

**GREYHOUND'S PROPOSED FINDINGS AND
RECOMMENDATIONS**



From: Alex Guariento
Director, Safety

Phone: 214-849-8228 Fax: 214-849-6338

Email: [REDACTED]

FAX COVER SHEET

Date: October 25, 1999

To: Michelle McMurtry

Fax number: (202) 314-6406

Subject: Findings & Recommendations, Burnt Cabins, PA


Number of Pages (Including Cover): 3

Comments:

Attached are our proposed findings and recommendations in reference to the Burnt Cabins, PA crash of June 20, 1998.

Please let me know if any questions.

I may be reached at [REDACTED]


[REDACTED]
Alex Guariento
Director, Safety

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FOR ASSISTANCE, PLEASE CALL JOANN JACKSON AT (214) 849-8227

A. Findings:**1. Crash:**

- a. The accident driver experienced a severe cardiac event, which in turn caused him to lose control of the bus he was driving, and crash into the parked tractor-trailer.
- b. Accident driver was duly licensed and qualified.
- c. Accident driver was medically qualified. Post-accident drug and alcohol tests were negative.
- d. Accident driver was operating well within FHWA's Hours of Service requirements.
- e. Driver fatigue was not a contributing factor to this crash.
- f. The accident bus did not have any mechanical defects.
- g. All fatalities occurred within the "crush area", and were the result of intrusion into the bus cabin.
- h. Bus seats not located within the intrusion area performed as intended and protected the passengers as intended. Compartmentalization design worked as intended, allowing all passengers not in intrusion area to escape with only minor injuries.

2. Operating Environment:

- a. GLI does not have Company policies and operating practices that create an unsafe operating environment or encourage/ require drivers to operate in violation of FHWA or Company requirements.
- b. GLI Schedules are constructed in accordance with FHWA requirements, and do not require drivers to speed in order to complete on time.
- c. Pennsylvania turnpike authority routinely allows "emergency" parking areas to be used as rest area by commercial trucks.
- d. Emergency parking areas do not have any separation/protection from turnpike traffic and lack adequate acceleration/merging lanes.
- e. Excessive speed was not a contributing factor to the crash. Accident bus was operating within the posted speed limit, and consistent with road conditions at the time of the crash.
- f. Although some buses were found to have maximum speeds above generally applicable speed limits, there is no information on average speeds, how long the maximum speed was maintained (i.e.: one brief period on a downhill grade), or speed of traffic flow at the point of maximum observed speed.
- g. No bus inspected at any of the 10 terminals visited by NTSB investigators was found to be required to be placed "out of service" under FHWA regulations.
- h. Review of accident drivers' personnel records confirmed he received 2 refresher training courses in the past 7 years.
- i. GLI has a robust and well-established safety training program and administers regular seasonal and post-accident safety refreshers training with all drivers.
- j. GLI has a model initial driver training program, which is used as the foundation of the FHWA's "Model curriculum for training motorcoach drivers". GLI's initial training program includes NTSB's 1990 recommendations.
- k. GLI's hours of service oversight is well managed throughout the company. Hours of service discrepancies are below 0.15% across the board (well below FHWA's allowance of 10%).

B. Recommendations:**1. To Pennsylvania Turnpike:**

- a. Do not allow "emergency" parking areas to be used as "rest" areas by commercial truck traffic.
- b. Develop additional commercial traffic rest areas along the turnpike.

2. To FHWA:

- a. Require use of on-board Hours of Service recording devices.



Greyhound Lines, Inc.

P.O. Box 660362
Dallas, Texas 75266-0362

October 14, 1999

Ms. Michele Ann McMurtry, P.E.
Office of Highway Safety
National Transportation Safety Board
490 L'Enfant Plaza S.W.
Washington, DC 20594

Dear Ms. McMurtry:

Enclosed please find our Company's comments to the Technical Review Draft on the June 20, 1998 crash in Burnt Cabins, PA.

Please note that several of our comments are in reference to items on which we had previously commented, in response to the initial "factual reports drafts" from the functional group leaders involved in the investigation.

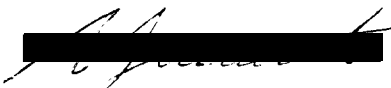
In particular, we noticed the omission of any reference as to the pathological reports of Dr. H.E. Fillinger and Dr. E. Rubin, which clearly indicate the driver suffered an acute coronary event which caused him to lose control of the vehicle and caused the crash. Our comments reflect these reports and their findings.

Further, we noticed a heavy presence of items that we feel have little or no relevance as to the proximate cause of the crash in question. Excessive speeding does not appear to be a contributing factor to the crash, there were no maintenance defects on the coach, and the driver was well within DOT hours of service requirements, to name a few. However, the report contains a significant "line of investigation" on these items, and often contains only partial facts that lead one to make erroneous and/or inappropriate conclusions.

Our comments are intended to clarify some of these issues, and to ensure the facts are fairly and completely represented.

Should you have any questions on any of the materials enclosed, please feel free to contact me at anytime. I may be reached at ([REDACTED])

Sincerely,


Alessandro Guariento
Director, Safety

Encl.

