in North America in the United States?
 2 A. Maybe 5,000.
 3 Q. And so your job was kind of a technical
 4 troubleshooter sort of?
 5 A. It was dealer training, overseeing all the
 6 warranty, organizing all the training schools, backwards and
 7 forwards to England, analyzing defects here in the U.S.,
 8 going back to England. So it was only one of me.
 9 Q. I was going to say were you Lotus in North
 10 America?
 11 A. It was myself and the president basically of the
 12 company.
 13 Q. So he was sort of the sales guy and you were the
 14 technical guy?
 15 A. No. We had a sales manager that was based out of
 16 Florida.
 17 Q. Where were you located when you were doing this
 18 job?
 19 A. Originally in Norwood, New Jersey, and then we
 20 relocated to Lawrenceville, Georgia.
 21 Q. One of the things it says here is vehicle fire
 22 analysis?
 23 A. Yes.
 24 Q. Were Lotus vehicles burning up?
 25 A. No. They were prone to some thermal incidents in

1 some of the cases.
 2 Q. Were these post-collision fires or were these
 3 fires that were occurring that didn't involve a collision?
 4 A. It didn't involve a collision.
 5 Q. How many were there that you investigated during
 6 that ten-year period?
 7 A. I don't know how many. I mean I never really kept
 8 track of them. More than ten, less than a hundred. I don't
 9 know exactly how many.
 10 Q. Were there a variety of reasons for the thermal
 11 incidents?
 12 A. A variety of them, yeah.
 13 Q. Did Lotus have sort of a common electrical problem
 14 that you were aware of during this period of time that led
 15 to thermal events?
 16 A. I would say not a thermal event related problem
 17 but they had problems with their electrical connectors that
 18 could become loose, could become a loose connection giving
 19 you high resistance heating and then a thermal event could
 20 take place.
 21 Q. Was there ever a recall of any of the Lotus
 22 vehicles during the period of time you were doing this?
 23 A. In 1986 I came over and worked for about three
 24 months doing just what you said, recalls.
 25 Q. In other words, you were involved in a recall

1 investigation?
 2 A. It was a -- how was it worded?
 3 Q. Was it a voluntary recall?
 4 A. It was a tech bulletin that was released and based
 5 on that --
 6 Q. Technical service bulletin?
 7 A. -- two guys were sent over, myself and another guy
 8 to assist me. And we went through and done the --
 9 Q. The fix?
 10 A. Yeah, the adaptment, I would say of the new
 11 components to the vehicles that were already in production.
 12 We stopped that in production and changed it in production
 13 vehicles in the UK. And the ones on the water we met. And
 14 the ones that were in dealers and used had to be updated.
 15 Q. Is that how you kind of got into the North
 16 American job?
 17 A. That was one of the connections and then working
 18 with [REDACTED] (phonetic). That was kind of mother
 19 deal.
 20 Q. And who was [REDACTED]
 21 A. He's a guy out of North Carolina that has a
 22 Nascar.
 23 Q. When you did come over to the United States in the
 24 first instance you were basically involved in a technical
 25 service bulletin retrofitting and upgrading and fixing

1 existing Lotus vehicles because they had had a series of
2 connector thermal events or potentially could?
3 A. Well, we had to check every vehicle regardless if
4 we think they have got a problem or not. The vehicle had to
5 be scheduled into the dealership for us to look at.
6 Q. Okay. And so when you say that you had vehicle
7 fire analysis experience, is this what you are talking
8 about?
9 A. No.
10 Q. Okay. Well, what was the -- this sounds to me
11 like that was a problem that sort of had a beginning, middle
12 and end, and you finished it, you fixed it in the field and
13 that was the end of that, right?
14 A. We spent about three months reworking those
15 vehicles.
16 Q. And that's not where you got involved in vehicle
17 fire analysis?
18 A. I saw some during that stint. I don't remember
19 how many we actually saw that had some kind of thermal
20 incident.
21 Q. You saw them, but basically your job was to
22 replace the components and upgrade them so that they were
23 consistent with new production requirements?
24 A. Yes, it was.
25 Q. Now are you saying that you did something else in