Page / Paragraph	Comments
6 / 3	Insert technical comment that driver's activities for the 72 hours preceding the accident were in compliance with the requirements of Federal Motor Carrier Safety Regulations.
6/11	"His impression was...". "Impression" is speculative and not factual. Furthermore, as documented by Dr. Fillinger's report of May 6, 1999, and substantiated by Dr. Rubin's report of July 15, 1999 (see page 3 for further discussion) the driver had a severe angina attack which did cause his loss of control of the vehicle (and would account for the swerving).
11 / 11	ECM data does not indicate bus was speeding at the time of the accident, and there is no indication that excessive speed was a factor in this accident: The posted speed limit was 65 MPH (see page 43, line 1) and the off-duty state trooper testified he estimated the bus speed prior to the accident between 60 –65 MPH (see page 6, line 13).
17/12	Driver's routine was not to "start work" from Boothwyn, PA. He started his work cycle from his Pittsburgh domicile (the hotel). His routine was to drive (on his day off) from Boothwyn to Pittsburgh the <u>day prior</u> to the beginning of his 4-day work cycle, so to position himself in Pittsburgh and secure his rest prior to starting his work cycle. In accordance with company policy, the hotel in Pittsburgh was his domicile for work purposes. His regular use of the hotel for this purpose has been well documented by NTSB investigators.
18/13	Factual, but easily taken out of context and misleading. It is very likely that the driver was alluding to driving in his own car to his wife's home in Philadelphia on his days off after completion of his work cycle (schedule from New York to Pittsburgh).
19/1	Paragraph implies that Greyhound did not have a structured training program prior to 1992. That is not true. Greyhound has had structured initial entry and refresher training programs for at least the last 50 years. This program is regularly revised, and the NTSB's 1992 recommendations were incorporated as part of regular and ongoing program revisions and improvements
19/17	Not Factual – Greyhound explained that refresher training material is excerpted from PODC / School modules, and that there is no separate manual for refresher training. Case in point: See draft language on page 20, paragraph 1 of report – refresher training was documented in December 1992 following a 30 days absence.

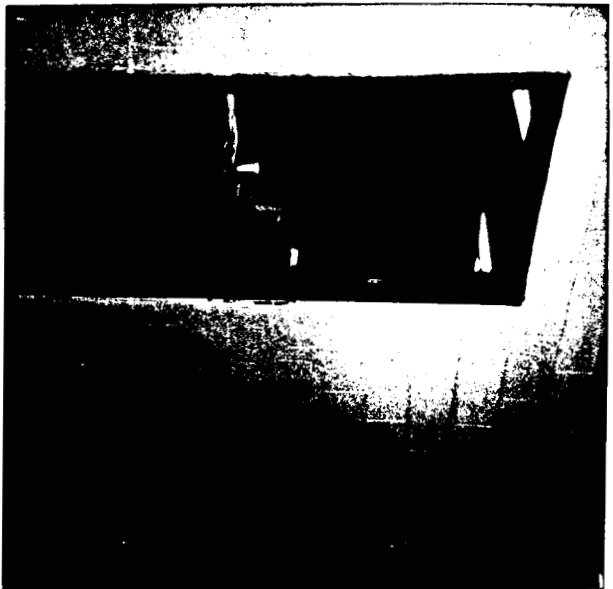
Page / Paragraph	Comments
21 / 2	Paragraph not correct. Prior to adoption of this policy, Greyhound locations kept training records in separate training files.
22/8 -24/2	Hearsay / not factual – There is no evidence complaint was ever filed or event described happened. Additionally, passenger did not call number given by operator (see page 23, line 13). Extensive investigation and questioning of all supervisors possibly involved failed to reveal any documentation or recollection to substantiate this allegation. If driver was so unsafe why did the passenger not get off the bus voluntarily during a scheduled stop? Why did she not call the number provided her by the operator? NTSB investigators also admitted they could not substantiate this allegation or provide a copy of the complaint. Further, the complaint was on an incident that allegedly happened over 6 months before the accident. The NTSB investigators talked to both the drivers of the 2 nd and 3 rd section, who in turn, had both talked with the accident driver as little as 2 hours prior to the crash. They both indicated that there were no sign of fatigue or sleepiness on the part of the accident driver, and that in fact he was in a very alert state of mind. This information should be included in the report.
25 / 19	Please correct paragraph to read: "...who notifies the driver's supervisor for further investigation / analysis and appropriate disciplinary action when warranted.
26 / 2	Please delete: "...were in violation of..." and replace with "...had discrepancies concerning...". These were not necessarily "violations", but discrepancies. The vendor reports are an indication of issues for follow-up. They are discrepancies (not violations) for supervisors to follow-up on (see previous comment). Many discrepancies are resolved or explainable upon further examination of the logs.
26/11	NTSB investigators did not go into drivers' room but into Customer Service outer office. Driver's room did (and does) have driver safety posters/bulletins posted. (See attached photos).
28/11	By agreement with the union, compensation is by "piece-work" and includes post/pre trip periods.
29/1-5	Commute time is incorrect. Driver domicile is not Boothwyn, but Pittsburgh. He drove to Pittsburgh (on his day off) the day prior to his work cycle. Once in Pittsburgh, he stayed at his domicile (the hotel) and secured his rest in preparation of his work. His commute time was from the hotel to the bus station in Pittsburgh, and did not violate FMCSR or company policy requirements.