1 the way of investigating fire separate and apart from that
2 early work?
3 A. After that, once I was brought over here for the
4 engineering job, they were having some thermal incidents
5 with the vehicles, involved around electrical or fuel
6 depending on the area of the vehicles.
7 Q. Well, let's talk about fuel for a minute. Are you
8 talking about fuel leaks in crashes or are you just talking
9 about fuel systems that were leaking fuel and that
10 represented a potential fire hazard?
11 A. It was fuel systems that were leaking.
12 Q. In the engine compartment?
13 A. Yes.
14 Q. Bad connectors?
15 A. Bad technicians I think would be the way to
16 rephrase it. It wasn't a problem with the product more than
17 a service problem after it had been worked on.
18 Q. It's technicians in the dealerships over in the
19 United States?
20 A. Yes. We were dealing with a copper washer on the
21 other side of the banjo fitting that had to be replaced or
22 removed to do some service work, and A, they weren't
23 replacing it and they weren't torquing it properly.
24 Q. So you had improper connections that potentially
25 let fuel leak and there may have been fires and you'd get

1 involved in that?
2 A. We had that, yes.
3 Q. And anything else in the fuel system area?
4 A. One of the vehicles that we were working on had
5 what we call a frequency valve that controls the duty cycle
6 for the fuel injection system, and that valve had to be
7 replaced with two, what we called them -- First Inertia
8 makes it; it's a rollover switch. We had to put fuel
9 rollover switches in because of the fuel systems that we
10 used.
11 Q. And that led to a fire?
12 A. I don't think it led to a physical fire on a
13 production vehicle. But it led to some problems during a
14 test that we found or they found and we had to redo.
15 Q. Any other fire incidents that you have
16 investigated?
17 A. There were numerous harness-related fires.
18 Q. You had wiring harness problems with Lotus?
19 A. We had a few.
20 Q. And you investigated the wiring harness fires?
21 A. Yes.
22 Q. And what was your role, to determine that the
23 wiring harness had incinerated as a result of a
24 Lotus-related problem and authorized repair at Lotus'
25 expense? I mean is that about the gist of it?

1 A. Yeah. We were looking at -- when you are in the
2 production side or the manufacturing side of a component you
3 have got to deal with most aspects of people. Consequently
4 you could have one of these things that went into an
5 after-market stereo-plex, put big speakers in it. There's
6 also wood screws. I mean anything they can get their hands
7 on to put these things together. So you've got to, you
8 know, look at the vehicle. You may have a short in this end
9 but it could be related to the screw in a wiring harness
10 somewhere else, and this is in an after-market device or
11 something like that. So we spend a lot of time trying to
12 diagnose this.
13 Q. Just for the benefit of some people that may not
14 be familiar with Lotus, are we talking about inexpensive
15 automobiles here?
16 A. Inexpensive?
17 Q. Yes.
18 A. Depends on what end of the pay bracket you are in.
19 Q. Well, the vehicles you were working on?
20 A. 100-, 90-, 95-, \$100,000 a piece.
21 Q. Now did you have anything to do with any of the
22 Lotus -- during this period of time did Lotus supply chassis
23 or vehicles or engines to race teams?
24 A. Yes.
25 Q. And were you involved in that as well?

1 A. Yes.
2 Q. Was that part of your job in North America?
3 A. It was a part of my job in North America, yes.
4 Q. Does Lotus still participate in, what do they call
5 it, Formula One Racing?
6 A. They don't participate in the Formula One anymore.
7 But they do the I would say the production saloon car. They
8 use the Atlas (phonetic) at the moment I think over here.
9 Q. And some of these people, these customers that you
10 sold Lotus vehicles to, would they actually race them?
11 A. Not the road-going version you couldn't. Because
12 of problems that arose with the engines if you tried to put
13 them in a tracking environment they are just not - they are
14 designed to go fast in a straight line.
15 Q. But some of them were race track certified?
16 A. We made - we developed four vehicles that were
17 the X180Rs for a racing series that we competed in for I
18 think three years.
19 Q. Were the switches on the Lotus vehicles designed
20 to last 280,000 miles without repair or replacement?
21 A. I don't think a Lotus is designed to even last no
22 where near that long, the whole car.
23 Q. Nothing on the Lotus is designed to last 280,000
24 miles?
25 A. They are not the kind of cars that get driven

1 that. High mileage on one of those is 15- to 20,000 miles.
2 Q. 15- to 20,000.
3 A. They are the kind of things that people cherish
4 and polish, drive on sunny days, keep inside.
5 Q. So would I be correct in assuming that none of
6 your Lotus experience involved the care and feeding of high
7 mileage vehicles?
8 A. Not on the - we had high mileage vehicles that we
9 had but they weren't out there in the field for retail
10 customers.
11 Q. Well, you recognize that there are parts that do
12 have useful lives, no part lasts forever?
13 A. No part lasts forever, no.
14 Q. And that would be true of electrical switches?
15 A. It would be true depending on the switch and what
16 you are dealing with and what it was for.
17 Q. Do you know how long - well, strikes that.
18 Do you think it's reasonable for an
19 electrical switch to give 280,000 miles of trouble-free
20 service on a vehicle?
21 A. Well, I think it's reasonable if it's designed as
22 a window switch where it's used daily. It's an annoyance to
23 a customer if it fails on a regular basis. So that kind of
24 thing needs to be designed to withstand daily use or weather
25 conditions, that kind of thing.

1 Q. A lot of switches on an automobile, though,
2 customers and no one is going to know whether they have
3 exceeded their useful life unless they use them?
4 A. They wouldn't know if the life was exceeded. But
5 I think if - the way I see a switch, if it could fail in
6 the safe position, then if it fails you just have a problem,
7 you go in and get it fixed.
8 But if it fails in a dangerous condition,
9 then, you know, you are left with possible fire sequences
10 happening like you got with these.
11 Q. Is there a useful life to a speed control
12 deactivation switch that you - I mean, is it infinite?
13 A. I don't know if it's infinite. But it should -
14 it's going to fail but it should fail in a failsafe
15 situation.
16 Q. Will all speed control deactivation switches fail
17 at some point in time?
18 A. I think the later ones possibly will last longer.
19 Q. Did you know anything at all about speed control
20 deactivation switches on Lincoln Town Cars before you were
21 hired to investigate the fire?
22 A. I first got involved with them, I would say about
23 four or five years ago maybe, four years, I forget.
24 Q. And who got you involved [REDACTED]
25 (phonetic)?

1 A. I think the first one I looked at, the first
2 vehicle I looked at that was a Lincoln was from Mr. Camford.
3 Q. Okay. So a lawyer representing an insurance
4 company?
5 A. That was the first Lincoln fire case, yes.
6 Q. So is it fair to say that the first time you got
7 involved in any of this or knew anything about it was when
8 you were hired by someone who was considering suing Ford
9 Motor Company to recover an insurance loss?
10 A. Yes.
11 Q. Now before that happened, did you have any ideas
12 or understandings about how long a speed control
13 deactivation switch would last?
14 A. No, I didn't.
15 Q. Were you familiar in any way with the actual
16 design of the system on the Town Car?
17 A. I wasn't familiar - I wasn't familiar with the
18 design on the Town Car, no.
19 Q. In your work at Lotus where you were - you said
20 your testing and evaluation work I guess consisted of work
21 on an active suspension system?
22 A. Yes.
23 Q. Did you have any responsibility for designing
24 electrical components at Lotus?
25 A. Not the design of the electrical components, no.