Page / Paragraph	Comments
29 / 13	Not factual. Local practices are for the local manager to keep a "domicile point of contact" list locally for all drivers assigned to the board. At the time of each "National Bid Change", GLI managers are furnished with a report showing personnel losses and gains to the "board". Local managers use this report to identify new arrivals, and ensure compliance with our policies as to domicile and commute limits. Local management practice is to confirm that each "gained driver" has established local domicile (permanent or temporary) in accordance with our policies. The driver manager in Pittsburgh did (and does) maintain a point of contact list showing the hotel in Pittsburgh as the domicile location for the accident driver. Although NTSB investigators interviewed the local terminal manager, the local driver manager was not interviewed in relationship to this issue.
30 / 3	Peak travel speed data is of limited relevance unless in context of overall pattern. As mentioned previously, excessive speeding was not a factor in this accident.
30 / 10	Excessive seeding is not a contributing factor in this accident, so why the close scrutiny of nationwide schedules? Report also fails to mention context: What was prevalent traffic flow/speed at the time of the observations?
31 / 3-7	What was the source of this data? No one discussed these averages with us for clarification purposes, and we are not aware of these issues.
31/7	Not factual – Safety director did not mention specific number of observations, nor that all drivers observed speeded. He did mention we were purchasing RADAR equipment for our safety managers, but not specific numbers.
32/2	Report fails to mention NTSB checked several GLI schedules as a result of the driver's complaints, and found them to be in compliance with speed limits and could be completed without speeding (see first factual draft, Motor Carrier Operations).
33 / 19-21	Do not understand this sentence. Repairs would be signed off in item #1 for pre-trip section of the following day, in this case June 18 th . How can this be said if the M-7 for June 18 th is missing?
34 / 3	Technical comment: No vehicle defect was found to be a contributing cause of the accident.
34 / 12-20	There is no context to this portion. How many buses were observed (it is likely that given the scope of the observations hundreds of buses may have been observed)? While it is noted that none of the observed defects were critical the report fails to mention that none of the defects were also not in violation of CVSA's Out-Of-Service criteria. Further, report fails to mention that company policy allows a driver to drive a bus with minor defects (that often are the result of regular over-the-road use, like an inoperative taillight) to a location with maintenance support, so that it can be fixed. There is no maintenance support in Chattanooga, Milwaukee, or Baltimore.

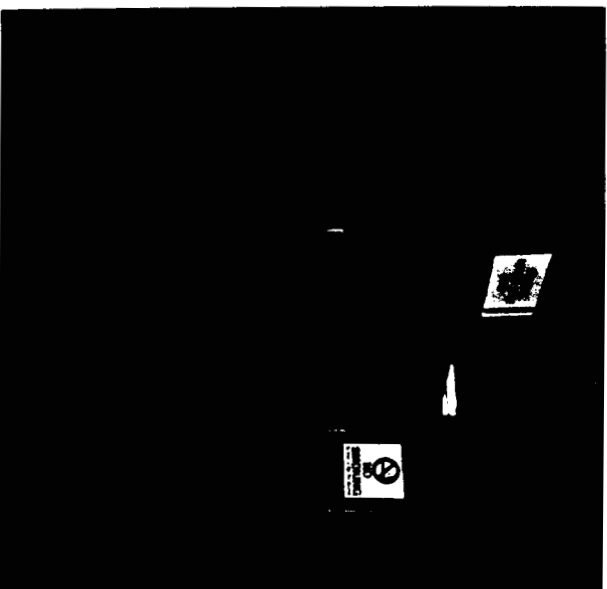
Page / Paragraph	Comments
53 / 12	<p>Pathological information does not include medical examiner findings of Dr. Fillinger's report of May 6, 1999 submitted to NTSB investigators in August 1999, with the pathological slides. Dr. Fillinger found that the accident driver suffered a severe angina episode immediately prior to crash. Dr. Fillinger states: "It is therefore my opinion, with reasonable medical certainty, that the site of the hemorrhage within the coronary wall, which produced a reduction in the caliber of the vessel deprived the myocardium of sufficient oxygen with a resultant ischemia and acute anginal distress which then distracted the driver, causing him to strike the back of the parked tractor trailer." Dr. Fillinger's report was also reviewed and concurred with by a second pathologist, Dr. Rubin. Dr. Rubin also found strong evidence of a severe coronary event, and stated that the driver was likely unconscious prior to impact as a result of it. Dr. Rubin's report was also forwarded to NTSB investigators on August 1999. This information should be included in the technical report. Although both reports were previously submitted, they are attached for ready reference.</p>

Enclosures:

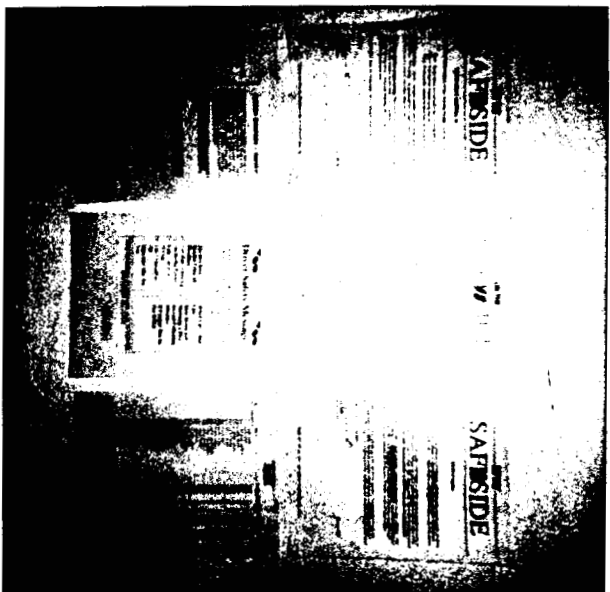
1. Pathological report, Dr. H. Fillinger, May 6, 1999
2. Curriculum Vitae, Dr. H. Fillinger
3. Pathological Report, Dr. E. Rubin, July 15, 1999
4. Curriculum Vitae, Dr. E. Rubin
5. Photographs, Pittsburgh, PA Drivers' Room w/ safety bulletins



Customer Service inner
Office PCH



Customer Service outer office
PCH Terminal



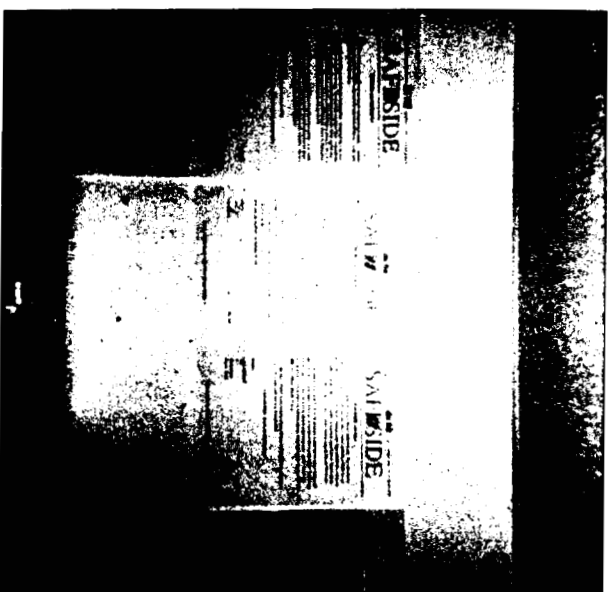
PCH Driver lounge/Boem
lower Terminal level



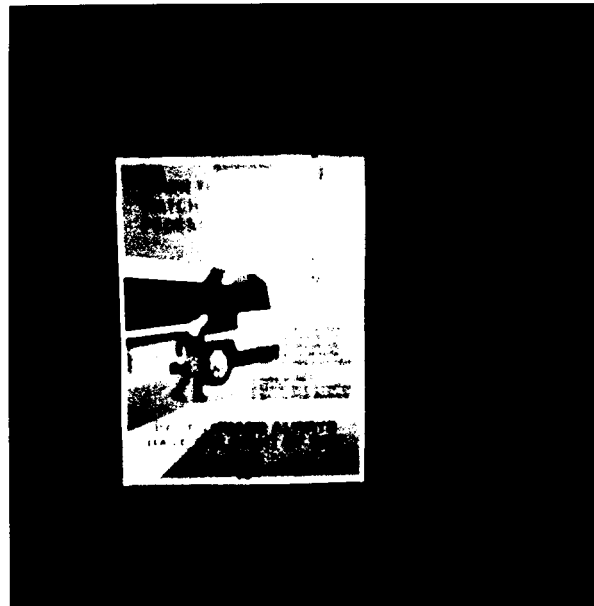
Customer Service Office
Balletta Boem PCH



PCH Driver lounge/Boem
Terminal lower level



PCH Driver lounge/Boem
lower Terminal level



P6H MANAGER DOOR
UP STAIR TERMINAL



Hic Quærit Mors
Succurrere Vitæ

Forensic Associates of Philadelphia

Halbert E. Fillinger, M.D.
Forensic Pathologist
187 Easton Road • Horsham, PA 19044
215-443-7474
FAX - 443-7731

May 6, 1999

Paul Troy, Esquire
Kane, Pugh, Knoell & Driscoll, LLP
510 Swede Street
Norristown, PA 19041-4886

RE: Greyhound Bus Accident.
June 20, 1988

Dear Mr. Troy:

At your request, I have examined the material that you were kind enough to send to me concerning the above-named Greyhound Bus Accident near Breezewood, PA.

I have also discussed the autopsy findings with Dr. Raymond Vatour, the pathologist at the J.C. Blair Memorial Hospital who performed the autopsy on Milton Scott Wisner. The post mortem report indicates that the deceased was a 68 year old white male, who was driving a Greyhound Bus from New York to Pittsburgh on the Pennsylvania Turnpike, when at approximately 4:18 A.M. the bus left the road and struck the rear-end of a parked tractor-trailer. Dr. Vatour's post mortem examination revealed extensive internal trauma with transection of the aorta and superior vena cava, as well as lacerations of the right ventricle of the heart. The cervical spine was transected and multiple bony fractures, particularly the lower extremities were observed and an amputation of the left lower extremity and foot. Bilateral hemothoraces and pulmonary contusions were noted with extensive fragmentation of the liver and spleen and a hemoperitoneum as well. Dr. Vatour did not notice any gross or histologic findings that would suggest heart disease or the possibility of an acute or healed myocardial infarction. It was Dr. Vatour's opinion that Mr. Wisner died of multiple injuries and the manner of death was accidental.

I had an opportunity to examine the microscopic slides prepared by Dr. Vatour during a visit to the hospital in Huntingdon and Dr. Vatour was further gracious enough to allow me to re-examine the slides.

MAY 25 1999

Paul Troy, Esquire

May 6, 1999

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My findings are as follows: A microscopic examination of the lacerated aorta and the tear in the right ventricular wall, which were observed by Dr. Vatour are in my opinion of traumatic origin and occurred at the time of the impact. One of the slides shows coronary artery sections with marked atherosclerosis and reduction in the caliber of the lumen up to 90 to 95%, leaving approximately 5% patency. Another section depicts a focal area of intermural hemorrhage, that is bleeding within the vessel wall of the coronary artery, which is not geographically located where trauma occurred to the heart. This area of hemorrhage is at a point where the lumen was reduced approximately 50% and the focal area of hemorrhage would further reduce the caliber of the inner lumen and reduce the flow of blood to the heart supplied by this vessel. The tissue surrounding the site of the intermural hemorrhage shows no evidence of trauma or bleeding.