- 1 Packaging would be the word that I would say.
 2 Q. Kind of figuring out where they would fit within a
 3 --
 4 A. And whether they would live.
 5 Q. And have you ever had any design responsibility
 6 for an electrical switch that was installed in an
 7 automobile?
 8 A. I've designed an electrical system that was
 9 installed in an automobile for a consulting.
 10 Q. That was, what, that case you were telling me about?
 11 A. Yes.
 12 MR. MAYER: [REDACTED]
 13 Q. Right. And what was that?
 14 A. It was an automatic door lock system for an
 15 automobile.
 16 Q. And that was an alternative design to what was in
 17 the Saturn; is that right?
 18 A. Saturn had manual door locks and we had to put in
 19 a full automated system.
 20 Q. Other than, you know, what you have done in
 21 connection with your work as a paid representative of the
 22 plaintiff in a lawsuit suing an automobile company, have you
 23 ever had any responsibility for designing an electrical
 24 switch?
 25 A. No.

- 1 Q. Have you ever designed an electrical switch other
 2 than your work as a paid representative of a plaintiff suing
 3 an automobile company?
 4 A. No.
 5 Q. Is it true that the only testing that you have
 6 done of electrical switches has been -- well, first of all,
 7 take speed control deactivation switches. Is your testing
 8 of speed control deactivation switches confined to the work
 9 you have done in various investigations of incidents?
 10 A. Yes.
 11 Q. You've sort of made a cottage industry out of
 12 this, haven't you?
 13 A. I'm not familiar with that term.
 14 Q. Well, you've kind of become the go-to guy for
 15 Allstate, lawyers that want to try to recover for insurance
 16 losses with these switches, haven't you?
 17 A. I don't know if I am the go-to guy. I mean we get
 18 a number of requests to investigate fire losses regardless
 19 if it's the Town Car or if it's a BMW. I mean it's -- my
 20 name is in the phone book. It's just as easy for Ford to
 21 call me as Mr. Dunford.
 22 Q. Well, is there any one of those instances in that
 23 book of yours there that you conclude that the speed control
 24 deactivation switch didn't cause the fire?
 25 A. This book was purely compiled in reference to this

- 1 case so it would have no meaning.
 2 Q. Okay. Is the answer that there aren't any in
 3 there that didn't -- the speed control deactivation switch
 4 didn't cause the fire?
 5 A. There is none in there that it did not, that's
 6 correct.
 7 Q. Your publications, is this complete, these four
 8 publications you have got there? That's up to date?
 9 A. No. I just put another one in there in Maryland
 10 I think last month.
 11 Q. Have you published in the area of fire cause and
 12 origin investigation?
 13 A. No.
 14 Q. Or automotive fire investigation?
 15 A. No.
 16 Q. Is it true that these memberships that you list
 17 here that there is nothing other than writing the check that
 18 is a requirement for becoming a member in those
 19 organizations?
 20 A. I never wrote a check to the Ministry of Transport
 21 of England.
 22 Q. What makes you a member?
 23 A. What makes you a member?
 24 Q. Yes.
 25 A. Because you go through the school and you pass.

- 1 Q. Okay.
 2 A. I guess, the rest of them you become a member of
 3 them when you pay or get nominated I guess.
 4 Q. Well, that's what I'm asking you. You think you
 5 get nominated to the Society of Automotive Engineers?
 6 A. I don't think so. That's more of a
 7 defendants-oriented group so you'd have to pay to get into
 8 that.
 9 Q. You think that most of the people that belong to
 10 the Society of Automotive Engineers are what again?
 11 A. I think there's a lot of defendants, people that
 12 work in that society.
 13 Q. You view that as a litigation-based organization?
 14 A. A what?
 15 Q. A litigation-based organization. You used the
 16 term "defendant." That suggests a party to a lawsuit, which
 17 suggests that you are somehow implying that the Society of
 18 Automotive Engineers is kind of a litigation-based
 19 organization, and I'm asking if that's what you really meant
 20 to imply?
 21 A. I didn't mean to imply as a litigation area, but
 22 I meant that the defendants I work against is widely
 23 represented within that organization, Ford, General Motors,
 24 Chrysler.
 25 Q. You mean the experts that are retained by