It is therefore my conclusion that the intermural hemorrhage pre-dated the impact and is responsible for reducing the available flow to the portion of the heart supplied by this vessel. A hemorrhage of this type reducing the available blood flow can be expected to produce anginal pain and eventually myocardial infarction, assuming the patient survives. The established coronary artery narrowing, together with this focal area of acute luminal reduction could be expected to produce an episode of ischemia with resultant dysrhythmia which would account for the driver losing control of the vehicle and striking the parked tractor trailer.

It is therefore my opinion, with reasonable medical certainty, that the site of the hemorrhage within the coronary artery wall, which produced a reduction in the caliber of that vessel deprived the myocardium of sufficient oxygen with a resultant ischemia and acute anginal distress which then distracted the driver, causing him to strike the back of the parked tractor trailer.

If I can be of any further assistance to you in this matter, please do not hesitate to contact me. We are, at the present time, preparing photo-micrographs of the site, which would more graphically demonstrate the intra-luminal hemorrhage and the reduction of the caliber of the lumen.

Respectfully submitted,



Halbert E. Fillinger, Jr., M.D.

Forensic Pathologist

Coroner, Montgomery County

CURRICULUM VITAE

HALBERT E. FILLINGER, JR., M.D.

FORENSIC PATHOLOGIST

ADDRESS: Forensic Associates of Philadelphia
187 Easton Road
Horsham, Pa. 19044

TELEPHONE: [REDACTED]

DATE/PLACE OF BIRTH: [REDACTED] 1926 Clinton, Indiana

PERSONAL STATUS: Married; Four children

MILITARY SERVICE: United States Navy; World War II
United States Army; Post World War II

EDUCATION: COLLEGE:
University of Wisconsin, 1951
Bachelor of Science
University of Heidelberg, Germany, 1955
Doctor of Medicine

MEDICAL:
Internship: Rotating
St. Vincent's Hospital,
Toledo, Ohio - 1956-1957

Residency: Anatomic Pathology
St. Vincent's Hospital
Toledo, Ohio - 1957-1959

CONTINUED EDUCATION: Elmira College; Physical Significance
Bloodstain Evidence, 1980

Delaware County Community College;
Municipal Police Officer Education
Training, 1976

FELLOWSHIP: Forensic Pathology
The Cleveland Clinic Foundation
Cleveland, Ohio - 1959-1960

SPECIALTY: Forensic Pathology

CERTIFICATION: Board Eligible in Anatomic Pathology
and Forensic Pathology

LICENSURE: Medical Licensure by Examination in
Pennsylvania & Ohio

HALBERT E. FILLINGER, JR., M.D.
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APPOINTMENTS

1960 - 1988: CITY OF PHILADELPHIA, ASSISTANT MEDICAL EXAMINER

POSITION RESPONSIBILITIES:

- conduct post mortem examinations in routine and unusual and complex pathological cases.
- advise subordinates and hospitals on the conduct of post mortem examinations for diagnoses of disease conditions.
- evaluate reports of various analyses to determine pathological conditions and medical evidence of criminal involvement and cause of death.
- take charge of scene of death investigations.
- furnish law enforcement officials with medical and scientific evidence.
- provide expert witness testimony in court.
- consult with chemists, toxicologists, bacteriologist, immunologists and law enforcement personnel to establish medico-legal evidence.
- train subordinates in medico-legal functions.
- lecture professional and lay groups on the medico-legal investigative system.

IN ADDITION, THE ASSISTANT MEDICAL EXAMINER IS RESPONSIBLE FOR THE FOLLOWING TYPES OF INVESTIGATION:

- any deaths resulting from any type of accident, external violence or disease in which external force contributed.
- any suspected or actual homicide or suicide.
- any death of a woman or fetus over 16 weeks gestation caused by attempted, criminal or self induced abortion or unattended stillbirth over 16 weeks gestation.
- any death unattended by a physician or in which cause is unknown or uncertain.
- any death occurring in or resulting from illness in a prison.

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- any death suspected or related to or resultant from occupation, poisoning, acute alcoholism, drug addiction, neglect, electrical or the elements.
- any death in a nursing home or institution without recent medical attention; during, directly related, or subsequent to a effect of anesthesia, operative, diagnostic, therapeutic or experimental procedure.

1988 to 1992: BUCKS COUNTY, PA; CHIEF DEPUTY CORONER

1992 to Present: BUCKS COUNTY, PA; CORONER'S PATHOLOGIST

1979 to 1992: MONTGOMERY COUNTY, PA; FORENSIC CONSULTANT TO OFFICE OF THE CORONER

1992 to Present: MONTGOMERY COUNTY, PA; ELECTED CORONER
(See duties listed under City of Philadelphia, Assistant Medical Examiner)

1976 to 1988: TEMPLE UNIVERSITY, PHILADELPHIA, PA; ASSISTANT PROFESSOR OF CRIMINALISTICS; Center for Administration of Justice

1973: BATES COLLEGE OF LAW, HOUSTON, TEXAS;
PROFESSOR OF LEGAL MEDICINE; National College of Criminal Defense, Lawyers and Public Defenders

1973: TEMPLE UNIVERSITY MEDICAL SCHOOL, PHILADELPHIA PA; CLINICAL ASSISTANT IN PATHOLOGY

1971 to Present: TEMPLE UNIVERSITY DENTAL SCHOOL, PHILADELPHIA, PA; LECTURER IN LEGAL MEDICINE

1962: JEFFERSON MEDICAL COLLEGE, PHILADELPHIA, PA; LECTURER IN LEGAL MEDICINE

HALBERT E. FILLINGER, JR., M.D.,
PAGE 4

1960 to Present: TEACHING CONSULTANT TO STATE POLICE
DEPARTMENTS; TEXAS, MICHIGAN, ARKANSAS,
KENTUCKY, GEORGIA, NEW YORK, NEW JERSEY,
COLORADO, PENNSYLVANIA

F.B.I. ACADEMY, QUANTICO, VIRGINIA; LECTURER

ARMED FORCE INSTITUTE OF PATHOLOGY; LECTURER

NORTHWESTERN UNIVERSITY; VISITING LECTURER;
The Traffic Institute

1989 - 1991 UNDER CONTRACT TO OFFICE OF THE ATTORNEY
GENERAL; To conduct a one week mandated school
for the training of Coroners and Deputy
Coroners in the Commonwealth of Pennsylvania

RELATED ACTIVITIES

- 1) Child Abuse Prosecution Assistance Unit (CAPAU)
Pennsylvania; Chief Deputy Attorney General
(Video Presentation for distribution to Child Abuse
investigators)
- 2) Joseph J. Peters Institute (JJPI); Board of Directors;
Planning Committee for Sexual Abuse and the Clergy
- 3) President's Council, Gwynedd Mercy College.
- 4) Pennsylvania State; Education Committee to Implement
Coroner's Education Act

RESEARCH INTERESTS

- 1) Drug Abuse
- 2) Ballistics and Wound Production
- 3) Psychosociologic Implications of Tattoos
- 4) Investigation of Sexually Related Deaths
- 5) Post Mortem Reconstruction of Facial Features

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SOCIETY MEMBERSHIPS

- 1) American Academy of Forensic Science - Fellow
- 2) College of Physicians of Philadelphia - Fellow
- 3) Pennsylvania Association of Arson Investigators
- 4) International Association of Arson Investigators
- 5) Past Master - Masonic Lodge #125
- 6) Past President Pennsylvania Antique Gun Collectors Association
- 7) Honorary Member of Police Chief's Association - Southeastern, PA
- 8) VIDOCQ Society Member

AWARDS AND HONORS

City Council of Phila. - Citation	1988
Montgomery County Citation - Fire and Arson Investigation	1988
Phila. Police Fraternal Order of Police Civilian Award	1988
American Society, Industrial Security - Award	1988
Commonwealth of PA, Attorney General's Office Certificate of Achievement	1988
National Sudden Infant Death Syndrome Foundation Service Award	1988
Crown and Shield Society, Gwynedd Mercy College	1986
Citizens Crime Commission - Service Award	1986

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Phila. Fraternal Order of Police Lodge Honorary Office of the Month	1984
United State Postal Service - Service Award National Bomb Investigation	1984-1988
Dept. of Public Safety - State of Texas Director's Award	1983
International Association of Bomb Technicians & Investigation, New York - Award	1983, 1984
Texas Rangers - Charter Patron Award	1982
International Association Arson Investigation Citation	1981
PA Association of Arson Investigation Award	1980
Chapel of Four Chaplains - Legion of Honor	1978
Alpha Kappa Kappa Medical Fraternity Epsilon Chapter - Jefferson Medical College	1970

RECENT PRESENTATIONS

New Jersey State Police - Dept. of Law & Public Safety; Training
Bureau "Medico Legal Investigation"; " Sex Crime
Investigation and Analysis".

PA State Police Academy; "Role of the Medical Examiner".

National Association of Arson Investigation, Florida; Arson
Seminar

St. Petersburg Junior College, Florida; "Forensics of: Injury and
Death Evidence from Wounds"; " Medico-Legal Aspects".

SADD - Students Against Drunk Driving; Guest Speaker.

Association of Operation Room Nurses, Inc., Bux-Mont Chapter;
Fourth Annual Mini Conference

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Chester County Hospital - Staff Seminar "Forensic Pathology in the Community".

Emergency Nurses Association Trauma; " Medical Emergencies and Misadventures".

Eastern Shore Criminal Justice Academy, Maryland, Child Sexual Abuse; "Role of the Medical Examiner".

The Port Authority of New York & New Jersey, "Protecting Crime Scene Evidence" - "Violent Crimes".

Somerset County Prosecutor's Office, New Jersey - "Homicide by Firearm, Stabbing, Blunt Trauma".

Commonwealth of PA, Department of Education -" Automobile Accidents and Bodily Injuries".

Jefferson Medical College, PA - "Child Abuse".

Freemont County, Wyoming - Office of the Coroner - "Sudden Death Seminar".

Texas Department of Public Safety, Austin Texas -" Medico-Legal Autopsy and Investigation".

Commonwealth of PA, Office of the Attorney General; Family Violence Task Force -" Violence Against Children".

Office of the Sheriff: Crowley, Louisiana - "Homicide Deaths".

Office of the State Fire Marshal, Tallahassee, Florida - "Fire Death Investigation".

Rutgers University, New Jersey - Arson Conference.

Saint Joseph's University, PA - Public Safety Master's Degree Program - "Disaster Planning and Management".

Northwestern University Traffic Institute, Evanston Il.-
"Homicide and Major Crime Scene Investigation"

Pediatric Emergency Care Associates of Children's Hospital, Phila. - "Child Abuse: Challenges and Controversies" for
The National Conference for Practitioners.

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West Virginia University Medical Center, West Virginia ,
Office of the Medical Examiner - "Medico - Legal Autopsy
and Investigation.

University of South Alabama, Mobile Alabama; Institute for
Environmental and Forensic Sciences - "Sex Crimes".

University of Toronto, Toronto Canada - First North American
Conference on Child Abuse and Neglect - "Handling Evidence".

Pennsylvania Chiefs of Police Association Annual Conference,
Lancaster, PA - "Child Abuse-Shaken Baby Syndrome".

Emergency Nurses Association; Pennsylvania State Council
Education Committee - "Vehicular Trauma and Medical
Misadventures".

Saint Michael's Medical Center, Newark, New Jersey - "Child
Abuse".

Eighth Annual Fire Investigator Training Conference; Illinois
Chapter - "Fire Death Investigation".



Thomas
Jefferson
University

Jefferson
Medical
College

The Gonzalo E. Aponte Professor of Pathology
and Chairman of the Department of
Pathology, Anatomy, and Cell Biology

1020 Locust Street
Philadelphia, PA 19107-6799
215-955-5060
Fax: 215-955-5058
E-mail:
[REDACTED]

July 15, 1999

Paul C. Troy, Esquire
Kane, Pugh, Knocell & Driscoll
510 Swede Street
Norristown, PA 19401-4886

**RE: Wisner v. Greyhound Lines, Inc.
Claim No. 066827-889-8808**

Dear Mr. Troy:

I have examined the state police report, autopsy report, and report of H. Fillinger, M.D. with respect to the above named case. I have also examined the microscopic slides from the autopsy.

Police Accident Report 6/20/98

A Greyhound bus, driven by Milton Wisner, was traveling westbound when it left the roadway, traveled across a berm and collided with the rear of a truck. There was no evidence of braking or any evasive movements by the bus. Mr. Wisner died in the accident.

Autopsy Report (A98-16), Prosector R.J. Vautour, M.D.

External examination of the body showed a middle-aged white man. There was an open fracture in the left knee area, and much of the left lower extremity and foot were absent. A laceration from the forehead to the bridge of the nose was present, and the face showed abrasions. Upon opening the body, subcutaneous hemorrhage was noted, together with soft tissue hemorrhage about the ribs. A laceration of the upper thoracic intercostal space on the left was present, and blood was noted within the pericardial sac, pleural cavities and abdominal cavity. Extensive lacerations of the liver and spleen were seen. The spinal cord was transected.

The heart weighed 450 gm. An irregular tear was present in the right ventricle. Upon dissecting the heart, the endocardial surfaces were unremarkable, as were the valves. The left ventricle was concentrically thickened. No hemorrhage was seen in the myocardium. The left anterior descending and left circumflex coronary arteries showed atherosclerotic stenosis of up to 75%. The right coronary artery revealed less than 50% stenosis. The superior vena cava was transected. The aorta was transected at the junction of the arch and descending aorta. A posterior laceration of the left lung associated with rib fractures was present, together with areas of pulmonary hemorrhage. The liver weighed 2125 grams and showed extensive laceration and hemorrhage. A toxicology report showed the presence of acetaminophen, diphenhydramine and ephedrine. Blood alcohol was 16 mg/dl.

Examination of Autopsy Slides (A-98-16) by Dr. Rubin

Sections of coronary arteries show severe atherosclerosis, with conspicuous inflammation of the thickened intima, severe calcification and the deposition of cholesterol crystals. Fresh

hemorrhage and fibrin deposition within the atherosclerotic plaque is evident. The left ventricular myocardium shows focal fibrosis, occasionally surrounding myocardial fibers. No hemorrhage is present. The aorta reveals severe calcific atherosclerosis. Fresh hemorrhage is noted in the periaortic fat.

Report by Halbert Fillinger, M.D.

Dr. Fillinger reviews the gross autopsy findings and reports on his own microscopic examination of the slides. He describes the intramural hemorrhage of the coronary artery and the fact that the tissue surrounding the site shows no evidence of trauma or bleeding. He concludes that an episode of ischemia resulted in a dysrhythmia, accounting for loss of control of the vehicle. Dr. Fillinger also suggests that acute anginal distress may have distracted the driver.

Comment

Clearly Mr. Wisner died from massive trauma sustained in the accident. The cause of the accident, however, is to be found within the microscopic examination of the coronary arteries. A large coronary artery shows clear evidence of hemorrhagic dissection of an atherosclerotic plaque. The effect of hemorrhage into an intracoronary plaque is often complete occlusion of the vessel, an effect that is thought to underlie the majority of myocardial infarctions. It is highly unlikely that the hemorrhage reflected trauma since hemorrhage into the plaque was seen in only one coronary artery and no myocardial or pericoronary hemorrhage was evident. The most likely scenario in this case was 1) hemorrhage into a coronary plaque, 2) acute myocardial infarction, 3) sudden cardiac arrhythmia and 4) failure of the circulation and loss of consciousness. A sudden loss of consciousness is consistent with the absence of evasive maneuvers or skid marks.

Please feel free to call upon me for any further information.

Sincerely,



Emanuel Rubin, M.D.

ER/jmm

07/19/99

CURRICULUM VITAEEMANUEL RUBIN, M. D.

Date of Birth: [REDACTED] 1928
New York, NY

EDUCATION

College	Villanova University - B.S.	1950
Medical School	Harvard Medical School - M.D.	1954
Internship	Boston City Hospital, Boston, MA	1954-1955
Residency	Children's Hospital of Philadelphia Philadelphia, PA	1957-1958
Dazian Research Fellow in Pathology	Mount Sinai Hospital New York, NY	1958-1960
Advanced Clinical Fellow, American Cancer Society	Mount Sinai Hospital New York, NY	1960-1962

MILITARY SERVICE

U. S. Navy, Lieutenant 1955-1957

BOARD
CERTIFICATION

Diplomate of American Board of
Pathology (Anatomic and Clinical
Pathology) 1962

HOSPITAL
APPOINTMENTSThe Mount Sinai Hospital, New York, NY

Assistant Attending Pathologist	1962-1964
Associate Attending Pathologist	1964-1968
Attending Pathologist and Director of Hospital Pathology Service	1968-1972
Pathologist-in-Chief	1971-1976

Hahnemann University Hospital,
Philadelphia, PA.

Director of Laboratories 1977-1986

Thomas Jefferson University Hospital
Philadelphia, PA

Attending Physician-in-Chief
(Pathology) 1986-

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ACADEMIC
APPOINTMENTSMount Sinai School of Medicine of the
City University of New York

Professor of Pathology 1966-1972

Irene Heinz and John LaPorte Given
Professor of Pathology and
Chairman of the Department 1972-1976Hahnemann University School of Medicine,
Philadelphia, Pa.Professor and Chairman, Department
of Pathology and Laboratory Medicine 1977-1986University of Pennsylvania School
of Medicine, Philadelphia, Pa.Adjunct Professor of Biochemistry
and Biophysics 1977-1988Jefferson Medical College, Philadelphia

Gonzalo E. Aponte Professor of Pathology 1986-

Chairman of the Department of
Pathology and Cell Biology 1986-1994Chairman of the Department of
Pathology, Anatomy and Cell Biology 1994-HONORSDoctor Honoris Causa 1994
University of BarcelonaThe F.K. Mostofi Distinguished Service Award 1996
of U.S.-Canadian Academy of Pathology

NIH MERIT Award 1996-2006

NAMED LECTURERMaude L. Menten Centennial Lecture -
University of Pittsburgh School of Medicine 1987Whipple Lecture -
University of Rochester Medical Center - 1987Chippy Friedman Memorial Lecture - Haifa University,
Technion Medical School, Haifa, Israel - 1988Maude Abbott Lecture -
U. S.-Canadian Academy of Pathology - 1990Reginald G. Mason Memorial Lecture -
University of Utah School of Medicine - 1992

Emanuel Rubin, M.D.

Marcus Wallenberg Symposium, Keynote Address:
Alcohol and the Cell, Lund, Sweden - 1992

Jack M. Layton Lecture
University of Arizona School of Medicine - 1994

Clifford Toren Memorial Lecture
University of South Alabama School of Medicine 1994

Donald Svoboda Memorial Lecture
University of Kansas Medical School 1995

CONSULTANTSHIPS

NIAAA - Biomedical Review Committee 1970-1974
1981-1985

NIAAA (NIH)- Biochemistry, Physiology and
Medicine Subcommittee of Alcohol
Biomedical Research Review Committee 1990-1994

Ad Hoc Member
NIH - Pathology B
NHLBI

National Task Force for Alcohol 1971
and Health, Department of Health, 1977
Education and Welfare 1985

Representative of Association of Pathology
Chairmen to Council of Academic Societies 1991-1994

Medical Advisory Council, Alcoholic
Beverage Medical Research Foundation 1992-

EDITORIAL POSITIONS

EDITOR-IN-CHIEF Laboratory Investigation 1982-1995

FIELD EDITOR
(PATHOLOGY) Quarterly Journal of Studies in Alcohol
Federation Proceedings
FASEB Journal

ASSISTANT EDITOR Addiction Biology

EDITORIAL BOARDS Laboratory Investigation
Human Pathology
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American Journal of Alcohol and Drug Abuse
Substance and Alcohol Abuse
Medicine and Chirurgie Digestives
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Alcohol Health and Research World
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MEMBERSHIPS

American Association of Pathologists
U.S.-Canadian Academy of Pathology
College of American Pathologists
American Society for Biochemistry and Molecular Biology
American College of Physicians
American Gastroenterological Association
American Association for the Study of Liver Diseases
International Association for the Study of the Liver
Research Society on Alcoholism
International Society for Biomedical Research on Alcoholism
Association of Pathology Chairmen (Vice-President 1988-90)

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PUBLICATIONS

ORIGINAL CONTRIBUTIONS

1. Hutterer, F., Rubin, E., Singer, E.J. and Popper, H.: Alkali-soluble and insoluble collagen in infant, adult and cirrhotic liver. *Proc. Soc. Exp. Biol. Med.* 102:534-536, 1959.
2. Rubin, E. and Zak, F.G.: *Pneumocystis carinii* pneumonia in the adult. *New England J. Med.* 262:1315-1317, 1960.
3. Rubin, E. and Strauss, L.: Congenital absence of the right pulmonary artery. *Am. J. Cardiol.* 6: 344-350, 1960.
4. Popper, H., Rubin, E., Krus, S. and Schaffner, F.: Postnecrotic cirrhosis in alcoholics. *Gastroenterology* 39: 669-685, 1960.
5. Hutterer, F., Rubin, E., Singer, E.J. and Popper, H.: Quantitative relation of cell proliferation and fibrogenesis in the liver. *Cancer Res.* 21: 205-215, 1961.
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Emanuel Rubin, M.D.

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Emanuel Rubin, M.D.

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